JAMES "KIMO" APANA
Mayor

JOHN E. MIN
Director

CLAYTON I. YOSHIDA
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

December 9, 1999

'99 DEC 13 A11 :59

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

RE: Final Environmental Assessment (EA) - Finding of No Significant Impact (FONSI) for Kapua Village Subdivision, Tax Map Key: 4-3-09:52, Mahinahina, Island of Maui, Hawaii

The Maui Planning Commission (MPC) has reviewed the Draft Final Environmental Assessment (EA) and has determined that this project will not have significant environmental effects and has issued a Finding of No Significant Impact (FONSI). The Draft Final EA dated February 1999, was submitted to the MPC for the EA determination and action at its November 23, 1999, meeting. Based upon comments received at the MPC meeting, the Final EA dated December 1999 includes photographs illustrating the visual impact analysis. Please publish this notice in the December 23, 1999 Office of Environmental Quality Control (OEQC) Environmental Bulletin.

The Department has enclosed a completed OEQC Publication Form and four (4) copies of the Final EA. The Project Summary and the OEQC Publication Form have been transmitted to you via E-Mail by Chris Hart and Partners.

Please call Ms. Julie M. Higa, Staff Planner, of this office at 270-7814 if you have any questions.

Very truly yours,

CLAYTON I. YOSHIDA
Deputy Planning Director

CIY:JMH:osy
Enclosures
c: Clayton I. Yoshida, AICP, Deputy Planning Director
Rory Frampton, Chris Hart and Partners
Kelly Cairns, Deputy Corporation Counsel
Tom Pierce, Esq., Paul, Johnson, Park and Niles
Julie Higa, Staff Planner
Project File
General File
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DEC 23 1999

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FINAL ENVIRONMENTAL ASSESSMENT

'99 DEC -8 P3:53

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

Kapua Village

Special Management Area Use Permit
for
Maui Land & Pineapple Company, Inc.'s
Employee Housing Subdivision
Mahinahina, Maui, Hawaii
TMK: (2) 4-3-09:52

CHRIS HART & PARTNERS

Applicant:
Maui Land & Pineapple Company, Inc.
P.O Box 187
Kahului, Maui, Hawaii 96732-0187

Plannig Consultant:
Chris Hart & Partners
Landscape Architecture & Planning
1955 Main Street, Suite 200
Wailuku, Maui, Hawaii 96793

DECEMBER, 1999

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DECEMBER, 1999

PREFACE

This Environmental Assessment (EA) has been prepared in support of an application for a Special Management Area Use Permit for the proposed Maui Land & Pineapple Company, Inc. "Kapua Village" Employee Subdivision. This assessment was prepared in accordance with the following rules and regulations:

1) Chapter 343, Hawaii Revised Statutes, and the Environmental Impact Statement Rules, Chapter 200, Department of Health, Hawaii Administrative Rules; and
2) Chapter 205A, Hawaii Revised Statutes, and the Special Management Area Rules for the Maui Planning Commission, Chapter 202, Subtitle 02, Title MC-12.

This Final EA, dated December 1999, is substantially the same as the original Final EA dated February, 1999. In accordance with the approval action taken by the Maui Planning Commission, Exhibits 11-14 were added to the document and revisions were made to the text in sections III.A.8, IV.E and IV.F regarding ocean views from Honoapiilani Highway.

TABLE OF CONTENTS

I. OVERVIEW OF THE PROPOSED REQUEST

Location:	Mahinahina, Maui, Hawaii
Tax Map Key:	(2) 4-3-09: 52
Land Area:	10.970 Acres
Landowner/Applicant:	Maui Land & Pineapple Company, Inc. P.O. Box 187 Kahului, Hawaii 96732
Planning Consultant/ Agent:	Chris Hart & Partners Landscape Architecture and Planning 1955 Main Street, Suite 200 Wailuku, Hawaii 96793
Accepting Agency:	Maui County Planning Department

Land Use Designations:

State Land Use District:	"Urban"
West Maui Community Plan:	"Single Family"
County Zoning:	"R-1 Residential"
Other:	"Special Management Area"

Other Required Approvals:	Subdivision, County of Maui NPDES, State Dept. of Health

Summary Proposed Request:

The applicant, Maui Land & Pineapple Company, Inc. (ML&P) is seeking a Special Management Area Use Permit in order to design and construct a 45-lot employee subdivision located in Mahinahina, Maui, Hawaii. The subject property is approximately 10.970 acres and is designated "Single-Family" by the West Maui Community Plan. The 45 residential lots will have a minimum lot size of 6,000 square feet in accordance with R-1 Residential District Zoning Standards. The

applicant also proposes related infrastructure improvements, including internal roadways and underground utilities. Infrastructure improvements will include connecting to existing utilities within the Lower Honoapiilani Road right of way which is owned by the County of Maui. The proposed improvements within the public right of way will not expand the capacity of existing structures and facilities, and thus would normally be considered an exempt class of action which would not require the preparation of an Environmental Assessment. However, in this instance the Applicant wishes to allow for additional public disclosure and review through the processing of this Environmental Assessment.

II. DESCRIPTION OF THE PROPERTY AND PROPOSED ACTION

A. Property Location

The subject property is located on the mauka side of Lower Honoapiilani Road, Mahinahina, Lahaina, Island of Maui and is identified as Tax Map Key 4-3-09: 52. See Exhibit - 1. The subject property is bounded by Lower Honoapiilani Road on the west and Honoapiilani Highway on the east and is situated midway between Akahele Street and Hoohui Road. See Exhibit - 2.

B. Property Description

The project site, having an approximate area of 10.970 acres, is currently vacant and covered with various grass, weeds, and trees. The project site was formerly used for pineapple cultivation up until 16 years ago. The property generally slopes from a high point along its eastern (mauka) edge to the low points along the western (makai) edge. The Pohakukaanapali Gulch, which runs in a mauka-makai direction, passes under the highway via a 120-inch CMP culvert and traverses through the southern portion of the property. Also, an existing County sewer pump station, surrounded by a chainlink fence, is located near the southwestern corner of the property along Lower Honoapiilani Road.

C. Background Information

The purpose of ML&P's employee housing program is to provide ML&P employees the opportunity to purchase a residential lot at an affordable price. As part of ML&P's program for West Maui employees, Honokeana Phase I and Phase II residential employee subdivisions were proposed in Napilihau. Honokeana Phase I, which included 38 lots, was completed in 1990 and the residential lots were subsequently sold to ML&P employees. However, development plans for Phase II were abandoned as a result of the West Maui Community Plan Update process when the parcel's designation on the West Maui Community Plan Land Use Map was amended from "Single-Family" to "Park". As part of the Community Plan Update process the Council had undertaken a comprehensive examination of long range park needs throughout West Maui and determined that the Honokeana Phase II site best met the need for an active park for residents in the Napili area. In addition, the land located

across from "S-Turns" (the subject property) was redesignated on the West Maui Community Plan Land Use Map from "Park" to "Single-Family" since it was determined that this parcel was not suitable for Park development by the County of Maui. In conjunction with this action a 50 acre Regional Park site was designated on ML&P land immediately mauka of the subject property, across Honoapiilani Highway, at a site which was considered more suitable to meet the regional needs of the West Maui Community. As a result, ML&P is pursuing their employee housing program at the subject parcel instead of the originally planned Honokeana Phase II site. (See Exhibit No. 9 which illustrates the Community Plan Land Use Map for the area.)

In order to establish consistency with the Community Plan Land Use Map, the subject parcel's land use designations were recently amended to the State Urban District and County Residential zoning (Ordinance Nos. 2702 & 2703, effective October 6, 1998.)

D. Existing Land Use Designations

- West Maui Community Plan: "Single Family"
- State Land Use District: "Urban"
- Maui County Zoning: "R-1 Residential"
- Other: "Special Management Area"

E. Proposed Action

The applicant is requesting a Special Management Area Use Permit in order to design and construct a 45-lot Single-Family Employee Housing Subdivision (herein after referred to as "Kapua Village") along with related infrastructure improvements located in Mahinahina, Maui, Hawaii. The proposed subdivision has a minimum lot size of 6,000 square feet and an overall average lot size of approximately 7,100 square feet. Internal roadways were designed to minimize grading and utilize the existing topography to the fullest extent possible. See Exhibit Nos. 3 & 4. Access to Kapua Village will be via an entrance located along Lower Honoapiilani Road, situated midway between Akahele Street and Hoohui Road.

Improvements to be constructed within the proposed internal 44-foot right-of-way meet the requirements of Title 18, MCC and include a 24-foot A.C. road,

curbs, gutters, and sidewalks, street tree plantings and underground utilities. A 10-foot wide landscape planting/buffer easement will be located along the property's northern and eastern edges while the natural drainageway along the southern edge will be left in a natural state. Also, a drainage basin is proposed for the northwest corner of the subdivision to catch/store runoff from the subdivision. Ultimately, each lot will include a residential dwelling and will be designed in accordance with the County's "R-1 Residential" standards.

The project will entail utility and infrastructure connections within the County owned Lower Honoapiilani Road right of way.

The objective of the proposed action is to provide the employees of ML&P an opportunity to purchase an affordable lot within a relatively small scale residential neighborhood.

F. Alternatives Considered

1. No Action

The subject property is currently vacant and not in use. The No Action alternative would leave the landowner with no reasonable use of their property. Alternative uses considered under the No Action would involve agriculture or park, however both are not considered viable.

The property had been previously used for agricultural cultivation up until approximately 16 years. However, the construction of Honoapiilani Highway has rendered the property non-contiguous to ML&P's existing agricultural operations and leaves it as a remnant piece that is difficult and infeasible to farm. Also, adjacent properties have developed into single family and multifamily residential projects. Active agricultural cultivation of the property would be incompatible with the uses on these abutting properties.

For a number of years the property was designated for Park use on long range planning documents for the area. However, during the recent update of the West Maui Community Plan, the County Council undertook a comprehensive analysis of park needs for the area and determined that the subject property did

not fit into the County's long range park development program. A primary consideration was the property's topography. Based on the recent land use decisions by the County Council, there are no plans by the County to purchase the property for park use. It should be noted that the County had the opportunity to purchase the property for park development for over twenty years yet never pursued this option, despite offers by ML&P.

Lastly, the proposed project is intended to fulfill a commitment that ML&P has made to its employees for the provision of residential lots at affordable prices. As noted earlier in this report, the project is intended to make up for the lots which were lost when the County of Maui decided to purchase the Honokeana Phase II site for park improvements. The loss of the Honokeana Phase II site has resulted in a six year delay to the families who were to have purchased those lots. The No Action alternative would result in significant delays in meeting ML&P's commitment to their employees since any alternative site would require a Community Plan Amendment, State District Boundary Amendment and Change in Zoning.

In summary, the No Action alternative would leave the landowner with no reasonable use of the property, since economically feasible non-urban uses for the property do not exist. This option would also result in unacceptable delays to future lot purchasers who have already experienced significant delays due to the County's decision to purchase the Honokeana Phase II site for park use.

2. Alternative Configurations

Various alternative configurations were considered in the design phase of the project. One variation would have involved a loop road rather than the proposed two cu de sac layout which is the preferred option. The loop road option was shaped in a rectangular fashion with more uniformity in lot size and shape. There are two major reasons this configuration is considered sub-optimal. First, it would require more road surface area which in turn would lead to increased project costs, increased runoff and less developable area. Second, it would have required significantly more cut and fill activities in order to meet subdivision design requirements, primarily road slope. This is because the loop

road option was designed based on lot and road geometrics rather than the natural topography of the property.

In addition, the loop road option would have resulted in more lots abutting the northern property boundary. The preferred two cul de sac option has reduced the number of lots along the northern boundary and thereby reducing the potential impacts to northern neighbors.

3. Alternative Number of Lots

The total number of developable lots is a function of lot size and net developable area.

Lot size. The project is being developed under the R-1 Residential zoning regulations which provide for a minimum lot size of 6,000 s.f. The average lot size for the project is approximately 7,100 s.f. Larger lots would reduce the number of families which could be offered lots. Fewer lots would also result in increased lot prices, since overall construction costs would not be remain essentially the same. The option of smaller lots was seriously considered, including the utilization of R-Zero zoning which could have nearly doubled the density of the project. R-Zero zoning which allows for a 3,000 s.f. minimum lot size, is logical from a land use planing perspective given the transitional location between single family and multifamily areas. However, R-Zero projects, which utilize duplex style dwellings, are not conducive to providing owner builder opportunities, a primary objective of the project. Also, small R-Zero type lots would not meet the spatial needs of the typical ML&P employee family.

Developable area. The net developable area for the project was significantly reduced by providing for an onsite drainage basin and by leaving the gulch lot in a natural state. Developable area could have been increased by reducing or eliminating these areas. Encroaching into the gulch would require construction of a channelized structure. This would increase developable area and thus the number of lots however it would eliminate the natural open space buffer from the abutting Kapalani Estates and add to project costs and complexity. Similarly, the drainage basin located on the northern makai portion of the project could be eliminated due to adequacy of the drain line in Lower

Honoapiilani Road. Again, this would eliminate an open space/buffer feature of the project. More importantly, under both of these options, the potential for mitigation against non-point source pollution impacts from runoff would be significantly diminished.

4. Alternative Sites

There are no other sites available to ML&P which have the appropriate land use designations and are in close proximity to existing roads, infrastructure and utility services. Alternative sites outside of the established urban areas would involve removing agricultural land out of production and would result in increased project costs associated with the provision of utilities and infrastructure as well as securing land use entitlements. ML&P did explore an alternative site mauka of the subject property along Akahele Road (the Kapalua Airport access road.) The increase in infrastructure costs alone were estimated at approximately $15,000 per lot. Thus, based on the impacts to existing agricultural operations as well as the increase in project costs resulting from urbanizing lands not contiguous to existing infrastructure and utility services, alternative sites owned by ML&P are not considered feasible to meet the ML&P employee housing program needs.

III. ENVIRONMENTAL SETTING, IMPACTS, AND POTENTIAL MITIGATION MEASURES

A. Physical Environment

1. Surrounding Land Use

Existing Conditions:

The subject property is located in the northern limits of Mahinahina on the west side of Maui between the two major resort destinations of Kaanapali and Kapalua. This area contains commercial services, resort condominiums, residential apartments, residential neighborhoods, and the West Maui Airport. Mahinahina is an area on the makai side of Honoapiilani Highway, which provides housing primarily for the permanent residents of West Maui.

Specific uses surrounding the proposed Kapua Village include the following (See Exhibits 2 & 9):

- North: Abutting the subject property's northern boundary are the Kahana Villas multi-family units. Land use designations include:
  - State Land Use Commission: "Urban" District.
  - County Zoning: "H-2 Hotel" District.
  - West Maui Community Plan: "Hotel".

- South: Abutting the subject property's southern boundary Kapalani Estates, a private, single-family residential community. Land use designations include:
  - State Land Use Commission: "Urban" District.
  - County Zoning: "R-2 Residential" District.
  - West Maui Community Plan: "Single Family".

- East: Across Honoapiilani Highway are fields cultivated in pineapple and the West Maui Airport. Beyond the airport are additional fields cultivated in pineapple. Land use designations include:
  - State Land Use Commission: "Agricultural" District.
  - County Zoning: "Agricultural" District.
  - West Maui Community Plan: "Park".

- West: Across Lower Honoapiilani Road and directly across from the subject property is the County of Maui's Pohaku Beach Park ("S-Turns"). Land use designations include:
  - State Land Use Commission: "Urban" District.
  - County Zoning: "R-3 Residential" District.
  - West Maui Community Plan: "Park".

Potential Impacts and Mitigating Measures:

The subject property is located in an area characterized by urban level of services and development. The property is bordered by a residential subdivision to the south and a multi-family project to the north. The property's Community Plan designation is "Single-Family" and is surrounded on three sides (north, south, and west) by "Urban" Designated lands. The property is considered to be a transition zone between the established residential uses to the south, which have an approximate lot size of 8,000 s.f. to 10,000 s.f., and the multi-family and resort uses to the north. The proposed project's density is consistent with the residential development to the south.

The project will include a 10-foot wide landscape easement along the subdivision's north and east side to provide a buffer and visually screen the subdivision from the abutting neighbors and highway. The natural drainageway along the southern edge will be left in a natural state to provide visual relief and a buffer from the southern abutting property.

The State Office of Planning expressed concern regarding potential for noise complaints from future residents related to the Kapalua Airport and asked that noise contour maps be provided. The potential for noise impacts to residents of West Maui was a serious concern during the establishment of the Kapalua airport by Hawaiian Airlines in the late 80s. Restrictions were established which control the type of aircraft, hours of operation, numbers of flights, and aircraft noise. These restrictions were codified into rules by the State Department of Transportation when the airport was transferred to the State of Hawaii (Chapter 39, Subtitle 2, Title 19, Hawaii Administrative Rules). Specifically the rules limit operations to daylight hours, prohibit jet

powered aircraft and prohibit helicopter operations. The rules also establish maximum allowable noise levels for aircraft as well as for "Effective Perceived Noise Levels" for takeoff, approach and sideline.

Contact was made with both the Maui and Oahu offices of the DOT Airports Division in an effort to obtain noise contour maps. DOT personnel could not locate any such information. Nevertheless, the established regulations provide sufficient controls to minimize the potential for noise impacts upon future residents. Also, it should be noted that the proposed development is considered as "infill" within an existing community. The location is not unique or sensitive in relation to the airport when compared to the established residential areas in Mahinahina and Kahana.

In summary, the proposed project is consistent with the established land use patterns in the area and will incorporate landscape buffers and open space in order to soften potential impacts to and from adjacent uses.

2. Climate

Existing Conditions:

The climate in the West Maui region is influenced by the persistent north-northeasterly trade winds. Mahinahina is located on the boundary of the wet and dry leeward portions of West Maui. Average annual temperature in West Maui is 75°F. Average monthly temperatures vary by about fifteen degrees between the coolest and warmest months. Rainfall at the subject property averages approximately 20-30 inches per year.

3. Topography and Soils

Existing Conditions:

The subject property generally slopes from the high point along the eastern boundary to the low point along the western boundary at an average slope of approximately 10 percent. Approximate elevations range from 11 feet M.S.L. to 71 feet M.S.L. **See Exhibit Nos. 4 & 5.** Pohakukaanapali Gulch runs in a mauka-makai direction and traverses through the southern portion of the property. There are no significant topographic constraints in the remaining portion of the subject property.

The soil type specific to the subject property includes Lahaina silty clay, 7 to 15 percent slopes (LaC) and Rough Broken and Stony Land (rRs). LaC soils consist of well-drained soils in uplands on the islands of Maui, Lanai, and Molokai and are developed in material weathered from basic igneous rock. Runoff is medium, and the erosion hazard is moderate. rRs soils comprise a small portion of the site and are found within the natural drainageway. Runoff is rapid and geologic erosion is active.

A *Soils* Investigation Report was conducted for the proposed subject property. Nineteen (19) test pits were excavated to depths of 1.5 to 9.5 feet below existing grade. In general, the pits disclosed that the site is underlain by 1 to 9 feet of moderately stiff to very stiff, red to dark red low plasticity clay followed by very soft to hard basalt rock. No groundwater was encountered in any of the test pits. Basalt rock was encountered in all of the test pits, except for one, at depths of 1.5 to 9.5 feet below existing grade. A layer of soft clay soil was found at depths of 0 to 1 foot below existing grade at two of the test pits. It is recommended that these soft areas, and any other soft areas that will not be "cut" down during site grading, be removed down to firm material and replaced with properly compacted fill.

Potential Impacts and Mitigating Measures:

The Soils Report concluded that spread footings bearing on the firm on-site soil, properly compacted fill or the underlying rock, may be used to support the proposed residential structures. As noted earlier, the proposed subdivision is designed to minimize grading and utilize the existing topography to the fullest extent possible. This will minimize the potential for extensive excavation into the hard basalt rock formation.

Erosion and silt movement should be minimal once the homes are occupied and yards landscaped. Mitigation measures which have been incorporated in into the design of the project which will mitigate impacts from non-point source pollution impacts include the incorporation of a drainage basin which will act as a desilting basin and the maintenance of Pohakukaanapali gulch in a natural state with vegetation that will help trap sediments.

Erosion control measures for the project during construction include:

a. Watering by spray irrigation or water truck to mitigate dust.
b. Install temporary dust screen along the windward boundary of the project limits.
c. Install temporary silt screen along the Lower Honoapiilani Road and within drainage swales along the project limits. Install temporary silt screen around or within new catch basins and drain inlets.
d. Keep swales clear of debris at all times.
e. Hydromulch exposed areas upon completion of grading operations.

In summary, the project site is free of significant constraints in terms of existing topography as well as sub-surface soil conditions and short and long term erosion impacts will be minimized.

4. Flood and Tsunami Hazard

Existing Conditions:

The subject property has been designated as Zone "C" and Zone "A4" by the Flood Insurance Rate Map for this region. See Exhibit No. 6. Most of the project site is located within Zone "C", while Zone "A4" encompasses only the lower reaches of the natural drainageway that traverses the southern boundary of the property. Zone "C" defines an area of minimal flooding and Zone "A4" defines an area of the 100 year flood hazard potential.

Potential Impacts and Mitigating Measures:

Under existing conditions, portions of Lots 39 to 42 are within the 100-year inundation limits of Pohakukaanapali Gulch. Grading of these lots is proposed to increase buildable areas. This drainageway does not fall under the jurisdiction of the Department of the Army since it is not delineated on a USGS Quadrangle Map and it does not possess aquatic resource value, therefore, a Department of the Army Permit will not be required. Similarly, the drainageway is not considered a stream and will not require a Stream Course Alteration Permit from the State Department of Land and Natural Resources.

Grading the lots will slightly increase the flood water surface elevation, but still would be confined within the gulch. Hence, the proposed grading will not affect the adjacent Mahinahina Ventures Subdivision. There will be no grading on the southern bank of the gulch.

After completion of grading, the area proposed for the development of the residential dwellings will be located in an area of minimal flooding. No structures are proposed for the area defined as 100-year flood hazard potential. As such, it is anticipated that future residents of the proposed subdivision will not be adversely impacted by flood and tsunami hazards nor will the project have an adverse affect on neighboring or downstream properties.

5. Flora and Fauna

Existing Conditions:

A flora and fauna inventory analysis was conducted by the office of Chris Hart & Partners on December 18, 1997. The analysis consisted of pedestrian sweeps of the property to identify specific vegetation types. The property is encompassed by urban uses to the north, south, and west, and is bordered on the east by a urban highway. As noted earlier in this report, the subject property is an abandoned field which was formerly utilized for the cultivation of pineapple and has been substantially altered over the past years by agricultural related activities. As such, existing vegetation found on the property consists primarily of various trees, scrub, bushes and grasses, and is representative of lowland scrub vegetation. Identified species included koa tree, african tulip tree, ficus tree, kiawe tree, castor bean, crabb grass, and rattle pod. No known rare, endangered or threatened species of plants were discovered at the site.

Animal life in the project vicinity similarly reflects the urban character of the region. Avifauna typically found in West Maui includes the common myna, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rodents, and mongoose. No known rare, endangered, or threatened species of fauna were discovered on the subject property.

Potential Impact and Mitigating Measures:

There are no known significant habitats of rare, endangered, or threatened species of flora and fauna located on the subject property. Therefore, the

proposed project will have no adverse impact upon the flora and fauna on the subject property and in the surrounding area.

