APPRAISAL REPORT

COVERING

VARIOUS COUNTY-OWNED ROADWAYS
TRAVERSING HC&S SUGAR CANE LANDS
ISLAND OF MAUI, STATE OF HAWAII

FOR

ALEXANDER & BALDWIN, INC.
HONOLULU, HAWAII

JULY 1988

COWELL & CO., INC.
REAL ESTATE CONSULTANTS
311 HAWAII BUILDING 745 FORT STREET
HONOLULU, HAWAII 96813-3874
(808) 531-2765 OR 536-4988

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Don R. Cowell, MAI, CRE
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William J. Dornbush, MAI, CRE
Jan R. Medusky, MAI

July 6, 1988

Alexander & Baldwin, Inc.
P. O. Box 3440
Honolulu, Hawaii 96801

Attention: Mr. Robert K. Sasaki
Vice President

Dear Sir:

Subject: Appraisal Report Covering Various County-Owned Roadways Traversing HC&S Sugar Cane Lands, Island of Maui, State of Hawaii

In response to your request, we have completed a detailed narrative appraisal report estimating the market value of the unencumbered fee simple interest in certain roadways, owned by the County of Maui, traversing various HC&S cane lands, owned by Alexander & Baldwin, Inc., on the Island of Maui, State of Hawaii. These properties are further identified in the body of this report. The bulk of these roadways are used by the plantation for the purposes of canehaul roads. We are informed that, in most instances, the County has closed these roads or abandoned public use sometime ago.

You informed us that Alexander & Baldwin, Inc. is considering an acquisition of these road rights-of-way through an exchange with the County of Maui. For this reason, an appraisal estimating the market value of the fee simple interest in these road rights-of-way is required.

Based upon the investigations and analyses conducted, subject to the limiting conditions and assumptions stated in this report, we have formed the opinion that the fair market value of the unencumbered fee simple interest in the various road rights-of-way, as described herein, as of July 6, 1988, was:

ONE HUNDRED SEVENTY THOUSAND DOLLARS

($170,000)

An allocation of the estimated market value to the various roads is shown on the following page.

VALUATION OF VARIOUS COUNTY-OWNED ROAD RIGHTS-OF-WAY
Island of Maui, State of Hawaii

Kihei-Makawao Road (Closed 1949)

14,500± ft. x 60 ft.	= 870,000 sq ft or	19.972	acres at $2,500/acre	=	$50,000
32,000± ft. x 20 ft.	= 640,000 sq ft or	14.692	acres at $2,500/acre	=	36,700
46,500± lineal feet	containing	34.664	acres at $2,500/acre	=	$86,700

Waiko (Waikapu) Road

7,700± ft. x 20 ft. 1/	= 154,000 sq ft or	3.535	acres at $2,500/acre	=	$ 8,800
17,400± ft. x 20 ft. 2/	= 348,000 sq ft or	7.989	acres at $2,500/acre	=	20,000
25,100± lineal feet	containing	11.524	acres at $2,500/acre	=	$28,800

Paia Mill Road (Closed 1955)

1,700± ft. x 60 ft.	= 102,000 sq ft or	2.342	acres at $2,500/acre	=	$ 5,900

Spreckelsville Road (Not Yet Closed for Public Use)

4,000± ft. x 60 ft.	= 240,000 sq ft or	5.510	acres at $2,500/acre	=	$13,800

Portion Kala Road (Sunnyside Road) (Not Yet Closed for Public Use)

3,300± ft. x 40 ft.	= 132,000 sq ft or	3.030	acres at $2,500/acre	=	$ 7,600

Sunnyside Road

24,500± ft. x 20 ft.	= 490,000 sq ft or	11.249	acres at $2,500/acre	=	$28,100

TOTAL MARKET VALUE, IN FEE SIMPLE AND UNENCUMBERED		$170,900
	Say	$170,000

1/ Portion between Kuihelani and Mokulele Highways (recently closed).
2/ Portion between Mokulele Highway and Pulehu Road.

The undersigned hereby certify that, to the best of our knowledge and belief, the statements of fact contained in this report are true and correct; the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, unbiased professional analyses, opinions, and conclusions; we have no present or prospective interest in the property that is the subject of this report, and we have no personal interest or bias with respect to the parties involved; our compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report; our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Practice of the American Institute of Real Estate Appraisers; the use of this report is subject to the requirements of the American Institute of Real Estate Appraisers relating to review by its duly authorized representatives. The undersigned member is currently certified under the voluntary continuing education program of the American Institute of Real Estate Appraisers. The appraiser has made a personal inspection of the property that is the subject of this report; and no one provided significant professional assistance to the person signing this report.

We appreciate the opportunity of completing this appraisal assignment for you.

Sincerely,

COWELL & CO., INC.

Irmgard G. Patterson, MAI
Chief Appraiser

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I. INTRODUCTION

A. Assignment

The County of Maui owns various road rights-of-way, as further detailed in this report, which traverse various HC&S cane lands on the Island of Maui, State of Hawaii. The use of most of these roads by the County or the public has been abandoned. The roads are now partially used as canehaul roads by Alexander & Baldwin, Inc. Some sections have been incorporated into sugar cane fields. Alexander & Baldwin, Inc. is considering the acquisition of the fee simple interest in these road rights-of-way through exchange for other properties. For this purpose, Cowell & Co., Inc. has been retained by Alexander & Baldwin, Inc. to complete a detailed appraisal report, estimating the market value of the unencumbered fee simple interest in the various road rights-of-way involved. The purpose of this appraisal is to establish a market value estimate for the various roads, assumed to be unencumbered. This appraisal report will be utilized as a basis for negotiations with the County of Maui.

The effective date of this report is July 6, 1988.

B. Definition of Terms

Various special terms are used in this report. These terms are defined in the following paragraphs to assist the reader in understanding special appraisal terminology.

1. Market Value[1/]

The most probable price in cash, terms equivalent to cash, or in other precisely revealed terms, for which the appraised property will sell in a competitive market under all conditions requisite to fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.

Fundamental assumptions and conditions presumed in this definition are:

1. Buyer and seller are motivated by self-interest.
2. Buyer and seller are well informed and are acting prudently.
3. The property is exposed for a reasonable time on the open market.
4. Payment is made in cash, its equivalent, or in specified financing terms.
5. Specified financing, if any, may be the financing actually in place or on terms generally available for the property type in its locale on the effective appraisal date.
6. The effect, if any, on the amount of market value of atypical financing, services, or fees shall be clearly and precisely revealed in the appraisal report.

1/ Source: The Appraisal of Real Estate, Eighth Edition, 1983, American Institute of Real Estate Appraisers, Chicago, Illinois, Page 33.

2. Highest and Best Use[1/]

Highest and best use is the reasonable and probable use that supports the highest present value, as defined, as of the date of the appraisal.

Alternatively, highest and best use is the use, from among reasonably probable and legal alternative uses, found to be physically possible, appropriately supported, financially feasible, and that results in the highest present land value.

The second definition applies specifically to the highest and best use of land or sites as though vacant. When a site contains improvements, the highest and best use may be determined to be different from the existing use. The existing use will continue unless and until land value in its highest and best use exceeds the sum of the value of the entire property in its existing use and the cost to remove the improvements.

Implied in these definitions is that the determination of highest and best use takes into account the contribution of a specific use to the community and community development goals as well as the benefits of that use to individual property owners. An additional implication is that the determination of highest and best use results from the appraiser's judgment and analytical skill--that is, that the use determined from analysis represents an opinion, not a fact to be found. In appraisal practice, the concept of highest and best use represents the premise upon which value is based. In the context of most probable selling price (market value), another appropriate term to reflect highest and best use would be most probable use. In the context of investment value, an alternative term would be most profitable use.

3. Fee Simple Interest

Fee simple interest is defined as an absolute fee; a fee without limitations to any particular class of heirs or restrictions, but subject to the limitations of eminent domain, escheat, police power, and taxation. An inheritable estate.

4. Directional Terms

The Hawaiian words "mauka" and "makai" are commonly used in the islands as indicators of direction. The word "mauka" means toward the mountains, and "makai" means toward the ocean.

1/ Source: The Appraisal of Real Estate, Eighth Edition, 1983, American Institute of Real Estate Appraisers, Chicago, Illinois, Page 244.

C. Limiting Conditions and Assumptions

The conduct of any appraisal is necessarily guided by, and its results influenced by, the terms of the assignment and the assumptions forming the basis of the study. The following conditions and assumptions, together with lesser assumptions embodied in the report, constitute the framework of our analyses and conclusions.

1. The market value conclusions and opinions are based upon the present condition of the national economy and the present purchasing power of the dollar. Should economic conditions change, and if certain economic factors vary, the future values of the subject property could conceivably be more or less than the values reported. This report expresses the opinion of the signer as of July 6, 1988, with an effective date of July 6, 1988, and in no way was contingent upon the reporting of specified values.

2. It is assumed that the property is free and clear of any and all encumbrances; no responsibility is assumed for matters of a legal nature; nor is the report to be construed as rendering any opinion of title, which is assumed to be good and the property salable.

3. The various subject properties were inspected by the appraiser. In those instances where the subject roadways were paved, such improvement was noted. However, detailed analyses regarding the condition of the pavement were not undertaken in view of the fact that the canehaul road use does not require paving as typically found on County roads.

4. Land Areas - Land areas involved in the various roadways were provided by representatives of Alexander & Baldwin, Inc. and are assumed to be correct.

5. Information provided by informed sources, such as governmental agencies, financial institutions, Realtors, buyers, sellers, property managers and others, was weighed in the light in which it was supplied and checked by secondary means when feasible; however, no responsibility is assumed for possible misinformation.

6. Testimony or appearance in court with reference to the property by reason of this appraisal is not required unless prior arrangements have been made.

7. Maps, plans and/or other drawings appearing in this report have been furnished and are included to assist the reader in visualizing subject properties, the surroundings, and any improvements erected. No responsibility is assumed for errors in measurement, scales used, or surveying errors.

8. Possession of this report, or a copy thereof, does not carry with it the right of publication. The report may not be used by any person or organization except the client without the previous written consent of the appraisers and then only in its entirety.

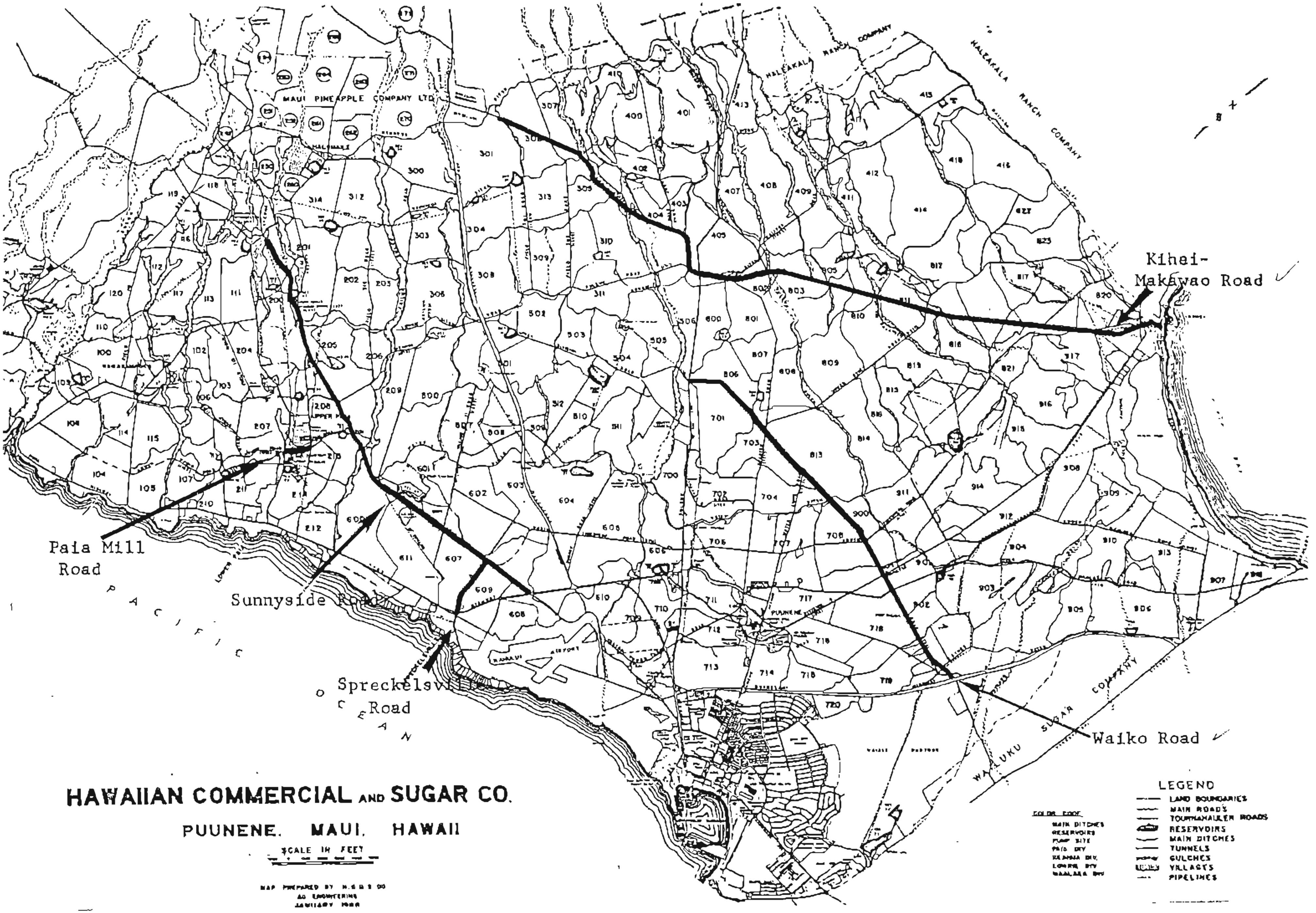
9. Disclosure of the contents of this report is governed by the By-Laws and Regulations of the American Institute of Real Estate Appraisers of the National Association of Real Estate Boards. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers or the firm with which they are connected, or any reference to the American Institute of Real Estate Appraisers or to the M.A.I. designation) shall be disseminated to the public through advertising media, public relations media, news media, sales media or any other public means of communication, without the prior consent and approval of the appraisers.

10. Disclosure to Institute - The contents of this report are subject to the review, upon request of the American Institute of Real Estate Appraisers, by duly constituted committees of the Institute or individual members thereof when such committees or members are acting within the scope of their authority under the By-Laws and Regulations of the Institute. This requirement was adopted by the Institute to facilitate the Institute's efforts to maintain the high standards of professional practice and ethical conduct that have been the hallmark of the Institute since its creation.

11. Hazardous Materials - Unless otherwise stated in this report, the existence of hazardous material, which may or may not be present on the property, was not observed by the appraiser. The appraiser has no knowledge of the existence of such materials on or in the property. The appraiser, however, is not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, or other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

II. ECONOMIC BACKGROUND DATA

Economic background data for the State of Hawaii and the County of Maui is contained as Exhibit 2 in the Addenda of this report.



Paia Mill Road
Sunnyside Road
Spreckelsville Road
Waiko Road
Kihei-Makawao Road
PACIFIC OCEAN
MAUI PINEAPPLE COMPANY LTD.
HALEAKALA RANCH COMPANY
WAILUKU SUGAR COMPANY
PUUNENE
HAWAIIAN COMMERCIAL AND SUGAR CO.
PUUNENE, MAUI, HAWAII
SCALE IN FEET
LEGEND
LAND BOUNDARIES
MAIN ROADS
RESERVOIRS
MAIN DITCHES
TUNNELS
GULCHES
VILLAGES
PIPELINES

III. ENVIRONS

As shown on the facing map, the road rights-of-way to be acquired by exchange traverse rural areas of Maui. The Spreckelsville Road extends from Hana Highway near Spreckelsville in the mauka direction. It traverses sugar cane fields. It ends at Sunnyside Road. This road roughly parallels Hana Highway and then turns in the mauka direction through sugar cane fields. This road then crosses Kailua Gulch and ends at Upper Baldwin Avenue, in the vicinity of the former Mauna Olu College.

Paia Mill Road involves a relatively short roadway which travels mauka of the sugar mill at Paia, just below the Skill Village Subdivision. This roadway has been used extensively by the sugar mill over the past few years. Skill Village has recently been conveyed to the County of Maui for affordable housing purposes and new residential houses have been developed on the newly created lots.

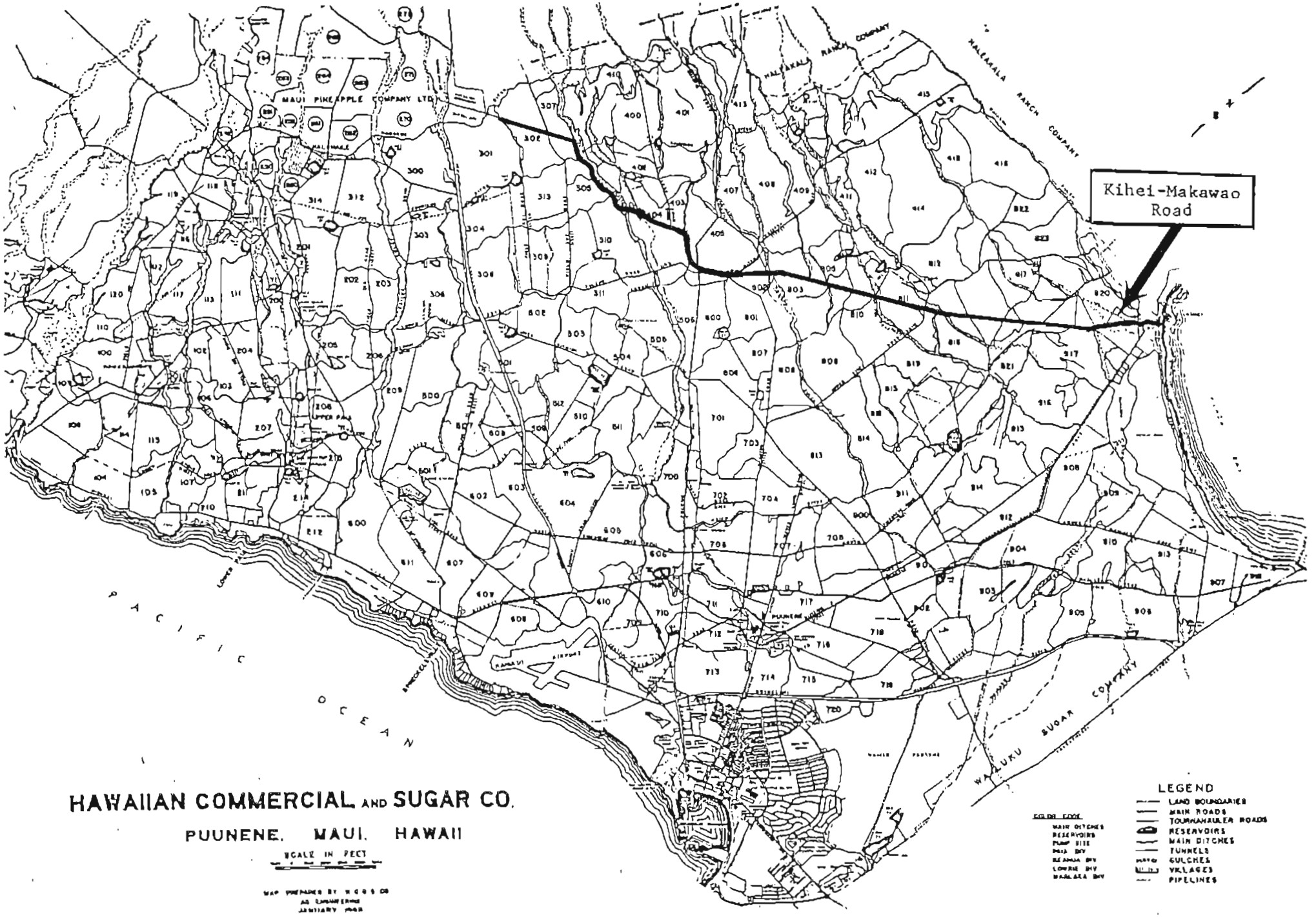
Waiko Road, formerly known as Waikapu Road, extends from Kuihelani Highway in the mauka direction, across Mokulele Highway and Spanish Road, and ends at Pulehu Road. Again, this road traverses large landholdings planted to sugar cane.

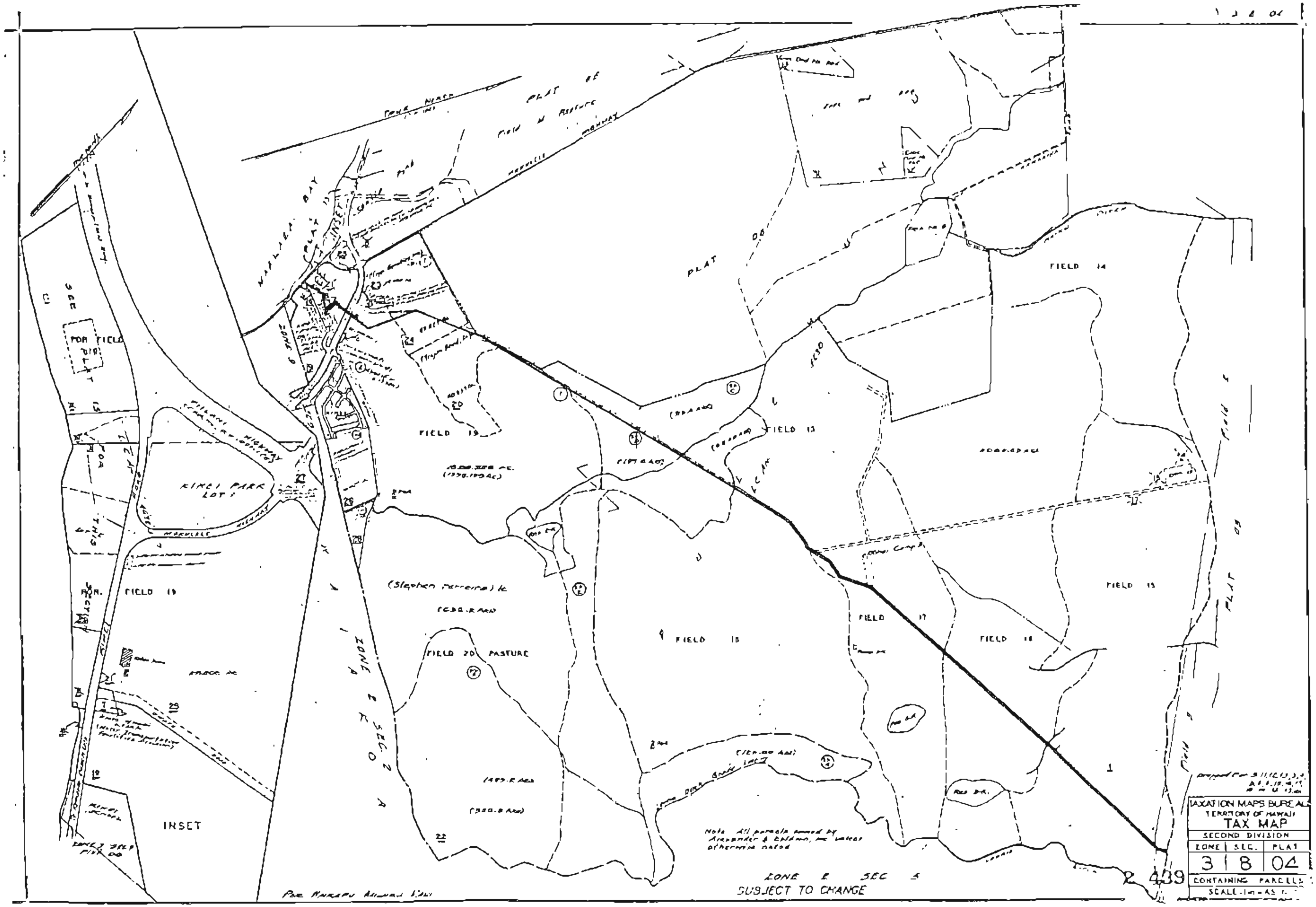
The Kihei-Makawao Road extends from the vicinity of Kihei Road in the mauka direction; it crosses Pulehu Road and Kalialinui Gulch and ends near the Pukalani Subdivision. This old government road also traverses large areas planted to sugar cane.

With the exception of the Paia Sugar Mill land parcel, which contains about 20 acres of land area, all other parcels which front upon the roads under consideration range in size from approximately 150 acres to over 4,000 acres.

Other land parcels located in the areas where the subject roads travel are served by other public roadways. The Kihei-Makawao Road, for instance, was officially abandoned by the County of Maui in 1949. It had not been actively maintained for sometime prior to that date. Waiko Road, between Mokulele Highway and Pulehu Road, has not been maintained by the County for many years. The County has closed off this road by means of a piled-up dirt barrier. The relatively short Paia Mill Road was closed by the County in 1955. It is now used as a canehaul road by Alexander & Baldwin, Inc. The former Sunnyside Road involves part of an active road, also known as portion of Kala Road, and part of an inactive County road.

In summary, all of the road rights-of-way involved in this study traverse rural areas, planted to sugar cane. Portions of these roads have been and will continue to be used for canehaul purposes.


Kihei-Makawao Road
MAUI PINEAPPLE COMPANY LTD.
HALEAKALA RANCH COMPANY
PACIFIC OCEAN
WAILUKU SUGAR COMPANY
HAWAIIAN COMMERCIAL AND SUGAR CO.
PUUNENE, MAUI, HAWAII
SCALE IN FEET
LEGEND
LAND BOUNDARIES
MAIN ROADS
TOURNAMENT ROADS
RESERVOIRS
MAIN DITCHES
TUNNELS
GULCHES
VILLAGES
PIPELINES


TAXATION MAPS BUREAU
TERRITORY OF HAWAII
TAX MAP
SECOND DIVISION
ZONE | SEC. | PLAT
3 | 8 | 04
CONTAINING PARCELS
SUBJECT TO CHANGE
KIHEI PARK LOT 1
PIILANI HIGHWAY
FIELD 19
FIELD 20 PASTURE
FIELD 18
FIELD 17
FIELD 16
FIELD 15
FIELD 14
FIELD 13
PLAT 08
INSET
ZONE 2 SEC 2
ZONE 2 SEC 5
MAALAEA BAY

IV. PROPERTY IDENTIFICATION AND DESCRIPTION

The various roadways under consideration in this report are not identified by Hawaii State Tax Maps as individual tax map parcels. However, we have outlined their location on tax maps in order to show the location of the roads relative to the adjoining land parcels.

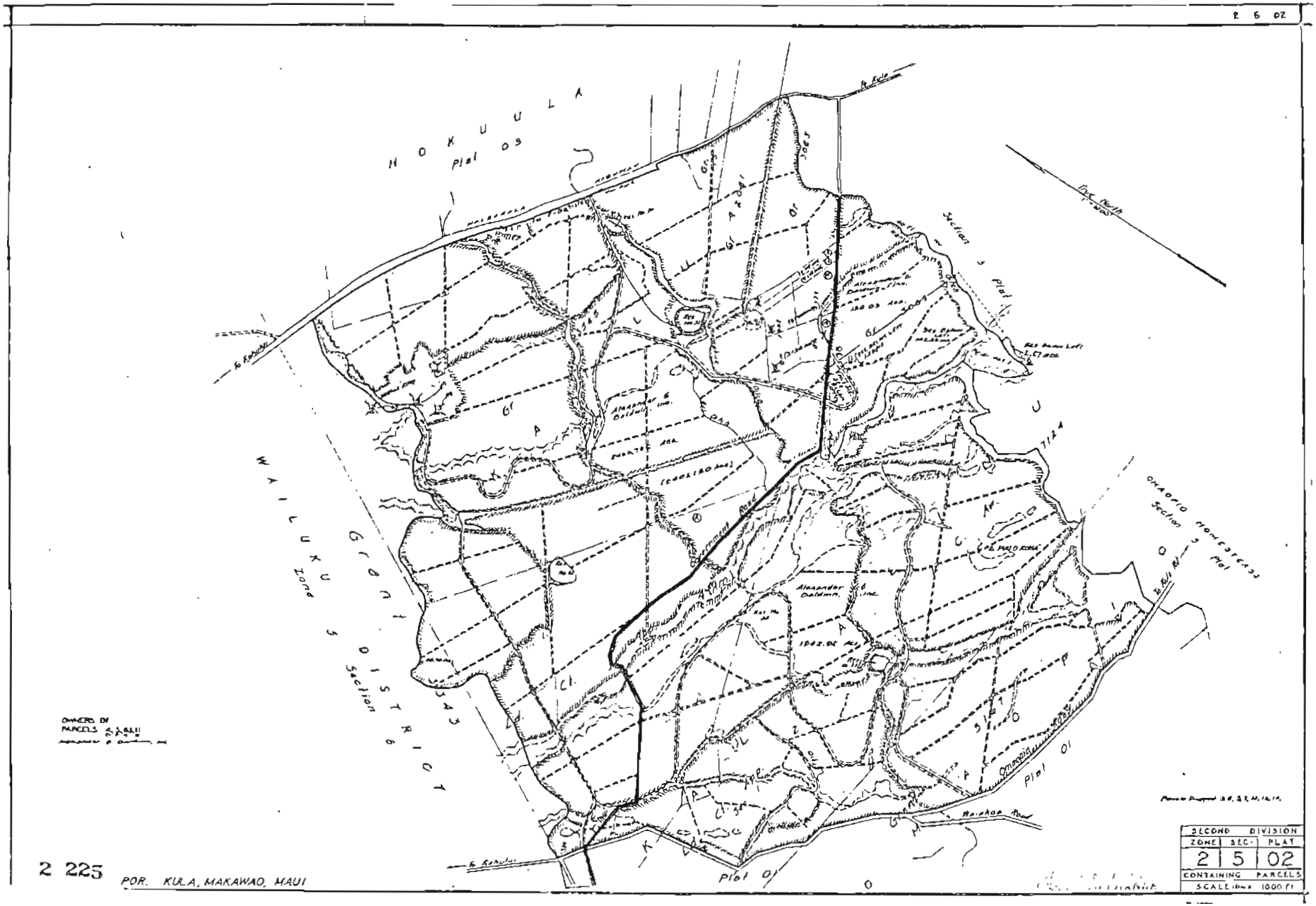
A. Kihei-Makawao Road

This road commenced at a point near Kihei Road, a former plantation camp site, extending in the mauka direction and ending near the Pukalani Subdivision. Tax maps showing the roadway involve Tax Map Key 3-8-04 and 2-5-02. Lands situated between Piilani Highway and Kihei Road are now in an Urban land use classification but lands situated mauka of Piilani Highway are in Agricultural use, namely, sugar cane plantation and former grazing lands.

We are informed that the total length of this roadway approximates 46,500 lineal feet. A 14,500-foot strip measures 60 feet in width while about 32,000 lineal feet of the road measure 20 feet in width. The roadway was officially abandoned (closed) by the County of Maui in 1949. It had not been actively maintained for some time prior to that date. We are also informed that about 14,500 lineal feet of this road is held by the County through Land Court Title. We understand that no paper title exists for the remaining 32,000 lineal feet.

Our inspection of the road revealed that small sections located on both sides of Pulehu Road ware paved by the plantation and used for canehaul road purposes. Portions of the road on the Kihei side of Pulehu Road have been incorporated into sugar cane fields and further southwest (in the direction of Kihei) the road involves a narrow dirt road, extending along the edge of canefields as well as gullies, and traversing gullies as the road continued in the Kihei direction. Mauka of Pulehu Road, the road was paved for a short distance and then turned mauka along the edge of Kalialinui Gulch. This portion of the road involved a narrow dirt road in very poor condition, situated between the sugar fields and the gulch. As shown on the facing overall map, this roadway ends at the southerly boundary of the Pukalani Subdivision and the adjoining pineapple field, in close proximity to Haleakala Highway. Photographs taken of the Kihei-Makawao Road can be found on following pages.

Only very small portions of this roadway are in major canehaul road use. The majority involves relatively narrow dirt roads while small sections are incorporated into sugar cane fields.



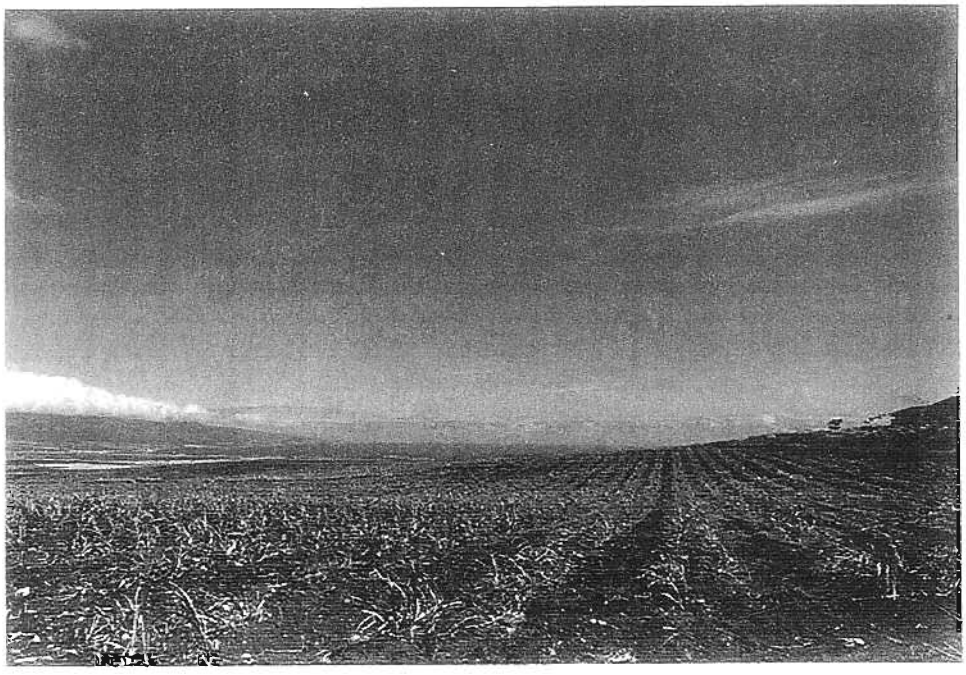
2 225 POR. KULA, MAKAWAO, MAUI

PHOTOGRAPHS OF SUBJECT PROPERTY AND ENVIRONS

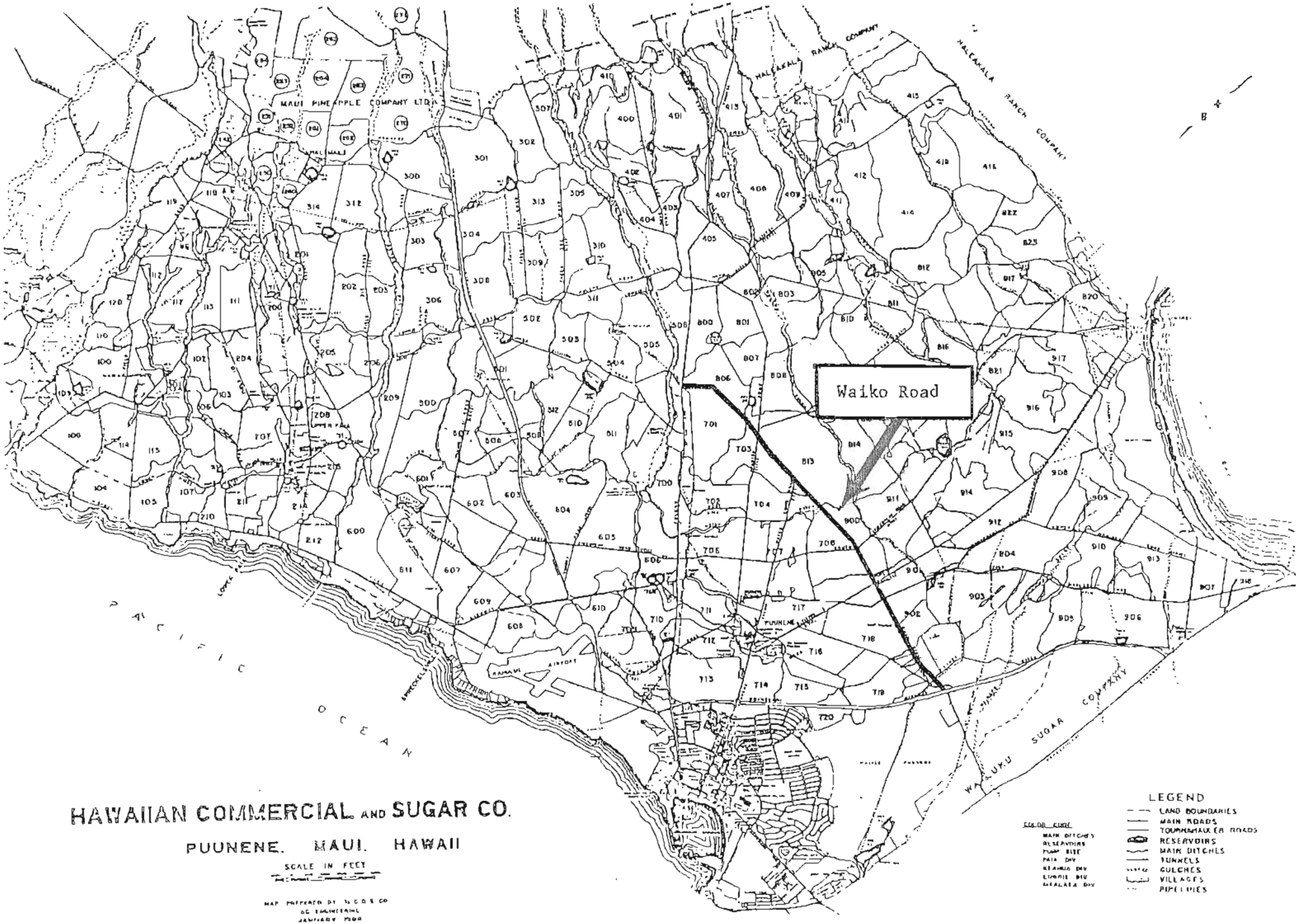
These photographs portray portions of the former Kihei-Makawao Road, in the vicinity of Pulehu Road. The paved sections shown above are part of a major canehaul road.

PHOTOGRAPHS OF SUBJECT PROPERTY AND ENVIRONS

These photographs portray the former Kihei-Makawao Road as it travels at the edge of cane fields and adjacent to gulches.



This photograph portrays the general area where the former Kihei-Makawao Road ends near the Pukalani Subdivision.



HAWAIIAN COMMERCIAL AND SUGAR CO.

PUUNENE. MAUI. HAWAII

SCALE IN FEET

MAP PREPARED BY H C & S CO
DEPARTMENT OF ENGINEERING
JANUARY 1958

B. Waiko Road (Formerly Known as Waikapu Road)

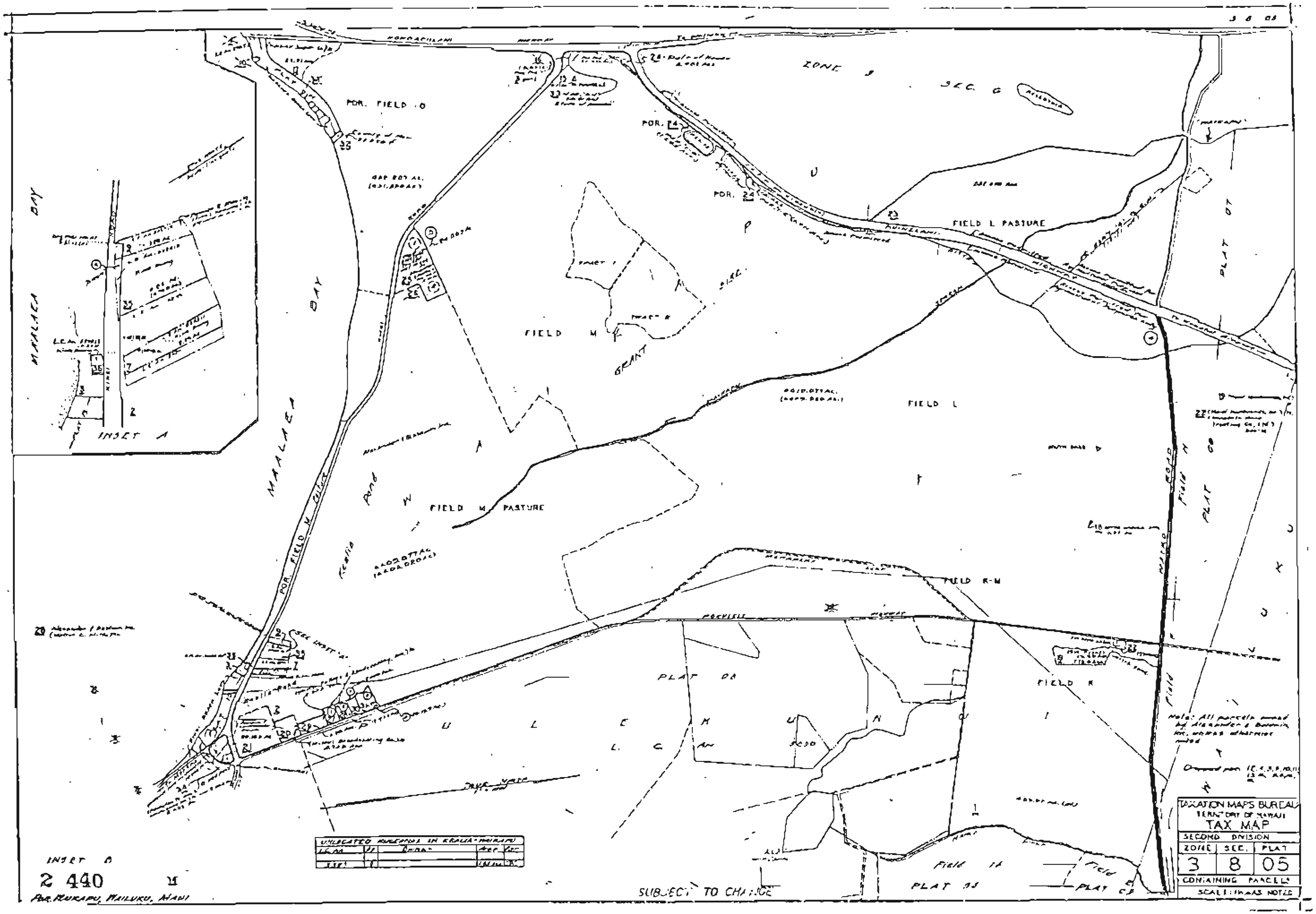
This roadway consists of two portions: Section 1 extends from Kuihelani Highway in the easterly direction to Mokulele Highway; the second section extends from Mokulele Highway in the easterly direction, ending at Pulehu Road.

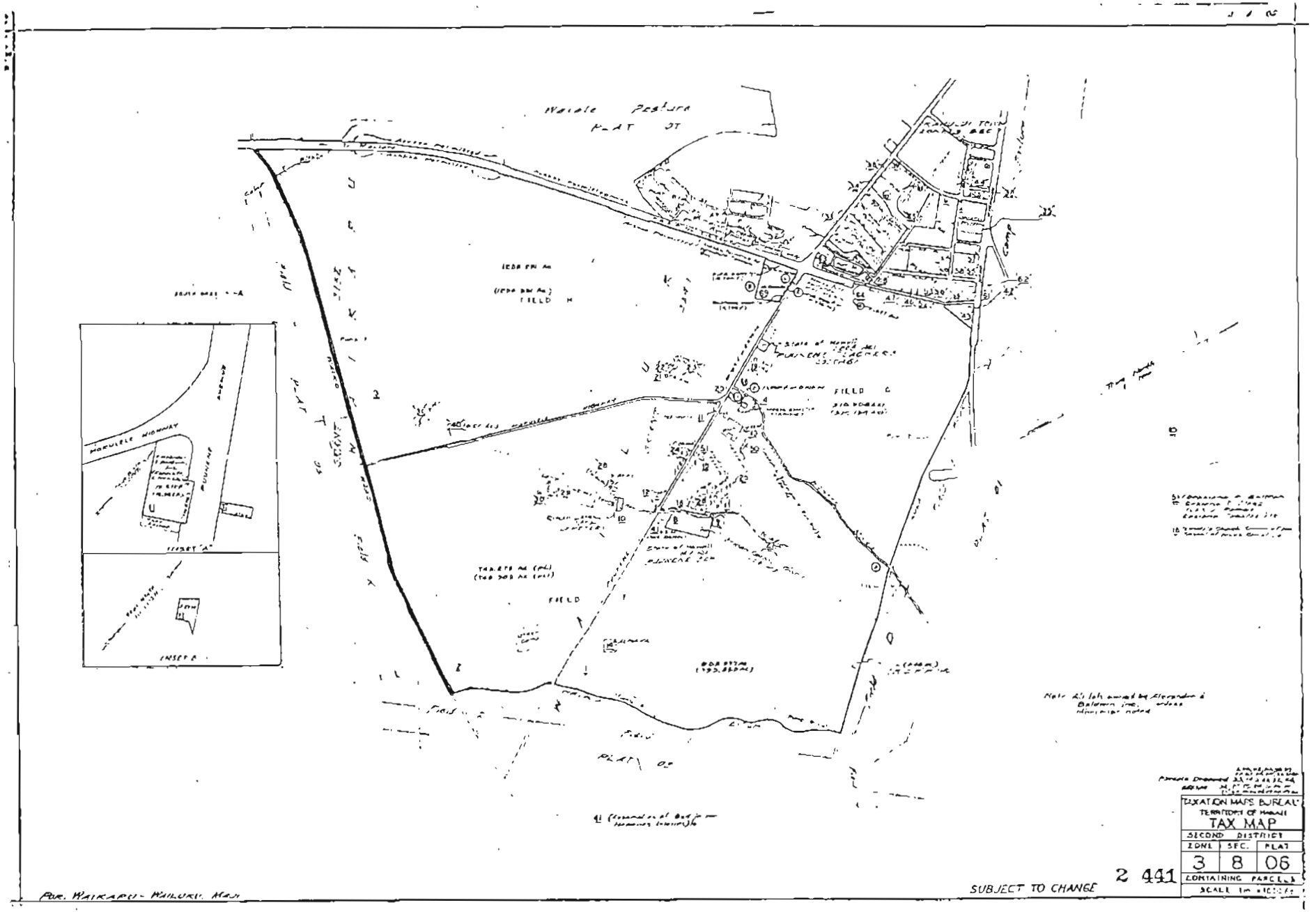
The section between Kuihelani and Mokulele Highways measures approximately 7,700 feet in length and approximates 20 feet in width and contains a total land area of 3.535 acres. This is a partially paved roadway in very poor condition which was recently closed by the County. The roadway is not used as a major canehaul road by the plantation.