6. Air Quality

Existing Conditions:

Air quality in the West Maui region is considered relatively good. Point sources (e.g., Pioneer Sugar Mill) and non-point sources (e.g., automobiles) of emissions are not significant to generate high concentration of pollutants. The relatively high quality of air can also be attributed to the region's constant exposure to wind, which quickly disperses concentrations of emissions. This rapid dispersion is evident during the burning of sugar cane in the fields of West Maui. Maui is currently in attainment for all criteria pollutants established by the Clean Air Act, as well as the State of Hawai`i Air Quality Standards. This means that the ambient air in Maui, is in compliance with the State and Federal air quality standards (DOH pers. com.).

Potential Impacts and Mitigating Measures:

Air quality impacts attributed to the proposed project could include dust generated by the short-term, construction-related activities. Site work such as grading and building construction, for example, could generate airborne particulate. Dust control measures such as regular watering, sprinkling and the installation of dust screens will be implemented to minimize the potential impact from wind-blown emissions.

In the long-term, the increase in the number of residents will result in a slight increase in the volume of traffic in the project's vicinity, which in turn could affect the air quality. However, this increase is not considered significant when compared to the overall amount of vehicles in this area. As such, the proposed project is not anticipated to be detrimental to the local air quality.

7. Noise Characteristics

Existing Conditions:

Predominant sources of background noise in the vicinity of the subject property include natural conditions (e.g. wind and ocean), highway traffic from Lower Honoapiilani Road and Honoapiilani Highway, as well as intermittent and temporary noise associated with the West Maui Airport.

Potential Impacts and Mitigating Measures:

In the short-term, the proposed project will have some adverse impact upon the existing conditions with the construction of subdivision improvements as well as the residential dwellings. The ambient noise conditions from heavy construction equipment, such as bulldozers, front-end loaders, and material-carrying trucks and trailers, would be the dominant source of noise during the construction period. To minimize construction related impacts to the surrounding property owners, the applicant proposes to limit construction activities to normal daylight working hours, and adhere to the State Department of Health's noise regulations for construction equipment.

In the long-term, the proposed residential project should not have any adverse impacts upon the existing noise conditions in the Mahinahina region. Noise impact from Honoapiilani Highway on the proposed dwellings will be mitigated in part by differences in grade.

8. Visual Resources/Urban Design

Existing Conditions:

Public views of the ocean from Honoapiilani Highway exist in various locations between Mahinahina and Kapalua. In many locations along the highway, views to the ocean have been obstructed by development or topography.

Ocean views from Honoapiilani Highway are visible along the southern portion of the site, while the ocean is not visible along the northern half due to an embankment that is approximately 6 to 8 feet above the grade of the highway. The middle section of the property along Honoapiilani Highway offers a transition between naturally blocked views and unblocked views. The project site is also partially visible from Lower Honoapiilani Road, however, views of the mountains are blocked by the natural rise in topography. See Exhibits 11 and 12. The property presently is a vacant parcel.

Land use patterns and open space designations for this area of Maui have been established in the West Maui Community Plan. A colored version of the West Maui Community Plan Land Use Map is included as Exhibit 9 in this report. In the Honokowai, Mahinahina, and Kahana areas, open space lands are included along the shoreline, in natural drainageways, park areas, and agricultural lands.

Much of the Open space designated land in the area is owned or has been provided by Maui Land & Pineapple Company. This includes a fifty acre park site immediately across Honoapiilani Highway from the project site as well as the Pohaku Park, which was developed via a land exchange between ML&P and the County, immediately to the west of the project site. This beachfront park provides for important ocean access (both visually and physically) in the immediate area. Other significant open space land owned by ML&P includes agricultural fields and forest reserve lands west (mauka) of the Highway.

A significant feature of the open space patterns established in the West Maui Community Plan is the designation of mauka/makai corridors along natural drainage ways. Within the Honokowai, Mahinahina, and Kahana areas, major gulches and drainageways were designated as Open Space. These major drainageways include Kahana, Mahinahina and Honokowai. However, since the Pohakukaanapali gulch is a minor drainageway it was not so designated.

Potential Impacts and Mitigating Measures:

Public view sheds potentially impacted by the project would include makai views of the ocean from Honoapiilani Highway. Views from the Highway along the southern portion of the project site will be not be impacted due to the drop in topography as well as the incorporation of the gulch preservation lot. In the middle portion of the property frontage along the upper highway, existing ocean views could be impacted by future home construction. There will be partial impacts in the transition zone where natural topography starts

rising and obscuring the ocean views. These view corridor impacts are illustrated in Exhibits 13 and 14. (Potentially impacted corridors were identified through a visual study which estimated roof heights using a hand held pole at various locations on the property.) Thus, existing makai views from Honoapiilani Highway will be minimally impacted.

From an urban design perspective, the proposed plans have incorporated approximately 2.15 acres of landscape easements and open space elements in order to soften the visual impacts of the project from neighboring properties and public roads. These specific areas include the 10-feet wide landscape easement along the northern and eastern boundaries of the property (approximately 12,300 square feet); the drainageway easement along the southern boundary (approximately 55,750 square feet); and the drainage sump located at the northwest corner of the property (approximately 25,600 square feet).

Regarding the open space system for the area as designated by the Community Plan, as noted above project plans have incorporated approximately 2.15 acres of landscape easements and open space elements, including approximately 55,750 square feet within the existing drainage basin which will be left in a natural state. This has been done despite the fact that the Community Plan designates the entire project site for single family use. The project plans are consistent with the Community Plan's policy of incorporating drainageways into the region's open space system.

As such, the proposed project is not anticipated to significantly impact public view corridors and will not have any significant adverse impact upon the visual character of the site and its immediate environs.

9. Archaeological and Historical Resources

Existing Conditions:

An Archaeological Inventory Survey was conducted for the subject property in November of 1997 to determine the presence or absence and the extent of archaeological remains within the project area. See Appendix B. Archival and background research indicated that the project area was used for cattle grazing for over 50 years and subsequently planted in pineapple cultivation

for over 70 years. The inventory survey, which included pedestrian sweeps, did not identify any significant surface archaeological features. Based on the absence of any surface features and the lack of observed subsurface deposits, no excavations were considered necessary. As such, the Archaeological Inventory Survey concluded that no further archaeological work needs to be conducted within the project area.

Potential Impacts and Mitigating Measures:
In the unlikely event that sub-surface historic/cultural remains are encountered during construction, work will be stopped and the State Historic Preservation Office will be contacted to access the significance of the find and recommend appropriate mitigation measures, if necessary.

10. Impacts to Marine Water Quality

The project site is located in close proximity to the ocean and therefore care has been taken to address the potential negative impacts to water quality which could arise from storm runoff during construction and post-construction phases as follows.

Short term. The potential for negative impacts during the construction phase will be minimized by the following erosion control measures:

1. Project Design. The project was specifically designed to minimize extensive grading and earthwork activities. This will limit the size and length of time that bare areas will be exposed during the construction phase.

2. Stormwater control structures will be constructed prior to initiation of major site improvements. This will include installation of the permanent stormwater retention/siltation basin as well as temporary retention/siltation basins throughout the site.

3. Temporary berms to divert storm runoff to the retention basins will be constructed.

4. Temporary silt screens will be installed along Lower Honoapiilani Road and within drainage swales along the project limits. Temporary silt screens will also be installed around or within new catch basins and drain inlets.

5. Exposed areas will be hydromulched immediately upon completion of grading activities.

Long Term. The following measures have been or will be implemented in order to reduce the potential for long term negative impacts from non-point sources of pollution.

1. Minimization of Pavement. The proposed roadway system has been designed to minimize the amount paved roadways. In addition, the project plans have incorporated approximately 2.15 acres of landscape easements and open space elements. These elements include the grass lined retention basin (approx. 25,600 sq. ft. or .6 acres) and the drainage swale which runs through the south portion of the project site (approx. 55,750 sq. ft. or 1.3 acres.)

2. On-site Retention Basin. The proposed on-site retention basin will collect runoff from the majority of the project's internal roadways. This grassed basin will mitigate the potential for non-point source pollution from roadways to enter the marine environment.

3. Mauka Desilting Basin. ML&P has worked diligently with Federal, State and County agencies in order to reduce the potential for sedimentation from entering nearshore waters. A desilting basin was constructed mauka of the project site in 1994. During recent Council deliberations, Mr. Neal Fujiwara, District Conservationist with the Natural Resources Conservation Services, provided a letter which noted the effectiveness of this structure in reducing sediment flow to the ocean.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population and Housing

Existing Conditions:

The population of the County of Maui has exhibited relatively strong growth over the past decade with a 1996 population of 117,013, a 16.6% increase over 1990 population of 100,374 (US Bureau of the Census, 3/20/97). The 1990 population of Maui Island was 91,361. The 1990 population of West Maui District was 14,574, which is 15.95% of Maui Island's population. West Maui's de facto population for 1990 was 34,974. (Community Resources, Inc., March 1994)

West Maui has a different residential housing mix than the rest of Maui. There is a higher proportion of permanent residents living in multi-family units than any other district of Maui. Large scale housing projects have been approved in West Maui based on a demonstrated demand for single family residential units. The two most notable projects are the State of Hawai`i's Villages of Le`alii (approximately 4,800 units) and the master planned community near Pu`ukoli`i by Amfac. However, these projects are not anticipated to provide completed units in the near future.

Potential Impacts and Mitigating Measures:

The proposed Kapua Village subdivision will result in the addition of 45 single-family dwellings to the West Maui housing market. However, these lots are being specifically targeted for employees of ML&P who currently reside on the island. As such, the proposed project should not result in a direct increase in population levels. The proposed project represents a positive step towards meeting the demonstrated housing needs of West Maui residents.

2. Economy

Existing Conditions:

The West Maui economy is based primarily upon the visitor industry. Visitor accommodations are located near the shoreline along with necessary support facilities and residential communities. Kapalua and Kaanapali have developed into important visitor destination anchors while the old Lahaina

Town, with its historic character and charm has developed into the region's visitor, service, commercial and residential center. Agriculture is also an important part of West Maui's economy. Sugar cane and pineapple fields are found in the West Maui district, and the historic Pioneer Mill on Lahainaluna Road continues to process cane.

Potential Impacts and Mitigating Measures:
On a short-term basis, the project will support construction and construction-related employment.

On a long-term basis, the project will provide the opportunity for 45 employee families of ML&P to purchase their own lot in order to construct a home. The proposed project will have little or no impact upon long term employment opportunities.

C. PUBLIC SERVICES

1. Recreational Facilities

Existing Conditions:
West Maui has a wide reputation as a recreational destination, particularly for ocean related activities. Ocean sports and recreation available in the West Maui District include swimming, fishing, surfing, scuba diving, snorkeling, sailing, and para-sailing. State and County beach parks in the West Maui District include the Honolua-Mokuleia Marine Life Conservation District, the D.T. Fleming Park, Honokowai Beach Park, Wahikuli State Wayside, Malu'ulu o Lele Park, Puamana Beach Park, Lanuniupoko St. Wayside, Ukumehame Beach Park, and Papalaua State Wayside. Pohaku Beach park ("S-Turns") is located directly across Lower Honoapiilani Road from the subject property.

Potential Impacts and Mitigating Measures:
On December 14, 1992, ML&P dedicated land to the County of Maui to be used for Pohaku Beach Park ("S-Turns"). As such, ML&P entered into an agreement with the County of Maui which granted ML&P parks and playground dedication credits to be used for future projects within the Lahaina Community Plan Region. As of June 23, 1993, ML&P had a

remaining balance of 65 parks and playground credits. Therefore, the applicant is proposing to utilize 45 of the 65 parks and playground credits. This will satisfy the County's parks and playground dedication requirements.

2. Police and Fire Protection

Existing Conditions:

The West Maui District Station of the Maui County Police Department has provided police protection for West Maui District since 1974. The station is located behind the Lahaina Civic Center in Wahikuli, located approximately 5 miles from the subject property.

Fire prevention, suppression, and protection in the Mahinahina District is provided by the Maui County Fire Department's Napili Station, located approximately one mile from the subject property.

Potential Impacts and Mitigating Measures:

Since it is anticipated that the proposed project will not result in an overall significant increase in population levels, the proposed project is not anticipated to have an adverse impact upon existing police and fire protection services.

3. Solid Waste

Existing Conditions:

Only two landfills are currently operating on Maui, the Central Maui Landfill in Puunene, and the Hana landfill. Single-family residential solid waste collection is provided by the County and taken to the Central Maui Landfill, which also accepts waste from private refuse collection companies. A convenience station is located in Olowalu to service West Maui residents. Solid wastes are transported from this convenience station to the Central Maui Landfill.

Potential Impacts and Mitigating Measures:

Solid waste collection for proposed Kapua Village subdivision would be provided by the County of Maui as part of the normal operation of residential refuse collection.

4. **Schools**

Existing Conditions:

The West Maui District is serviced by both private and public schools, which provide education for preschool through high school age children. Public schools in the West Maui District include the King Kamehameha III Elementary School for children from kindergarten through fifth grade, the Lahaina Intermediate School for grades six through eight, and Lahainaluna High School for grades nine through twelve. Private schools in the West Maui District include Sacred Hearts School for grades kindergarten through twelve and several preschools.

Potential Impacts and Mitigating Measures:

As noted earlier, it is anticipated that the proposed project will not result in a significant increase in population levels. Therefore, the proposed project is not anticipated to significantly affect school enrollment.

D. INFRASTRUCTURE

1. **Roadways**

Existing Conditions:

Honoapiilani Highway is a high quality, two-lane, two-way arterial highway between Kapalua and Wailuku. Within the project area, Honoapiilani Highway has a posted speed limit of 45 miles per hour (mph) and is signalized at Akahele Street and at Hoohui Road. Lower Honoapiilani Road is a two-lane, two-way roadway which extends from Kapalua to the north to Honokowai to the south. There are no provisions for exclusive left turn lanes on Lower Honoapiilani Road within the vicinity of the project site. Lower Honoapiilani Road has a posted speed limit of 25 mph and is a curvilinear roadway both horizontally and vertically.

Access to the project will be via an entrance along Lower Honoapiilani Road. There will be no direct access onto the Honoapiilani Highway. Interior roadways within the subdivision will be 44-feet wide with 24-feet wide A.C. pavement, curb and gutter.

Plans for Lower Honoapiilani Road Improvements, Phase III are currently being prepared for the County of Maui. The proposed roadway improvements extend from Mahinahina Stream to Hoohui Road. The roadway improvements are tentatively scheduled to start in the middle of 1999. Future roadway surface improvements in front of the proposed subdivision site include pavement widening, installation of curb and gutter, construction of sidewalk and a grade adjustment wall.

A Traffic Impact Analysis Report was prepared for the proposed subdivision. See Appendix - C. The investigation included site inspections as well as traffic count surveys during the AM and PM peak periods of traffic. The traffic count survey was conducted on November 12, and 13, 1997 between the hours of 6:00 am and 9:00 am and between 3:00 PM and 6:00 PM at the following intersections:

- Honoapiilani Highway at Akahele Street;
- Honoapiilani Highway at Hoohui Road;
- Lower Honoapiilani Road at Akahele Street; and
- Lower Honoapiilani Road at Hoohui Road.

Level of Service (LOS) is defined as "a qualitative measure describing operational conditions within a traffic stream". Several factors are include in determining LOS such as: speed, delay, vehicle density, freedom to maneuver, traffic interruptions, driver comfort, and safety. LOS "A", "B", and "C" are considered satisfactory levels of service. LOS "D" is generally considered a "desirable minimum" operating level of service. LOS "E" is an undesirable condition and LOS "F" is an unacceptable condition.

During the AM peak hours of traffic (7:00 am to 8:00 am), the subject intersections operate at LOS "C" or better, while and during the PM peak traffic hours (4:30 PM to 5:30 PM), the subject intersections operate at LOS "B" or better.

<u>Potential Impacts and Mitigating Measures:</u>

The Traffic Impact Analysis Report determined that the proposed 45-lot employee subdivision would generate a total of 40 vehicles per hour (vph) during the AM peak hour of traffic: 10 vph entering and 30 vph exiting the

property. During the PM peak hour of traffic, the report determined that the proposed project would generate 52 vph: 34 vph entering and 18 vph exiting the property.

Projected Traffic Without Project: Without the proposed subdivision, the subject intersections are expected to continue to operate at satisfactory LOS during both the AM and PM peak hours of traffic.

Projected Traffic With Project: With the proposed subdivision, the LOS at Lower Honoapiilani Road subject intersections are expected to remain unaffected by the site-generated traffic. The Honoapiilani Highway subject intersections are expected to operate at satisfactory LOS.

The turning movements at the intersection of Lower Honoapiilani Road and the Project Access Road are expected to operate at LOS "B" or better during both the AM and PM peak hours of traffic. The AM and PM peak hour volumes along Lower Honoapiilani Road at the study intersections do not meet volume warrants for exclusive left turn lanes, according to the American Association of State Transportation Officials (AASHTO) guidelines.

Intersection Sight Distance Requirements:
Sight Triangle: The sight triangle is defined by the line of sight between a motorist approaching on Lower Honoapiilani Road and a motorist stopped on the Project Access Road, the sight distance requirement measured along Lower Honoapiilani Road, and the path of the motorist on the Project Access Road turning onto Lower Honoapiilani Road. The sight triangle should be clear of all obstructions, including structures, signs, cut slopes, and vegetation.

Lower Honoapiilani Road is posted at 25 mph, therefore a minimum design speed of 30 mph is recommended to determine the required sight distances. At 30 mph, AASHTO recommends a minimum of 375 feet sight distances in both the left and right directions. This sight distance would permit a vehicle to turn onto Lower Honoapiilani Highway without being overtaken by a vehicle traveling in the same direction.

A review of the as-built drawings of Lower Honoapiilani Road indicates that the sight triangle may be obscured by the cut slope located along the project frontage, to the north of the Project Access Road intersection. The cut slope may require grading to provide a clear line of sight. The sight triangle to the south of the Project Access Road could be established by proper maintenance of vegetation within the roadway right-of-way. Additional traffic mitigation measures may be required if the minimum sight distances are not feasible due to the physical constraints of the existing roadway and the proposed subdivision.

Decision Sight Distance: Decision sight distance is the distance required to allow enough time for a motorist, driving at the design speed, to identify an unexpected hazard and complete a safety maneuver. The decision sight distance provides motorists with a greater margin of safety than the minimum AASHTO stopping sight distance of 200 feet for a 30 mph design speed.

In particular, the decision sight distance would provide for a motorist south bound on Lower Honoapiilani Road enough time to prepare to stop safely behind a vehicle turning left into the Project Access Road. AASHTO recommends a minimum of 500 feet sight distance between a motorist approaching the Project Access Road intersection of southbound Lower Honoapiilani Road.

A review of the as-built drawings indicates that they cut slope along the project frontage may obscure the sight distance along southbound Lower Honoapiilani Road. Additional grading of the cut slope into the project site may be required if the minimum sight distance cannot be achieved due to the existing alignment of Lower Honoapiilani Road.

Recommendations

Access:

1. The following intersection sight distances should be established during the design phase and verified during the construction phase of the development:

a. Minimum intersection sight distances of 375 feet should be established from the Project Access Road intersection to Lower Honoapiilani Road approaches in both the north (right) and south (left) directions.

b. A minimum sight distance of 500 feet should be established from the southbound approach on Lower Honoapiilani Road to its intersection with the Project Access Road.

2. ML&P should consider permitting the County of Maui to cut the existing slope into the project site during the County's construction of the Lower Honoapiilani Road Improvements Phase III. This would allow the County to eliminate the proposed grade adjustment wall along the project's north-western frontage and it would also improve the sight distance from the Project Access Road and along Lower Honoapiilani Road.

3. The Project Access Road should be striped to provide left turn and right turn lanes at Lower Honoapiilani Road.

Off-Site Traffic Improvements:

No off-site traffic improvements are recommended at this time.

Conclusion

The traffic, generated by the proposed Kapua Village Subdivision, is not expected to significantly impact peak hour traffic in the vicinity of the project. Sight distance concerns at the Project Access Road should be addressed during the design and construction phases of the development.

2. Wastewater

Existing Conditions:

The surrounding region is serviced by a 24-inch County gravity sewer line located along Lower Honoapiilani Road. The 24-inch sewer line discharges into the existing County Sewage Pump Station No. 8, also referred to as Napili No. 2 Wastewater Pump Station, which is located within the project site. Sewage from the pump station is transported to the Lahaina Wastewater

Reclamation Plant located about 1 1/2 miles away. The 24 inch line and pump station services all of the existing development to the North of the project site. According to the County's Wastewater Division, the estimated average daily flow through this pump station is approximately 1.7 million gallons per day (mgd). The pump station has a maximum capacity of 4,000 gallons per minute, which equates to approximately 5.0 mgd. The Lahaina Wastewater Reclamation Facility (LWRF) has a design capacity of approximately 9.0 mgd. Average daily flows for the first two weeks in January of this year amounted to approximately 6.3 mgd. Thus, there is roughly 2.7 mgd remaining capacity in the facility.

Potential Impacts and Mitigating Measures:

The estimated average wasetwater flow generated by the proposed 45-lot subdivision is 15,750 gallons per day (gpd) based on the County's Wastewater Division criteria of 350 gpd per residential lot. This amount represents less than one percent of the existing flows through the pump station and approximately one-half of one percent of the remaining capacity in the LWRF. The proposed system for the subdivision will consist mainly of 8-inch PVC sewer pipes to be connected to the existing 24' gravity sewer line on Lower Honoapiilani Highway. Sewage from the property will be transported to the Lahaina Wastewater Reclamation Plant located about 1 1/2 miles away. Discussions with the Wastewater division staff indicate the existing transmission and treatment system is adequately sized to accommodate the projected flows.

Therefore, the proposed project will not have a significant impact upon the existing wastewater system that services the subject property and the on-site design will utilize standards and specifications as required by the Department of Public Works and Waste Management's Wastewater Division to ensure that there will be no negative impacts to wastewater collection system in the area.

3. Water

Existing Conditions:

West Maui's municipal water sources are from Kahana Stream and a water well near Lahainaluna School. This system is reinforced by the Alaeloa

Source with a 8-inch and 16-inch transmission line along Lower Honoapiilani Road and Honoapiilani to Mahinahina. For fiscal year 1997, the average daily consumption for the Lahaina system was approximately 4.85 mgd. (Board of Water Supply Annual Report for Fiscal Year 1997)

Potential Impacts and Mitigating Measures:

According to the County Department of Water Supply (DWS) standards, the average daily demand for a single-family residential unit is 600 gallons per day. Thus, the average daily demand for the proposed 45-lot subdivision is 27,000 gallons per day or 19 gallons per minute, this amounts to approximately one-half of one percent of the 1997 average daily consumption. The proposed project is considered a relatively small residential development and as such, the size of the distribution line is usually governed by the fire flow requirements. According to DWS standards, fire flow for a single-family residential district is 1,000 gallons per minute.

The proposed subdivision will be serviced by network of 8-inch pipes. The new system will be connected to the existing waterline along Lower Honoapiilani Road. Individual lots will be serviced by a 5/8-inch water meter.