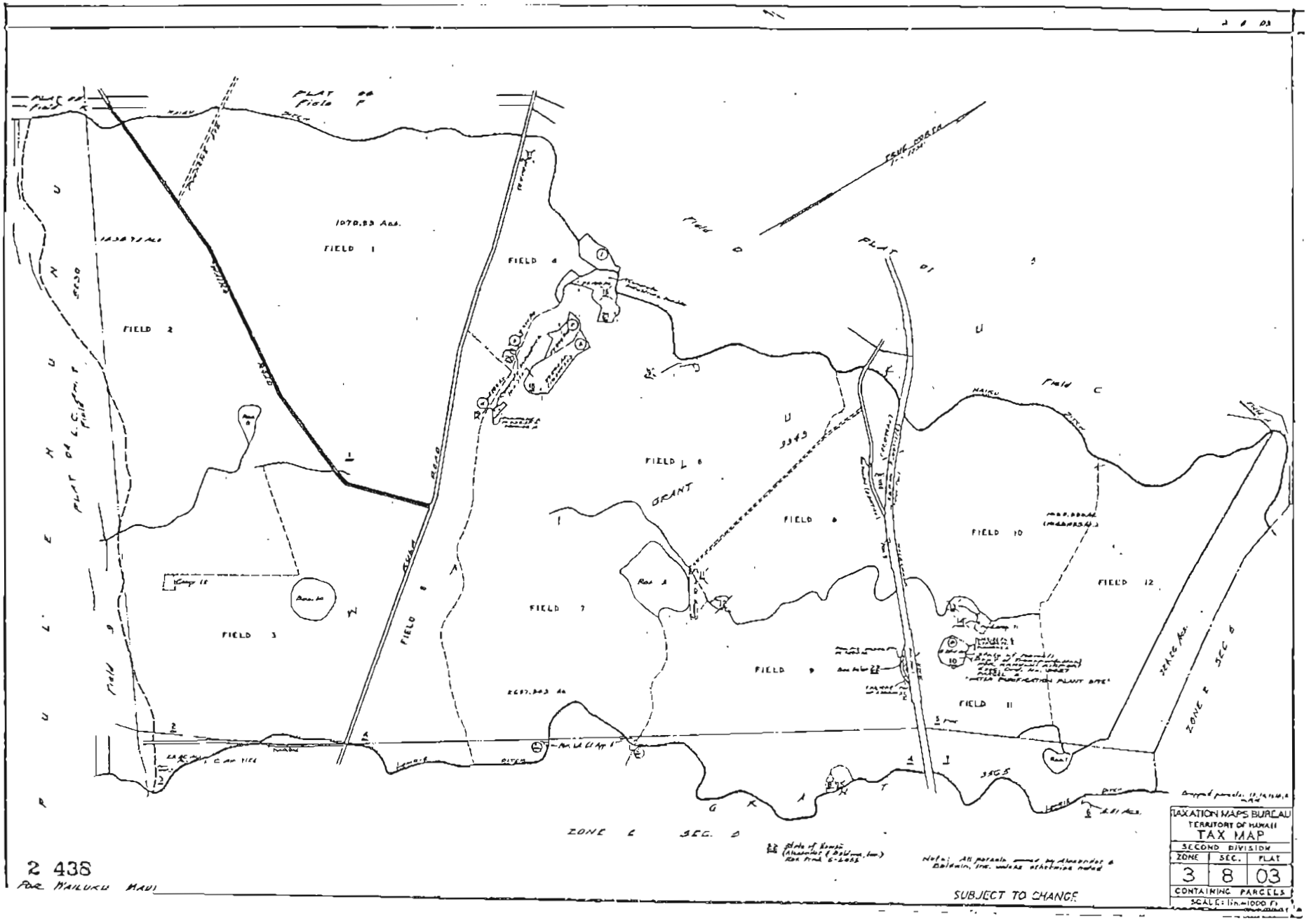
The road easterly of Mokulele Highway, ending at Pulehu Road, measures approximately 17,400 feet in length and about 20 feet in width and contains approximately 7.989 acres of total land area. This dirt road is used by the plantation but is not a major canehaul road.

At times of heavy rainfalls, large portions of Waiko Road are flooded for many days. It is noted that a small area, located directly at the corner of Mokulele Highway and Waiko Road, has been paved by the tenant that occupies the corner lot.

Waiko Road traverses various sugar cane fields as shown on the facing map. Tax maps showing the location of this road relative to adjoining land parcels involve Tax Map Key 3-8-05, 06 and 03. These maps are shown on the following pages. Photographs portraying portions of Waiko Road are also shown on following pages.


TAXATION MAPS BUREAU
TERRITORY OF HAWAII
TAX MAP
SECOND DIVISION
ZONE 3
SEC. 8
PLAT 05
CONTAINING PARCELS
SCALE: AS NOTED
SUBJECT TO CHANGE
INSET A
INSET B
2 440
Por. Kurapu, Wailuku, Maui
MAALAEA BAY
ZONE 3
SEC. 8
FIELD L PASTURE
FIELD L
FIELD M
FIELD M PASTURE
POR. FIELD O
POR. FIELD M
FIELD K
FIELD K-M
GRANT
PLAT 07
PLAT 08
PLAT 04
PLAT 03
Kealia Pond
Note: All parcels owned by Alexander & Baldwin, Inc. unless otherwise noted


Waiale Pasture
PLAT 37
FIELD H
FIELD G
FIELD I
PLAT 42
MOKULELE HIGHWAY
INSET "A"
INSET B
SCALE 1in = 400ft
TAXATION MAPS BUREAU
TERRITORY OF HAWAII
TAX MAP
SECOND DISTRICT
ZONE 3
SEC. 8
PLAT 06
CONTAINING PARCELS
2 441
SUBJECT TO CHANGE
FOR WAIKAPU-WAILUKU MAP



2 438

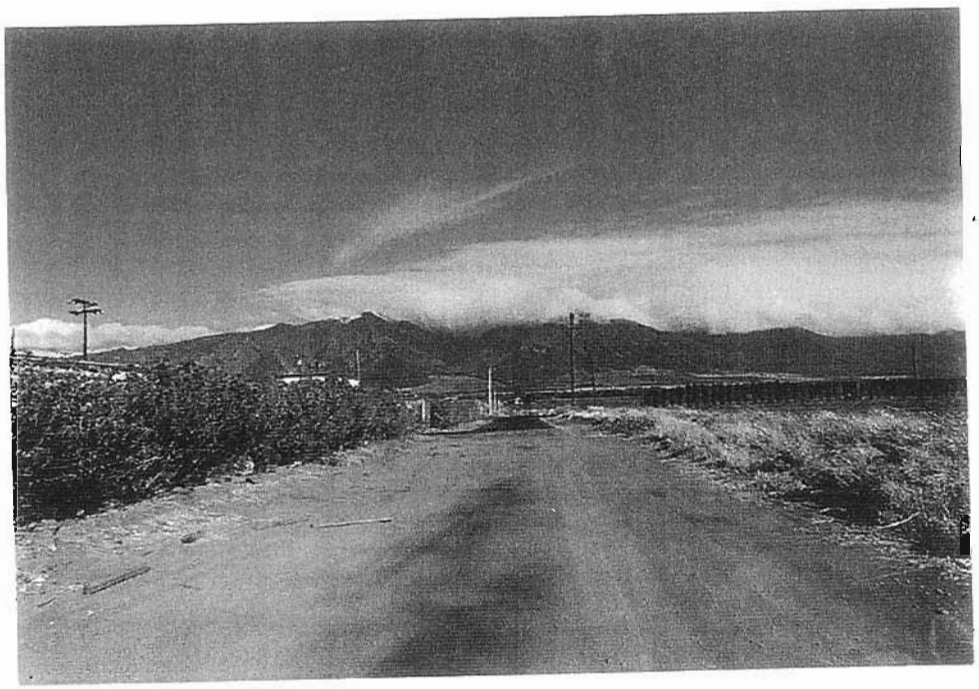
FOR MAILUKU MAUI

PHOTOGRAPHS OF SUBJECT PROPERTY AND ENVIRONS

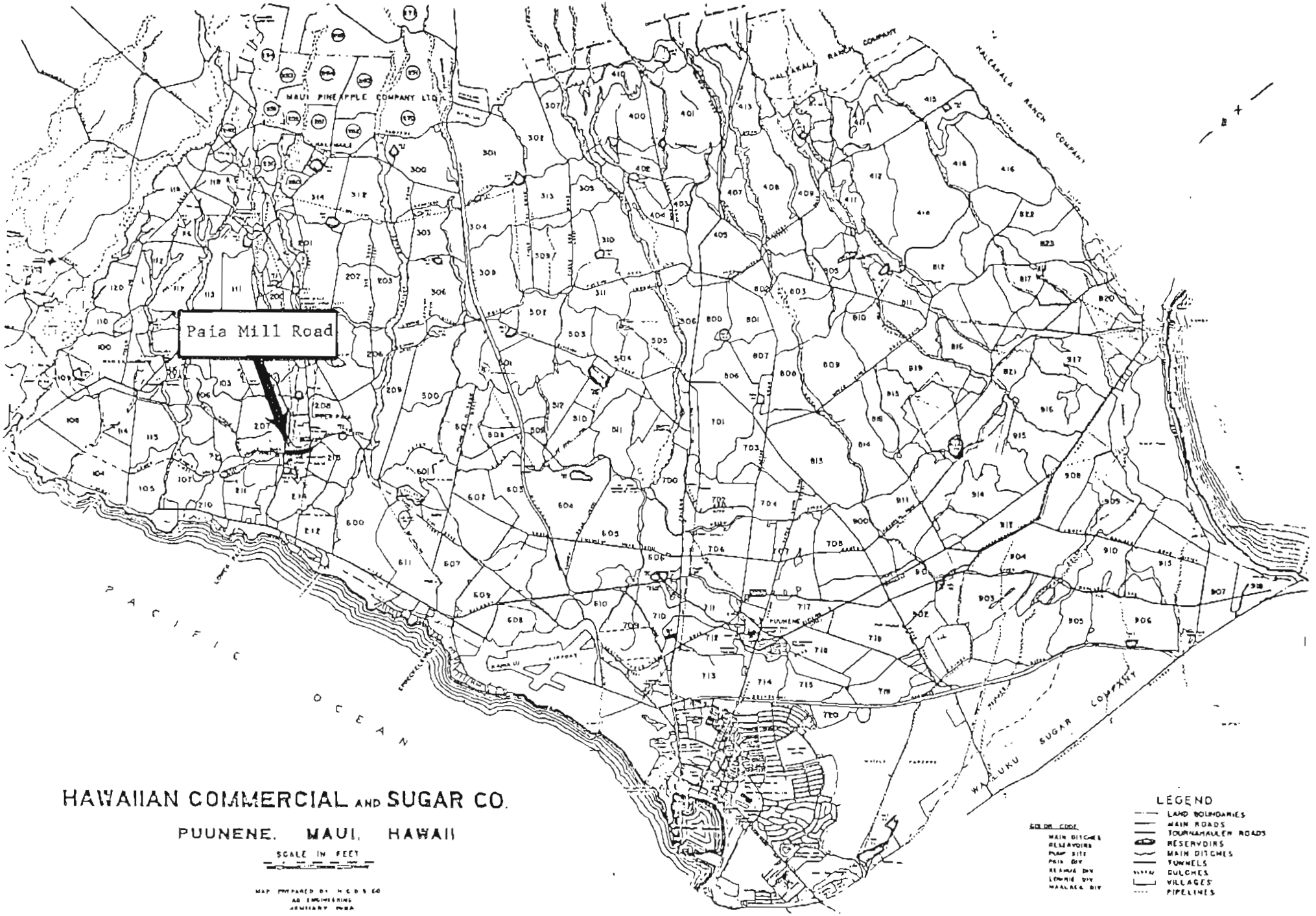
This photograph portrays a portion of Waiko Road, extending from Kuihelani Highway to Mokulele Highway. The view is toward Wailuku Heights.

This photograph also portrays a portion of the same segment of Waiko Road. Mokulele Highway traverses the cane fields near the center of the photograph.

PHOTOGRAPHS OF SUBJECT PROPERTY AND ENVIRONS



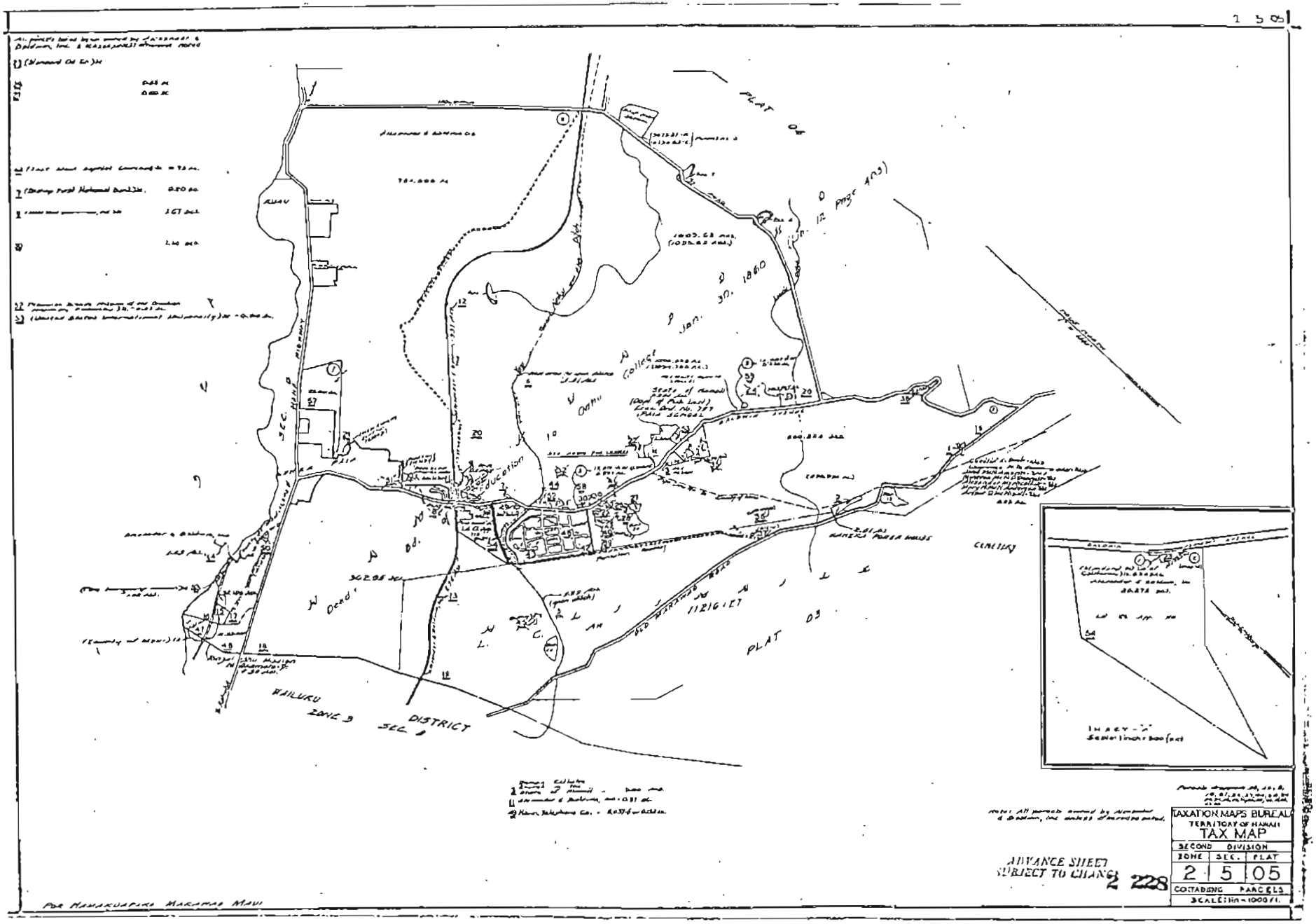
This photograph was taken from a point easterly of Mokulele Highway, showing the short paved strip of the closed Waiko Road section. The pavement was installed by the lessee of the land parcel situated to the left of the paved area.


Paia Mill Road
MAUI PINEAPPLE COMPANY LTD.
HALEAKALA RANCH COMPANY
HALEAKALA RANCH COMPANY
PACIFIC OCEAN
WAILUKU SUGAR COMPANY
HAWAIIAN COMMERCIAL AND SUGAR CO.
PUUNENE, MAUI, HAWAII
SCALE IN FEET
LEGEND
LAND BOUNDARIES
MAIN ROADS
TOURNAMALEN ROADS
RESERVOIRS
MAIN DITCHES
TUNNELS
GULCHES
VILLAGES
PIPELINES

C. Paia Mill Road

This road to which the County holds title, was closed by the County in 1955. It involves approximately 1,700 lineal feet, measuring 60 feet in width. It contains a total land area of about 2.342 acres. This road is used by the plantation to haul sugar cane from lands situated southerly of Paia Mill to the mill site. It is reasonable to anticipate that this roadway will be used for canehaul purposes in the future.

The location of the Paia Mill Road is shown on Tax Map Key 2-5-05 on the following page. Photographs of this road are also shown on the following page.



TAXATION MAPS BUREAU
TERRITORY OF HAWAII
TAX MAP

SECOND DIVISION		
ZONE	SEC.	PLAT
2	5	05

CONTAINING PARCELS

SCALE: 1in = 1000 ft.

ADVANCE SHEET
SUBJECT TO CHANGE 228

FOR HANAKUAPIKI MAKAHAS MAUI

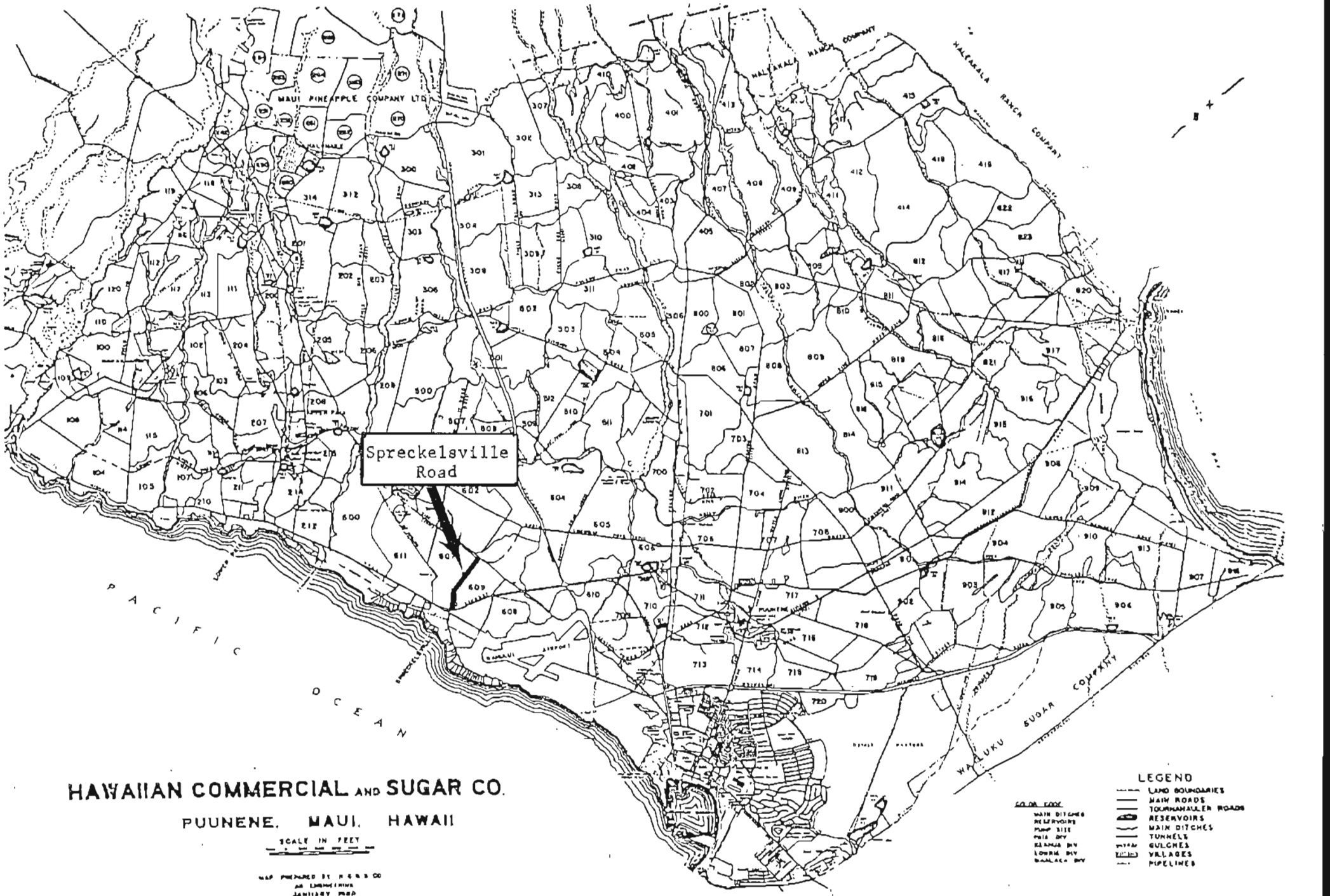
PHOTOGRAPHS OF SUBJECT PROPERTY AND ENVIRONS

This photograph portrays a portion of Paia Mill Road. The sugar mill can be seen in the background.

This photograph portrays the section of Paia Mill Road near its intersection with Baldwin Avenue. The sugar mill operation can be seen to the left.

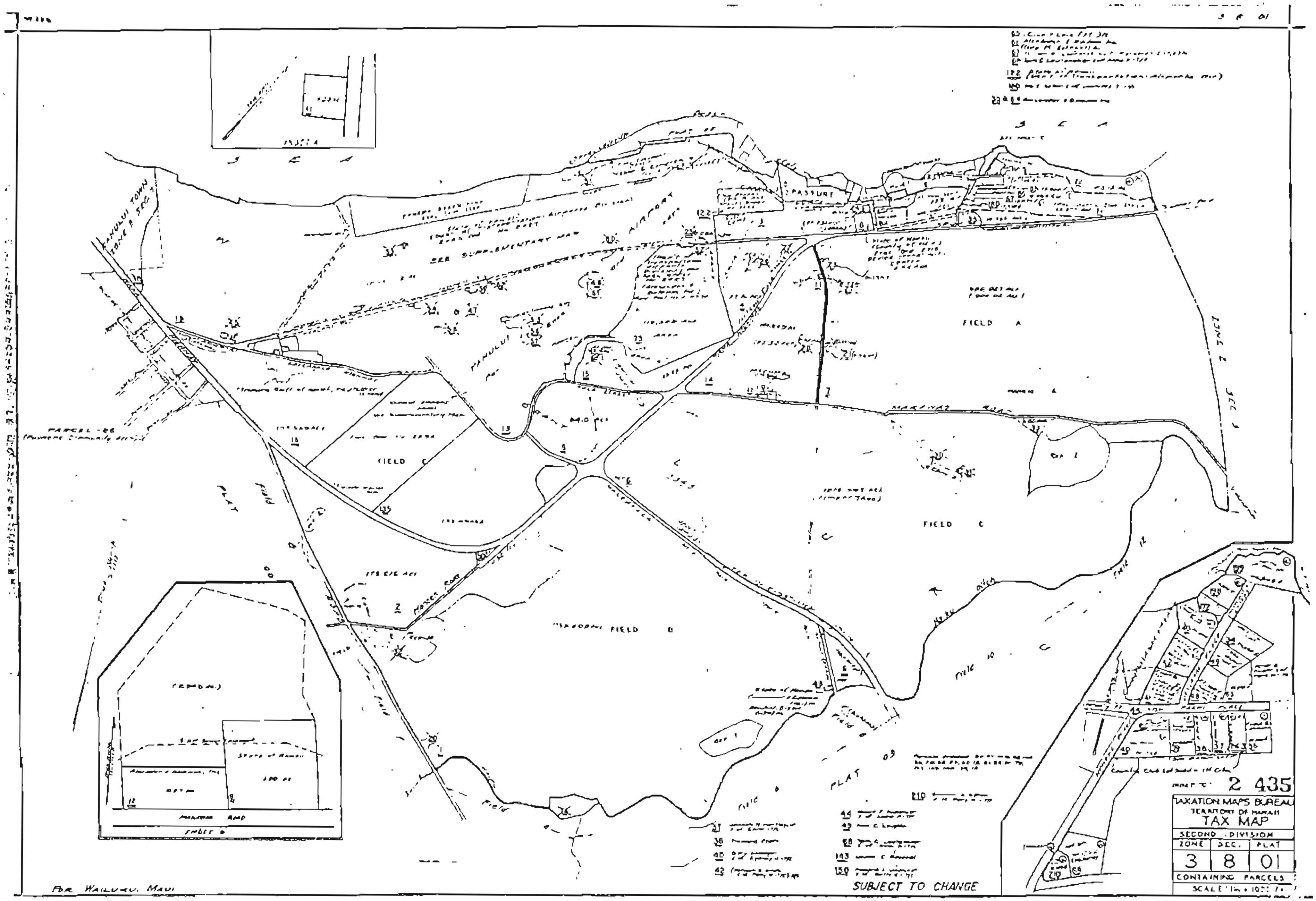
PHOTOGRAPH OF SUBJECT PROPERTY AND ENVIRONS

This photograph shows a part of the road as it leads from the mill to the sugar cane fields in this vicinity.

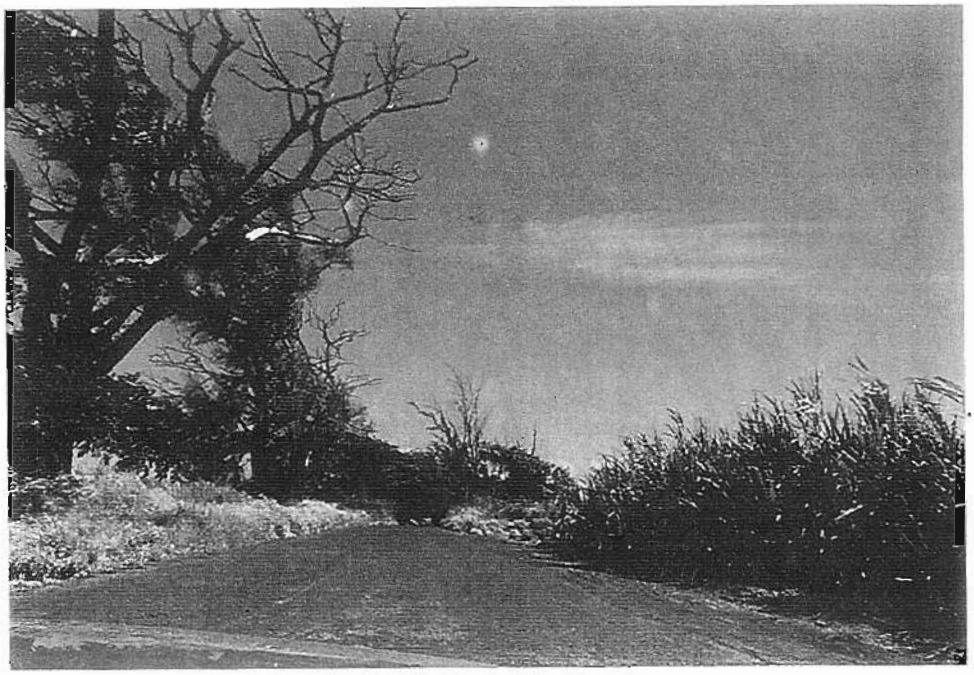

Spreckelsville Road
MAUI PINEAPPLE COMPANY LTD.
HALEAKALA RANCH COMPANY
PACIFIC OCEAN
WAILUKU SUGAR COMPANY
HAWAIIAN COMMERCIAL AND SUGAR CO.
PUUNENE, MAUI, HAWAII
SCALE IN FEET
LEGEND
LAND BOUNDARIES
MAIN ROADS
TOURNAHAULER ROADS
RESERVOIRS
MAIN DITCHES
TUNNELS
GULCHES
VILLAGES
PIPELINES

D. Spreckelsville Road

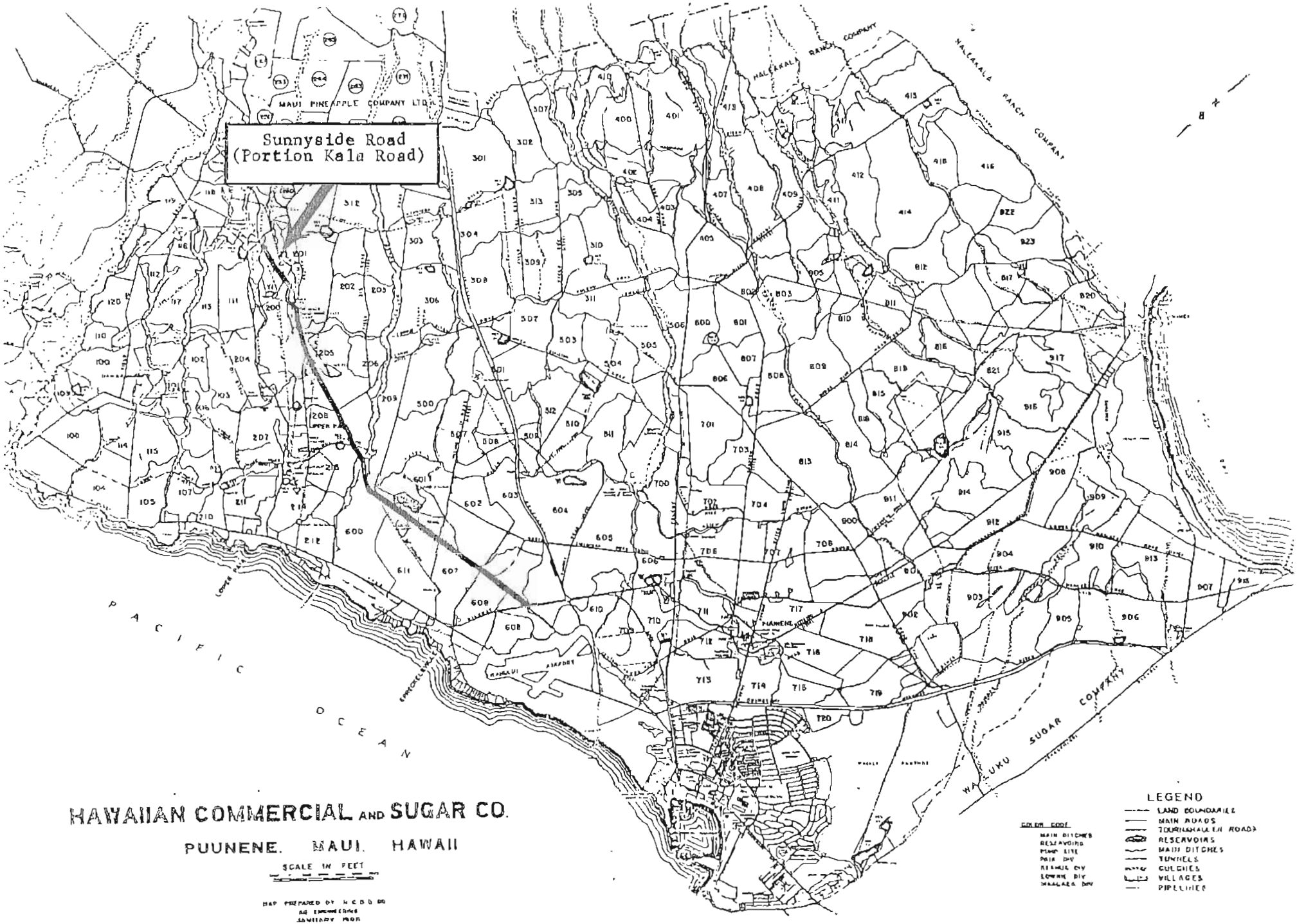
This roadway extends from Hana Highway in the mauka direction and ends at Sunnyside Road (Kala Road). The road measures approximately 4,000 feet in length and 60 feet in width and contains a total land area of 5.510 acres. We understand that this road is no longer needed by the County and may be closed shortly by the County Council. The road is paved with asphalt concrete which is in fair to poor condition. As it now exists, the road is not utilized for canehaul purposes. It travels between two sugar cane fields, as shown on Tax Map Key 3-8-01 on the following page. A photograph showing the road near its intersection with Sunnyside Road is also shown on a following page.


SEA
FIELD A
FIELD C
FIELD D
PASTURE
PLAT
Field
KAHULUI TOWN ZONE 3 SEC. 7
ZONE 2 SEC. 3
SEE SUPPLEMENTARY MAP
SUBJECT TO CHANGE
FOR WAILUKU, MAUI
2 435
TAXATION MAPS BUREAU
TERRITORY OF HAWAII
TAX MAP
SECOND DIVISION
ZONE | SEC. | PLAT
3 | 8 | 01
CONTAINING PARCELS

PHOTOGRAPH OF SUBJECT PROPERTY AND ENVIRONS



Photograph of Spreckelsville Road, taken from its intersection with Sunnyside Road (Kala Road), looking in the makai direction.


Sunnyside Road
(Portion Kala Road)
MAUI PINEAPPLE COMPANY LTD.
HALEAKALA RANCH COMPANY
PACIFIC OCEAN
WAILUKU SUGAR COMPANY
PUUNENE AIRPORT
HAWAIIAN COMMERCIAL AND SUGAR CO.
PUUNENE. MAUI. HAWAII
SCALE IN FEET
LEGEND
LAND BOUNDARIES
MAIN ROADS
RESERVOIRS
MAUI DITCHES
TUNNELS
GULCHES
VILLAGES
PIPELINES

E. Sunnyside Road

This involves the old Makawao Road which roughly parallels Hana Highway in the Spreckelsville area and then turns in the mauka direction, ending at Baldwin Avenue, in the vicinity of Mauna Olu College.

The first portion of Sunnyside Road, also known as Kala Road, extends from Hana Highway in the easterly direction to a point where it intersects with Spreckelsville Road. This portion measures approximately 3,300 feet in length and 40 feet in width and contains a total land area of approximately 3.030 acres. We understand that this portion of the road is still an active County road. It is an extension of Kala Road which skirts Kahului Airport, crosses Hana Highway and continues to the intersection of Kala Road and Spreckelsville Road.

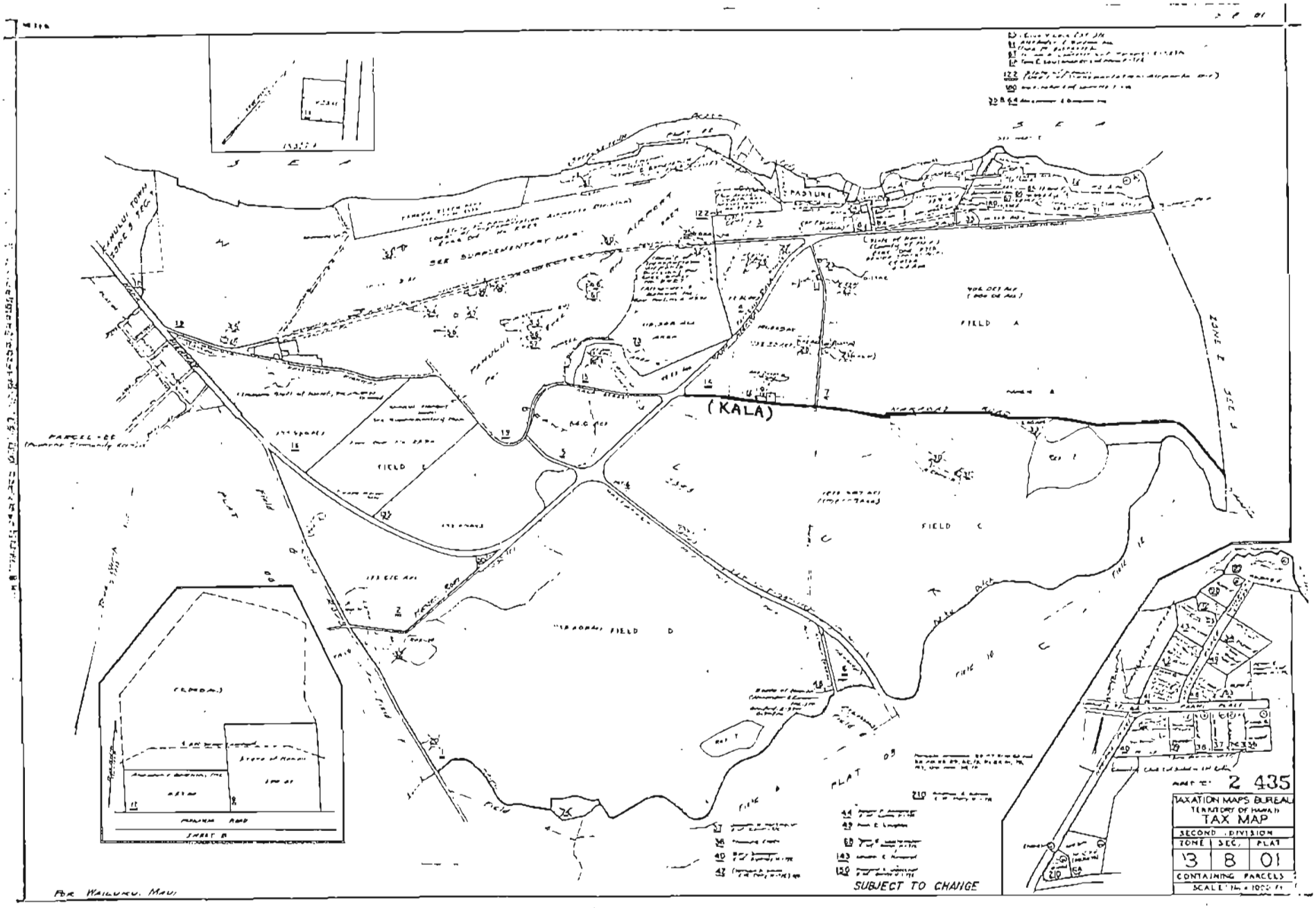
The inactive portion of the former Makawao Road, extending from the intersection of Kala Road and Spreckelsville Road, leads in the easterly and southeasterly direction and ends at Baldwin Avenue in the vicinity of Mauna Olu College. This portion of the road measures about 24,500 feet in length and 20 feet in width. This part is no longer used by the public. About 17,000 lineal feet of the road are used by the plantation as a major canehaul road. The balance, namely, that portion extending from a point just easterly of Paia Sugar Mill in the northwesterly direction toward Baldwin Avenue, is a narrow dirt road in extremely poor condition. The 24,500 lineal feet portion of Sunnyside Road contains a total land area of 11.249 acres. The road is shown as part of Tax Map Key 3-8-01 and 2-5-05. These tax maps are shown on the following page, followed by photographs portraying portions of Sunnyside Road.

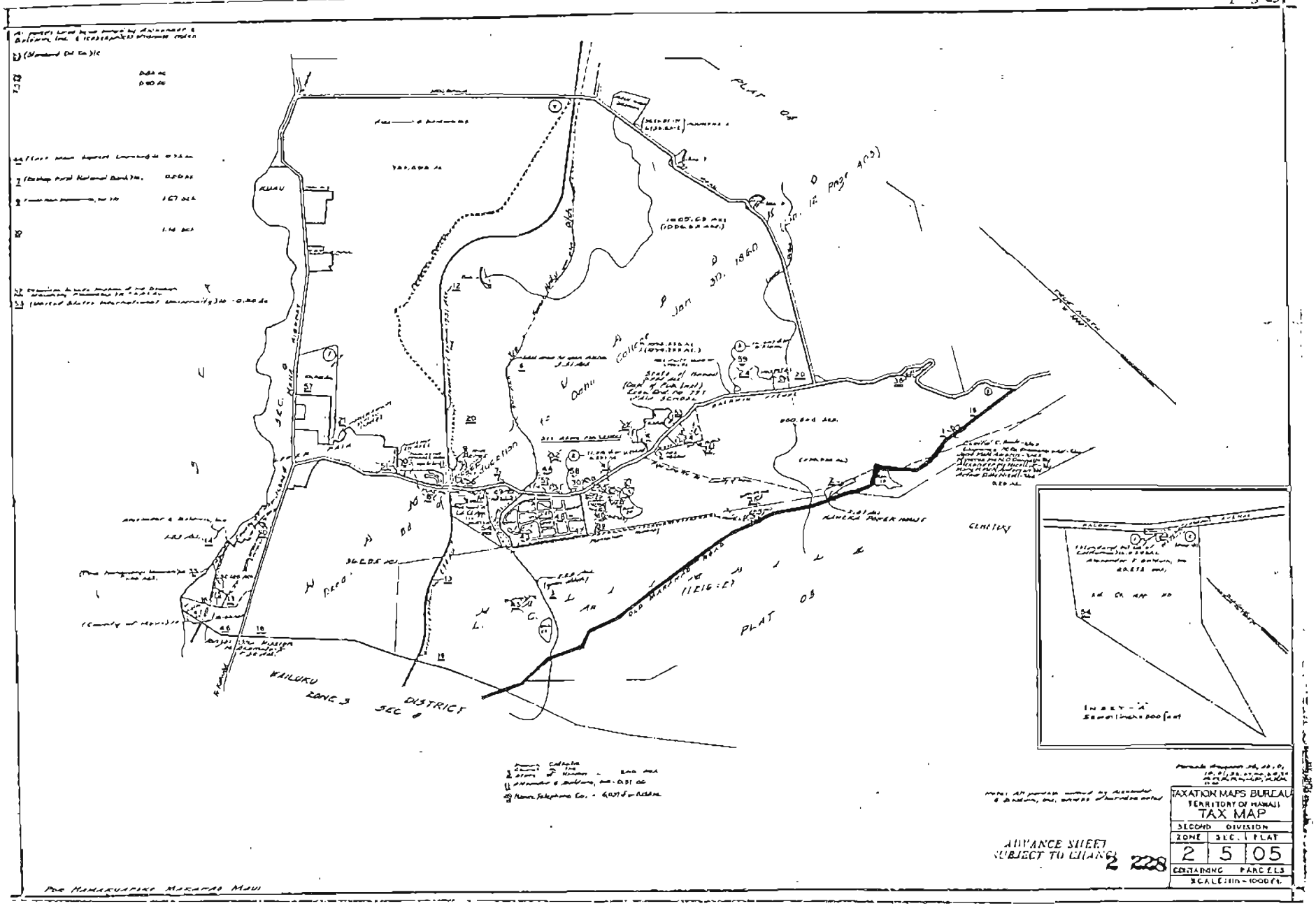
E. Sunnyside Road

This involves the old Makawao Road which roughly parallels Hana Highway in the Spreckelsville area and then turns in the mauka direction, ending at Baldwin Avenue, in the vicinity of Mauna Olu College.

The first portion of Sunnyside Road, also known as Kala Road, extends from Hana Highway in the easterly direction to a point where it intersects with Spreckelsville Road. This portion measures approximately 3,300 feet in length and 40 feet in width and contains a total land area of approximately 3.030 acres. We understand that this portion of the road is still an active County road. It is an extension of Kala Road which skirts Kahului Airport, crosses Hana Highway and continues to the intersection of Kala Road and Spreckelsville Road.

The inactive portion of the former Makawao Road, extending from the intersection of Kala Road and Spreckelsville Road, leads in the easterly and southeasterly direction and ends at Baldwin Avenue in the vicinity of Mauna Olu College. This portion of the road measures about 24,500 feet in length and 20 feet in width. This part is no longer used by the public. About 17,000 lineal feet of the road are used by the plantation as a major canehaul road. The balance, namely, that portion extending from a point just easterly of Paia Sugar Mill in the northwesterly direction toward Baldwin Avenue, is a narrow dirt road in extremely poor condition. The 24,500 lineal feet portion of Sunnyside Road contains a total land area of 11.249 acres. The road is shown as part of Tax Map Key 3-8-01 and 2-5-05. These tax maps are shown on the following page, followed by photographs portraying portions of Sunnyside Road.


(KALA)
FIELD A
FIELD C
FIELD D
PASTURE
AIRPORT
SEE SUPPLEMENTARY MAP
SUBJECT TO CHANGE
FOR WAILUKU, MAUI
TAXATION MAPS BUREAU
TERRITORY OF HAWAII
TAX MAP
SECOND DIVISION
ZONE 3 SEC. 8 PLAT 01
CONTAINING PARCELS
MAP NO. 2 435



TAXATION MAPS BUREAU
TERRITORY OF HAWAII
TAX MAP

SECOND DIVISION		
ZONE	SEC.	PLAT
2	5	05

CONTAINING PARCELS
SCALE: 1in = 1000 ft.

ADVANCE SHEET
SUBJECT TO CHANGE

2 228

FOR MAKAWAO MAKAWAO MAUI

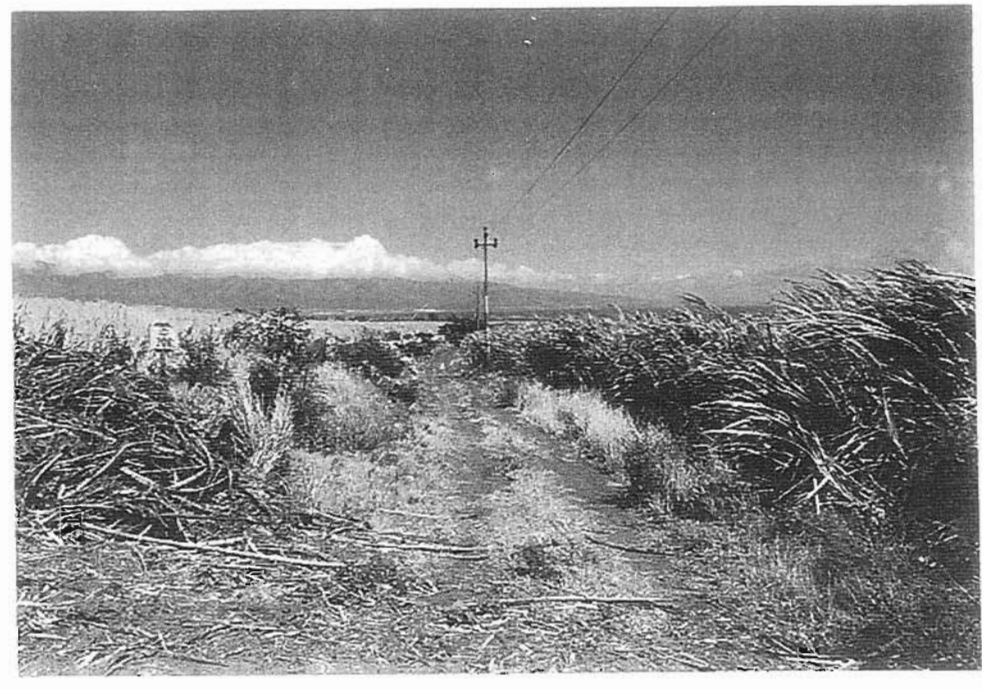
PHOTOGRAPHS OF SUBJECT PROPERTY AND ENVIRONS

This photograph portrays the portion of Kala Road or Sunnyside Road which extends from Hana Highway in the easterly direction (toward the intersection with Spreckelsville Road.