According to the project engineer, the anticipated static pressures within the subdivision would be typical of other residences in the area and would range from 80 to 105 psi, depending on elevation. The dynamic pressures would be similar. Concerns regarding the impacts to water pressures at the "extremities" of the proposed subdivision will be addressed through adherence to the standard requirements of the Department of Water Supply which require that appropriate pipeline sizes be used to ensure that there is a residual pressure of at least 20 psi during peak flows, which in this project's case would be during a firefighting episode. Compliance with the Water Department's standards will ensure that there would be no significant adverse impacts to surrounding properties

Fire protection for the subject property is provided by existing fire hydrants fronting the subject property along Lower Honoapiilani Road. These will be supported by additional fire hydrants on-site, which will be placed within

subdivision, on the new roadways, at 350 feet maximum intervals per Maui County, Department of Water Supply residential standards.

Based on the foregoing, the proposed project will not have a significant impact on the existing municipal water system which services the subject property and surrounding area.

4. Drainage

Existing Conditions:

A Preliminary Engineering Study was prepared for the proposed project. See Appendix A.

Existing Onsite Drainage: The present onsite drainage condition is characterized by surface waters sheet flowing across the project site onto Lower Honoapiilani Road or into Pohakukaanapali gulch, a minor drainageway that traverses the southern portion of the subdivision site.

Referring to Figure 5 of the Preliminary Engineering Study, onsite Drainage Area A (the northern third of the property), drains into Lower Honoapiilani Road where it is collected by an existing drain inlet located at the northwest corner of the project site. The runoff is then disposed of by the existing two 60-inch CMP culverts running along the road and by the 6 foot x 4 foot reinforced concrete box culvert crossing.

Drainage area B (the central portion of the site), also drains onto Lower Honoapiilani Road and flows toward the low spot on the road fronting the Sewer Pump Station site. Eventually, the runoff overflows the roadway and heads toward the ocean.

Runoff from Drainage Area C (the southeastern portion of the site), flows into Pohakukaanapali Gulch and eventually overflows the roadway. At present, there is no culvert across Lower Honoapiilani Road that handles the runoff generated by the gulch.

The existing runoff generated by the project site is about 11.0 cfs and 13.7 cfs for 10-year and 50-year storms, respectively.

Existing Offsite Drainage: The proposed subdivision site will be affected by drainage runoff generated by a portion of Honoapiilani Highway immediately above the site and by the Pohakukaanapali Gulch watershed. Exhibit 10 illustrates the overall drainage basin of Pohakukaanapali. The drainage basin originates at approximately 500 feet above mean sea level. As evidenced by the map, it is a relatively small drainage area located entirely within agricultural fields. The Kapalua-West Maui Airstrip is located within this drainage basin. According to the drainage study for the Kapalua-West Maui Airstrip, the net effect of the airstrip was to lesson the impact to Pohakukaanapali Gulch by 6 cfs.

The highway runoff is collected by existing drainage facilities that empties into the project site. There is a desilting basin above the highway that was constructed by the Soil Conservation Service in order to minimize the impacts of sediment in runoff from mauka lands. After flowing through the desilting basin, runoff generated by the Pohakukaanapali Gulch passes under the highway via a 120-inch CMP culvert that also discharges into the development site. The runoff then flows down toward Lower Honoapiilani Road and eventually flows over the roadway. According to the Hydrology Report for Honoapiilani Highway, the highway 50-year runoff that discharges into the project site is about 11 cfs, whereas the 100-year flow of Pohakukaanapali gulch is 645 cfs (cubic feet per second.)

Future Lower Honoapiilani Road Improvements: Plans for Lower Honoapiilani Road Improvements, Phase III also include drainage improvements. Future drainage improvements include the installation of catch basins, the construction of a stilling basin and the installation of a triple 9' x 3' concrete box culvert across Lower Honoapiilani Road. The box culvert and related structures were designed to convey the 100-year storm runoff of the Pohakukaanapali Gulch Watershed. The drainage culverts were also designed to carry 100-year runoff at developed conditions from the entire area of the proposed subdivision site (10.9 acres) and to intercept the existing 72" x 44" arch-pipe drain from the Mahinahina Ventures Subdivision. (In designing infrastructure improvements projects for an area, it is standard practice for the Department of Public Works and Waste Management

(DPWWM) to size their facilities based upon full build out of an area's community plan land use designations. In the case of the Lower Honoapiilani Road Improvements, Phase III, the subject property was designated single-family in the West Maui Community Plan and as such the design of the affected drainage culverts assumed full build out of the property at typical single family residential densities.) The inlet structure and stilling basin will be constructed adjacent to the roadway and within the proposed subdivision.

Potential Impacts and Mitigating Measures:

The proposed design concept for the drainage system is illustrated on **Exhibit No. 7** within the Preliminary Engineering Study. The main feature of the design concept is the installation of an onsite drainage basin to contain the additional runoff generated by the development, thus attaining a zero runoff increase to Pohakukaanapali Gulch and Lower Honoapiilani Road. The following is a comparison of 10-year storm runoff between existing and new conditions:

To Lower Honoapiilani Road:

Existing Condition	=6.9 cfs
Developed Conditions	=5.7 cfs
Reduction	=1.2 cfs

To Pohakukaanapali Gulch

Existing Condition	=4.0 cfs
Developed Conditions	=2.8 cfs
Reduction	=1.5 cfs

At developed conditions, runoff from Area 1, the northern most lots, will flow into Lower Honoapiilani Road to be collected by the existing drain inlet at the northwest corner of the project site. Runoff from Area 2, the lower portion of the site at the intersection of the proposed access road with Lower Honoapiilani Road, will also flow toward Lower Honoapiilani Road where it will be collected by either the existing drain inlet or by the future catch basin to be installed by the County. Area 3, the southern most lots, will drain into Pohakukaanapali Gulch to be disposed off by the future box culverts across

the road. As previously noted, the roadway culvert crossing was designed to handle the 100-year flow of the project site at developed conditions.

Area 4, the central portion of the project, including most of the internal roadway system, will drain into the proposed retention basin. The proposed retention basin will be designed to contain the additional 50-year runoff volume. Under existing conditions, the development site will generate a 50-year storm runoff volume of about 56,715 cf; and at developed conditions, the volume will be increased by 72,920 cf to 129,635 cf. The spillway will connect to the existing county drainage system within Lower Honoapiilani Road. The drainage sump and associated structures will be maintained by the homeowners association of the subdivision.

Other features of the proposed drainage system are the installation of catch basins and drain manholes within the proposed roadways. Runoff collected by these structures will then be conveyed to the drainage sump via underground culverts.

Conclusion:
Based on this preliminary drainage investigation, completion of the proposed employee housing development will not have any adverse drainage effects on adjacent lots and downstream properties.

5. Electrical and Telephone Systems

Existing Conditions:
Electrical and Phone service to the subject property will be supplied by existing overhead utility lines along lower Honoapiilani Road. The on-site utility services will be installed underground and in accordance with the requirements of the respective utility companies.

Potential Impacts and Mitigating Measures:
The proposed project will not have any adverse impact upon the existing electrical or telephone systems that will service the subject property.

IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

A. STATE LAND USE DISTRICT

The Hawaii Land Use Law, Chapter 205, Hawaii Revised Statutes, establishes four major land use districts in which all lands in the State are placed. These districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The Subject Property is located within the State "Urban" District. The proposed improvements are considered a permitted use within the "Urban" District.

B. MAUI COUNTY GENERAL PLAN

The General Plan of the County of Maui (1990), updated in 1991, provides long term goals, objectives, and policies directed toward the betterment of living conditions in the County. Addressed are social, environmental, and economic issues that influence future growth in Maui County. The subject property's use is consistent with the following General Plan objective and policies:

Objectives: To see that all developments are well designed and are in harmony with their surroundings.

Policies:

- Require that appropriate principles of urban design be observed in the planning of all new developments.

Objectives: To use the lands within the County for social and economic benefit of all the County's residents.

Policies:

- Encourage land use methods that will provide a continuous balanced inventory of housing types in all price ranges.
- Encourage land use patterns that foster a pedestrian oriented environment to include such amenities as bike paths, linear parks, landscaped buffer areas, and mini-parks.

Objectives: To provide a choice of attractive, sanitary and affordable homes for all residents.

Policies:

- Encourage the construction of housing in a variety of price ranges and geographic locations.

Objectives: To encourage development which reflects the character and culture of Maui county's people.

C. WEST MAUI COMMUNITY PLAN

The subject parcel is located in the West Maui Community Plan region which is one of nine Community Plan regions established in the County of Maui. Planning for each region is guided by the respective Community Plans, which are designed to implement the Maui County General Plan. Each Community Plan contains recommendations and standards which guide the sequencing, patterns and characteristics of future development in the region.

The proposed subdivision site is designated "Single-Family" by the West Maui Community Plan Land Use Map. The proposed subdivision is consistent with the "Single-Family" designation.

Approval of the proposed request would be consistent with the West Maui Community Plan by addressing the following objectives:

Goal: An attractive, well-planned community with a mixture of compatible land uses in appropriate areas to accommodate the future needs of the residents and visitors in a manner that provides for the stable social and economic well-being of residents and preservation and enhancement of the region's open spaces and natural environmental resources.

Goal: A sufficient supply and choice of attractive, sanitary and affordable housing accommodations for a broad cross section of residents.

Objectives and Policies:

- Accommodate the 20-year housing needs of the region.

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

Objectives and Policies:

- Integrate stream channels and gulches into the region's open space system for the purposes of safety, open space relief, greenways for public use and visual separation. Drainage channels and siltation basins should not be used for building sites, but, rather, for public open space. Drainage channel right-of-way and easements may also be used for walkways and bikeway facilities.

D. MAUI COUNTY ZONING

The subject parcel is zoned R-1 Residential. The intent and purpose of Residential Districts are as follows: "Areas for single-family dwellings are established to provide for harmonious residential neighborhoods without the detraction of commercial and industrial activities". The proposed project meets the intent and purpose of the Residential District and has been designed to confirm to the requirements of the R-1 Residential District within Chapter 19.08, Maui County Code.

E. SPECIAL MANAGEMENT AREA

The subject property is located within the Special Management Area (SMA). As such, the proposed improvements will require an SMA Use Permit. Pursuant to Chapter 205A, Hawaii Revised Statutes, and the Rules and Regulations of the Planning Commission of the County of Maui, projects located within the SMA are evaluated with respect to SMA objectives, policies and guidelines. This section addresses the project's relationship to applicable coastal zone

management considerations, as set forth in Chapter 205A and the Rules and Regulations of the Planning Commission

1. Recreational Resources

Objectives: Provide coastal recreational resources accessible to the public.

Policies:

a. Improve coordination and funding of coastal recreation planning and management; and

b. Provide adequate, accessible and diverse recreational opportunities in the coastal zone management area by:

1. Protecting coastal resources uniquely suited for recreation activities that cannot be provided in other areas;
2. Requiring replacement of coastal resources having significant recreational value, including, but not limited to, surfing sites and sandy beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;
3. Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
4. Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
5. Encouraging expanding public recreational use of county, state and federally owned or controlled shoreline lands and waters having recreational value;
6. Adopting water quality standards and regulating point and non-point sources of pollution to protect and, where feasible, restore the recreational value of coastal waters; and
7. Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits, and crediting such dedication against the requirements of Section 46-6 of the Hawaii Revised Statutes.

Response:

The original alignment of Lower Honoapiilani Road fronting the subject property previously had sharp curves and was located very close to the shoreline. ML&P donated the land fronting the subject property in order to provide the County

with additional land to realign the roadway and also to provide additional land area for Pohaku Park. As such, the subject property is now separated from the coastline by Pohaku Park and the realigned Lower Honoapiilani Road. Erosion and silt movement should be minimal once the homes are occupied and yards landscaped. The proposed project will have no impact on the public's use of the shoreline area, and with the incorporation of erosion control measures during construction as identified in Section III.A.3, there will be no adverse impact to nearshore waters from point and non-point sources of pollution.

2. *Historical/Cultural Resources*

Objectives: Protect, preserve and where desirable, restore those natural and man-made historic and prehistoric resources in the coastal zone management areas that are significant in Hawaiian and American history and culture.

Policies:

a. Identify and analyze significant archaeological resources;
b. Maximize information retention through preservation of remains and artifacts or salvage operation; and
c. Support state goals for protection, restoration, interpretation and display of historic resources.

Response:

As discussed earlier, an Archaeological Inventory Survey was conducted for the subject property in November of 1997 to determine the presence or absence and the extent of archaeological remains within the project area. Archival and background research indicated that the project area was used for cattle grazing for over 50 years and subsequently planted in pineapple cultivation for over 70 years. The inventory survey, which included pedestrian sweeps, did not identify any significant surface archaeological features. Based on the absence of any surface features and the lack of observed subsurface deposits, no excavations were considered necessary. As such, the Archaeological Inventory Survey concluded that no further archaeological work needs to be conducted within the project area.

In the unlikely event that sub-surface historic/cultural remains are encounter during construction, work will be stopped and the State Historic Preservation Office will be contacted to access the significance of the find and recommend appropriate mitigation measures, if necessary.

3. **Scenic and Open Space Resources**

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

Policies:

a. Identify valued scenic resources in the coastal zone management area;
b. Insure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of the natural land forms and existing public views to and along the shoreline;
c. Preserve, maintain and, where desirable, improve and restore shoreline open space and scenic resources; and
d. Encourage those developments which are not coastal dependent to locate in inland areas.

Response:

As noted earlier, Public views of the ocean from Honoapiilani Highway exist in various locations between Mahinahina and Kapalua. In many locations along the highway, views to the ocean have been obstructed by development or topography.

Ocean views from Honoapiilani Highway are visible along the southern portion of the site, while the ocean is not visible along the northern half due to an embankment that is approximately 6 to 8 feet above the grade of the highway. The project site is also partially visible from Lower Honoapiilani Road. The property presently is a vacant parcel.

Public view sheds potentially impacted by the project would include the makai view of the ocean from Honoapiilani Highway along the southern portion of the project site. However, lots in this area (nos. 36, 37, & 38) are approximately 25-30 feet below the grade of the Highway. Furthermore, the natural drainageway through this southern area will be left in a natural state. Thus, existing makai views from Honoapiilani Highway along the southern frontage of the property will be minimally impacted. Partial impacts will occur in the transition zone along the middle of the site's frontage as illustrated in Exhibits 13 and 14.

From an urban design perspective, the proposed plans have incorporated approximately 2.15 acres of landscape easements and open space elements in order to soften the visual impacts of the project from neighboring properties and public roads. These specific areas include the 10-feet wide landscape easement along the northern and eastern boundaries of the property (approximately 12,300 square feet); the drainageway easement along the southern boundary (approximately 55,750 square feet); and the drainage sump located at the northwest corner of the property (approximately 25,600 square feet).

As such, the proposed project is not anticipated to significantly impact public view corridors and will not have any significant adverse impact upon the visual character of the site and its immediate environs.

4. Coastal Ecosystems

Objectives: Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

a. Improve the technical basis for mature resource management;
b. Preserve valuable coastal ecosystems of significant biological or economic importance;
c. Minimize disruption and degradation of coastal water ecosystems by effective regulation of stream diversions, channelization and similar land and water uses, recognizing competing water needs; and
d. Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land water uses which violate state water quality standards.

Response:

The projects impacts on coastal ecosystems should be minimal given the following points:

1) The proposed subdivision will result in a decrease, not an increase, in surface water runoff.
2) The project's proposed retention basin will collect runoff from the majority of the projects internal roadways. This will mitigate the potential for non-point source pollution from the roadways from entering the marine environment.

3) ML&P has cooperated with the Soil Conservation Service in order to minimize impacts resulting from agricultural activities by providing desilting basins throughout West Maui. A large desilting basin is provided upstream of the project, across Honoapiilani Highway.

Therefore, the project will not have a significant direct impact on the region's coastal ecosystem, and with the incorporation of the appropriate measures during construction, there should be no significant adverse impacts to nearshore waters from point and non-point sources of pollution.

5. Economic Uses

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

Policies:

a. Concentration in appropriate areas the location of coastal dependent development necessary to the state's economy;
b. Insure that coastal dependent development such as harbors and ports, visitor facilities, and energy-generating facilities are located, designed, and constructed to minimize adverse social, visual and environmental impacts in the coastal zone management areas; and
c. Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
    1. Utilization of presently designated locations is not feasible,
    2. Adverse environmental effects are minimized, and
    3. The development is important to the State's economy.

Response:

The subject property will be developed in accordance with residential zoning and the community plan designations. The location is considered complimentary to the urban uses within West Maui. The newly created lots will have a positive impact on the region's housing market for Maui residents.

6. Coastal Hazards

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

Policies:

a. Develop and communicate adequate information on storm wave, tsunami, flood, erosion and subsidence hazard;
b. Control development in areas subject to storm wave, tsunami, flood, erosion and subsidence hazard;
c. Ensure that development comply with requirements of the Federal Flood Insurance Program; and
d. Prevent coastal flooding from inland projects.

Response:

As noted earlier, under existing conditions, portions of Lots 39 to 42 are within the 100-year inundation limits of Pohakukaanapali Gulch. Grading of these lots is proposed to increase buildable areas. Grading the lots will slightly increase the flood water surface elevation, but still would be confined within the gulch. Hence, the proposed grading will not affect the adjacent Mahinahina Ventures Subdivision. There will be no grading on the southern bank of the gulch.

After completion of grading, the area proposed for the development of the residential dwellings will be located in an area of minimal flooding. No structures are proposed for the area defined as 100-year flood hazard potential as this area will be confined to the gulch lot. As such, it is anticipated that future residents of the proposed subdivision will not be adversely impacted by flood and tsunami hazards nor will the project have an adverse affect on neighboring or downstream properties.

7. Managing Development

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

Policies:

a. Effectively utilize and implement existing law to the maximum extent possible in managing present and future coastal zone development;
b. Facilitate timely processing of the application for development permits and resolve overlapping of conflicting permit requirements; and
c. Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the general public to facilitate public participation in the planning and review process.

Response:

The development of the subject property is being conducted in accordance with applicable State and County requirements. Opportunity for review of the proposed action is provided through the County's Special Management Area (SMA) permitting processes.

8. Public Participation

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

Policies:

a. Maintain a public advisory body to identify coastal management problems and to provide policy advice and assistance to the coastal zone management program;

b. Disseminate information on coastal management issues by means of educational materials, published reports, staff contact and public workshops for persons and organizations concerned with coastal related issues, development, and government activities; and

c. Organize workshops, policy dialogues, and site specific mediations to respond to coastal issues and conflict.

Response:

The public will have ample opportunity to review and comment on the proposed project. Surrounding land owners will be notified of the scheduled public hearing dates. Public hearing dates and location maps will also be published in the Maui News. The public will be allowed to participate in the public hearing portion of the Maui Planning Commission's review process. In addition, the applicant has met with the immediate neighbors in an effort to address their concerns.

9. Beach Protection

Objectives: Protect beaches for public use and recreation.

Polices:

a. Locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion;

b. Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and

engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

c. Minimize the construction of public erosion-protection structures seaward of the shoreline.

Response:

As noted earlier, ML&P provided land area for the mauka realignment of Lower Honoapiilani Road fronting the subject property. This realignment allowed additional land area for the development of Pohaku Park and minimized the risk of damage to the roadway. Also, as a result, the subject property is now separated from the shoreline by Pohaku Park and Lower Honoapiilani Road. Accordingly, the project will not involve the construction of any structures within the shoreline area. The subject property will not have a significant impact upon any public beaches.

10. Marine Resources

Objective: Implement the State's ocean resource management plan.

Policies:

a. Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;
b. Assure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;
c. Coordinate the management of marine and coastal resources and activities management to improve effectiveness and efficiency;
d. Assert and articulate the interest of the state as a partner with federal agencies in the sound management of the ocean resources within the United States exclusive economic zone;
e. Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon the ocean and coastal resources; and
f. Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Response:

The proposed project does not involve the direct use or development of marine resources. As noted earlier, ML&P has cooperated with the Soil Conservation

Service in order to minimize impacts resulting from agricultural activities by providing desilting basins throughout West Maui. Also, due to the realignment of Lower Honoapiilani Road, the subject property is now separated from the shoreline by Pohaku Park and Lower Honoapiilani Road. The project will have no direct impact on the region's coastal or marine resources, and with the incorporation of erosion control measures during construction as identified in this report, there should not be significant adverse impacts to nearshore waters from point and non-point sources of pollution. Therefore, the subject property will not have any significant impacts upon any coastal or marine resources.

F. ENVIRONMENTAL ASSESSMENT SIGNIFICANCE CRITERIA

A finding of no significant impact (FONSI) is anticipated and therefore an environmental impact statement will not be required for the project. This determination has been made in accordance with the following significance criteria, which are outlined in section 11-200-12 of the Department of Health's rules relating to environmental impact statements.

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

   As documented in this report, the proposed project will not involve the loss or destruction of any natural or cultural resource.

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

   The project will provide an opportunity for ML&P employees to purchase a residential lot at an affordable price. This is considered a positive benefit for these families. The project will not curtail the range of beneficial uses of the environment in the project vicinity.

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

The project is being developed in compliance with the state's long term environmental goals. As documented in this report, adequate mitigation measures will be implemented to minimize the potential for negative impacts to the environment.

4. *Substantially affects the economic or social welfare of the community or state;*

The proposed project will result in positive social benefits for the future lot owners by providing housing opportunities at an affordable price. Short term economic impacts will result from the increase in activity associated with the construction of the subdivision improvements as well as the future homes. As documented in this report there will be no significant long term impacts to the socio-economic environment.

5. *Substantially affects public health;*

There are no special or unique aspects of the project which will have an impact on public health.

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

There will be a slight affect on local population levels upon buildout of the project with the addition of 45 new families. However, most of these families currently reside in West Maui and therefore the impacts on regional population will be minimized. As documented in this report, the project will not result in a significant impact on public facilities.

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

Mitigation measures will be implemented during the construction stage in order to minimize negative impacts on the environments, especially with regards to construction runoff. Also, the design of the project has incorporated measures to minimize negative environmental impacts including the incorporation of a drainage basin and the minimization of

paved surfaces. As such, there is minimal potential for degradation of environmental quality.

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

The project does not involve a commitment for larger actions on behalf of the applicant or any public agency. In terms of cumulative impacts, the project site is situated in an urban area that has been substantially developed over the last twenty years. The project site is one of the last undeveloped parcels in the immediate vicinity. Infrastructure and utilities which service the site are capable of accommodating the project. The traffic consultant as well as the State of Hawaii Department of Transportation have concluded that the project will not result in significant negative impacts to roadways in the area. Therefore, the project will not lead to cumulative negative impacts on the environment.

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

There are no rare, threatened, or endangered species or habitat at the project site.

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

As documented in this report, there is a potential for negative impacts to air or water quality and ambient noise levels related to short term construction activities. Potential impacts during construction have been minimized by designing the project's roadways to conform to natural topography in order to minimize the amount of earthwork necessary for the project. Air and noise impacts will be mitigated through implementation of standard mitigation measures as identified previously in this report.

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

Portions of Lots 39 to 42 are within the 100-year inundation limits of Pohakukaanapali Gulch. Grading of these lots is proposed to increase buildable areas. Grading the lots will slightly increase the flood water surface elevation, but still the waters would be confined within the gulch. Hence, the proposed grading will not affect the adjacent Mahinahina Ventures Subdivision. There will be no grading on the southern bank of the gulch.

After completion of grading, the area proposed for the development of the residential dwellings will be located in an area of minimal flooding. No structures are proposed for the area defined as 100-year flood hazard potential as this area will be confined to the gulch lot. As such, it is anticipated that future residents of the proposed subdivision will not be adversely impacted by flood and tsunami hazards nor will the project have an adverse affect on neighboring or downstream properties.

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

As noted earlier, public views of the ocean from Honoapiilani Highway exist in various locations between Mahinahina and Kapalua. In many locations along the highway, views to the ocean have been obstructed by development or topography. As described earlier, existing makai views from Honoapiilani Highway will be minimally impacted.

13 *Requires substantial energy consumption.*

Upon full buildout of all the lots, energy consumption will be increased, however, given existing levels of usage in the area the increase is considered insignificant. There is a potential for minor changes in vehicular trip patterns by the 45 families and, thus, potential alterations in vehicle energy consumption as follows. The project is being offered to employees who work at ML&P's Kapalua work sites. Thus, only those employees who currently reside between the Kapalua area and the project site would have longer work commutes. The increase in these commutes

is not significant since the distance between their new residences and work would only be approximately 3 miles. On the other hand, the majority of the employees (estimated at approximately 85%) on ML&P's employee housing list currently reside farther away from Kapalua than the project site and thus will have shorter work commutes. These employees, especially those residing in central, south or east Maui could experience substantial reduction in work commuting distances. Thus, since the majority of employees will experience a reduction commuting distances, the net effect of the project will be a reduction in vehicular energy usage. However, given the existing level of vehicular energy usage in West Maui and on Maui, these changes will be inconsequential.

V. PUBLIC AND AGENCY CONSULTATION

The project site recently went through a rezoning and redistricting process that involved public agency review, a hearing before the Maui Planning Commission, and public meetings before the Maui County Council. The intent of the rezoning and redistricting was to establish consistency with the West Maui Community Plan Land Use Map. The requests for redistricting and rezoning were approved by the County Council on October 2, 1998 and the ordinances were signed by the Mayor and became effective on October 6, 1998 (Ordinances 2702 and 2703.)

The Maui Planning Department's report to the Maui Planning Commission for the Public Hearing on May 26, 1998, contains a record of the comments received prior to the Public Hearing on the requests for land use amendments as well as the SMA. The Planning Department's report is included in this Environmental Assessment as Appendix D.

Responses to substantive agency comments were transmitted to the Planning Department in a letter dated April 16, 1998, which is attached to the Planning Department's report as Exhibit 31.0. Responses to agency comments and concerns have been incorporated into this Environmental Assessment as appropriate.

A number of residents from the adjacent properties wrote letters to the Planning Commission voicing their objections to the proposed rezoning of the project. The primary concerns were that the property had been designated for Park use on the prior Community Plan and that the land use designations should not be changed to single family residential use. The County Council deliberated on the future use of the property during the comprehensive review of the West Maui Community Plan as well as during the meetings on the proposed redistricting and rezoning. The final Council decisions on both the Community Plan and rezoning items were to designate the property for single family residential use because the property did not fit into the long range park needs of the area and that the property should be used for employee housing as proposed by ML&P.

On May 8, 1998 a Petition to Intervene in the SMA proceedings was filed by Guy Haywood, esq., attorney for intervenors Kapalani Estates Owners Association,

Kahana Villas Association of Apartment Owners and Myron A. Resnick. The Petition to intervene was granted by the Maui Planning Commission on May 26, 1998. The matter of the contested case on the SMA permit was subsequently deferred until the requests for rezoning and redistricting were decided on by the Maui County Council. The County Council's decisions became effective on October 6, 1998. The contested case process was initiated in January 1999, with the selection of a hearings officer. The entire contested case proceedings is expected to take approximately 5-7 months. It is anticipated that this Environmental Assessment will result in a Finding of No Significant Impact, and the processing of the Final EA will be completed prior to the commencement of the hearing portion of the contested case. Thus, the Final EA document will be made available to all parties in the contested case during the discovery phase of the proceedings.

VI. FINDINGS AND CONCLUSIONS

As demonstrated in this Environmental Assessment report, ML&P's proposed Kapua Village Employee Subdivision should not result in significant environmental impacts to surrounding areas, archaeological or historic resources, employment opportunities, or local population levels. Public service needs such as police, medical facilities and schools will not be significantly impacted by the project. Impacts to roadways, water, wastewater, drainage and other infrastructure systems area not considered significant.

The request is consistent with existing land use designations including the objectives and policies of the West Maui Community Plan as well as the West Maui Community Plan Land Use Map.

The proposed action will result in positive impacts with regards to the West Maui housing market and mitigating measures have been incorporated in order to address urban design and open space preservation issues.

In light of the foregoing it is hereby concluded that the proposed project not result in significant impacts to the environment and a Finding of No Significant Impact (FONSI) is warranted.

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Figures

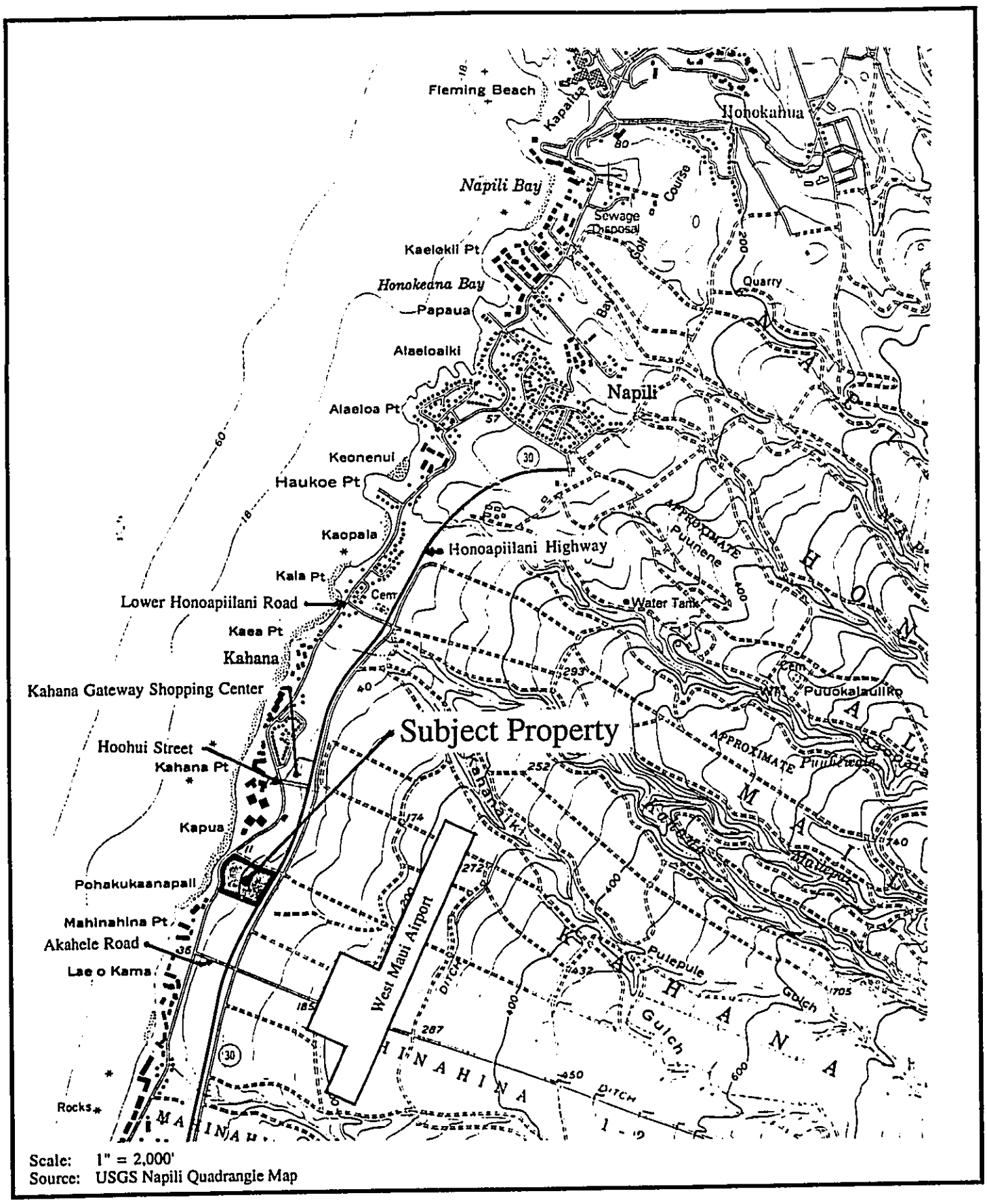


Exhibit - 1

Project Vicinity Map
Kapua Village Subdivision

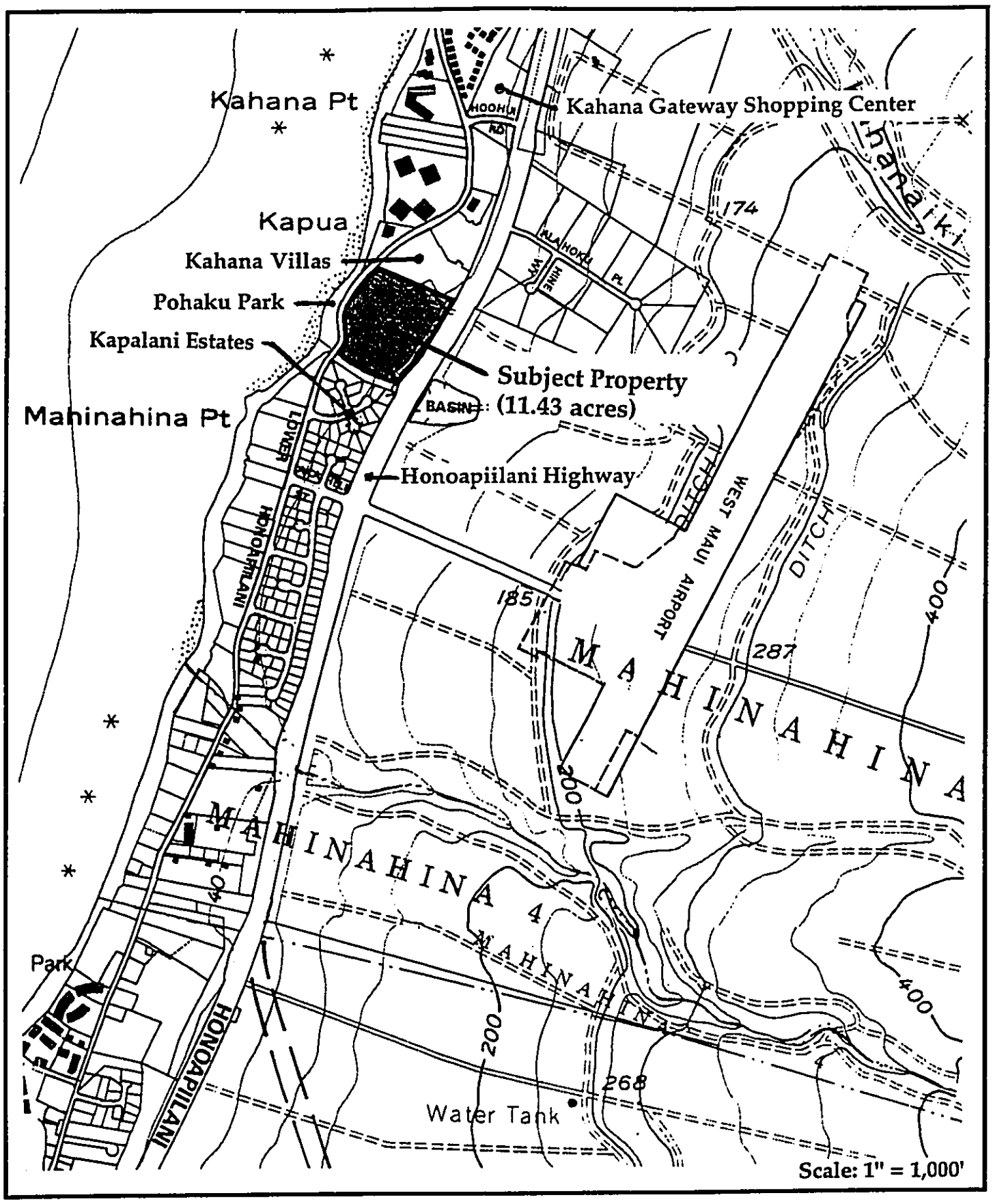


Exhibit - 2

Project Location Map
Kapua Village Subdivision

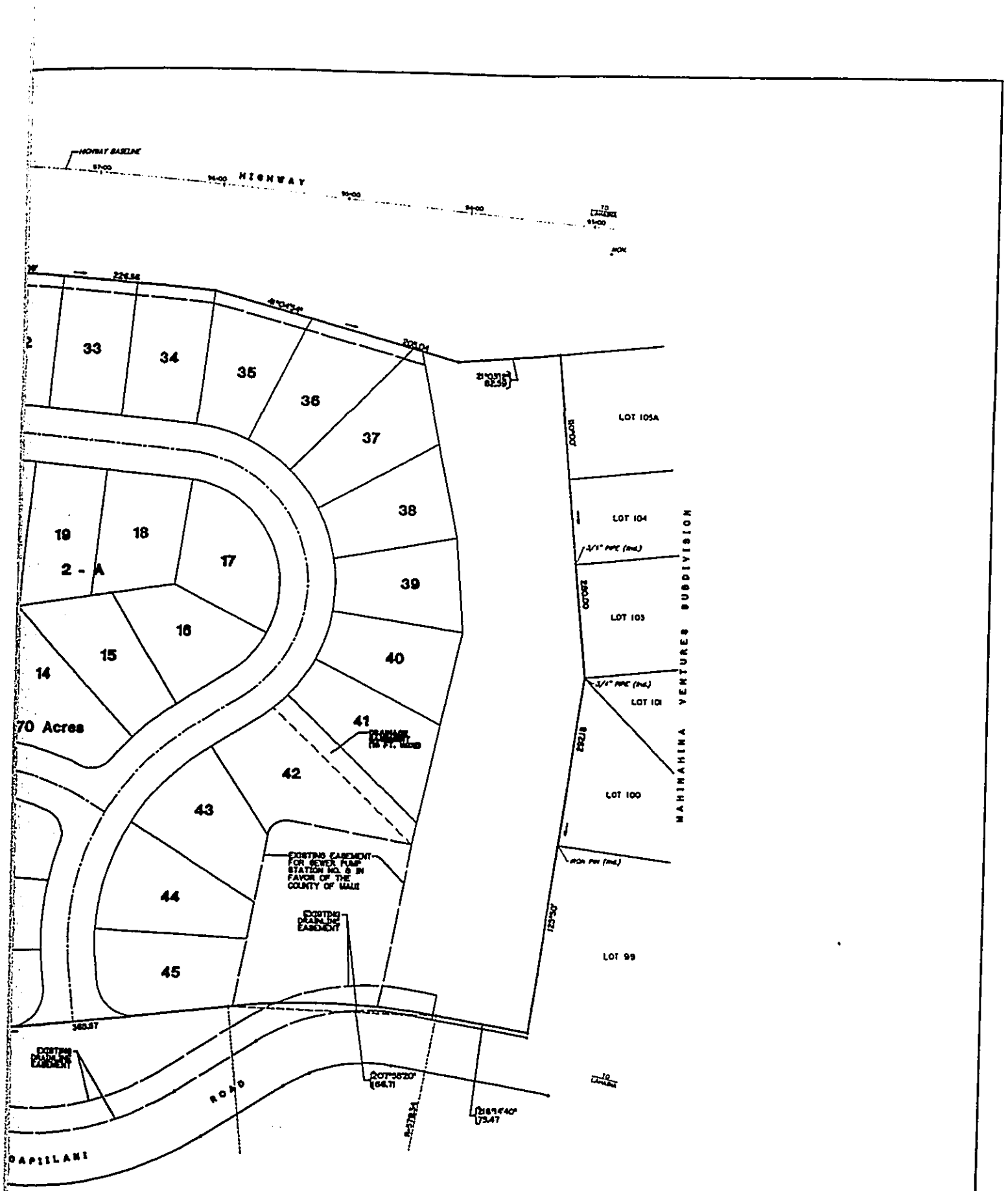
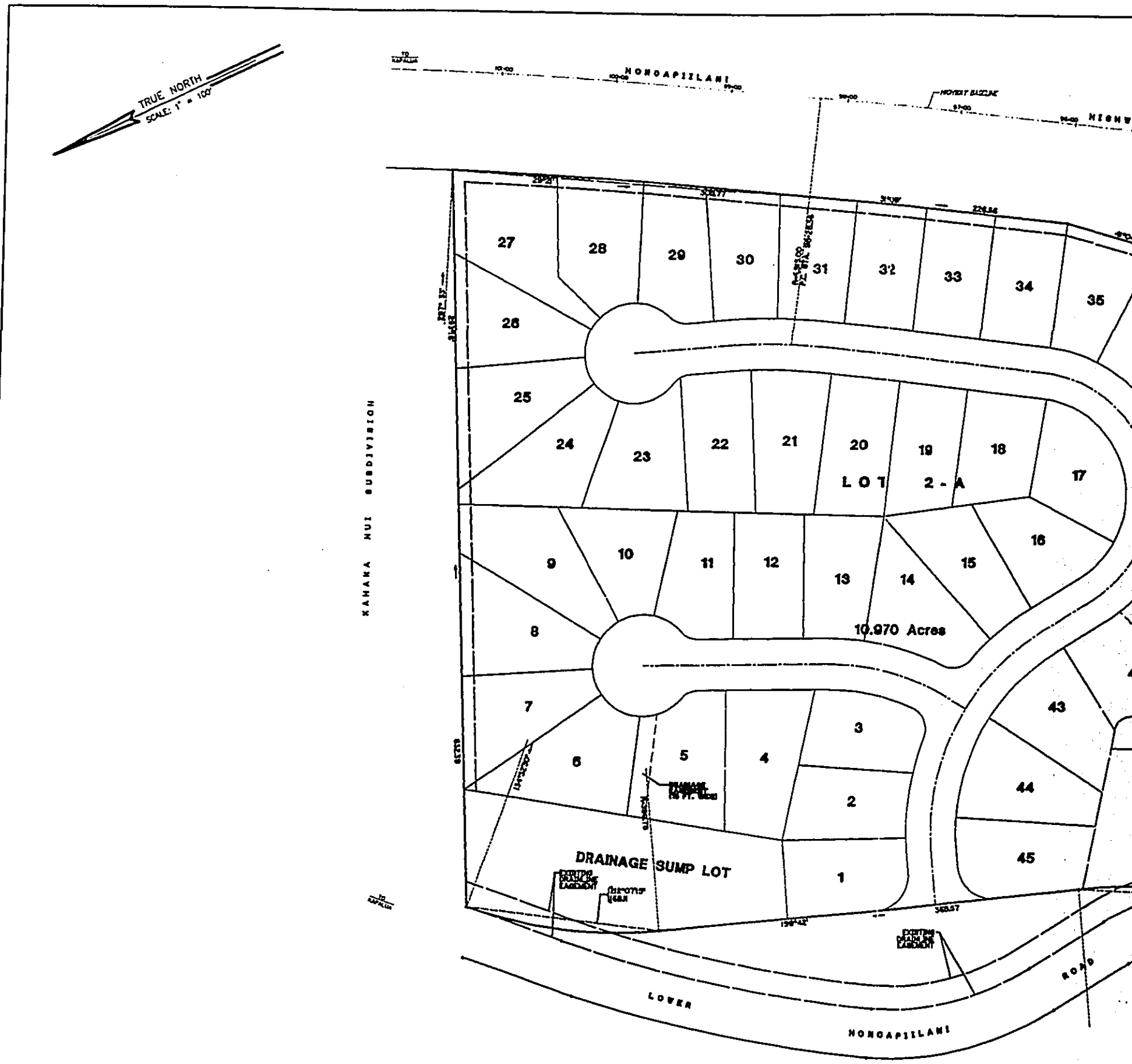


Exhibit 3

ENGINEERS, INC.
& STRUCTURAL ENGINEERS

JOB NO. 97-75



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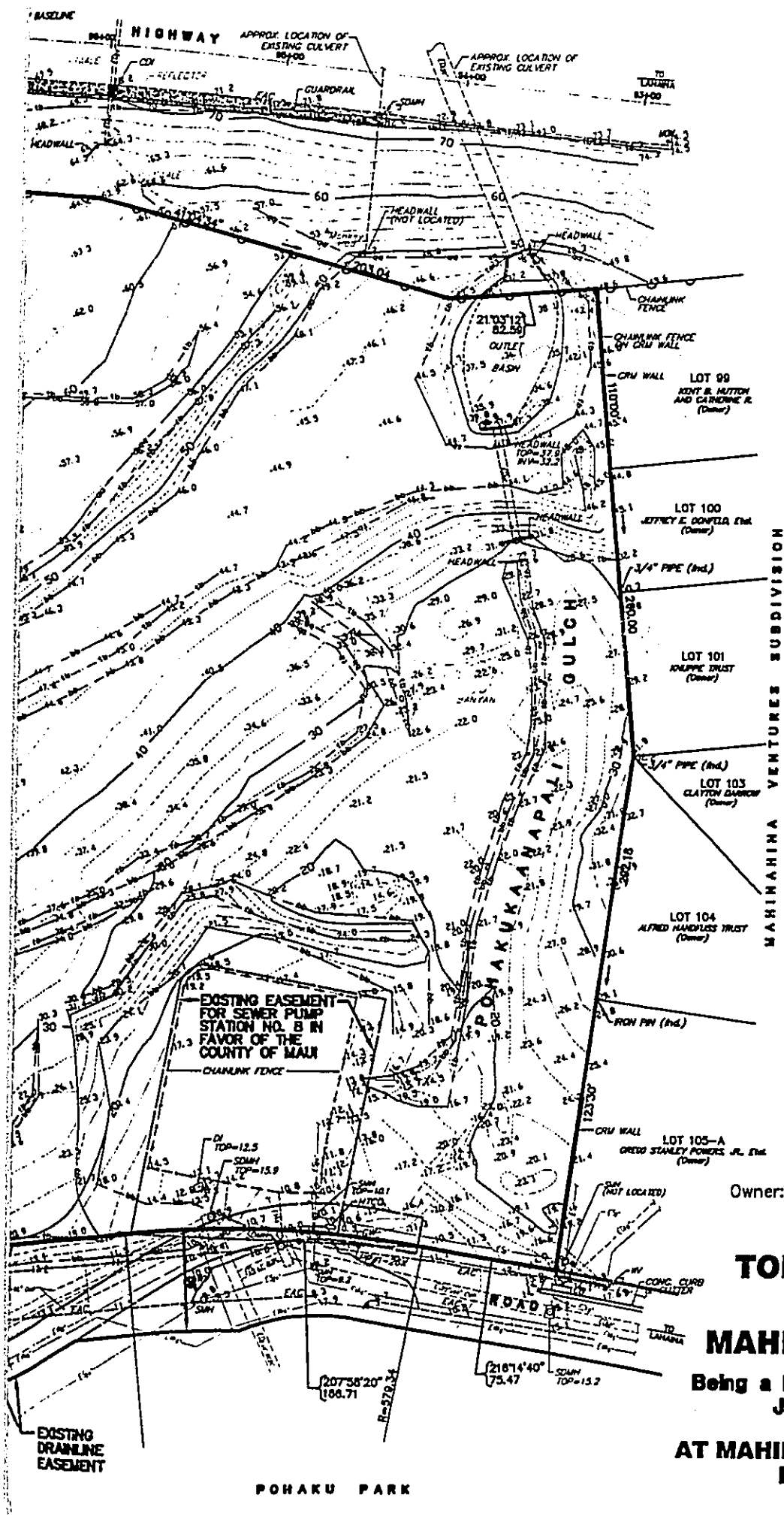
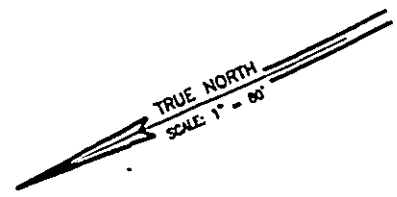
Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS





LEGEND AND ABBREVIATIONS:

- VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS NOT PERMITTED
- EXISTING DRAINLINE W/ SIZE
- EXISTING SEWERLINE W/ SIZE
- EXISTING WATERLINE W/ SIZE
- EXISTING WATERLINE W/ SIZE
- EAC — EDGE A.C. PAVEMENT
- DI — DRAIN INLET
- CB — CATCH BASIN
- POWER POLE W/ GUY WIRE
- POWER POLE
- WATER VALVE
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- MECO — MAUI ELECTRIC HANDHOLE OR PULLBOX
- HTEL — TELEPHONE HANDHOLE OR PULLBOX

NOTES FOR TOPOGRAPHIC FEATURES:

1. ELEVATION DATUM = MEAN SEA LEVEL.
2. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD, HOWEVER, CONNECTION OF UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES, BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.