This photograph portrays a portion of Sunnyside Road which is used as a major canehaul road. The view is in the easterly direction (toward Haiku).

PHOTOGRAPHS OF SUBJECT PROPERTY AND ENVIRONS

This photograph portrays the dirt road portion of Sunnyside Road, at a point where it turns from the major canehaul road in the mauka direction.



This photograph also portrays a portion of Sunnyside Road where it represents a narrow dirt road.

PHOTOGRAPHS OF SUBJECT PROPERTY AND ENVIRONS

This is a photograph of Sunnyside Road, at a point near Baldwin Avenue. The view is in the makai direction.

This photograph portrays the area of Sunnyside Road near Baldwin Avenue. The view is in the direction toward Baldwin Avenue.

V. VALUATION ANALYSIS

A. Rights Appraised

The rights appraised in this report involve the unencumbered fee simple interest in the various subject properties.

B. Highest and Best Use

The various road rights-of-way traverse sugar cane fields. Portions of the roadways are currently used for canehaul road purposes. Portions are overgrown and incorporated into sugar cane fields. The highest and best use of these former public roadways is for continued canehaul road use, a contributory use to sugar cane cultivation, and/or for sugar cane cultivation itself.

C. Appraisal Methodology

The valuation of real estate is typically derived through three approaches to market value: estimated reproduction cost (or replacement cost) less depreciation (if any), capitalization of income, and comparative sale analyses.

Typically, the value of roadways is reflected in the value of the adjoining land served by these roadways. In the instance of the subject roadway parcels, which are no longer required for public use purposes, these roadways will be incorporated into adjoining land parcels which are devoted to the cultivation of sugar cane. Therefore, the value of the former roadways would be closely related to the value of sugar cane and contributory lands.

We have also considered the fact that the roadways under consideration in this report are of use only to the owners of those land parcels upon which these roadways front, i.e., there is a very limited market for these roadways. If these roadways were to be offered for sale on the open market, we believe that the relatively narrow strips of land, often involving dirt roads in very poor condition, not served by public water, would be of little use to others.

The valuation of sugar cane and contributory lands can be undertaken by two methods of value: (1) the market comparison approach, utilizing sales of lands devoted to sugar cane use; and (2) through income analysis. Under the latter approach, either the annual net rental income from ground rent to a lessor or the net income to the landowner from the sugar cane operation is capitalized into value.

D. Valuation of Sugar Cane Lands

The majority of the roadways under consideration in this report traverse large sugar cane fields, ranging in size from about 150 acres to over 4,000 acres. Overall, HC&S has about 50,000 acres of land, including contributory and waste lands, under sugar cane cultivation. Therefore, we believe that an analysis of sales of large tracts of sugar cane lands is best suited to indicate the value of the subject roadways.

On January 17, 1984, Hamakua Sugar Company, Inc. was sold by Theo H. Davies to Francis Morgan. As reported in the Hawaii Investor, May 1988 issue, the 35,000-acre holding, located along the Hamakua Coast of the Island of Hawaii, together with its sugar cane, mill and rolling stock cost Morgan $90 million. Two-thirds of the total were borrowed from the Federal Land Bank: $40 million in cash and $20 million on an existing loan that Morgan assumed, and the rest from Theo H. Davies and various creditors. According to the article, the $60 million in Federal Land Bank loans are secured by Hamakua's land and various improvements which the bank appraised at $115 million. The Production Credit Association, which is also part of the Federal Farm Loan System, gave Morgan a $24 million line of credit to use for operation capital. The credit line is secured by the company's accounts receivable, rolling stock, inventory and growing crop, which are appraised at $77 million. We understand that at the date of sale the 35,000-acre sugar cane land was valued at approximately $2,300 per acre.

An article in the Honolulu Advertiser on June 9, 1988 reported that the State Board of Agriculture approved a $10 million loan to Hamakua Sugar Company to insure a continued operation. According to the article, a copy of which is contained as Exhibit 1 in the Addenda, Hamakua Plantation has recently been valued at over $140 million as an operating plantation. Of that amount, about $115 million are attributable to land even in the event of a phased closing. This amount, when allocated over the 35,000-acre area involved, reflects a unit value of about $3,286 per acre.

Puna Sugar Company, Ltd. closed its sugar operations during 1985. We understand that in 1984 this company harvested over 41,000 tons of sugar on a total cane land area of about 3,800 acres, reflecting about 10.8 tons of sugar per acre. Subsequently, a large portion of the former sugar lands has been offered for sale on the market. The average asking price approximated $3,600 per acre. It should be noted that most of these lands involve subdivided lots, generally under 100 acres in size. Interview with an official of Amfac revealed that sales of the acreage are slow.

HC&S utilizes approximately 50,000 gross acres in its sugar cane operation on the Island of Maui. The net area is 36,000 acres. We are informed by officials of Alexander & Baldwin, Inc. that annual net profits during 1987 approximated $300 per acre per year. Applying an overall capitalization rate of 8 percent indicates a land value of $3,750 per acre ($300 ÷ .08 = $3,750).

Based on the foregoing investigations and analyses, it is our opinion that the current fair market value of large land parcels devoted to sugar cane cultivation, served by plantation water, is $3,500 per acre.

E. Valuation of Subject Road Rights-of-Way Abutting Sugar Cane Lands

Although Alexander & Baldwin, Inc. intends to acquire the fee simple title to the roadways no longer required by the County of Maui for public road purposes, the company does not necessarily need to purchase these roadways in order to continue their existing sugar cane operations.

As stated before, these roadways would be of little use to other than the adjoining or abutting property owners. The roadways involve relatively narrow strips of either paved or dirt roads, not served by County water. Because of the shape and the extremely limited use potential, there is a very limited market for these roadways. Considering a purchaser on the open market, other than the owners of abutting lands, we believe that a considerable discount from the unit price estimated in the above section for sugar cane land is warranted. It is our opinion that such discount would approximate 50 to 80 percent of the unencumbered fair market value. After a discount of, say, 65 percent, the value of the roadway parcels is estimated at $1,200 per acre.

However, it should also be recognized that the acquisition of inactive roads which are used, in part, as major canehaul roads by the plantation is beneficial to HC&S Company. If the County should decide to reopen certain roads, now used for canehaul purposes, the plantation most likely would have to construct alternative canehaul roads in the area. Certain portions of the former County roads now represent narrow dirt roads in extremely poor condition which are used only marginally, if at all, by the plantation. Some sections of the roads traverse gulches and are now overgrown with weeds and brush while some sections have been included into the planted cane fields.

Overall, we believe that the HC&S plantation would benefit from the acquisition of most of the roadway parcels. If, for instance, the inactive portion of Sunnyside Road would ever be reopened for public use, the plantation would have to construct a new major canehaul road. On the other hand, it is highly unlikely that the former Kihei-Makawao Road would ever be reopened for public use. The acquisition of that roadway would, at least, guarantee the control of the area to Alexander & Baldwin, Inc. and the plantation.

In conclusion, it is our opinion that Alexander & Baldwin, Inc., as the owner of the abutting properties, would be warranted in paying a price for these roadways somewhat above that which a purchaser on the open market (other than the plantation) could be expected to pay. The acquisition of the roadways by Alexander & Baldwin, Inc., to some degree, tends to enhance the overall plantation holding. The exact amount of such "enhancement" is difficult to analyze without analyzing the overall plantation operation. However, it is our opinion that Alexander & Baldwin, Inc. would be warranted in paying an amount somewhat above the estimated discounted unit market value of $1,200 per acre.

The market value of sugar cane and contributory land was estimated in a preceding section at $3,500 per acre. We estimated the unit market value of the roads (to prospective buyers other than the plantation) at $1,200 per acre.

We believe that the market value of the subject roadway properties is somewhat more than the value to a purchaser on the open market but somewhat less than the "special" value to the adjoining property owner. Based on the above reasoning, we have formed the opinion that the unit market value of the lands involved in the various roadways is $2,500 per acre.

The following table shows details pertaining to our value estimates for the various roadway sections.

Based on market data investigation and analyses and the reasoning stated in this report, as well as the limiting conditions and assumptions contained in this report, we have formed the opinion that the total market value of the unencumbered fee simple interest in the various roadways involved in this valuation study and described in this report, as of July 6, 1988, was:

ONE HUNDRED SEVENTY THOUSAND DOLLARS

($170,000)

All of this amount is attributable to land. It reflects an average unit land value of about $2,500 per acre when allocated over the 68± acre area involved.

VALUATION OF VARIOUS COUNTY-OWNED ROAD RIGHTS-OF-WAY
Island of Maui, State of Hawaii

Kihei-Makawao Road (Closed 1949)

14,500± ft. x 60 ft.	= 870,000 sf	or 19.972	acres at $2,500/acre	=	$50,000
32,000± ft. x 20 ft.	= 640,000 sf	or 14.692	acres at $2,500/acre	=	36,700
46,500± lineal feet	containing	34.664	acres at $2,500/acre	=	$86,700

Waiko (Waikapu) Road

7,700± ft. x 20 ft. 1/	= 154,000 sf	or 3.535	acres at $2,500/acre	=	$ 8,800
17,400± ft. x 20 ft. 2/	= 348,000 sf	or 7.989	acres at $2,500/acre	=	20,000
25,100± lineal feet	containing	11.524	acres at $2,500/acre	=	$28,800

Paia Mill Road (Closed 1955)

1,700± ft. x 60 ft.	= 102,000 sf	or 2.342	acres at $2,500/acre	=	$ 5,900

Spreckelsville Road (Not Yet Closed for Public Use)

4,000± ft. x 60 ft.	= 240,000 sf	or 5.510	acres at $2,500/acre	=	$13,800

Portion Kala Road (Sunnyside Road) (Not Yet Closed for Public Use)

3,300± ft. x 40 ft.	= 132,000 sf	or 3.030	acres at $2,500/acre	=	$ 7,600

Sunnyside Road

24,500± ft. x 20 ft.	= 490,000 sf	or 11.249	acres at $2,500/acre	=	$28,100

TOTAL MARKET VALUE, IN FEE SIMPLE AND UNENCUMBERED		$170,900
	Say	$170,000

1/ Portion between Kuihelani and Mokulele Highways (recently closed).
2/ Portion between Mokulele Highway and Pulehu Road.

A D D E N D A

The Honolulu Advertiser
• Thursday, June 9, 1988 A-11

$10 million Hamakua Sugar loan OK'd

State will share a second mortgage position

By Kit Smith
Advertiser Financial Editor

The state Board of Agriculture yesterday approved a $10 million loan to the Big Island's Hamakua Sugar Co., the state's second-largest sugar plantation, to keep it operating during a financial crisis.

The loan is by far the largest ever made by the state Department of Agriculture under emergency loan powers. Board Chairwoman Suzanne Peterson took pains afterward to paint the loan as "adequately collateralized."

Funds for the five-year loan are expected to be disbursed next week after conclusion of negotiations involving the two existing principal creditors, the Federal Land Bank and Production Credit Association.

Gov. John Waihee on June 1 signed a proclamation authorizing $12 million in emergency loans to Hamakua and 71 small Hilo-Hamakua growers, using legislative appropriations. The loans carry a 3 percent interest rate. Yesterday's special meeting of the agriculture board was the required next step.

Under an inter-creditor agreement, the state will share a second mortgage position with the Production Credit Association on the plantation's real estate. The Federal Land Bank will continue as first mortgage holder.

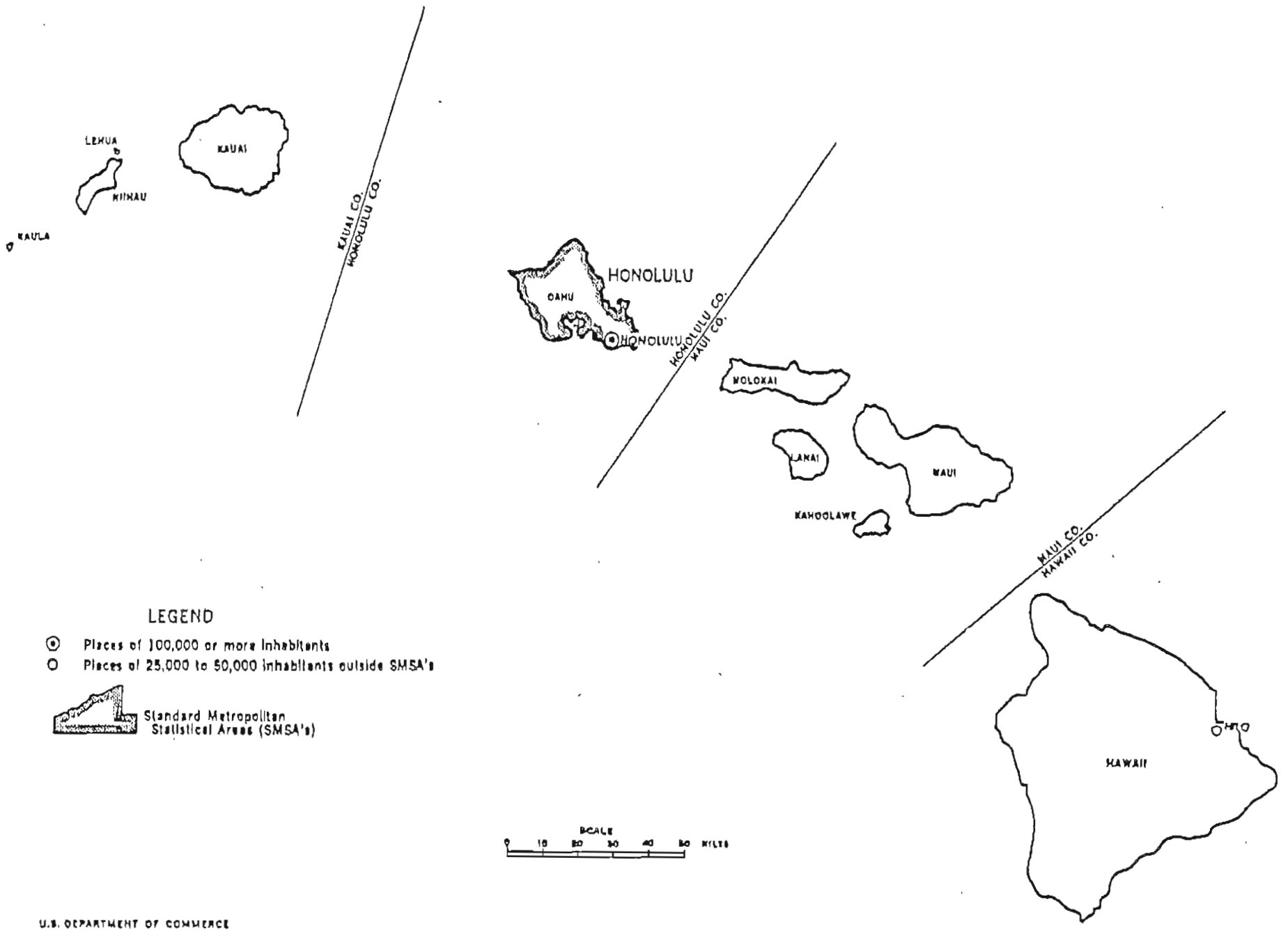
Also, the state will take a second position on the non-real-estate assets, behind the Production Credit Association. Those include rolling equipment, inventory and crops in the ground.

The state's agreement with Hamakua Sugar allows no increase in the combined $85 million now owed the two agencies, which are both part of the federal Farm Credit System. But Hamakua owner Francis Morgan said no additional borrowing should be needed.

Peterson said the Hamakua plantation, which employs about 1,000 persons, has a $140 million value as an operating plantation. According to Land Bank and PCA estimates, she said, the plantation would be worth $115 million even in the event of a phased closing.

The Board of Agriculture probably will act July 6 on $2 million in loans to the independent growers, Peterson said.

EXHIBIT 1



U.S. DEPARTMENT OF COMMERCE
SOCIAL AND ECONOMIC STATISTICS ADMINISTRATION
BUREAU OF THE CENSUS

ECONOMIC BACKGROUND DATA[1/]

A. State of Hawaii

1. Geographic Factors

Hawaii was admitted as the 50th State of the United States in 1959. It is the only state not situated on the North American continent. Hawaii is comprised of eight major and 124 minor volcanic and coral islands which form a 1,610-mile long chain in the middle of the Pacific Ocean. Hawaii is considered the Crossroads of the Pacific and is the point where airline and shipping routes converge. Hawaii is located 2,395 miles southwest of San Francisco and 4,280 miles east of Japan. A summary of distances to major economic centers in the Pacific is shown below.

Economic Center	Approximate Distance From Hawaii (Miles)	
San Francisco	2,395	Northeast
Anchorage, Alaska	2,780	North
Tokyo, Japan	4,280	West
Hong Kong	6,102	West
Manila, Philippines	5,403	West
Sydney, Australia	5,480	Southwest
Auckland, New Zealand	4,406	Southwest

Hawaii's major islands, in order of size, are Hawaii, Maui, Oahu, Kauai, Molokai, Lanai, Niihau and Kahoolawe. The Island of Hawaii is the southermmost in the chain and features two major volcanic mountains -- Mauna Kea (13,796 feet) and Mauna Loa (13,677 feet). A third volcano, Kilauea, is active and erupts periodically. The Island of Hawaii features several tourist resorts on the dry western (Kona) side of the island. The Parker Ranch, centrally-located on the island, is the largest privately-owned cattle ranch in the United States.

The Island of Maui is the second largest in the chain and also has two major volcanic mountains, the highest of which is Haleakala (10,023 feet). Maui features several tourist destination resorts on the western side of the island. Sugar and pineapple are the primary crops grown on Maui.

Oahu is the third largest island and has two mountain ranges, the Koolau Range and the Waianae Mountains, which run parallel to each other near the east and west coastlines. A plateau of rich agricultural land, planted with sugar cane and pineapple, lies between them. Oahu is the

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1/ Considering that the reader of this report may be from the continental United States and unfamiliar with Hawaii, a summary of Hawaii State data has been included in this report. Data presented in this portion of the report is compiled from information contained in the library of Cowell & Co., Inc., Honolulu, Hawaii, and other sources as noted.

site of Honolulu, the capital of the State, and almost 80 percent of the state's population live on the island. Oahu is the center of economic activity in Hawaii. The island features several military bases including Pearl Harbor Naval Base, the commercial port of Honolulu Harbor and Honolulu International Airport, the 11th busiest airport in the nation.

Kauai is the fourth largest island and is 103 miles north of Oahu. Kauai is primarily rural and agricultural in character, although the island does have some tourist resorts. The Island of Molokai, like Kauai, is rural in character with some tourist activity. Niihau, located off the coast of Kauai, is owned by the Sinclair family and receives no visitors except by invitation. Kahoolawe, off the coast of Maui, is uninhabited and is used by the armed forces for aerial target practice. Lanai is owned by Castle and Cooke, Inc. and is used primarily to grow pineapple, although two new hotels are currently under development by Castle and Cooke on the island.

The State of Hawaii has a total land area of 6,425 square miles and a coastline of 750 miles. Hawaii ranks 47th in size among the United States.

2. Climatic Conditions

Although Hawaii's climate is generally tropical, conditions vary significantly and cannot be described in terms of averages. The range of climatic conditions is extremely broad, with variations primarily dependent on altitude, location with regard to windward or leeward side of the island, and to some extent, season. The Hawaiian Islands lie in the path of the northeast tradewinds which typically cause heavy annual rainfall on the windward (eastern) side of the islands. The leeward (western) side of most islands is typically dry. Rainfall varies from less than 6 inches per year for some dry portions of the Island of Hawaii to a record high of 624 inches atop Mt. Waialeale on Kauai. Average annual rainfall for downtown Honolulu approximates 24 inches a year. Although there are these vast differences, in general, Hawaii receives most rainfall in the "wet season" from October to March, while the "dry season" extends for the remainder of the year.

Temperature differences in Hawaii result chiefly from variations in elevation. Temperature for locations near sea level typically ranges from about 68°F to 85°F year-round, with temperatures at the lower end of the range in the winter months and higher temperatures in the summertime. The temperature range for downtown Honolulu, near sea level, ranges from a record low of 57°F to a high near 90±°F. The temperature in Honolulu is usually in the 70°F to 80°F range. Higher elevations often experience much lower temperatures, sometimes below freezing. During the winter months, Mauna Kea volcano (13,796-foot elevation) on the Island of Hawaii is snow-capped.

VISITORS TO THE STATE OF HAWAII & NEIGHBOR ISLANDS

Year	State Total 1/	Honolulu	Neighbor Island Total	Hawaii	Kauai	Maui 2/
1970	1,747,000	n.a.	1,354,000	463,000	426,000	465,000
1980	3,046,000	2,399,000	2,920,000	761,000	781,000	1,378,000
1981	2,398,000	2,398,000	2,821,000	673,000	758,000	1,390,000
1982	3,279,000	2,589,000	2,961,000	678,000	733,000	1,550,000
1983	3,396,000	2,592,000	3,049,000	712,000	692,000	1,645,000
1984	3,721,000	2,901,000	3,431,000	761,000	815,000	1,855,000
1985	3,709,000	2,829,000	3,361,000	697,000	833,000	1,831,000
1986	4,256,000	3,146,000	3,804,000	787,000	1,015,000	2,002,000
1987 3/	5,792,000	3,070,000	3,719,000	781,000	1,032,000	1,906,000

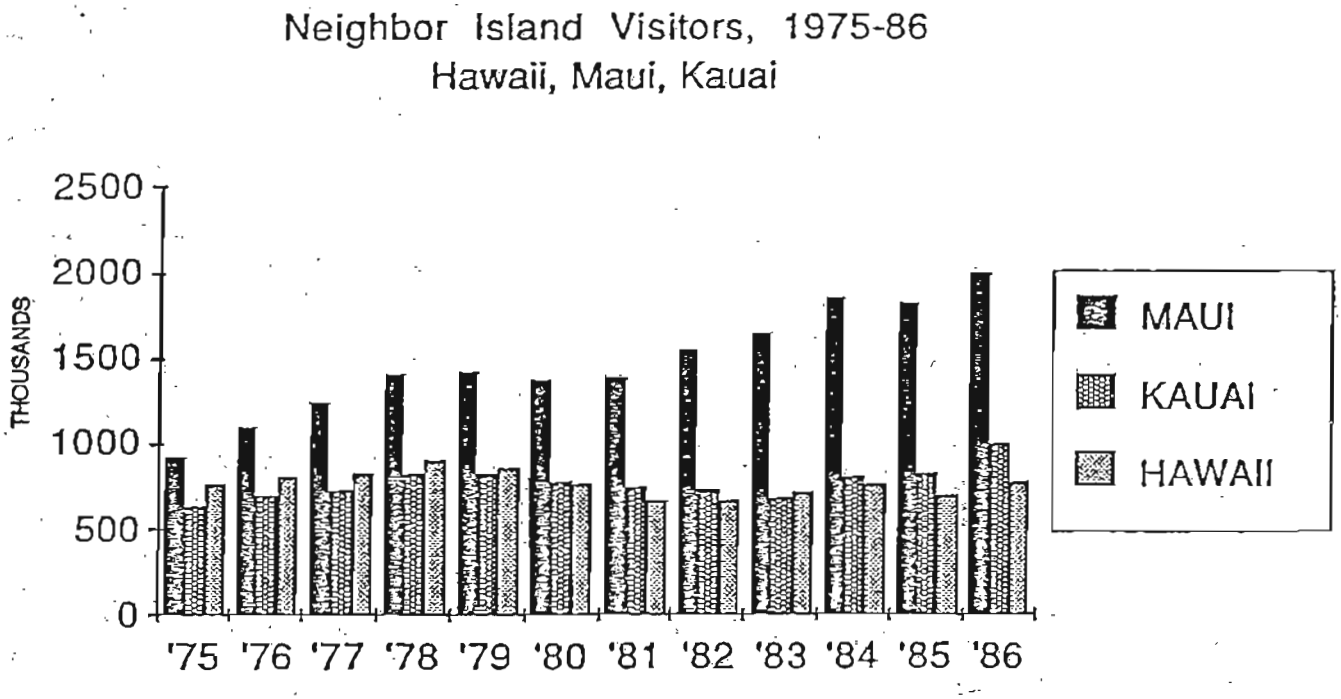
Visitor count rounded to the nearest thousand.