EXHIBIT 4

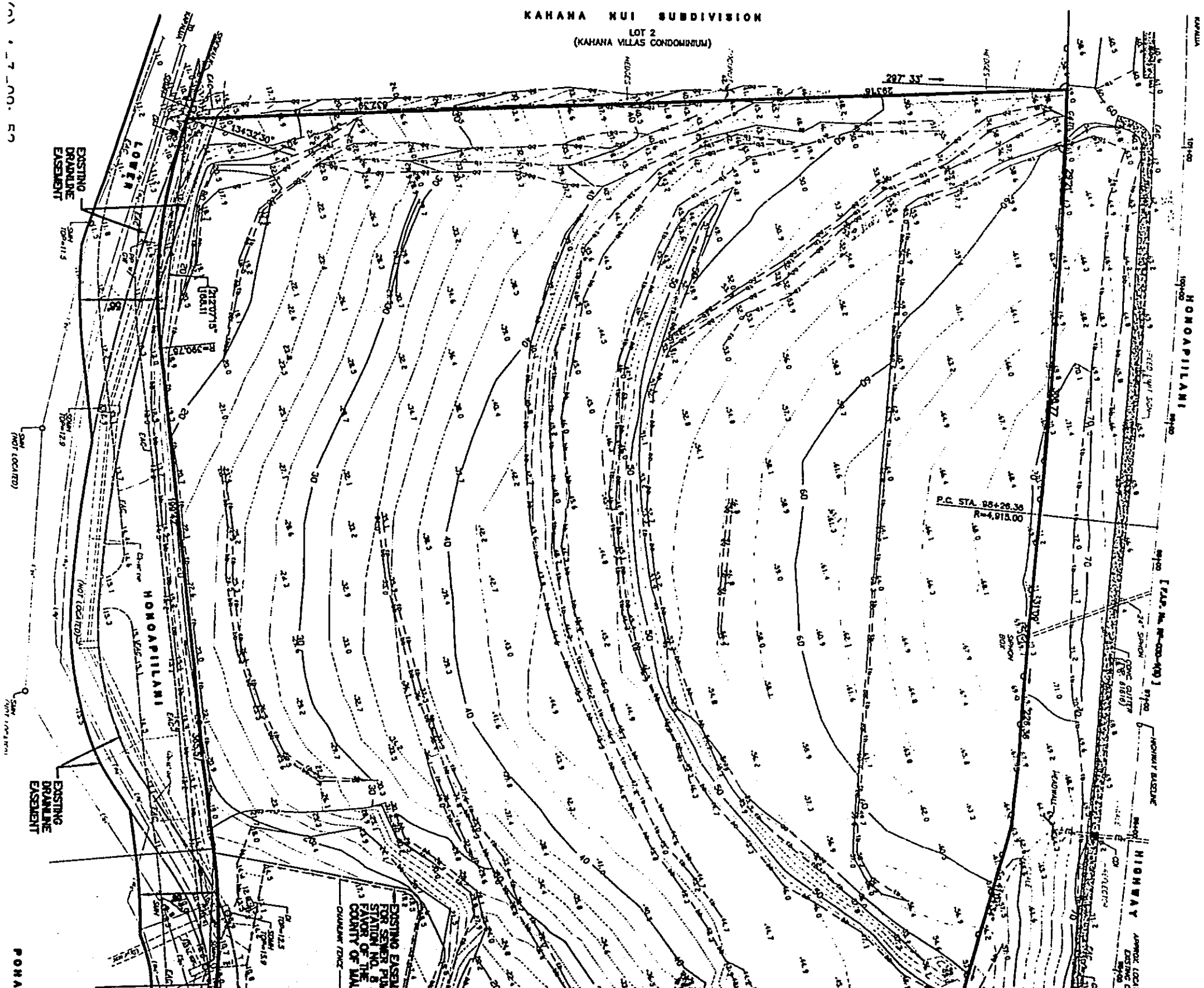
Owner: MAUI LAND AND PINEAPPLE COMPANY
Kahului, Maui, Hawaii

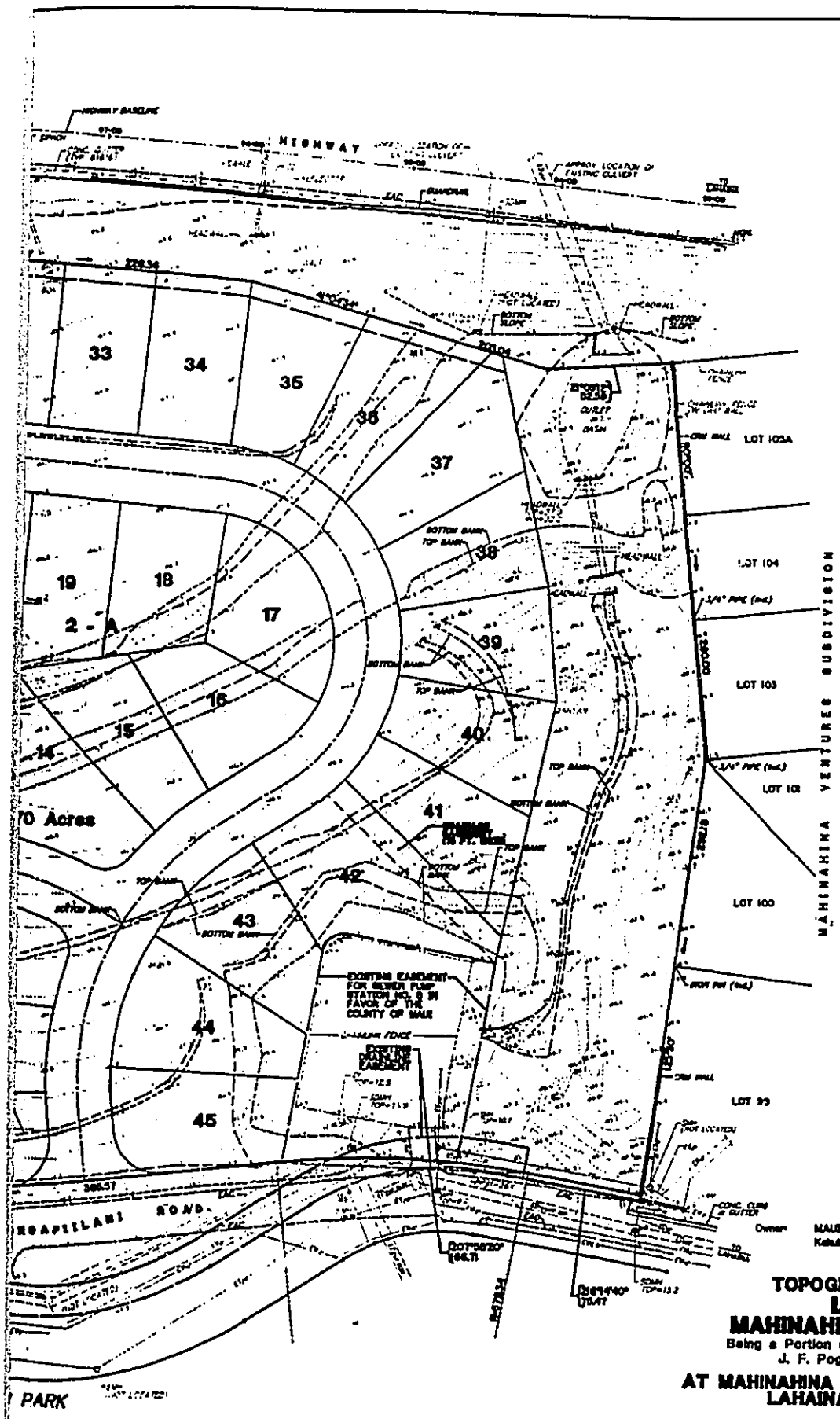
TOPOGRAPHIC SURVEY

LOT 2-A
MAHINAHINA SUBDIVISION

Being a Portion of Grant 1166 to D. Baldwin, J. F. Pogue and S. E. Bishop

AT MAHINAHINA 1, 2 AND 3, KAANAPALI, LAHAINA, MAUI, HAWAII


KAHANA HUI SUBDIVISION
LOT 2
(KAHANA VILLAS CONDOMINIUM)
297° 35'
134°32'30"
EXISTING DRAINLINE EASEMENT
LOWER
HONOAPIILANI
HIGHWAY
P.C. STA. 98+26.36
R=4,913.00
EXISTING DRAINLINE EASEMENT
EXISTING EASEMENT FOR SEWER PUMP STATION NO. 8 IN FAVOR OF THE COUNTY OF MAUI
DRAINLINE FENCE
POHAKU



Owner MAUI LAND AND PINEAPPLE COMPANY
Kahului, Maui, Hawaii

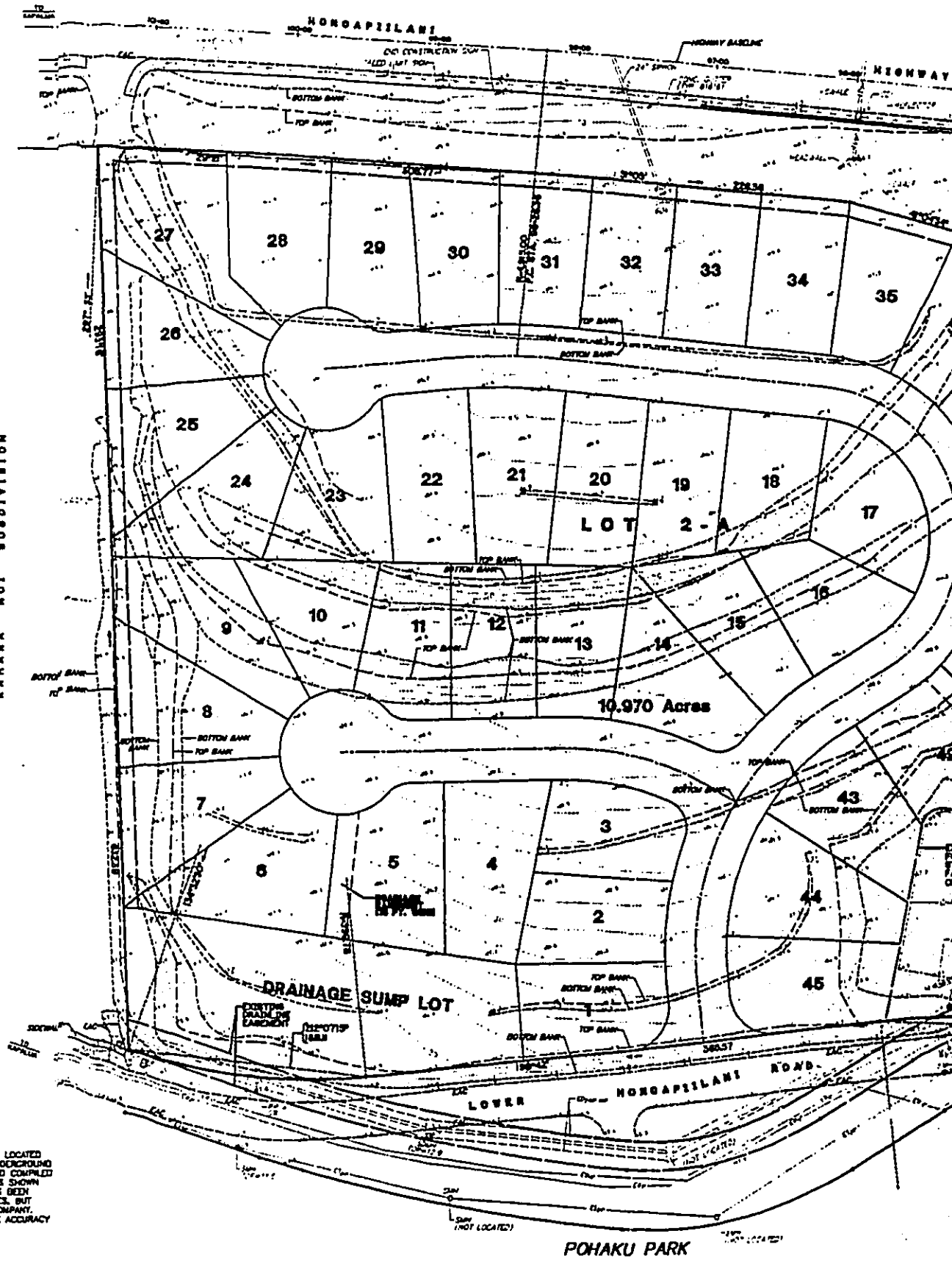
TOPOGRAPHIC SURVEY
LOT 2-A
MAHINAHINA SUBDIVISION
Being a Portion of Grant 1186 to D. Baldwin, J. F. Pogue and S. E. Bishop
AT MAHINAHINA 1, 2 AND 3, KAANAPALI, LAHAINA, MAUI, HAWAII

Exhibit 5

ENGINEERS, INC.
& STRUCTURAL ENGINEERS

JOB NO. 97-75

TRUE NORTH
SCALE: 1" = 100'



KAHANA NUI SUBDIVISION

LEGEND AND ABBREVIATIONS:

- EXISTING DRAINLINE W/ SIZE
- EXISTING SEWERLINE W/ SIZE
- EXISTING WATERLINE W/ SIZE
- EDGE A.C. PAVEMENT
- DRAIN INLET
- CATCH BASIN
- POWER POLE W/ GUY WIRE
- POWER POLE
- WATER VALVE
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- MAUI ELECTRIC HANDHOLE OR PULLBOX

NOTES:

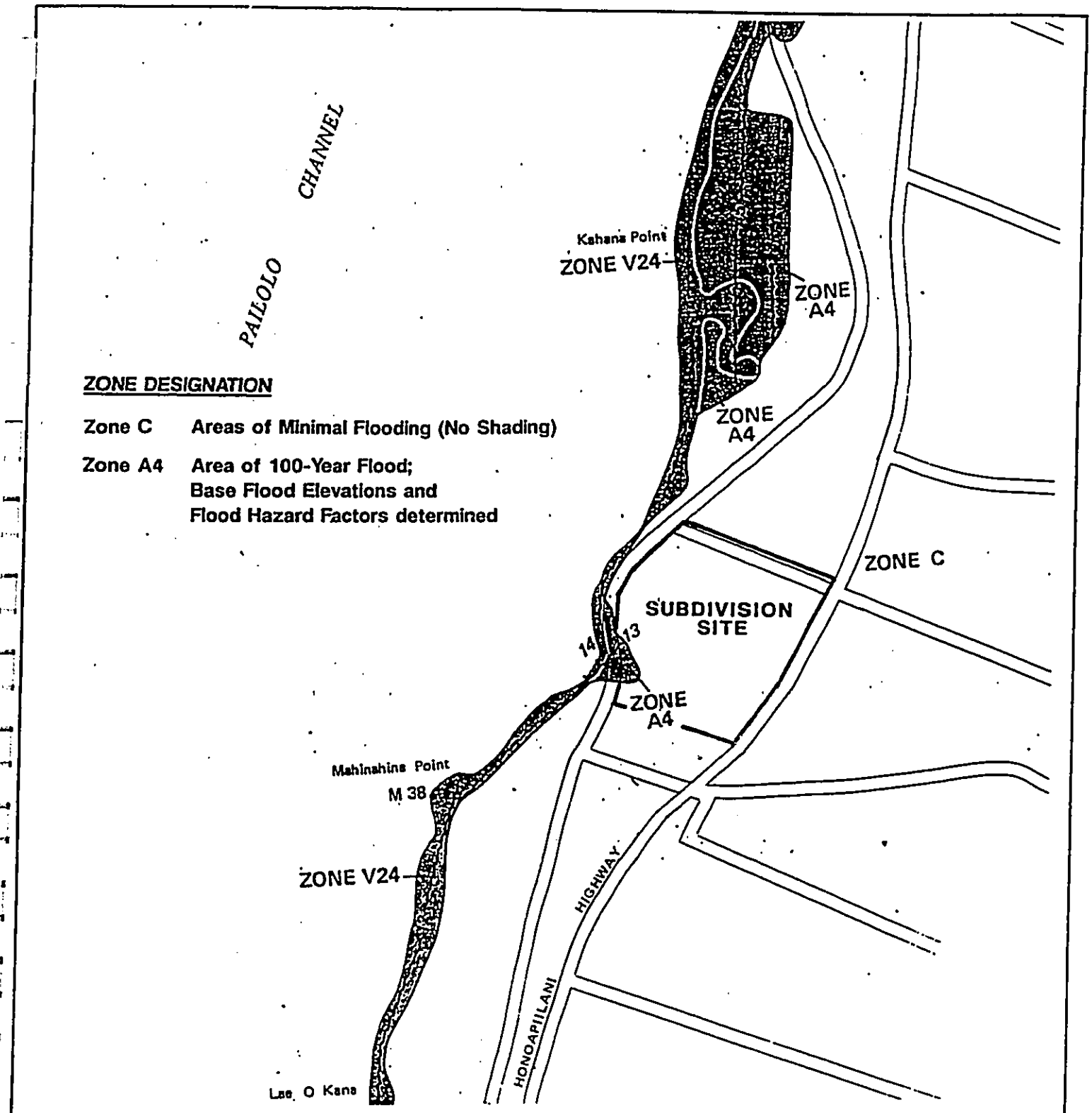
1. ELEVATION DATUM = MEAN SEA LEVEL.
2. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD. HOWEVER, CONNECTION OF UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES, BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.

D:\DRAW1\97-75\STURN.DWG (5000) "FILE:STURN"

Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS



ZONE DESIGNATION

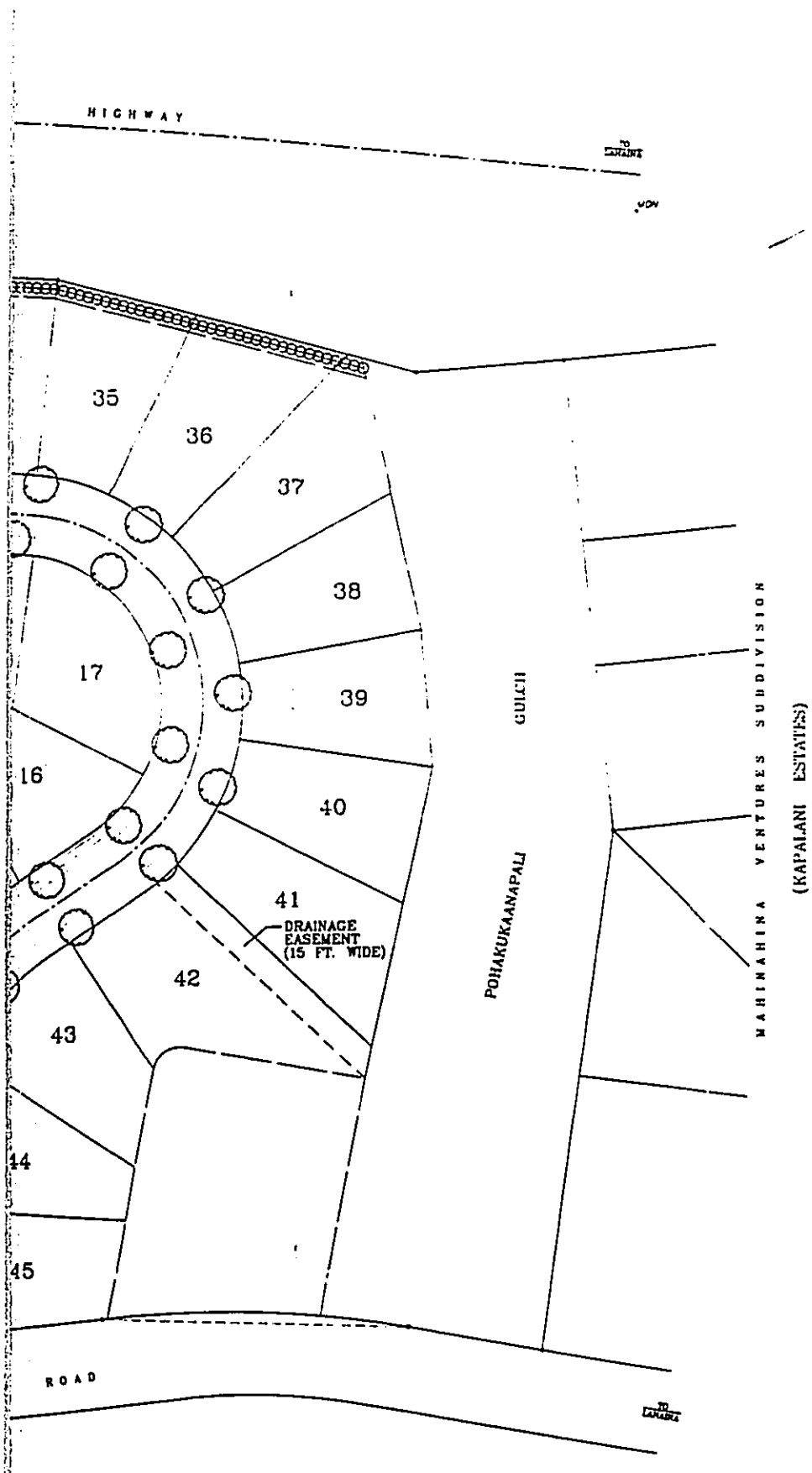
Zone C	Areas of Minimal Flooding (No Shading)
Zone A4	Area of 100-Year Flood; Base Flood Elevations and Flood Hazard Factors determined

FLOOD MAP

Scale: 1" = 500'

Reference:
Flood Insurance Rate Maps for County of Maui
PNL 150003 0151

Exhibit 6



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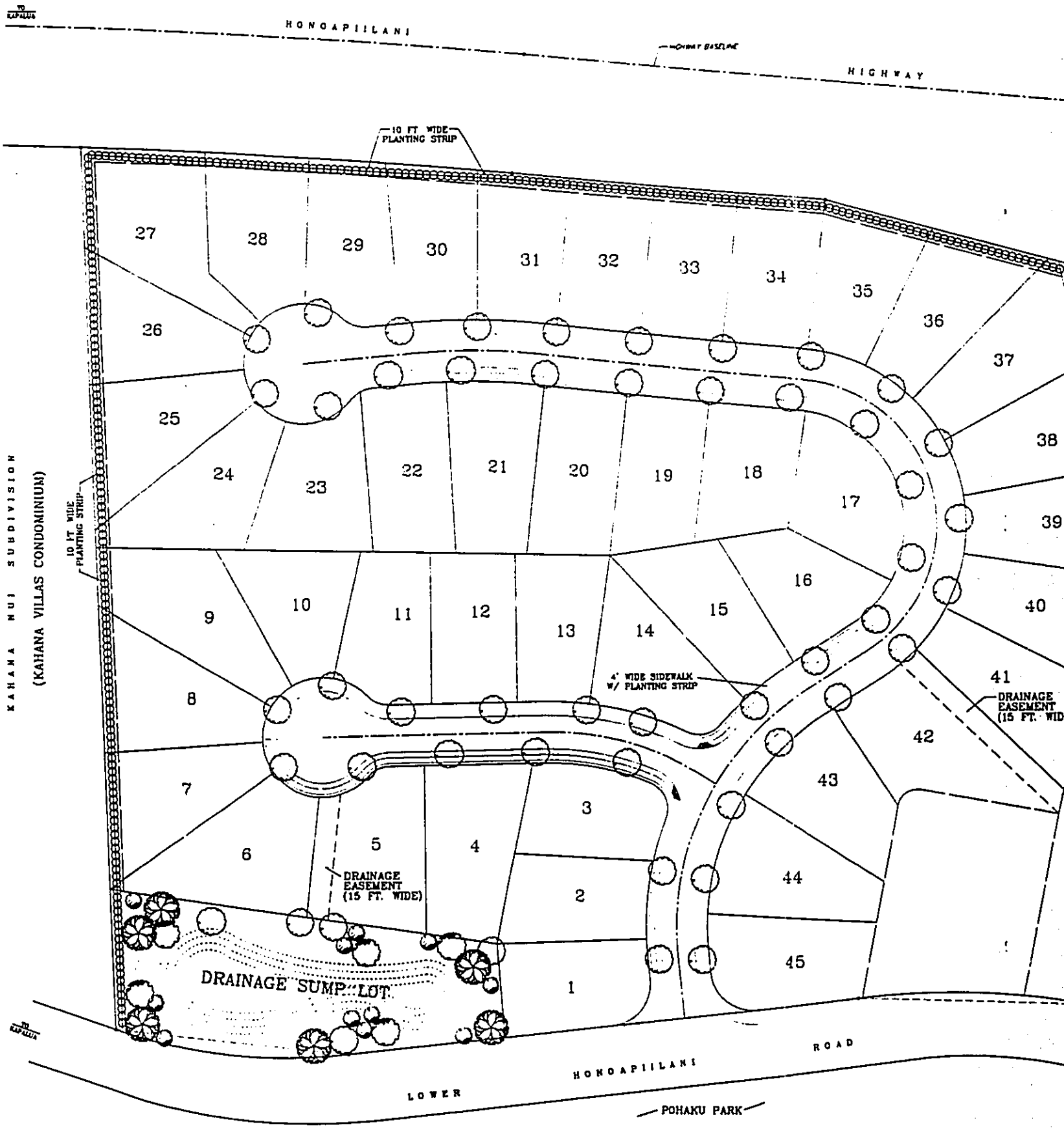
PE PLAN

CHRIS HART & PARTNERS

LANDSCAPE ARCHITECTURE AND PLANNING

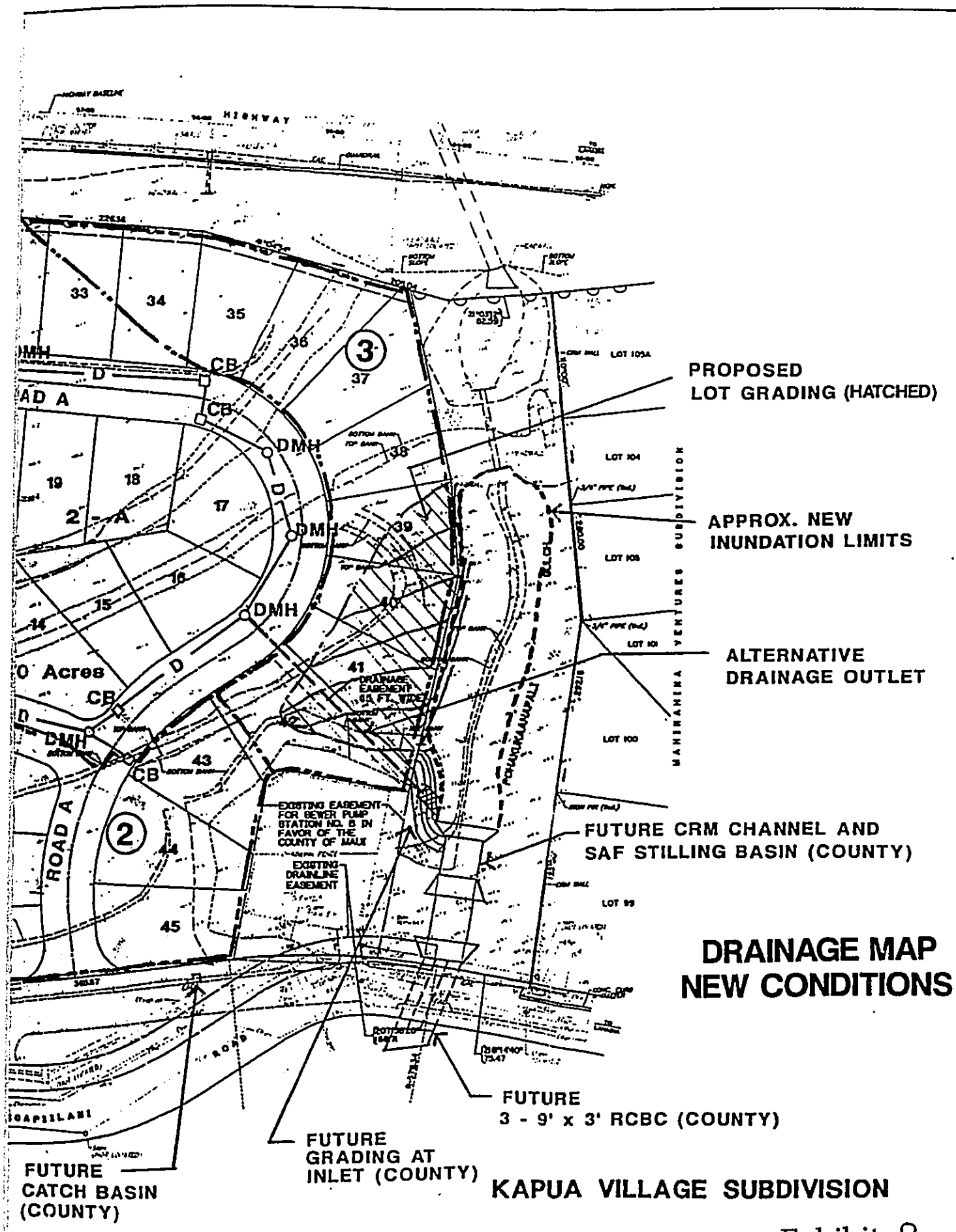
Exhibit-7



KAPUA VILLAGE

LAHAINA, MAUI, HAWAII
T.M.K. (2) 4 - 3 - 09 : 52

CONCEPT LANDSCAPE PLAN



DRAINAGE MAP NEW CONDITIONS

KAPUA VILLAGE SUBDIVISION

Exhibit 8

ENGINEERS, INC.
STRUCTURAL ENGINEERS

JOB NO. 97-75

TRUE NORTH
SCALE: 1" = 100'

DRAINAGE SYSTEM LEGEND:

- CB — NEW CATCH BASIN
- DMH — NEW STORM DRAIN MANHOLE
- D — NEW DRAINLINE 24" UNLESS NOTED
- OUTLET
- ② DRAINAGE AREA DESIGNATION

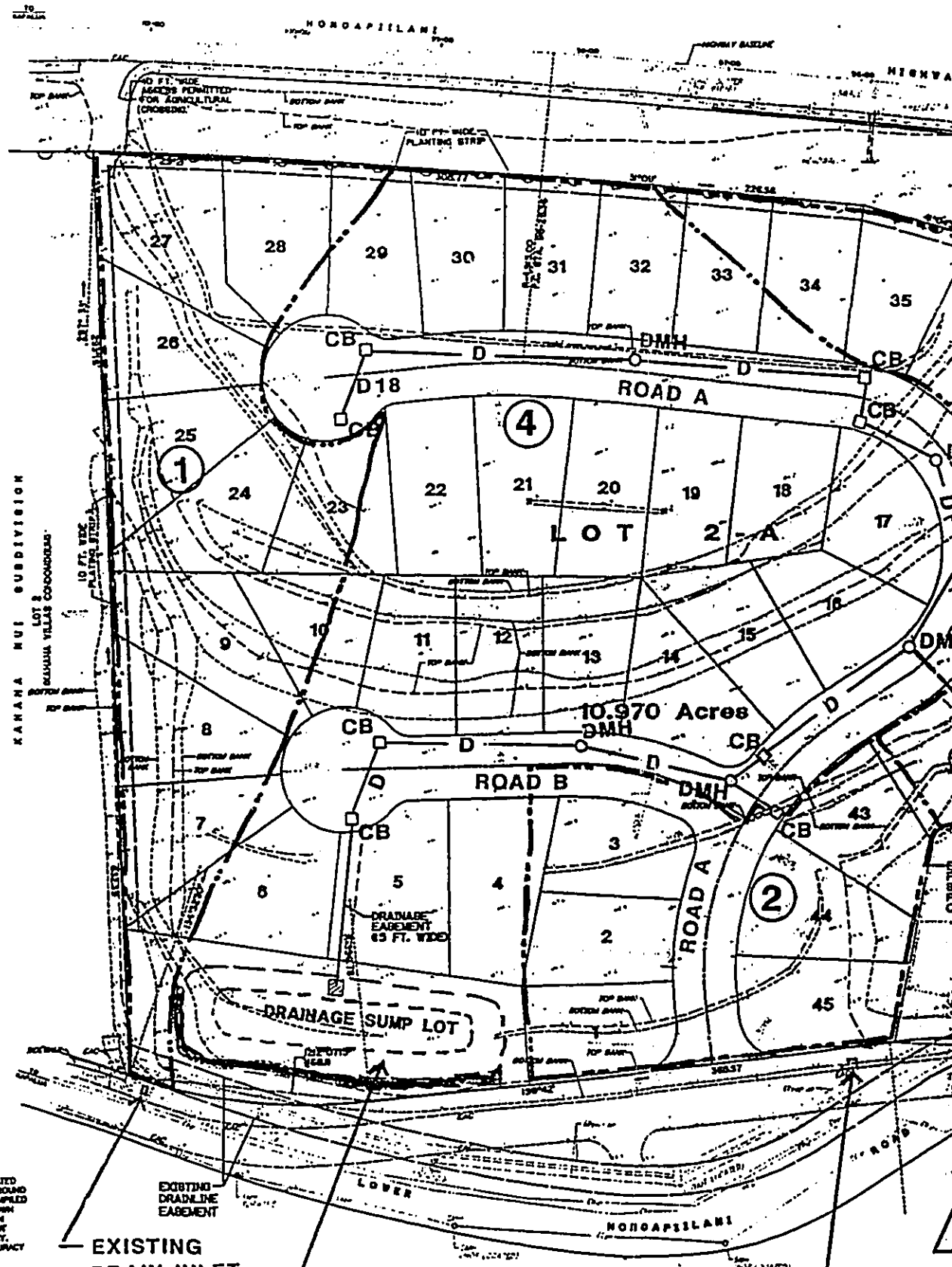
NOTE:
FUTURE DRAINAGE IMPROVEMENTS BY THE COUNTY WERE TAKEN FROM PLANS FOR LOWER HONOAPIILANI ROAD IMPROVEMENTS, PHASE 3

LEGEND AND ABBREVIATIONS:

- VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS NOT PERMITTED
- EXISTING DRAINLINE W/ SIZE
- EXISTING SEWERLINE W/ SIZE
- EXISTING WATERLINE W/ SIZE
- EDGE A.C. PAVEMENT
- DRAIN INLET
- CATCH BASIN
- POWER POLE W/ GUY WIRE
- POWER POLE
- WATER VALVE
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- MALE ELECTRIC MANHOLE OR PULLBOX
- TELEPHONE MANHOLE OR PULLBOX
- GROUND ELEVATION
- GROUND CONTOUR

NOTES:

1. ELEVATION DATUM – MEAN SEA LEVEL.
2. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD. HOWEVER, CONNECTION OF UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES, BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.



EXISTING DRAIN INLET

PROPOSED RETENTION BASIN
TOP = 20.0
BOT. = 10.0±

FUTURE CATCH BASIN (COUNTY)

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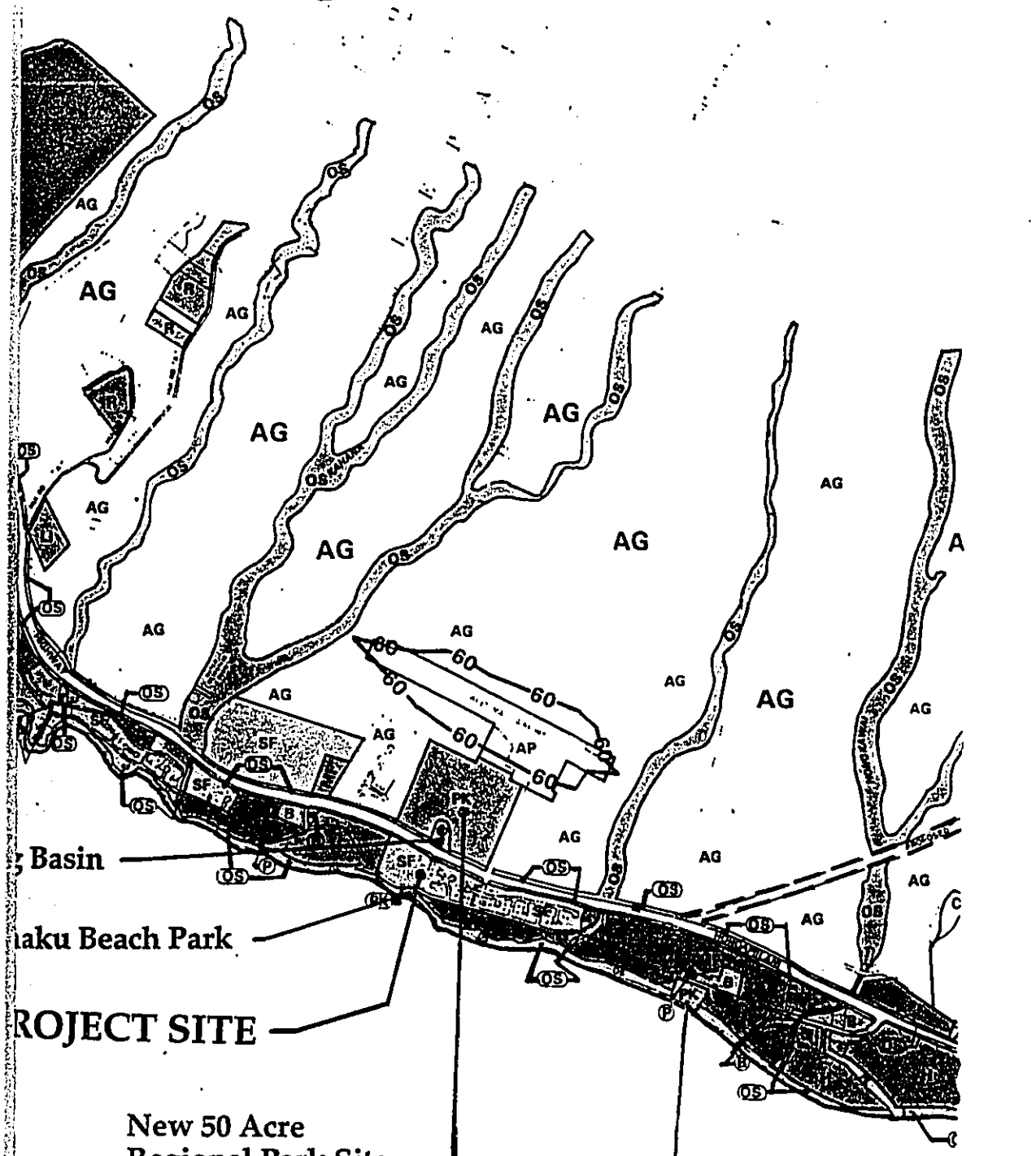
Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS



unity Plan Map
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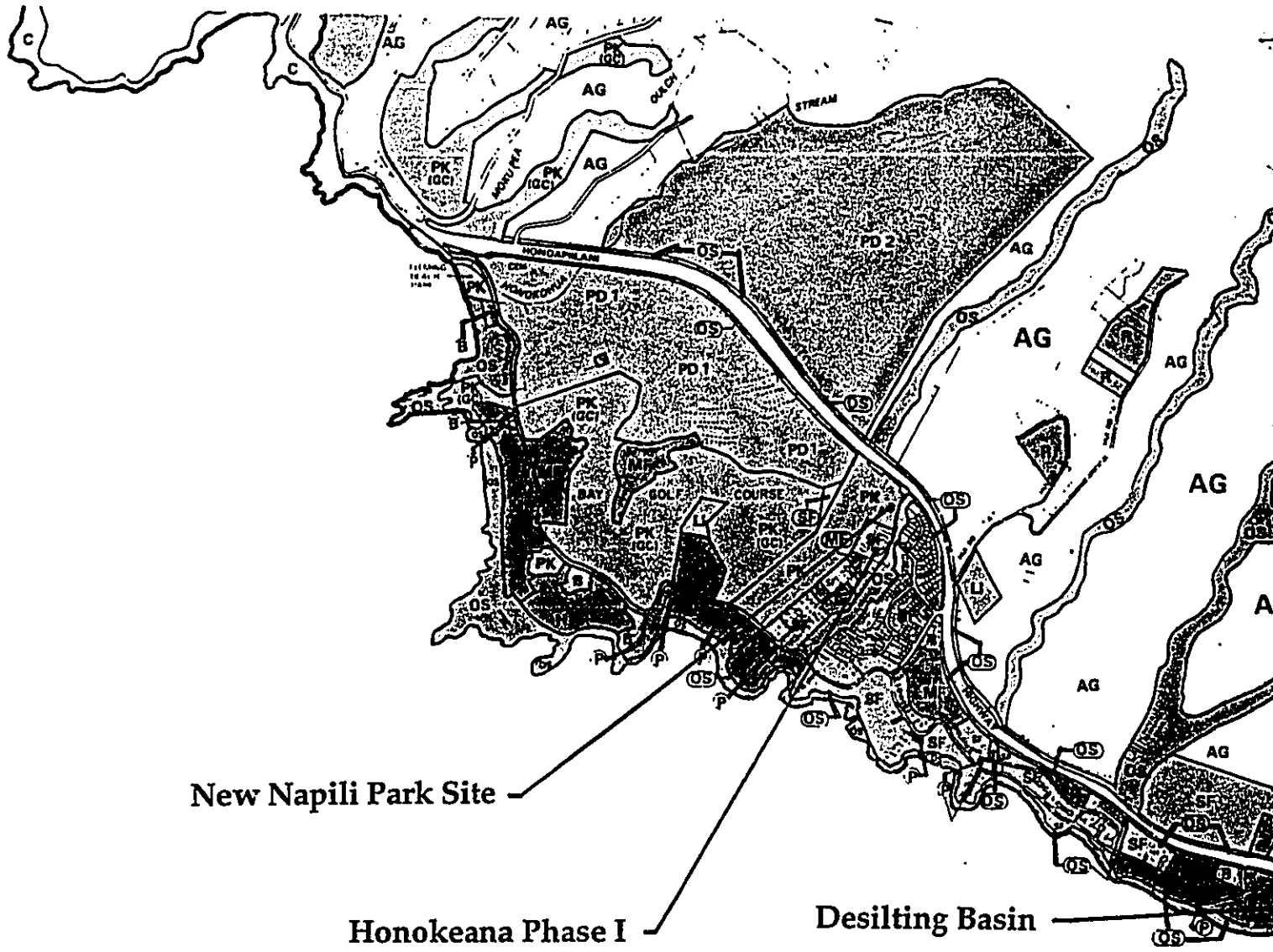
9