1/ Because many visitor visited more than one county, county data sum to totals greater than the State totals shown.

2/ Maui County totals include Molokai & Lanai.

3/ Preliminary totals.

Source: Hawaii Visitors Bureau, 1986 Annual Research Report, & records.



3. Demographic Factors

Hawaii State's population has grown rapidly over the last 30 years. This growth can be traced back to World War II, which brought about an era of economic expansion. Although population declined after the war, growth was again stimulated with the advent of statehood in 1959. A summary of resident population figures is shown on the following page. The 1986 resident population of 1,064,800 represents an increase of 38.3 percent over the 1970 figure of 769,913. Over the last 7-year period (1980 to 1986), the resident population increased 10.4 percent from 964,691 to 1,064,800, representing an annual compounded increase of 1.4 percent per year for the period. It is anticipated that the State's population will continue to grow, although at a modestly lower rate. Preliminary 1987 State population figures reflect a total of 1,082,502.

As of July 1987, the resident population was reported at 1,082,502, representing an increase of 1.7 percent over the 1986 figure. The July 1987 figure, comprised of civilian, military and military dependents, is summarized below.

	July 1, 1987, State Population Estimate	Percent of Total
Civilian	957,375	88.4%
Military	60,277	5.6%
Military Dependents	64,850	6.0%
	1,082,502	100.0%

Military and military dependents comprise a significant portion (11.6 percent) of the State's population. The above figures do not include the average daily tourist population which exceeds 115,000 visitors on a typical day. The table on the facing page details the most current distribution of the State's residents by counties and islands for 1970, 1980 and 1986.

The Island of Oahu comprises the City and County of Honolulu and is the State's population center with about 77± percent of the total. The outer islands contain about 23± percent of the resident population, with Hawaii County and Maui County having about twice the population of Kauai County. During the last 15± years population growth on the outer islands outpaced the growth of urban Oahu. In prior decades, outer island population growth was below Oahu's growth rate and declined in many instances. Expanded tourism and the desire for less developed areas have contributed to outer island population growth during the last two decades. It is anticipated that this population trend will continue over the next decade.

FACTORS AFFECTING ECONOMIC BASE
State of Hawaii

Year	Resident Population (As of July 1)	Gross State Product ($ Millions)	Primary State Income Sources: Federal Government Expenditures ($ Millions)	Visitor Expenditures ($ Millions)	Sugar Sales ($ Millions)	Pineapple Sales ($ Millions)
1960	641,500	$ 1,805	$ 486	$ 131	$127	$119
1970	771,600	4,427	1,071	595	198	135
1975	886,300	7,396	1,979	1,360	366	137
1976	904,200	7,925	2,186	1,640	257	145
1977	918,300	8,600	2,381	1,845	284	162
1978	931,600	9,630	2,559	2,146	285	163
1979	953,300	10,923	2,972	2,537	346	223
1980	968,900	12,200	3,307	2,875	594	229
1981	980,131	13,004	3,811	3,200	328	221
1982	997,454	13,574	3,506	3,700	354	207
1983	1,018,334	14,836	4,055	3,974	410	219
1984	1,035,585	15,711	4,232	4,582	398	250
1985	1,050,822	16,679	4,568	4,884	344	223
1986	1,064,732	17,530	4,643	5,550	360	242
1987	1,082,502	19,600[2/]	4,500[2/]	6,364[2/]	344	252
1988	1,094,000[3/]	21,000[3/]	4,585[3/]	6,700[3/]	365[3/]	n.a.

Source: Research Department, Bank of Hawaii, Main Branch, Honolulu and Hawaii State Department of Planning and Economic Development, Data Book, 1987.

1/ Estimate by Hawaii Visitors Bureau, Honolulu.
2/ Preliminary estimate by Bank of Hawaii, 1987 Annual Economic Report, November 1987.
3/ Projection by Bank of Hawaii, 1987 Annual Economic Report, November 1987.

The State of Hawaii has no ethnic majority and is a mixture of many ethnic groups. Chinese, Japanese and Filipinos were brought in originally to work in sugar and pineapple plantations. Smaller numbers have immigrated from Portugal, Puerto Rico, Okinawa, Korea, Samoa and Tahiti. The State Department of Planning and Economic Development estimates Hawaii's ethnic mix as follows.

Primary Ethnic Background	Approximate Percentage of Resident Population
Caucasian	23.4%
Japanese	23.0%
Filipino	11.3%
Chinese	4.8%
Other and mixed	37.5%

In summary, Hawaii's population represents a mixture of several ethnic backgrounds. The State's population is anticipated to continue to increase, with population growth at a faster pace on the outer islands when compared to growth in the State population center of Oahu.

4. Economic Factors

a. Economic Base

Hawaii's State Gross Product is estimated to total $19,600 million in 1987, an increase of 11.8 percent over the 1986 figure. The projected $21,000 million for 1988 shows an increase of 7.1 percent over the 1987 estimate. The State Gross Product increased 128 percent over the last 10-year period (1977 to 1987). Hawaii's economy is supported primarily by tourism, Federal Government spending, sugar and pineapple, in that order. Federal expenditures and tourism are expected to continue to be primary income sources, while the contribution of sugar and pineapple is projected to decline. A summary of economic base factors, including income from these sources, is shown on the facing page. A brief summary of the primary contributors to Hawaii's economy follows.

(1) Federal Government Expenditures

Hawaii is home base for 60,277 military personnel and another 64,850 military dependents. All military services are represented in the islands. The U.S. Navy is the largest force, accounting for about one-half the total. Pearl Harbor is the center of naval operations in Hawaii. Other major military bases include Schofield Barracks, home of the Army's 25th Infantry Division, Fort Shafter, Barbers Point Naval Air Station, Kaneohe Marine Corps Air Station and Hickam Air Force Base, all located on Oahu. The military also accounts for about 21.1 percent of civilian jobs in Hawaii and has a major impact on the State's economy.

Federal expenditures in Hawaii have increased annually over the last 25-year period, as shown in the summary table on a previous page. During the last decade, federal expenditures increased from $2,559 million in 1978 to an estimated $4,500 million in 1987, an increase of 76% percent over the 10-year period. Federal government expenditures are projected to total $4,585 million in 1988. Federal government expenditures are classified as defense and non-defense income. A brief summary of federal government expenditures is summarized below.

Federal Expenditures In Hawaii, By Types:
Fiscal Years 1983 to 1988 (Millions of Dollars)

Type of Expenditure	1983	1984	1985	1986	1987 1/	1988 2/
All Categories	4,055	4,232	4,568	4,643	4,500	4,585
Grants to State and Local Governments	457	459	436	473	n.a.	n.a.
Salaries and Wages	1,736	1,809	1,942	1,961	n.a.	n.a.
Direct Payments for Individuals	1,253	1,321	1,444	1,517	n.a.	n.a.
Procurement	535	577	672	619	n.a.	n.a.
Other Programs	74	66	73	73	n.a.	n.a.
Department of Defense	2,198	2,324	2,553	2,486	2,100	2,100
Other Federal Agencies	1,857	1,908	2,015	2,158	2,400	2,485

1/ Estimated by Bank of Hawaii.
2/ Projected by Bank of Hawaii.

Source: Hawaii State Department of Planning and Economic Development, Data Book 1987, Table 320.

Defense expenditures have typically accounted for about 50 to 60 percent of total federal expenditures in the State. The 1987 estimate and 1988 projection reflect a lower percentage for defense expenditures. As shown above, federal government expenditures have increased at a healthy pace in recent years. Federal government expenditures provide a relatively steady income, less sensitive to fluctuations in the economy. It is projected that over the long run federal expenditures will continue to be one of the State's primary income sources. However, efforts toward the reduction of the federal deficit may result in a possible decline of federal expenditures in future years.

(2) Tourism[1/]

Over the last 25 years, tourism has made an increasingly significant contribution to Hawaii's economy. Tourism is Hawaii's largest private industry and possesses more growth potential than any other segment of the economy. In 1960, visitor expenditures in Hawaii totaled $131 million. This figure increased to $1.36 billion by 1975 and is estimated to total $6.7 billion in 1988.

Today, Hawaii is a destination resort area for visitors from all over the world. Visitors from Canada and Japan account for the largest shares of the market outside of the United States. Waikiki, on the Island of Oahu, has traditionally been the center of tourism in the State. More hotel rooms are situated in Waikiki than in all other areas of the State combined. In recent years, however, tourism on the neighbor islands of Kauai, Hawaii and particularly Maui, has shown tremendous growth. A hotel room inventory of the State is shown below.

	Hotel Room Inventory[2/]	
Island	No. of Rooms	% of Total
Oahu	38,815	58.9%
Maui	13,189	20.0%
Hawaii	7,328	11.1%
Kauai	5,956	9.0%
Molokai & Lanai	660	1.0%
	65,948	100.0%

A summary of visitor industry data for the last eight years, including the 1987 estimate and 1988 projections follows.

Year	Visitors Staying Overnight or Longer	Average Daily Visitor Census	Average Occupancy in Waikiki Hotels	Visitor Expenditures Total (Millions)	Visitor Expenditures Percent Increase
1980	3,934,504	96,497	71.7%	$2,875	+13.3%
1981	3,934,623	95,968	73.9%	3,200	+11.3%
1982	4,242,916	105,310	77.7%	3,700	+15.6%
1983	4,367,880	108,045	76.6%	3,974	+ 7.4%
1984	4,855,580	106,260	83.0%	4,582	+15.3%
1985	4,884,110	103,820	81.5%	4,884	+ 6.6%
1986	5,606,980	118,110	85.2%	5,550[3/]	+13.6%
1987[4/]	5,792,000[4/]	116,650[4/]	91.1%[4/]	6,364[3/4/]	+14.7%[4/]
1988[4/]	5,820,000[4/]	120,950[4/]	88.9%[4/]	6,700[4/]	+ 5.3%[4/]

1/ Source of data is Hawaii Visitors Bureau, Honolulu.
2/ Includes condominium units rented as hotel rooms as of February 1986.
3/ Preliminary estimate by Bank of Hawaii.
4/ Projection by Bank of Hawaii.

The 1987 statistics show only a modest 3 percent increase of visitor count over 1986, however, the visitor expenditures increased an estimated 9 percent. This increase is contributed to the Japanese visitor. It is estimated that the Japanese account for only 20 percent of the total visitor count and one-third of total visitor expenditures.

Hawaii's economic well-being is highly dependent on tourism and tourism in Hawaii is very sensitive to the national and international economies. As the world economy has shown positive signs of recovery and growth since late 1983, Hawaii's tourist industry has recovered. Visitors to Hawaii increased 32.6 percent from 4.368 million in 1983 to 5.792 million in 1987. The 1988 projection is 5.820 million, reflecting a modest increase over 1987. Visitor expenditures increased 14.7 percent in 1987. Visitor expenditures are projected to increase 5.3 percent to $6.7 billion in 1988. The decline in the U.S. dollar stimulated international travel to Hawaii, particularly from Japan. Problems in major competing areas, such as in Mexico, increased the desirability of Hawaiian vacations, while organized promotional campaigns on the Neighbor Islands has widened their appeal at the national level. Additions by national and local carriers of new flights from the mainland to Honolulu and the Neighbor Islands also increased carrying capacity to the islands, and competitive airfare prices contributed to visitor volume.

In summary, the outlook for tourism is positive at this time. State planners are aware of the sensitivity of Hawaii's tourist industry to factors outside the State and a search for other major State income sources to supplement tourism is underway.

(3) Agriculture

Sugar

Sugar from sugar cane crops is Hawaii's major agricultural product and the third primary contributor to Hawaii's income. However, the contribution of sugar to the State Gross Product over the last decade has been sporadic and generally less significant than in previous years. Sugar sales peaked in 1980 ($594 million) and in 1983 ($410 million). In subsequent years, sugar sales have declined and leveled off in the range of $344 million to $360 million in 1985 to 1987. The 1988 projection is $365 million. The sporadic performance of sugar in Hawaii is primarily due to the fluctuation of the price of raw sugar over the last decade. National legislation regarding import quotas and artificial raw sugar prices have also significantly affected sugar income to Hawaii. Competition from artifical sweetners has also had adverse effects.

As a result, many companies are phasing out some of their sugar production. The Big Island's 16,145-acre Puna Sugar Company owned by Amfac, Inc. was phased out completely in 1984. This acreage represents 7 percent of Hawaii's total sugar cane land. Amfac also withdrew about 25 percent of the least productive sugar cane land in the Ewa/Pearl City areas of Oahu from production. Other plantations on Maui are also considering reduction in land put to sugar cane production. It is projected that sugar production in Hawaii will continue to decline and the contribution of sugar to the State Gross Product will diminish and become less important in future years.

Pineapple

Pineapple, like sugar production, is declining in terms of contribution to the State's economy. Pineapple sales have fluctuated over the last decade with no signs of real growth. Acreage devoted to the crop has dropped considerably since 1973 as a result of Dole's shut-down of its Molokai operations, consisting of about 10,000 acres, over 15 percent of the State's total pineapple acreage. Del Monte Corporation, plagued by losses, closed its Oahu cannery in 1983 and continues to grow pineapple on 1,000 of the 6,000 acres of land it controls.

Pineapple sales peaked in 1984 at $250 million and declined in 1985 to $223 million. Pineapple sales rebounded in 1986 ($242 million) and in 1987 ($252 million). Recently, sale of raw pineapple has strengthened and it is expected that 1988 pineapple sales will exceed the $252 million worth of sales experienced in 1987.

Due to increasing competition from overseas areas of cheap labor and the difficulty of achieving technological advances which would offset the relatively high costs of labor and land in Hawaii, income from pineapple sales over the long run is uncertain.

Other Agricultural Crops

Other agricultural crops grown in Hawaii include papaya, coffee, macadamia nuts, flowers, foliage and other tropical fruits as well as some vegetables sold in local markets. The contribution of these crops, however, is relatively minor compared to sugar and pineapple sales. It is uncertain what, if any, agricultural crops will replace sugar and pineapple production.

(4) Employment

The civilian job count for the State totaled 502,100 for 1987. This estimate does not include approximately 60,277 military pesonnel employed by the Federal Government. A summary of jobs by category for 1987 is shown below.

Classification	Number Employed	Percent
Non-Agricultural		
Retail & wholesale trade	120,500	24.0%
Services	124,600	24.8%
Government	95,700	19.0%
Finance, insurance & real estate	33,600	6.7%
Transportation, utilities, etc.	34,900	7.0%
Manufacturing	17,000	3.4%
Construction	21,400	4.3%
	(447,700)	(89.2%)
Agricultural (Wage & Salary)		
Sugar	7,000	1.4%
Pineapple	4,000	.8%
Diversified agriculture (including agricultural self-employed)	8,500	1.7%
	(19,500)	(3.9%)
Other including non-agricultural self-employed, labor disputes, etc.	34,900	7.0%
Total	502,100	100.0%

ECONOMIC INDICATORS
State of Hawaii

Year	Civilian Job Count	Unemployment Rate	Per Capita Income ($)	Consumer Price Index (1967=100)	Housing Inventory	Construction Completed ($ Millions)	Retail Sales ($ Millions)
1960	235,140	3.1%	$ 2,305	86.3	165,506	$ 275	$ 948
1970	321,550	4.9%	4,944	114.2	216,774	784	2,025
1975	382,950	8.3%	7,038	155.0	284,120	1,140	3,551
1976	387,000	9.8%	7,474	162.8	298,339	1,012	3,724
1977	398,650	7.3%	7,873	171.0	306,989	850	4,222
1978	417,500	7.7%	8,660	184.1	315,513	1,061	4,774
1979	434,500	6.2%	9,506	204.6	324,261	1,342	5,520
1980	448,150	4.9%	10,616	228.5	334,235	1,570	6,110
1981	449,900	5.4%	11,276	252.4	342,873	1,585	6,701
1982	446,050	6.7%	11,765	267.6	348,980	1,324	6,875
1983	453,750	6.4%	12,608	273.5	353,414	1,334	7,438
1984	461,000	5.7%	13,161	284.8	359,107	1,227	8,542
1985	473,150	5.6%	14,080	294.1	364,436	1,430	8,957
1986	489,100	4.9%	14,691	301.1	370,548	1,810	9,485
1987	502,100	4.0%	17,053[1/]	311.9[3/]	378,519	2,100	9,619[4/]
1988[2/]	N.A.	N.A.	16,453[2/]	325.0[2/]	N.A.	2,150[2/]	10,800[2/]

Source: Hawaii State Department of Planning and Economic Development, Data Book 1987, First Hawaiian Bank and Bank of Hawaii.

1/ 3rd Quarter, Bank of Hawaii.
2/ Forecasted by Bank of Hawaii.
3/ As of June 1987.
4/ As of November 1987.

Persons employed in retail and wholesale trade and services represent the largest occupational groups in Hawaii, totaling 245,100 workers and 48.8 percent of the total. Many of these workers are directly involved in the tourist industry. Government, federal, state and local, is the third largest employer, 95,700 workers, with 19.0 percent of the total. Agriculture wage and salary workers account for only about 3.9 percent of the work force. In response to increased mechanization, development of agricultural land to other uses and the growing volume of tourism, there has been a marked shift in employment over the last two decades from agriculture to other industries.

b. Economic Indicators

(1) Unemployment Rate

Hawaii's unemployment rate in recent years has typically been below the U.S. national average. While the national unemployment rate approximated 6.9 percent in 1986, Hawaii's unemployment rate was 4.9 percent for that year. Hawaii's unemployment rate in 1987 was 4.0 percent.

(2) Per Capita Income and Consumer Price Index

A summary of per capita income and the consumer price index for Honolulu since 1960 is shown on the Economic Indicators chart on the facing page. These figures for previous years are compared below.

	Per Capita Income[1]		Consumer Price Index	
Year	Total	% Increase	1967=100	% Increase
1981	$11,276	+8.0%	252.4	+10.5%
1982	$11,765	+4.3%	267.6	+ 6.0%
1983	$12,608	+7.2%	273.5	+ 2.2%
1984	$13,161	+4.4%	284.8	+ 4.1%
1985	$14,080	+7.0%	294.1	+ 3.3%
1986	$14,691	+4.3%	301.1	+ 2.4%
1987	$15,894[2]	+8.2%	311.9[3]	+ 3.6%
1988[4]	$16,453	+3.5%	325.0[4]	+ 4.2%

1/ Source: Hawaii State Department of Planning and Economic Development, Data Book 1987.
2/ 3rd Quarter, Bank of Hawaii.
3/ June 1987.
4/ Forecast by Bank of Hawaii.

The cost of living in Hawaii is generally higher than most places in the continental United States. A primary factor contributing to the high cost of living is the cost of housing. Land costs are relatively high in Hawaii. Another contributing factor is high warehousing costs. Most products are shipped to Hawaii, and although shipping costs are not high, the cost of warehousing is, thus contributing to the total cost to the consumer. A further contributing factor is the 4 percent State General Excise Tax on all goods and services. Due to the pyramiding effect of the tax, some economists believe that it adds another 8 percent or more to everything sold in Hawaii. As of January 1, 1987, the State imposed a 5 percent excise tax on all hotel and transient rental accommodations.

(3) Housing Inventory

Over the last 10 years, housing inventory in Hawaii has increased 20.0 percent to 378,519 units in 1987. The increase in 1987 over the 1986 figure was 2.2 percent. The national and world-wide recession, including high interest rates, created significant problems for new housing construction in the 1980 to 1983 time frame. Subsequently, interest rates have declined and construction of housing units has increased. Although there is strong desire among residents to own a home, many residents cannot afford to purchase and are forced into the rental market. The high cost of housing and the existing shortage are major problems in Hawaii with no major solutions proposed for the foreseeable future.

(4) Construction Completed

Construction activity increased markedly during the building boom of 1978 to 1981. During the 4-year period from 1977 to 1981 construction completed, measured in millions of dollars, increased 86.5 percent from $850 million (1977) to $1,585 million (1981). Construction completed declined and leveled off in 1982 ($1,324 million), 1983 ($1,334 million) and 1984 ($1,227 million) primarily due to high interest rates and the national recession. The 1985 figure of $1,430 million represents a 16.5 percent increase over 1984 and the increase from 1985 of $1,430 million to $1,810 million in 1986 is a healthy 26.6 percent increase. The total value of construction put-in-place for 1987 was $2.1 billion, an increase of 16.0 percent over 1986. Construction activity is highly sensitive to interest rates and general economic conditions. The lower interest rates in 1987 raised the construction industry to the position of Hawaii's second largest industry. Construction growth was primarily in the private sector. The 1988 projection shows a modest increase.

(5) Retail Sales

A summary of retail sales for the past five years is shown below.

Year	Retail Sales $ Millions	Retail Sales % Increase
1982	$6,875	+ 2.6%
1983	7,438	+ 8.2%
1984	8,542	+14.8%
1985	8,957	+ 4.9%
1986	9,485	+ 5.9%
1987 (thru Nov.)	9,619	-
1988 1/	10,800	-

1/ Forecast by Bank of Hawaii.