CHRIS HART & PARTNERS



Not to Scale

West Maui Community Plan Ma

Kapua Village
Maui Land & Pineapple Employee Subdivis

EXHIBIT 9

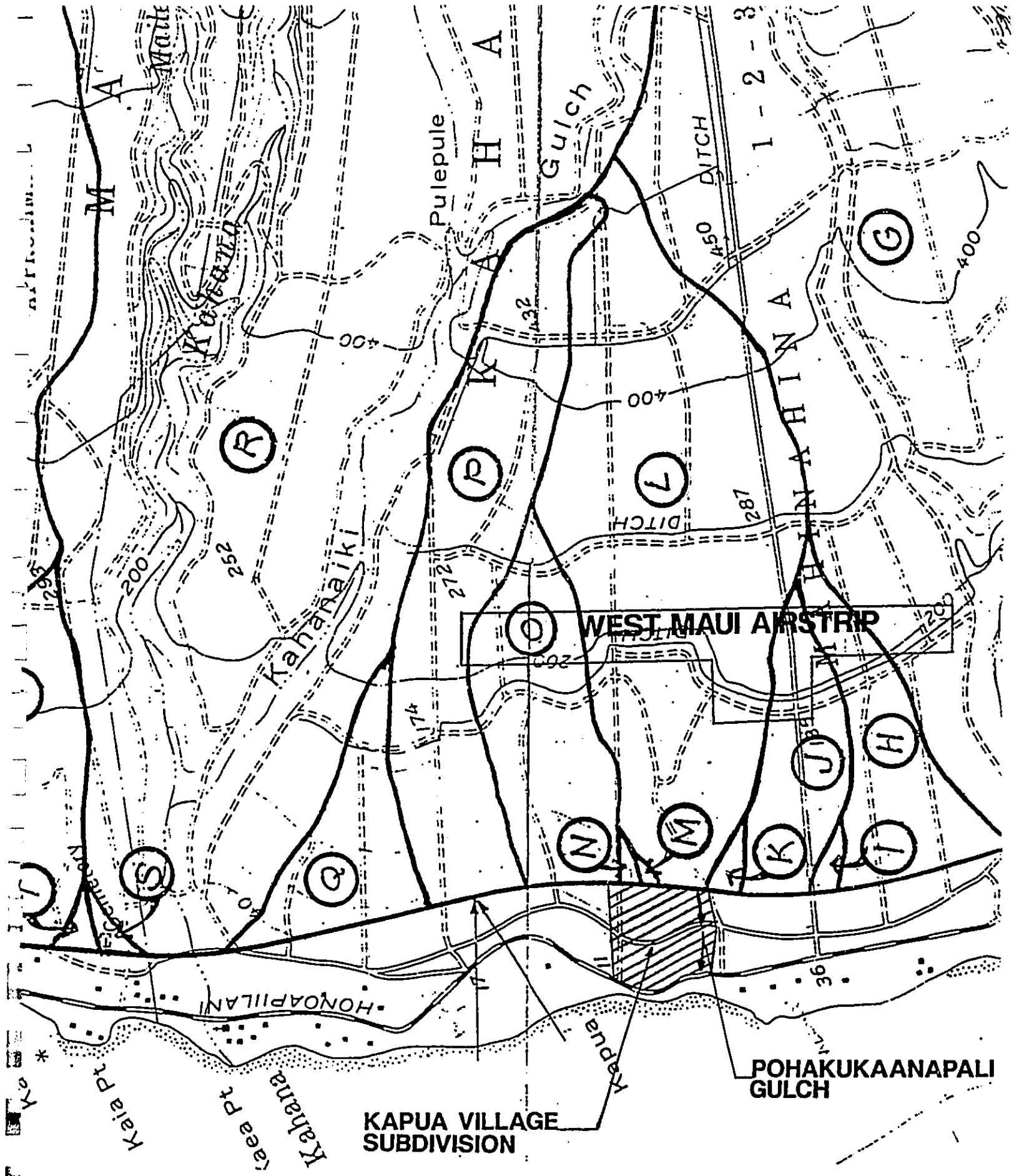
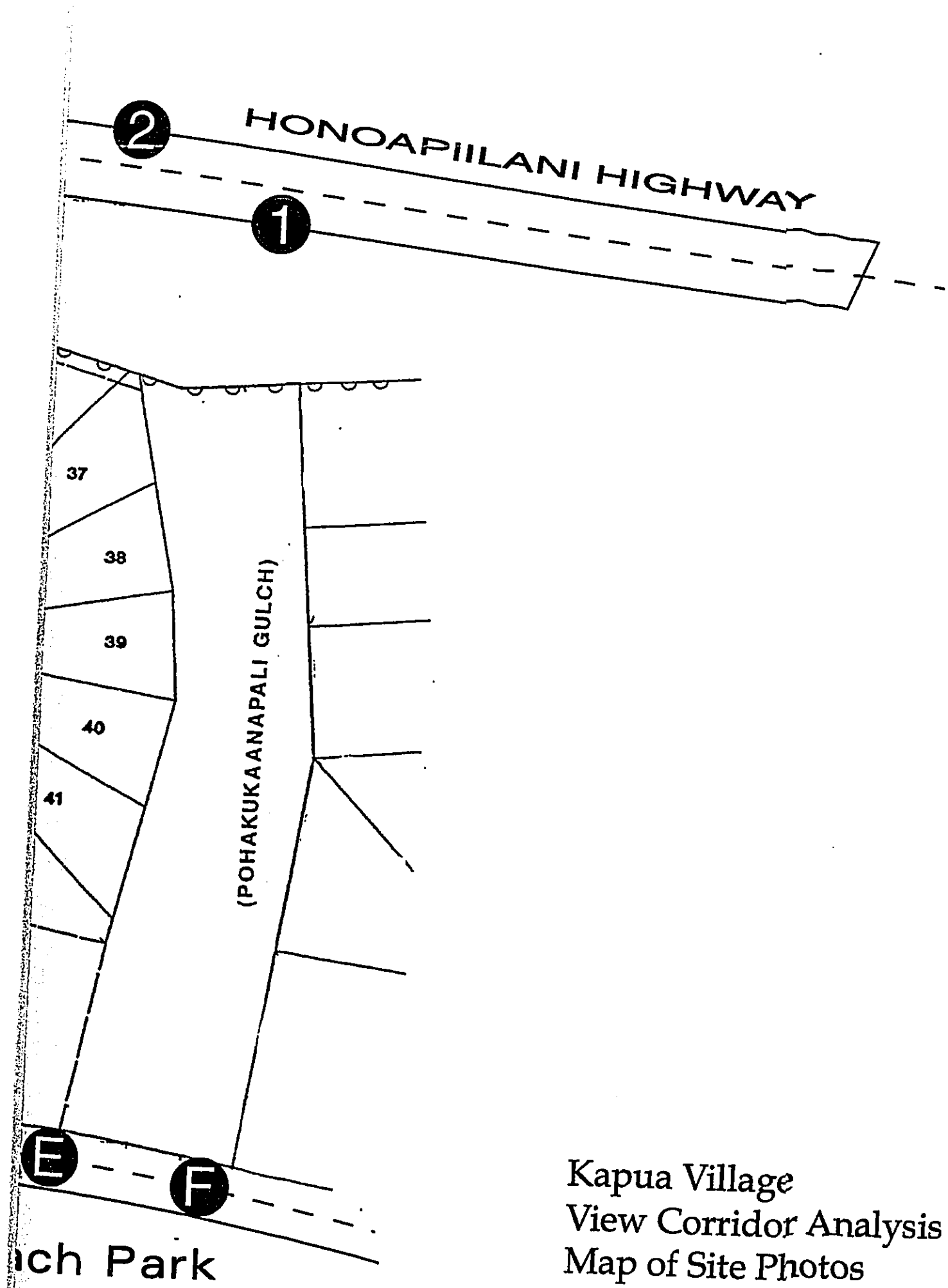


EXHIBIT 10

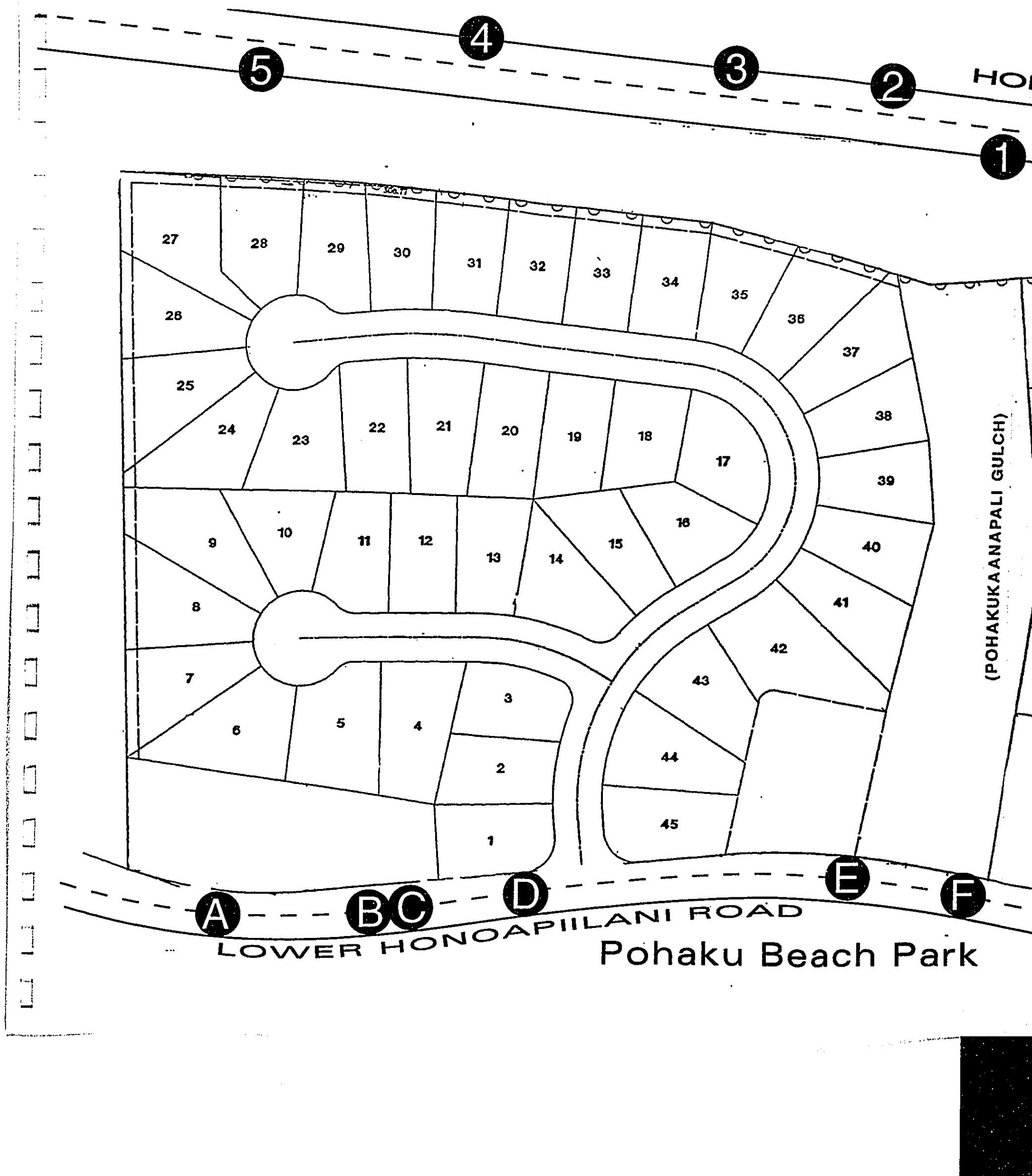
POHAKUKAANAPALI DRAINAGE BASIN

Scale: 1" = 1,000'



Kapua Village
View Corridor Analysis
Map of Site Photos

Exhibit 11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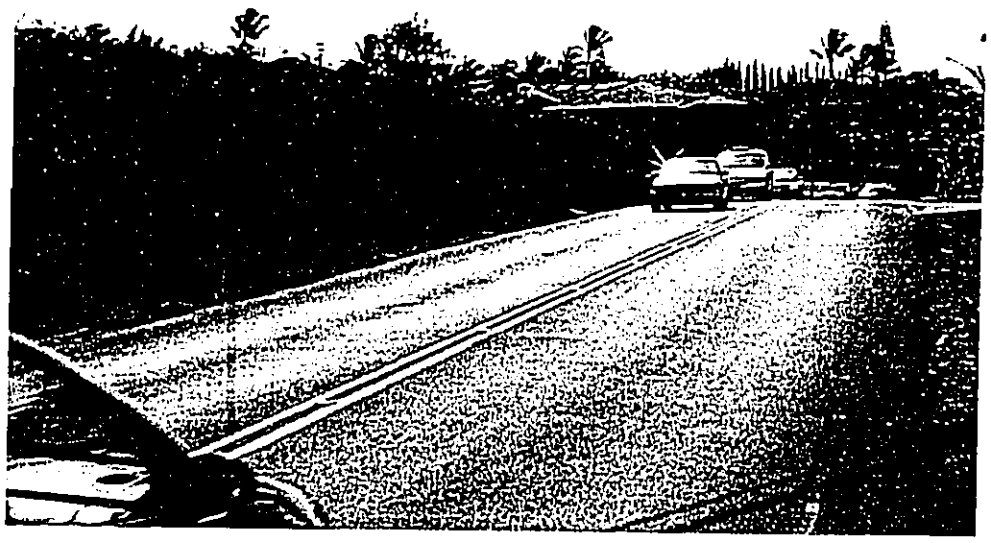
1
(POHAKUKAANAPALI GULCH)
A
B
C
D
E
F
LOWER HONOAPIILANI ROAD
Pohaku Beach Park

A



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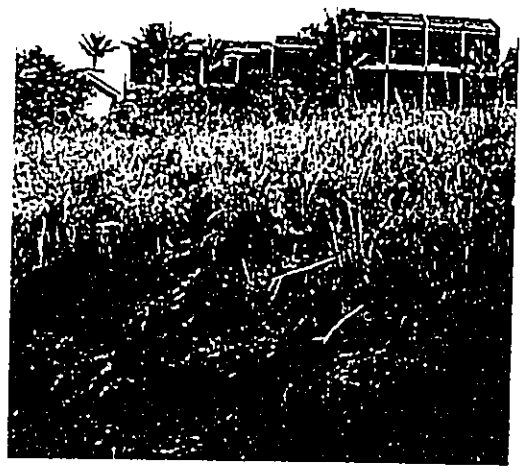

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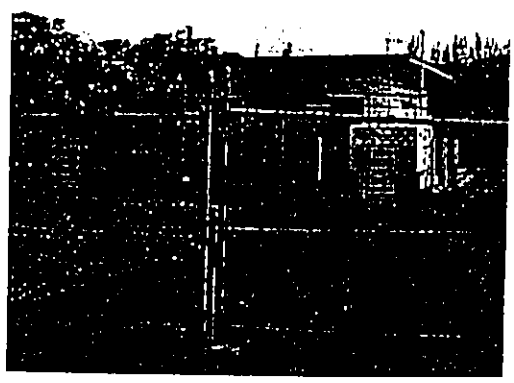
E

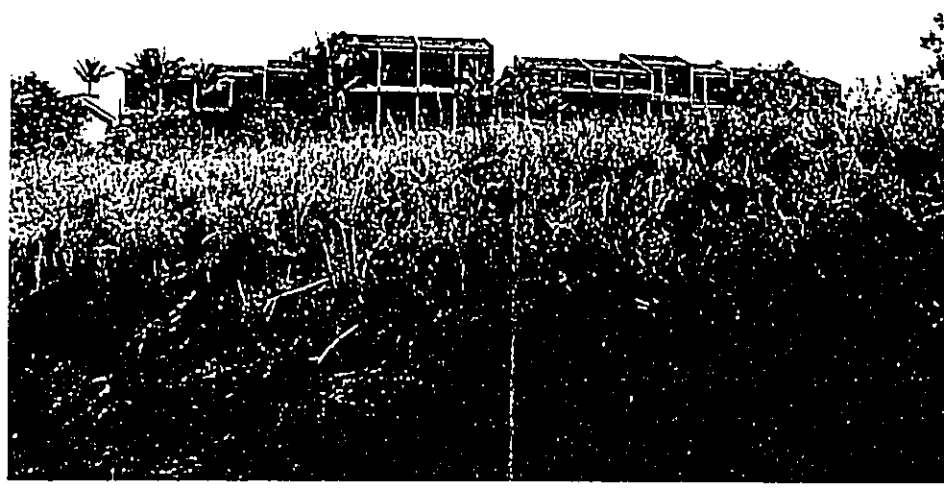


CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

A

B



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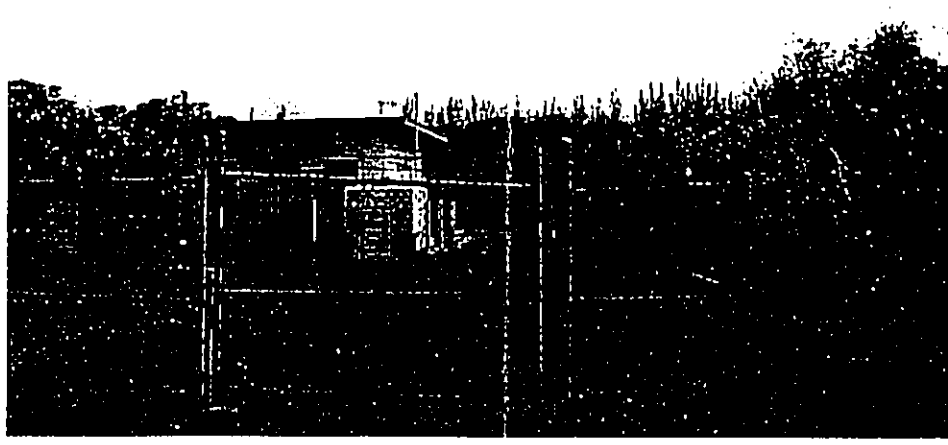
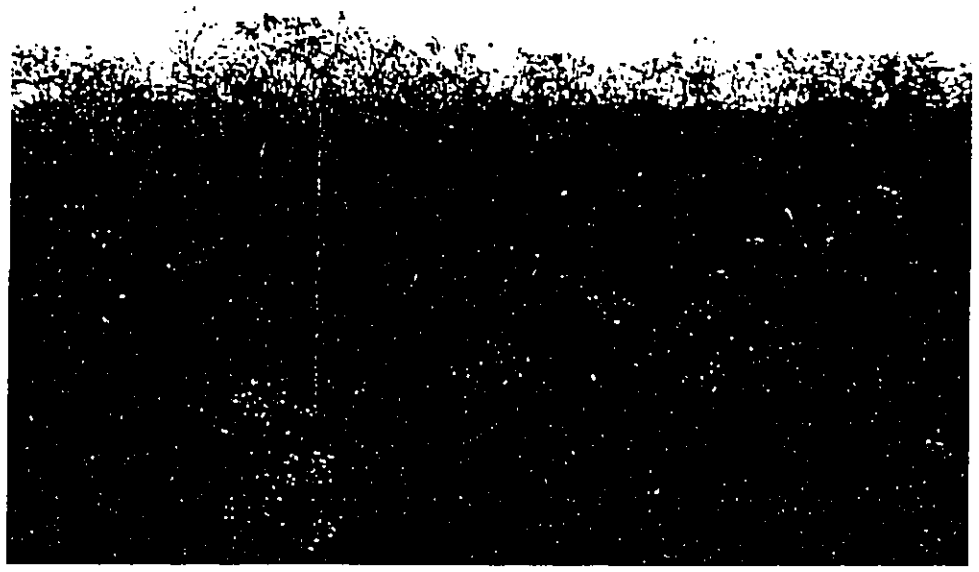
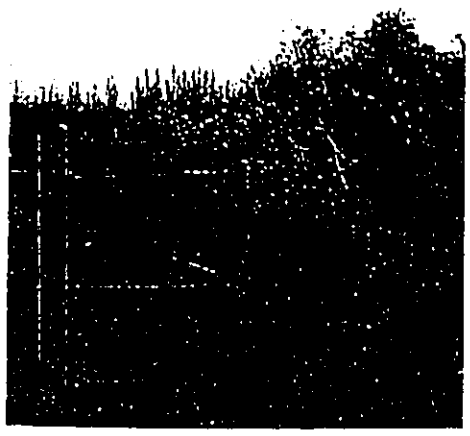


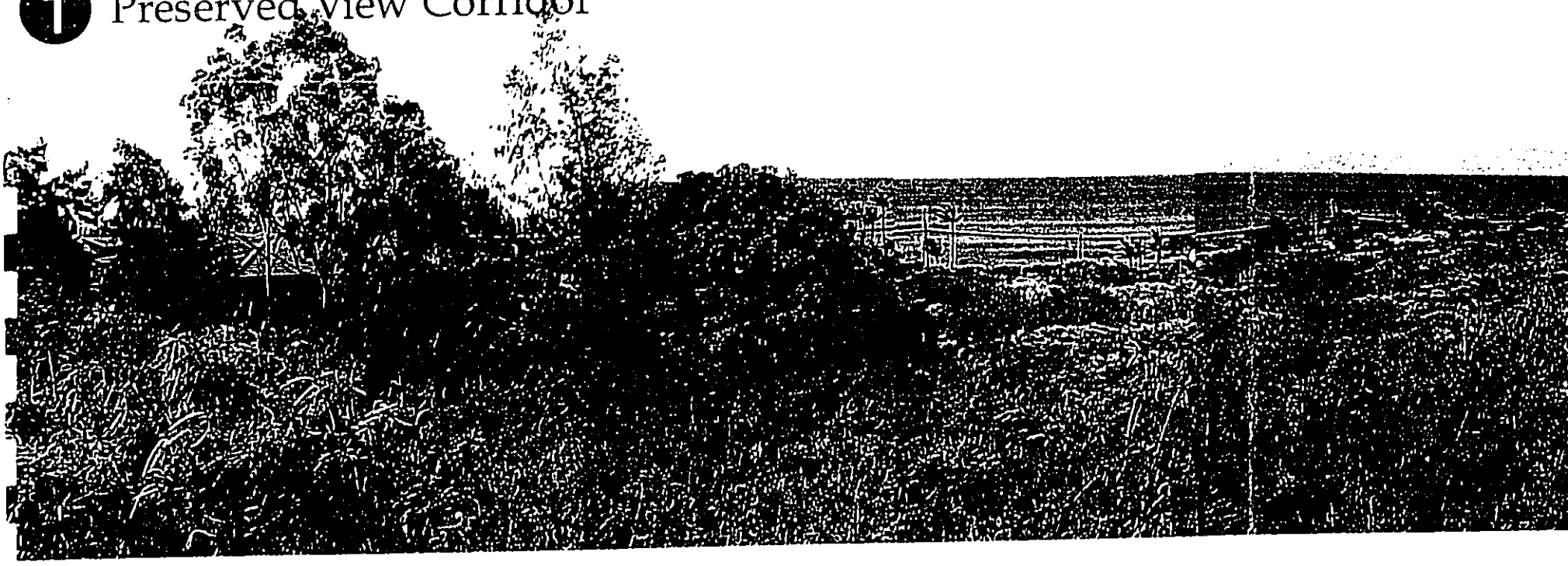




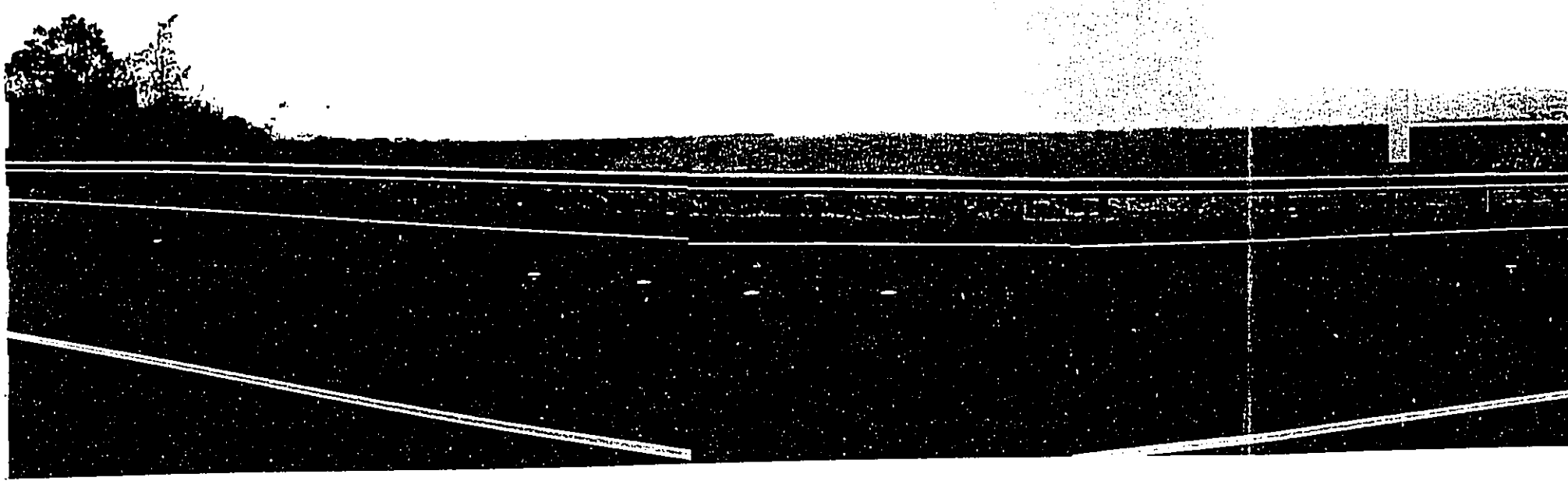
Kapua Village
View Corridor Analysis
Mauka Views