During the height of the recent economic recession in 1982 and 1983, retail sales in Hawaii showed only modest increases well below the increase in the consumer price index for those years. Consumer confidence has picked up along with recovery in the economy. The 1986 retail sales volume totaled $9,485 million, an increase of 5.9 percent over the previous year. The 1987 preliminary estimate reflects an increase over 1986. The 1988 projection for retail sales is $10,800 million.

c. Summary of Economic Factors

Hawaii's location has made it the Crossroads of the Pacific. The warm climate and tropical lifestyle make Hawaii a desirable place to live. Population has increased steadily over the last two decades and continued population growth is anticipated. The State economy suffered from the national and world-wide recession during the 1981 to 1983 time frame, but has recovered. The contribution of tourism to the State's economy is projected to continue to increase. Efforts toward the reduction of the federal deficit will continue to withdraw resources from Hawaii's military sector. While government expenditures could possibly decline, it will remain a reliable income source. Tourism is subject to many uncertainties and State planners hope to develop other industries to supplement tourism; however, no solutions have yet been found. The contribution of sugar and pineapple as an income source is projected to continue to decline over the long run. It is uncertain what, if any, agricultural crops will replace sugar and pineapple production.

As a whole, the Hawaiian economy did extremely well during 1987. Gross business receipts, according to First Hawaiian Bank, grew by 11.3 percent to $29.3 billion. Given a low inflation rate of less than 2 percent, real growth in business activity stood at 9.3 percent. Meanwhile, the unemployment rate fell to near 4± percent and the total number of jobs in the State saw a healthy 3.3 percent increase.

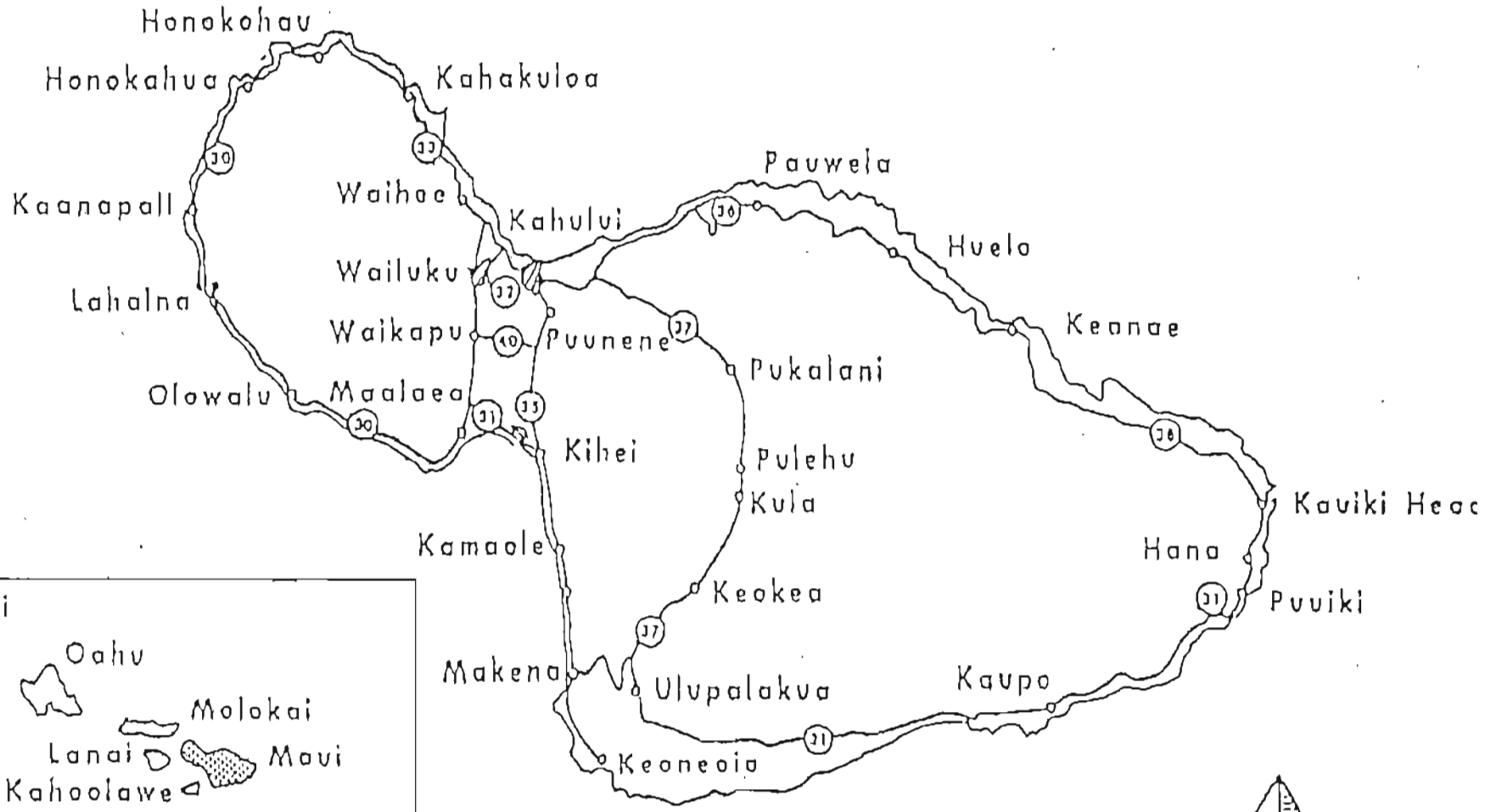
Hawaii's positive performance was mainly attributable to the visitor industry. However, conditions in the U.S., Japanese and Canadian economies will warrant a more cautious attitude toward Hawaii's growth prospects in 1988. The currently low value of the U.S. dollar has encouraged Japanese visitors. It is forecasted that Japanese visitors will increase by 7 to 10 percent, outpacing the mainland visitors which are projected to have a 0 to 3 percent increase.

Of particular note in 1986 and 1987 has been Japanese investment in Hawaiian real estate. Encouraged by the high value of the Japanese yen relative to the U.S. dollar, Japanese investors have purchased Hawaiian hotels, office buildings, golf courses and raw land. The Japanese have also been active in the residential market purchasing high priced luxury homes as well as condominium units. To date, most purchases have involved real estate on Oahu, although some outer island acquisitions have been made.---

In summary, Hawaii's economy is healthy. Prospects for positive growth in 1988 are good. The overall outlook is for positive, but moderate growth in the years ahead.

LOCATION MAP

Maui



Source: U.S.F.W.L.

B. Island of Maui

The Island of Maui is the second largest in the Hawaiian chain. It was formed by two large volcanoes, now dormant. The valley-like isthmus formed between the two mountain masses gives Maui its nickname, "The Valley Island." It has an area of 728 square miles, measuring 25 miles from north to south and 38 miles from east to west. Maui lies midway between the Islands of Oahu and Hawaii, approximately 20 to 30 minutes by plane from Honolulu to Kaanapali or Kahului Airport. Maui County is composed of three islands: Maui, Molokai and Lanai. Wailuku is Maui's county seat. Kahului, Maui's principal port city, is located three miles from Wailuku on the northern side of the isthmus.

As of July 1, 1986, the County of Maui had a resident population of about 87,545. The table below shows the changes in population in the neighbor islands since 1940, based on Census estimates. With the exception of the Island of Oahu, the State's outstanding growth area, all other islands experienced population declines each decade. However, beginning about 1960, the trend reversed and, with economic growth, especially in tourism, population has increased slowly but steadily on all neighbor islands. It is anticipated that this trend will continue on Maui.

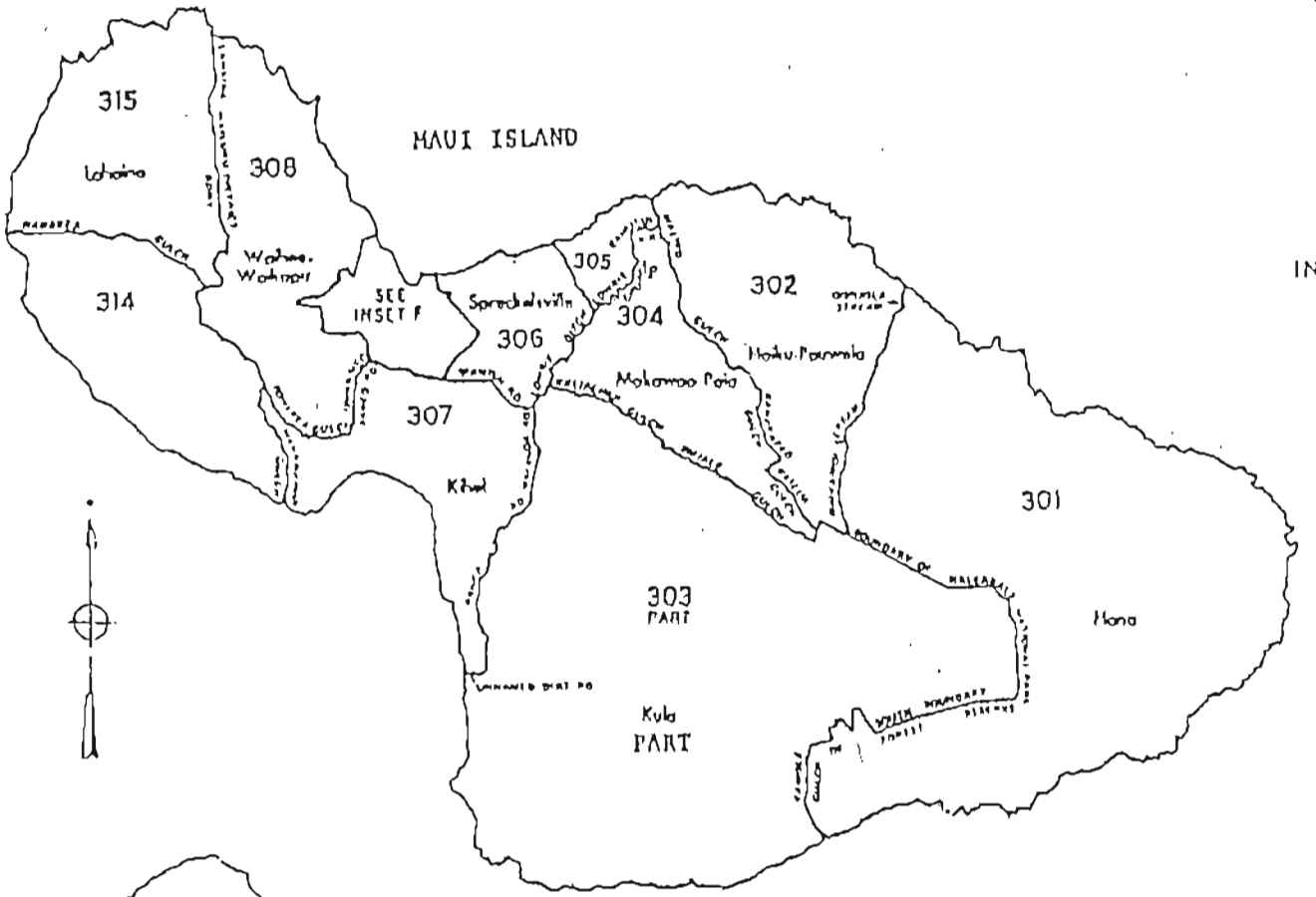
Resident Population, By Counties: 1940 to 1987
(Includes Military Personnel and Dependents)

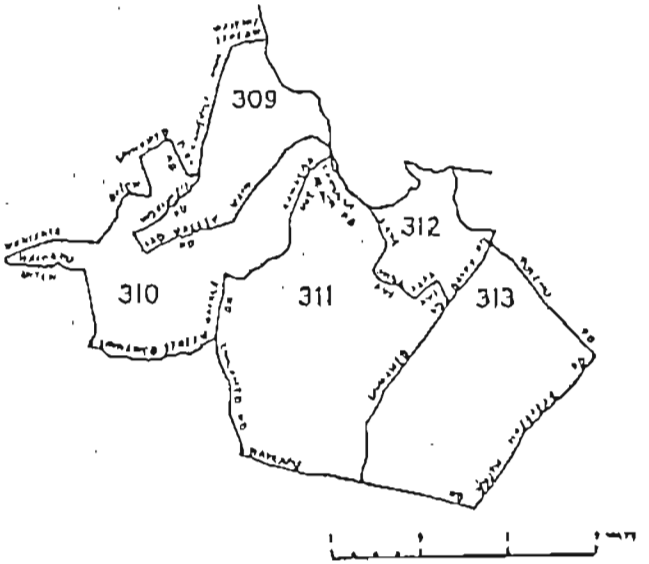
Year 1/	State Total	City & County of Honolulu	Hawaii County	Kauai County	Maui County 3/
1940 2/	397,843	243,268	68,595	33,528	52,452
1950 2/	477,917	328,495	69,447	30,609	49,366
1960 2/	582,337	452,105	60,204	27,690	42,338
1970	771,600	631,600	63,800	29,800	46,500
1975	886,200	718,600	77,400	33,400	56,800
1980	968,900	764,800	93,000	39,400	71,600
1981	980,200	768,500	96,900	40,600	74,100
1982	997,600	778,500	100,200	41,900	76,900
1983	1,018,600	792,700	102,900	43,100	79,900
1984	1,036,000	801,400	107,000	44,100	83,400
1985	1,051,500	811,100	109,500	45,400	85,500
1986	1,062,300	816,700	111,800	46,300	87,545
1987 4/ (Nov.)	1,078,000	N/A	N/A	N/A	N/A
1988 5/ (Nov.)	1,094,000	N/A	N/A	N/A	N/A

1/ July 1 unless otherwise specified.
2/ Civilian resident population.
3/ Includes Kalawao County (Kalaupapa Settlement).
4/ Projected population.
5/ Forecasted population.
N/A: Data not available

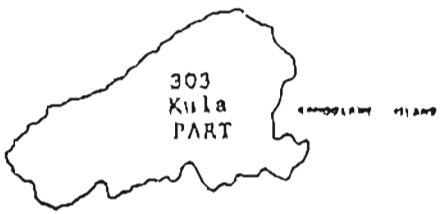
Source: Hawaii State Department of Planning and Economic Development, Preliminary Intercensal Population Estimates, 1940-1980, U.S. Bureau of the Census, 1980 Census; 1986 State of Hawaii Data Book; 1987 Bank of Hawaii, Annual Economic Report; County Trends in Hawaii, 1977-1987; and Statistical Report 205, November 23, 1987.

The most recent details for Maui County, by census tracts, are shown in the table on the following page.





INSET F - KAHULUI AND WAILUKU



INSET F_1 - MAUI COUNTY (PART)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
1970

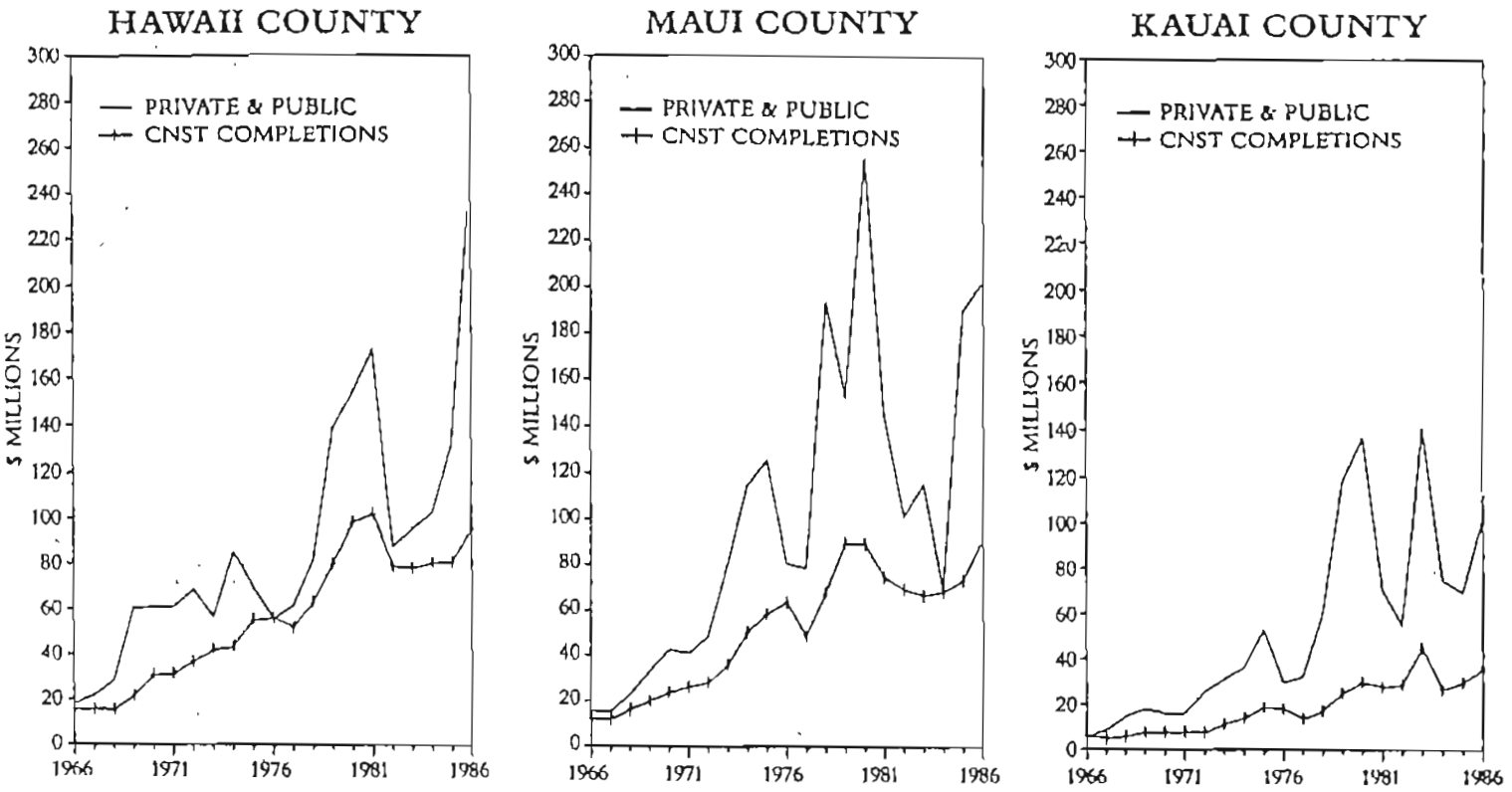
RESIDENT POPULATION OF MAUI COUNTY AND DISTRICTS BY CENSUS TRACTS: 1970 AND 1980 1/

County and District	April 1, 1980	April 1, 1970	% Change 1970 to 1980
Maui and Kalawao Counties	70,991	46,156	53.8
Census Tract No.			
Maui	62,823	38,691	62.4
301	1,423	969	46.9
302	3,567	2,067	72.6
303.01 (303 pt.)	3,850	2,124	139.0
303.02 (303 pt.)	1,227		
304.01 (304 pt.)	4,366	4,123	109.8
304.02 (304 pt.)	4,285		
305	1,710	1,665	2.7
306	220	781	-71.8
307 (Kihei - Subject Area)	6,020	1,636	268.0
307.99	15	-	-
308	1,584	1,299	21.9
309	6,542	4,537	44.2
310	4,132	4,547	-9.1
311	10,424	5,505	89.4
312	2,602	2,782	-6.5
313	572	1,132	-49.5
314	6,654	4,171	59.5
315 (Lahaina)	3,630	1,353	168.3
Lanai	2,119	2,204	-3.9
316	2,119	2,204	-3.9
Molokai	6,049	5,261	15.0
317	3,574	2,574	38.9
318	2,331	2,515	-7.3
319 (Kalawao County)	144	172	-16.3

1/ More recent census tract data was not available.

Source: 1986 State of Hawaii Data Book.

SUMMARY OF
PRIVATE CONSTRUCTION AUTHORIZATIONS ON NEIGHBOR ISLANDS



Source: Bank of Hawaii, Construction in Hawaii, 1987.

Maui County has reported a large volume of new residential construction since 1960. The increase in new condominium apartments, as well as single-family homes, was particularly strong during the 1970s. New construction declined in the early 1980s due to abnormally high interest rates, the withdrawal of investors from the resort condominium market, and other economic factors. Annual totals on private building authorized by permits are shown in the following table. It is noted that the volume of new single-family units showed a substantial increase in 1985 and following years over the previous 3 years. Although 1986 revealed a decrease in single-family from 1985, there was an increase of 10.7 percent in multi-family projects. The table facing this page graphically portrays construction on the Island of Maui, compared with construction on Hawaii and Kauai.

Private Residential Construction and Housing Changes for Maui: 1960 - 1987 (1st & 2nd Qtrs)

Year Authorized	New Single-Family Units	Units in New Duplex & Apt. Structures
1960	364	10
1961	281	20
1962	320	54
1963	333	196
1964	276	34
1965	338	264
1966	345	106
1967	372	164
1968	424	359
1969	401	873
1970	474	583
1971	669	749
1972	832	870
1973	845	1,491
1974	589	2,644
1975	795	2,208
1976	873	229
1977	1,081	504
1978	994	1,330
1979	1,010	1,098
1980	803	1,815
1981	398	1,001
1982	530	122
1983	547	24
1984	638	380
1985	984	457
1986	911	506
1987 (1st & 2nd Qtrs.) 1/	410	122

Source: Hawaii State Department of Planning & Economic Development Quarterly Statistical & Economic Report, 2nd & 3rd Qtrs. 1987 and Bank of Hawaii, Construction in Hawaii, 1987.

1/ Excludes Maui County building authorizations for June.

Pineapple and sugar cane growing and processing have been traditionally the major industries of Maui County. In recent times, however, the visitor industry has become, by far, the dominant industry. In the past decade Maui County's visitor growth rate has far surpassed that of any other county in the State. Visitors to the Island of Maui in 1980 totaled 1.380 million, a 208 percent increase over the 1970 figure. The visitor industry in Maui, as in the State, experienced a modest decline in visitor arrivals in 1980. The 1981 visitor count for Maui was also down by 2.6 percent from the 1980 total. From 1982 to 1984, visitors to Maui increased steadily as shown on the graph facing this page. In 1985 visitor expenditures for Maui totaled $1.134 billion with a visitor count of 1,831,110, reflecting a total increase of 32.7 percent over 1981 arrivals. The 1986 visitor count was 2,187,000 and the preliminary figures as of December 1987 show 1,906,440.

A summary of current visitor plant inventory is shown on the following page. As can be seen from that table, the Kihei/Wailea area is the second major resort destination area on the Island of Maui with almost 4,810 visitor units in existence and about 1,050 hotel units as well as further condominium units planned for the near future. Hotel occupancy rates during 1986 for West Maui averaged 85.8 percent and 86.3 percent for the first quarter of 1987, reflecting the highest occupancy levels for neighbor island hotels. The preliminary Maui average figures for January thru November 1987 are 77.5 percent, reflecting a decrease of 5.4 percent in comparison to the same period in 1986. The Kihei area features many resort oriented condominium apartments as well as small hotels. These have been developed over the past 20 years along the west coast of Maui. However, these Kihei apartments and small hotels are not comparable to the master-planned resort areas of Wailea, Kaanapali and Kapalua. These resort areas are briefly summarized as follows.

The Kaanapali resort area, located in the Lahaina District of Maui (northwest of Kihei), is the oldest and most developed neighbor island resort area in the State of Hawaii. This resort, primarily developed by Amfac, Inc. during the 1960s, now has six major hotels with a total of 3,530 guest rooms. It offers two excellent 18-hole golf courses and several condominium apartment buildings. The 815-room Hyatt Regency Hotel and the 720-room Marriott Hotel were the latest additions. About a year ago, the small aircraft landing facility at Kaanapali was closed. Amfac, Inc. sold an interest in a 94-acre oceanfront resort site (which included the former landing strip) to Tobishima Pacific, Inc., a Japanese development firm, for purposes of resort development. About 2,500 hotel and condominium units are planned for construction over the next few years on this resort land, subject to obtaining approvals.

Maui Land and Pineapple Company, owners of large land areas in the northern portion of the island, is developing Kapalua Resort, a major masterplanned resort project adjacent to Napili Bay. An 18-hole golf course opened in October 1975. Completed resort condominiums include the Ironwoods, with 40 apartment units, the Ridge, containing 161 apartment units, as well as the Bay Villas, a 141-unit luxury condominium, and the Golf Villas, another luxury condominium project. The 196-room Kapalua Bay Hotel is in operation. Plans for Kapalua include a second hotel, a substantial number of condominium units and other residential developments.

WEST MAUI - MAJOR PLANNED PROJECTS

Project Name	Type	Planned Units	Est. Year	Comments
Wailea Area				
Grand Champions Resort	H	290	1989	Early agreement stage
Grand Hyatt Hotel	H	700	1991	-
Four Seasons Hotel	H	350	1989	-
Embassy Suites Hotel	H	426	1990	Early agreement stage
Makena Surf	C	184	-	86 units completed.
Diamond Resort of Hawaii	C	84	-	
Wailea Palms (aka Alanui Village)	C	150	1989	Presale stage
Grand Champion Villas	C	188	-	
Wailea Point II & III	C	109	1988	Close to completion
Wailea Resort Area		3,000	-	Tentative
MF-18	C	72	1989	Early development stage
Kihei Area				
Maui Sun Hotel	H	120	1988	Early agreement stage
Comfort Suites	H	324	1989	Building permit filed 2/88
Maui Isana	C	50	1989	Currently under construction
Princess Iolani Resort	H/C	274	-	Tentative
Pacific Shores	C	136	1988	Building permit filed 2/88
Kihei Village	C	532	1990	Six phase building beginning 2/88
Maui Kamaole	C	316	1989	Presale stage
Baldwin Pacific Corp.	C	338	-	Early agreement stage

H = Hotel
C = Condominium

Visitor Plant Inventory - Island of Maui[1/]
As of February 1987

Location	Existing Properties	Existing Units	Planned Addn'l Hotel Units	Completion Dates for Planned Additional Units 1987	1988	Future	Planned Condo. Apts.
Wailuku-Kahului	4	450	-	-	-	-	-
Lahaina-Napili-Kaanapali	64	7,929	3,231	766	690	2,050	600
Hana	3	57	37	37	-	-	-
Kula-Makawao-Paia	3	18	-	-	-	-	-
Kihei-Maalaea Wailea	67	4,810	1,050	-	-	1,050	3,390
Maui Total	141	13,264	4,318	803	690	3,100	3,990

It is noted that of the 13,264 visitor units in existence, 7,673 units or about 57.8 percent represent condominium units. The number of condominium units reported involve those which are in rental pools and available for short-term rental to tourists. There was a small decrease in the total number of available short-term rental units on Maui. The February 1987 inventory found 13,264 units compared to 13,451 as of February 1986, reflecting a 1.4 percent decrease. Most of the decrease was attributable to the fact that fewer condominium units were available on the short-term rental market. Most of the future increases in Maui's visitor accommodations will occur in the Wailea and Kaanapali areas. As of February 1987, there were 4,318 hotel units and 3,990 condominium units planned for construction. Major Kihei and Wailea planned projects for the near future are summarized on the facing table. The rental of condominium apartments to visitors is an accepted fact on all islands except Lanai. Comparative data for the Island of Maui and the other islands in the State of Hawaii is shown in the following table.

Existing Visitor Units, by Property and Type[1/]
As of February 1987

Island	Number of Properties	Number of Total Units	Number of Condo Properties	Number of Condo Units	Condo Units as Percent of Total Units
Oahu	203	38,185	98	9,236	24.19%
Hawaii	81	7,328	51	2,102	28.68%
Maui	141	13,264	112	7,673	57.85%
Kauai	77	5,956	48	2,631	44.17%
Molokai	7	575	5	254	44.17%
Lanai	1	10	-	-	-
Total	510	65,318	314	21,896	33.52%

1/ HVB Report, February 1987.

TABLE 23. - PERCENTAGE OF OCCUPANCY IN NEIGHBOR ISLAND HOTELS, 1986

	HAWAII			MAUI			KAUAI			
Month & Year	Kailua-Kona	Hilo	Hawaii Average	West Maui	Other Maui	Maui Average	South Kauai	East Kauai	Kauai Average	All Neighbor Island Average
JANUARY	71.3	56.4	68.3	84.7	78.8	83.1	93.4	78.4	84.0	78.7
FEBRUARY	86.2	63.9	81.8	92.8	91.2	92.3	91.6	91.1	91.0	88.9
MARCH	72.6	54.7	69.0	92.0	86.4	90.5	91.7	76.3	81.2	82.1
APRIL	61.9	56.3	60.7	92.5	83.3	90.2	85.1	72.4	70.6	78.4
MAY	67.4	48.5	65.6	86.9	74.4	83.5	90.2	74.4	80.1	74.4
JUNE	61.5	50.9	61.4	81.0	68.2	77.9	68.7	65.9	66.8	67.7
JULY	63.2	52.8	63.1	86.4	73.1	82.9	69.2	76.9	74.5	71.9
AUGUST	68.7	59.4	66.9	91.1	71.0	84.7	82.1	83.6	83.1	79.2
SEPTEMBER	61.7	62.3	62.7	80.0	65.7	72.8	74.1	70.1	71.4	67.2
OCTOBER	66.7	65.3	65.6	85.8	66.7	80.3	82.6	77.5	79.2	76.2
NOVEMBER	63.7	71.0	64.4	85.9	71.2	81.8	81.2	74.0	76.4	75.8
DECEMBER	57.7	57.9	57.7	69.6	61.0	67.2	61.0	59.0	59.7	62.7
YEAR	64.6	64.6	62.9	85.8	70.9	81.5	82.1	75.4	77.6	75.3

Source: Pannell Kerr Forster and Hawaii Visitors Bureau, 1986 Annual Research Report.

Wailea is a major resort destination area presently under development and located along the west coast of Maui, south of Kihei. Wailea was originally a joint venture of Alexander & Baldwin, one of Hawaii's "Big Five" diversified corporate giants, and the Northwestern Mutual Life Insurance Company of Milwaukee. Alexander & Baldwin purchased Northwestern's interest in 1984. The master plan for Wailea covers 1,450 acres. The project has been under active development for about 15 years. A 558-room Maui Inter-Continental Wailea Hotel opened in early 1976. The 350-room Stouffer Wailea Beach Hotel was completed in 1978. In addition, near 600 residential condominium units have been completed. The resort area also includes two completed 18-hole golf courses, a tennis club with 11 courts and numerous other facilities and amenities. Four hotels, a fourth single-family subdivision and more condominium units are planned for the near future at Wailea. Wailea Development Company, Inc. sold about 16 acres to Grand Champions Resort Development Corporation to develop a tennis-oriented condominium complex around the Wailea Tennis Club. Kumagai Gumi Company, in conjunction with TSA International, Ltd., is expected to develop a 50-acre parcel fronting Wailea Beach with a 700±-room Grand Hyatt Hotel. TSA International and Shimizu Construction Company, a major Japanese contractor, purchased 14 acres at the southern end of Wailea, to build a 350±-unit luxury hotel, to be operated by Four Seasons.

Robert F. Wooley of Dallas, Texas, proposes construction of a 426-suite Embassy Suites Hotel on a 20.9-acre beachfront property. Wailea Point, a 130-unit condominium project, is now under construction on nearly 30 acres of land between Wailea and Polo Beach. These luxury villas are priced within the range of $435,000 to $1.65 million. We understand that the project is almost sold out. A 102-lot single-family project, Wailea Kialoa, located at the entrance to this resort community, entered the market with average lots of 10,400 square feet in size, priced in the range of $80,000 to $182,000. Most home sites offer ocean views.

South of Polo Beach, Seibu has completed the 300-room luxury Prince Hotel which opened for business in October 1986. This company also developed an 18-hole championship golf course. There are plans for a 500-room addition at a future date.

Lahaina Town is located about 20 miles from Wailuku and the Kahului Airport. The town is a major tourist attraction and serves as a commercial center for the resort development which occurred in the area. Approximately 4,430 condominium units located in the area between Lahaina and Napili Bay are rented to short-term visitors. Beachfront sites in this area are now mostly developed.

In summary, Maui has experienced dynamic growth within the decade, 1970-1980. Agriculture, and in particular pineapple and sugar cane, has become less important to the island's economy when compared to the increasing importance of tourism. Since 1981, visitor arrivals to Maui County increased rapidly. It is anticipated that promotional efforts by the State and private industry will result in retaining and further increasing the number of visitors which Maui enjoyed in the past. Maui's economic future will depend, to a great extent, on tourism and management of growth on the island. The outlook is for continued, though perhaps more moderate, growth in the years ahead.

Other selected economic indicators for Maui County are show in the following table.

Selected Economic Indicators
Maui County: 1959-1987 (1st Quarter)

Year	Employment[1]	Resident Population[2]	Construction Completed	Retail Trade	Bank Debits	Diversified Agriculture	Sugar Production	Hotel Room Inventory	Hotel Occupancy Rate[3]	Housing Inventory
			($ Millions)	($ Millions)	($ Millions)	($ Millions)	(Tons)	(Number)		(Number)
1959	15,830	43,100	2.9	38.8	NA	4.6	214,205	291	NOT AVAILABLE	12,541
1960	16,190	42,400	4.9	42.9	188.9	5.1	215,248	381		12,597
1961	16,310	42,500	6.0	42.1	204.1	5.6	255,235	381		12,687
1962	16,090	42,300	7.1	45.5	222.3	5.7	249,797	414		12,768
1963	16,440	43,400	7.2	46.3	245.2	5.6	242,812	864		12,869
1964	17,120	43,500	8.2	50.8	290.7	6.1	264,896	1,231		12,991
1965	17,870	44,500	10.6	53.6	331.8	5.9	278,570	1,497		13,079
1966	18,310	44,200	12.0	58.1	367.6	6.8	303,207	1,714		13,216
1967	18,780	44,600	11.8	61.9	383.9	7.0	280,697	2,043		13,331
1968	19,350	44,500	16.1	66.3	437.8	7.5	288,128	2,415		13,456
1969	20,070	46,400	19.9	76.7	536.3	8.1	268,855	2,743		13,646
1970	19,250	46,500	23.7	87.2	688.6	7.2	279,729	3,695	66.7	14,039
1971	19,650	49,100	26.3	100.9	752.4	8.4	291,675	4,095	66.9	15,289
1972	21,400	51,500	28.4	117.3	781.7	8.9	278,084	4,075	70.6	16,594
1973	22,450	53,400	36.0	127.9	909.8	10.1	268,238	5,208	76.5	18,102
1974	23,350	53,800	50.2	149.5	1,072.2	13.5	259,606	5,830	74.6	19,906
1975	25,050	56,800	58.4	168.6	1,243.3	14.0	260,670	7,232	72.3	22,432
1976	27,250	60,300	63.8	205.1	1,426.0	16.2	262,649	8,037	81.0	25,605
1977	29,800	63,000	48.5E	228.0E	1,736.3	17.5	265,193	8,736	84.0	27,532
1978	30,900	66,200	68.1	277.0	2,246.3	19.5	245,342	9,472	85.1	28,990
1979	32,100	69,700	90.0	364.7	2,786.7	22.3	252,816	9,701	77.0	30,903
1980	35,650	71,600	89.7	390.6	3,077.3	22.1	266,251	11,359	74.2	33,154
1981	37,450	74,100	74.7	440.8	2,954.6	24.8	254,374	12,162	70.3	35,410
1982	39,550	77,000	69.5	467.3	3,111.7	25.5	234,648	12,749	73.9	37,194
1983	41,450	80,000	66.9	526.3	2,996.7	29.7	287,146	13,138	75.2	38,201
1984	42,250	83,500	68.6	618.7	3,319.7	30.5	299,828	13,592	80.5	38,904
1985	44,050	85,300	73.5	696.1	3,681.5	31.5	289,521	14,096	78.18	39,510
1986	45,750	87,545	92.6	748.4	4,336.0	31.2	302,839	13,849	81.54	40,768
1987 (1st Qtr.)	46,600 1/	N/A	17.4 2/	N/A	1,217.7	N/A	N/A	N/A	82.8	N/A

[1] "Job" basis through 1969; "Person" basis 1970 forward. [2] Including military personnel and their dependents. County totals do not add to state totals due to revision of statewide data. [3] Purnell Kerr, Former.

Source: Bank of Hawaii, Hawaii 1987 Annual Economic Report and First Hawaiian Bank, Short Term Data Book.

N/A: Data not available.

1/ Average for first two months of 1987.
2/ Total for first two months of 1987.

C. Kihei and Vicinity

Kihei and vicinity are expected to experience sizable economic growth thru 2000, led by expansion in the tourism industry. The following table shows population and economic projections for Kihei and vicinity.

POPULATION AND ECONOMIC PROJECTIONS - KIHEI AND VICINITY

Description	1980	2000	% Change 1980-2000
Population	7,262	22,900	215
Employment	5,600	12,300	119
Housing Demand			
Total	4,200	10,300	145
Single-family	2,000	5,200	160
Multi-family	2,200	5,100	132
Transient Demand			
Total	3,300	9,800	148
Hotel units	1,400	3,800	171
Multi-family units	1,900	6,000	216
Household Income	$25,200	$30,800	22
Retail Demand			
Total, sq. ft.	365,000	1,036,000	183
Resident space demand, sq. ft.	212,000	629,000	197
Visitor space demand, sq. ft.	153,000	407,000	166
Office Demand, Sq. Ft.	141,000	367,000	160
Industrial Demand, Acres	30	100	230

Source: Kihei-Makena Technical Report, November 1981.

Population is projected to increase at an annual compound rate of 5.9 percent and demand for retail space is projected to increase at an annual compound rate of 5.5 percent per annum. Total demand for housing is projected to increase at an annual compound rate of 4.6 percent.

The number of westbound visitors staying overnight or longer on the Island of Maui increased from 913,800 in 1975 to 2,187,000 in 1986, an increase of 139.3 percent. The 1987 estimate of 1,906,440 westbound visitors represents a market area capture rate of 53 percent. For 1986, the Hawaii Visitors Bureau reports a total of 2,187,000 visitors to Maui, an increase of 16.3 percent over the 1985 total. The preliminary figures as of December 1987 show 1,906,440, or 12.8 percent below 1986. The Kihei-Makena market area contains a total of 4,810 visitor units, or 36 percent of the island total. Additional hotel and condominium units known to be planned for the Kihei area is shown on a previous summary table.

COWELL & CO., INC.
Real Estate Consultants
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Honolulu, Hawaii 96813

Cowell & Co., Inc. is a professional organization providing informed and objective real estate consulting services to clients requiring responsible, comprehensive and creative guidance to enable informed decisions and viable solutions to difficult real estate and management problems. The company was founded in 1975 and is one of the largest consulting land economist firms in the state, as well as the Pacific Basin area, specializing in the analysis of matters pertaining to real estate investment and development, economic planning, land utilization, and urban economics in general. Our clients include governmental agencies, large and small corporations and individual investors.

Professional fees are based upon the type of work, the complexity of the assignment, the time and expense involved, the degree of responsibility assumed, and the personnel involved.

PROFESSIONAL SERVICES

The company has developed a wide range of specialized capabilities for analyzing real estate investments and economic problems. This range of expertise is covered briefly as follows:

Real Estate Consulting - Counseling regarding all types of real property.

Appraisals - Valuation estimates of all types of real property.

Retail Studies - Shopping center, supermarket and other retail feasibility studies, site selection, and market forecasts of sales potential at specific locations.

Office Space and Financial Studies - Feasibility studies of new office buildings, and site selection studies for financial institutions.

Housing Market Studies - Feasibility and absorption studies of private housing developments, including single-family residential subdivision, condominium projects, apartments and planned unit developments.

Tourism Studies - Market studies, financial feasibility and valuation of resort-oriented projects including proposed and existing resort and transient hotels, land use recommendation studies, recreational amenities, transportation studies and other tourist facilities.

Industrial Studies - Plant site selection analyses, demand and location studies.

Urban Renewal Studies - Reuse, marketability and feasibility analyses for local and foreign governments.

Highest-and-Best Studies - Counseling corporations and individuals on the best use of their real estate property assets and analyzing proposed or potential land acquisitions for development and investment purposes.

Property Assessment Studies - Counseling various governments and governmental agencies on real property assessment methodologies and valuation techniques.

SELECTED STUDIES CONDUCTED BY MEMBERS OF
COWELL & CO., INC. FOR MAJOR DEVELOPMENTS

1. Market study and counseling for Nandi Island Properties involving the research and analyses necessary to counsel the owners of an island in the Fiji group contemplating development of a destination resort. The study included financial projections of hotel operations, a market study conducted in Australia concerning condominium apartments and an economic feasibility study for a resort shopping center; conclusions as to the extent of demand for various land uses, land values which could be generated under alternative uses, recommendations as to land use, land density, development and financing methods.

2. Market study and counseling for a proposed resort development covering 3,200 acres fronting the ocean on the Island of Hawaii for Mauna Loa Land, Inc., a subsidiary of Tokyu Corporation. The study included analysis of absorption rates for hotel, condominium and housing development, recommendations regarding marketing strategies, investigations and recommendations regarding employee housing, and land valuation analyses regarding probable values which could be generated under various classifications of land use.

3. Counseling and valuation studies for the development of Hemmeter Center, a 1,260-room hotel and convention center in Waikiki, Hawaii.

4. Counseling and valuation studies regarding Boise Cascade Corporation's resort and community development covering 30,000 acres fronting the ocean on the Island of Hawaii. The studies included absorption rates regarding land development, land value analyses, and recommendations regarding land use and land densities.

5. Counseling and valuation studies covering the Princeville resort project on the Island of Kauai. The studies included land valuation analyses covering 11,000 acres including hotel sites, condominium sites, residential and conservation lands.

6. Market study and counseling regarding single-family and multi-family designated lands at C. Brewer & Company, Ltd.'s resort development on the Island of Hawaii. The study, which included land valuation analyses, was prepared for Nissho-Iwai American Corporation based in New York, New York.

7. A study for the Government of American Samoa regarding retailing potentials on the Island of Tutuila completed in conjunction with Touche Ross & Company. The study included a thorough evaluation of existing retailing facilities and practices in American Samoa and our findings and recommendations regarding the economic feasibility of a shopping center development in Pago Pago.

8. A commercial development study of the demand for retail facilities in Mililani Town, a planned community located in central Oahu. This project, a development of Oceanic Properties, a subsidiary of Castle & Cooke, Inc., is one of the island's fastest growing residential communities. The study involved a survey and analysis of economic data, population projections, earning and spending characteristics to enable determination of retail business potentials, recommendations for type and size of tenants for several proposed shopping centers.

9. Market and economic study for the Goverment of the Republic of China involving research and analysis to determine the planning parameters, market demand and financial feasibility for the redevelopment of the Yim Pien area, a 65-acre area in the central City of Taipei, Island of Taiwan. This study was in conjunction with the comprehensive master plan prepared by William L. Pereira Associates.

Representative Client List:

Dillingham Corporation
Amfac, Inc.
Lewers & Cooke, Inc.
C. Brewer & Company
Kaiser-Aetna
Alexander & Baldwin, Inc.
Bishop Trust Company, Ltd.
Bishop Corporation
Bishop Estate
James Campbell Estate
Castle & Cooke, Inc.
Liliuokalani Trust
McCandless Heirs
China Tourism Development Corp.
Hawaiian Telephone Company
Hawaiian Electric Company
State of Hawaii
Government of Guam
Trust Territory of the Pacific
U.S. Navy
Federal Home Loan Bank
Honolulu Redevelopment Agency
Island Federal Savings & Loan Assn.
American Savings & Loan Assn.
City Bank of Honolulu
Union Bank (Los Angeles)
First National City Bank (New York)
Chase Manhattan Bank (Guam)
TraveLodge Corporation
Christopher B. Hemmeter
Peat, Marwick, Mitchell & Company
Herbert K. Horita
Calvo Finance Corporation
UAL, Inc.
Bank of Hawaii
First Hawaiian Bank
Cal-Fed Savings & Loan
Heitman Mortgage Company
Honolulu Mortgage Company, Ltd.
Teachers Insurance & Annuity Association of America
Continental Oil Company
Standard Oil Company
Union Oil Company
Lanai Company
Orchid Island Resorts Corporation
Franchise Realty Interstate Corp.
Hasegawa Komuten (U.S.A.), Inc.
Mauna Loa Land, Inc. (Tokyu Corporation)
David Rockefeller
Capital Investment of Hawaii, Inc.
Eagle County Development Corp. (Princeville)
Haas & Haynie Construction Company
Boise Cascade
Berkshire Industries (New York)
Holiday Mart, Inc.
Star Super Markets
Valley of the Temples Corporation
Pacific Leisure Enterprises, Inc.
American International Travel Service (A.I.T.S.)
Hilton-Burns Hotels Company, Inc.
Alfred A. Yee & Associates, Inc.
Onuma and Wood Associates
Nissho Iwai Corporation
Blackfield Hawaii Corporation

QUALIFICATIONS OF
IRMGARD G. PATTERSON, M.A.I.

Chief Appraiser, Cowell & Co., Inc., Real Estate and Management Consultants, 311 Hawaii Building, 745 Fort Street, Honolulu, Hawaii

PROFESSIONAL AFFILIATIONS

Member, American Institute of Real Estate Appraisers (M.A.I.), Certificate No. 4947, Honolulu Chapter No. 15 (Past President of Honolulu Chapter)

Member, American Right-of-Way Association, Hawaii Chapter No. 30

Member, American Arbitration Association, Honolulu Office

Affiliate Member, Honolulu Board of Realtors

Licensed Real Estate Salesperson, State of Hawaii

EDUCATION

Private schools in Germany

Various appraisal courses sponsored by the American Institute of Real Estate Appraisers, including Principles of Appraisal; Urban Properties; Condemnation; Mortgage Equity Capitalization and Residential.

PROFESSIONAL EXPERIENCE

Engaged in real estate valuation since 1959; former staff appraiser - John Child & Company, Real Estate Appraisal and Market Research, Honolulu, Hawaii.

Affiliated with Don R. Cowell & Associates, Urban Land Economists, 1964 through 1975. Served as staff appraiser, senior appraiser and assistant chief appraiser.

Experience includes valuation of various types of real property and property interests; counseling regarding economic feasibility, highest-and-best use studies, development and redevelopment of income properties, shopping centers, hotels and office buildings. Assignments include undeveloped and developed acreage, resort hotels, commercial and residential condominium projects, industrial properties, etc., and the valuation of property easements and rights-of-way.

In addition to appraisal and consultation work, special assignments include land use and marketability studies and economic analyses in conjunction with professional architectural and planning firms for masterplanned communities and public improvements.

Served as arbitrator on various arbitration panels in the State of Hawaii in matters related to land value or lease rent arbitration.

Geographic areas served include Hawaii, Utah, Territory of Guam, Islands of Fiji, Taiwan, Trust Territory of the Pacific, including the Islands of Saipan, Yap, Ulithi, Palau and Majuro.

Qualified as an expert witness on property values in the Courts of the State of Hawaii and the Trust Territory of the Pacific.