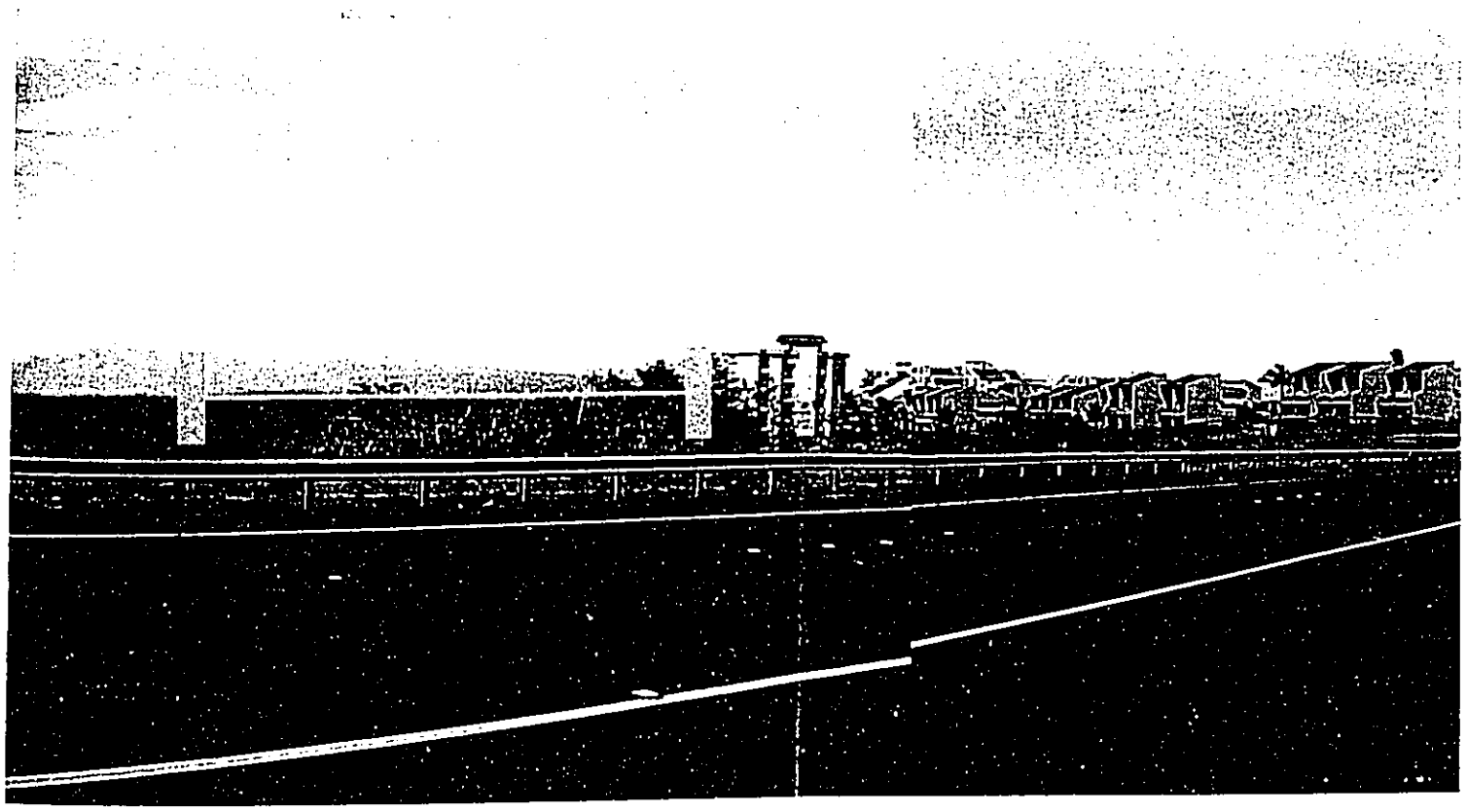
Exhibit 12

1 Preserved View Corridor



2 Potentially Obstructed View Corridor

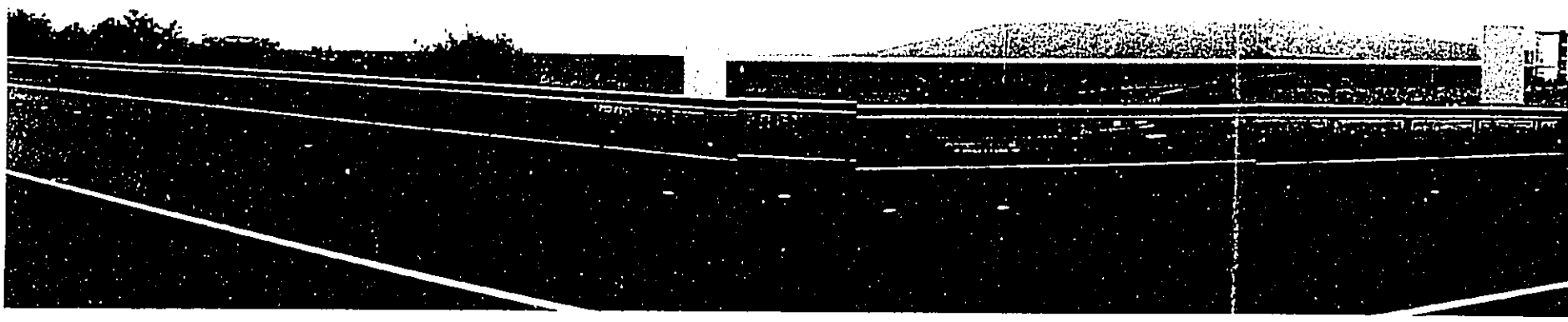




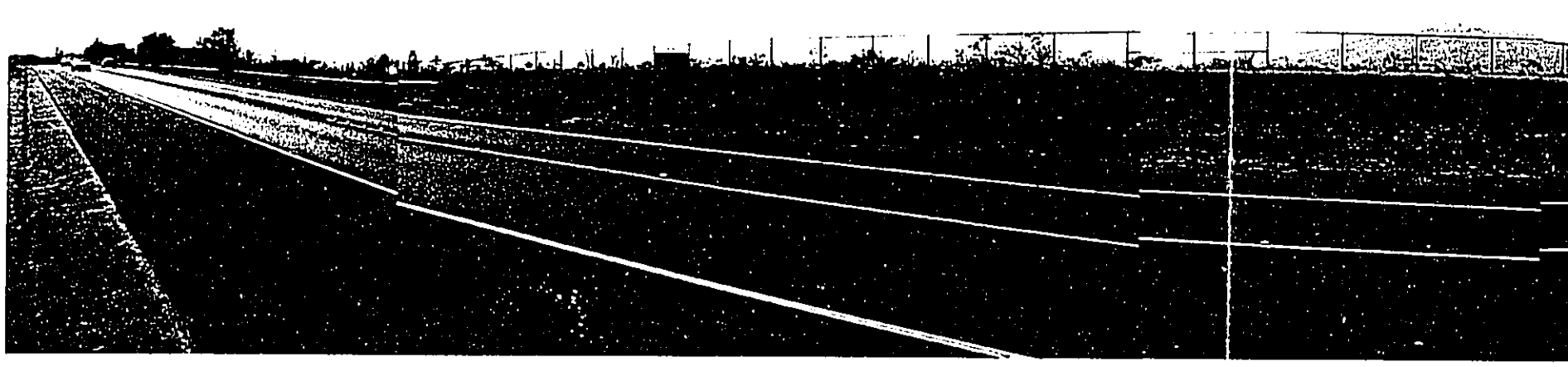
Kapua Village - View Corridor Analysis: Makai Views

Exhibit 1

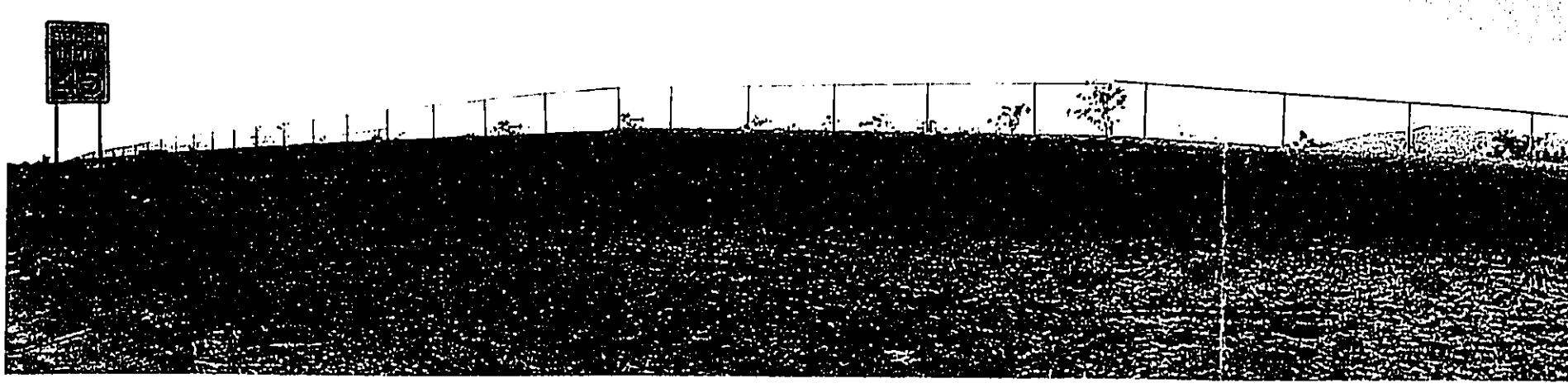
3 Potentially Obstructed View Corridor

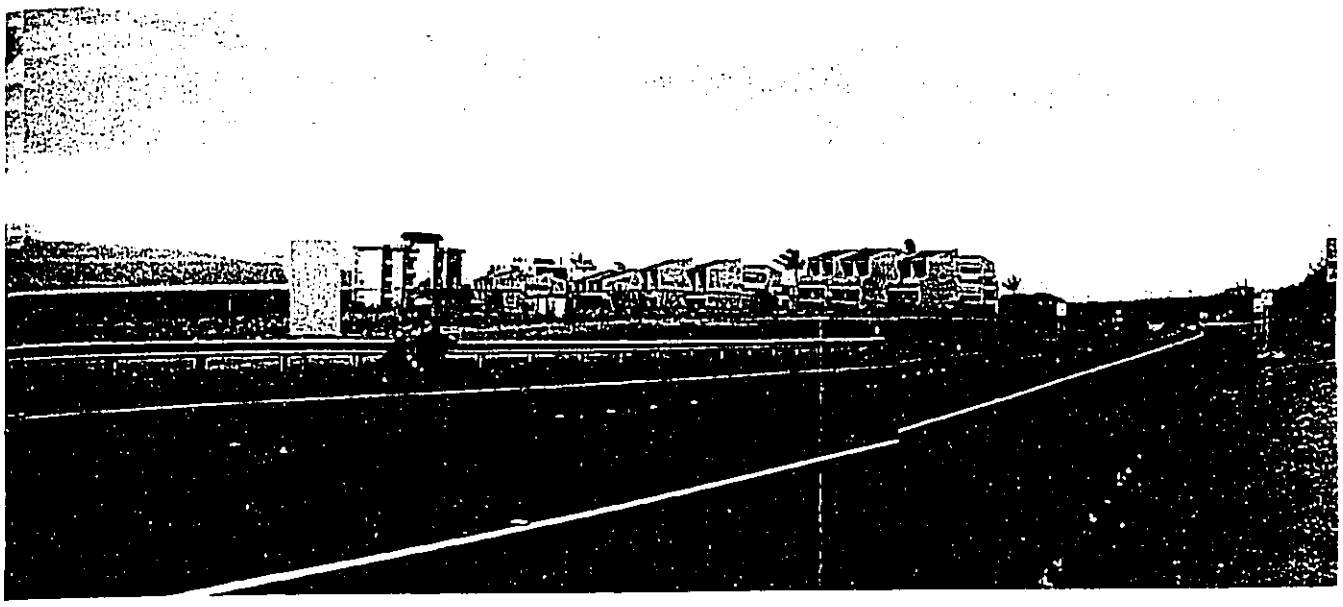


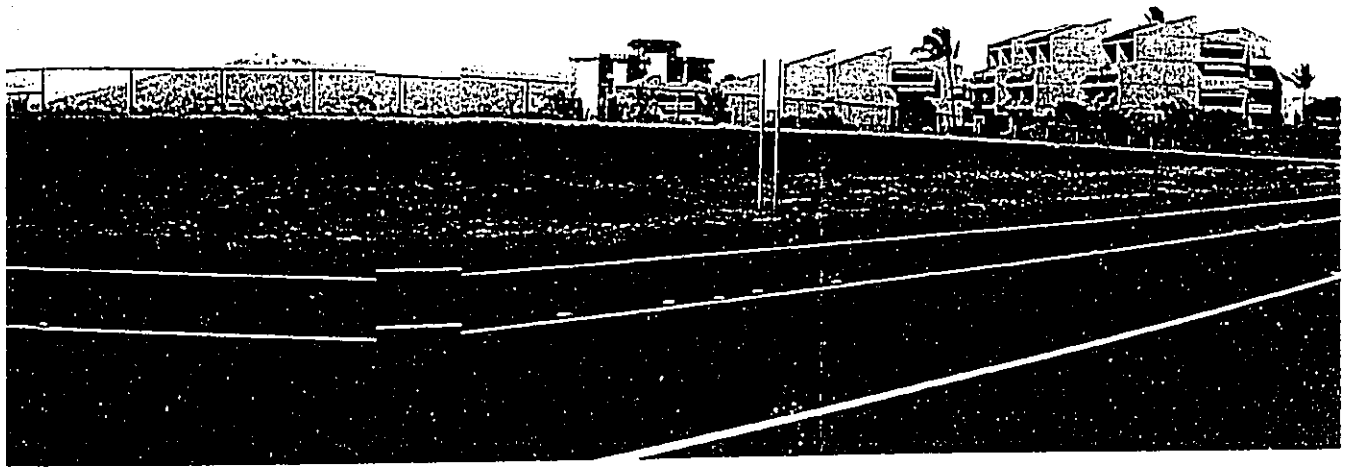
4 Ocean Views Blocked by Topography

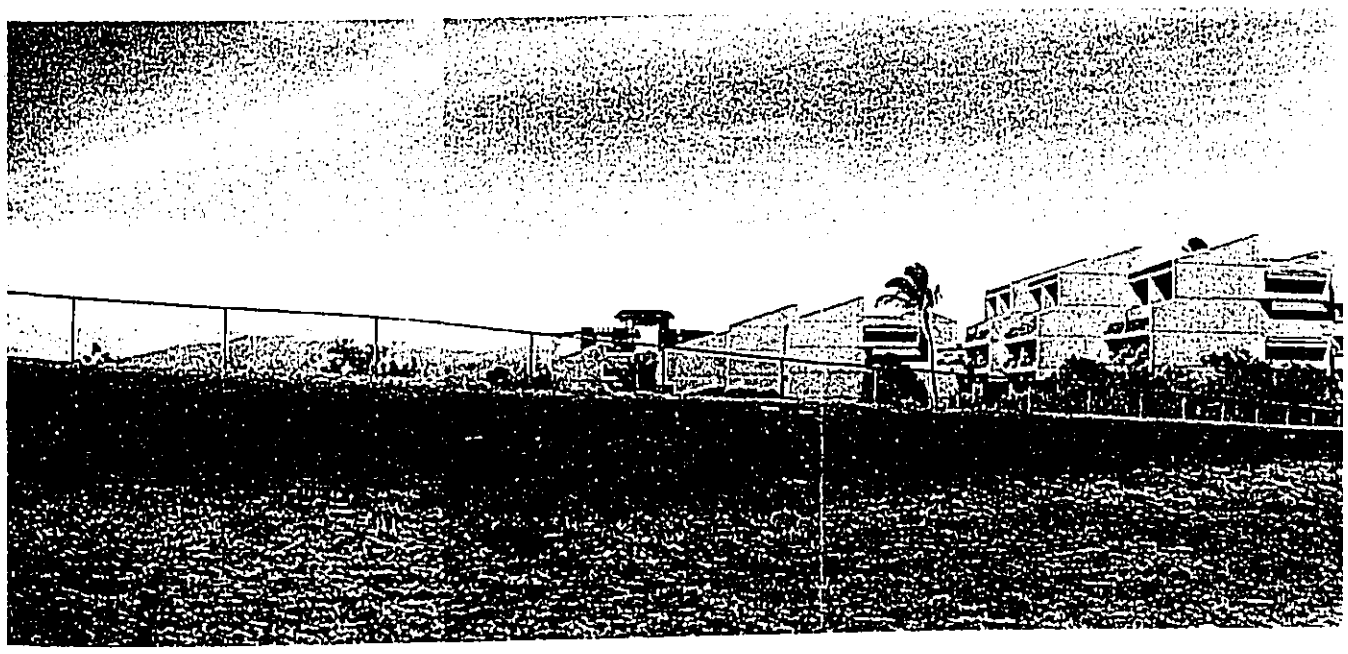


5 Ocean Views Blocked by Topography









Kapua Village - View Corridor Analysis: Makai Views

Exhibit 14

Appendix - A
Preliminary
Engineering Report

PRELIMINARY

ENGINEERING STUDY

FOR

PROPOSED KAPUA VILLAGE SUBDIVISION

LOT A OF MAHINAHINA SUBDIVISION

MAHINAHINA 1, 2 AND 3, KAANAPALI, LAHAINA, MAUI, HAWAII

TAX MAP KEY: (2) 4-3-09:52

PREPARED FOR:

MAUI LAND & PINEAPPLE COMPANY, INC.
P. O. BOX 187
KAHULUI, MAUI, HAWAII - 96732

PREPARED BY:

R. T. TANAKA ENGINEERS, INC.
871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII - 96793
JOB NO. 97-75

DECEMBER 1997

TABLE OF CONTENTS

I. PURPOSE:

The purpose of this preliminary report is to investigate the infrastructural requirements of developing Parcel 2 of TMK 4-3-09 into a single family employee housing subdivision with a minimum lot area of 6,000 s.f. each.

This preliminary study will present a brief description of the existing infrastructure at the project area. It also provides contemplated improvements required for subdivision development by appropriate governmental agencies such as roadways, drainage, water and sewer systems. It also includes probable construction costs of the various infrastructural improvements needed to support the development.

II. SITE DESCRIPTION:

A. LOCATION:

The site is situated between Honoapiilani Highway and Lower Honoapiilani Road at Mahinahina, Kaanapali, Lahaina, Maui, Hawaii, approximately 3½ miles north of Kaanapali Resort. It is also about ½ mile west of West Maui Airport. The site is bounded by Kahana Villas Condominium to the north and Mahinahina Ventures Subdivision to the south.

Figure 1 shows the general location of the proposed project.

B. SOIL CONDITIONS:

The U.S. Department of Agriculture Soil Conservation Service's Soils Survey of the Island of Kauai, Oahu, Maui, Molokai and Lanai [2], classifies the

soils within the project site as Lahaina Silty Clay (LaC) and Rough Broken and Stoney Land (rRS). Figure 2 shows the soil classification at the site.

Lahaina Silty Clay (LaC) is the dominant soil at the site. It consists of well-drained soils. Runoff is medium and erosion hazard is moderate. Slopes range from 7 to 15 percent.

Rough Broken and Stoney Land (rRs), comprising a small portion of the site, is found inside the natural drainageway that runs along the southern boundary of the project site. Runoff is rapid and geologic erosion is active.

C. FLOOD HAZARD CONDITIONS:

The Flood Insurance Rate Maps, Maui County [5] designates the site within Flood Zone "C" and "A4" (Figure 3). Most of the site is in Zone "C". Zone "A4" encompasses only the lower reaches of the natural drainageway that traverse the site along the southern boundary.

Zone "C" is designated as area of minimal flooding.

Zone "A4" designates areas of 100-year flood; base flood elevations and flood hazard factors determined.

D. TOPOGRAPHY:

The existing site is an abandoned pineapple field and is presently covered with hale koa trees and perennial weeds such as horse cane grass.

The existing ground has elevations ranging from 11 feet to 71 feet above mean sea level. In general, the ground surface slopes down in a westerly

direction toward Lower Honoapiilani Road, at an average slope of about 10 percent. A detailed topography of the site is shown on Figure 4.

III. EXISTING INFRASTRUCTURE:

A. GENERAL:

The existing roadways and utility systems in the vicinity of the project site *are shown on Figure 4.*

B. ACCESS:

The project site is located between Lower Honoapiilani Road on the west and Honoapiilani Highway on the east. Access to the project site will be from Lower Honoapiilani Road. There is no permitted vehicular access on Honoapiilani Highway which is the major arterial highway for West Maui. There is however, a permitted agricultural crossing on the northeast corner of the lot. The existing roadway system in the area is further described in the "Traffic Impact Analysis Report" for the proposed development.

C. WATER:

Water for the area is currently provided by an 8" and 16" water main on Lower Honoapiilani Road.

D. SEWER:

Wastewater disposal from the area is provided by the 24" gravity sewer main on Lower Honoapiilani Road. The 24" sewer discharges into the existing Sewage Pump Station No. 8 which is located within the project site. The wastewater will then be transmitted to the Lahaina Wastewater Reclamation Plant, about 1½ miles away, by a series of force main and gravity sewerlines. The sewer system serving the area is a part of the Napili-Honokowai Sewerage System.

E. ELECTRICITY/TELEPHONE:

There are existing overhead electrical and telephone facilities along Lower Honoapiilani Road fronting the project site.

F. ONSITE DRAINAGE:

The present onsite drainage condition is characterized by surface waters sheet flowing across the project site onto Lower Honoapiilani Road or onto Pohakukaanapali gulch, a minor drainageway that traverses the southern portion of the subdivision site.

Referring to Figure 5, onsite Drainage Area A drains into Lower Honoapiilani Road where it will be collected by an existing drain inlet located at the northwest corner of the project site. The runoff will then be disposed off by the existing two 60-inch CMP culverts running along the road and by the 6 foot x 4 foot reinforced concrete box culvert crossing.

Drainage area B also drains onto Lower Honoapiilani Road and flows toward the low spot onto the road fronting the SPS site. Eventually, the runoff overflows the roadway and heads toward the ocean.

Runoff from Drainage Area C flows into Pohakukaanapali Gulch and eventually overflows the roadway. At present, there is no culvert across Lower Honoapiilani Road that handles the runoff generated by the gulch.

The existing runoff expected to be generated by the project site is about 11.0 and 13.7 cfs for 10-year and 50-year storms, respectively.

G. OFFSITE DRAINAGE:

The proposed development site will be affected by drainage runoff generated by a portion of Honopiilani Highway immediately above the site and by the Pohakukaanapali Gulch watershed. The highway runoff is collected by existing drainage facilities that empties into the project site. Runoff generated by the Pohakukaanapali Gulch passes under the highway via a 120-inch CMP culvert that also discharges into the development site. The runoff will then flow down toward Lower Honoapiilani Road and eventually overflow the roadway.

According to the Hydrology Report for Honoapiilani Highway [6], the highway 50-year runoff that discharges into the project site is about 11 cfs, whereas the 100-year flow of Pohakukaanapali gulch is 645 cfs.

There is also a desilting basin above the highway that was constructed by the Soil Conservation Service.

IV. FUTURE LOWER HONOAPIILANI ROAD IMPROVEMENTS:

Plans for Lower Honoapiilani Road Improvements, Phase 3 is currently being prepared for the County of Maui. The proposed roadway improvements extend from Mahinahina Stream to Hoohui Road. The future improvements affecting the proposed subdivision is shown on Figure 6. The roadway improvements are tentatively scheduled to start by the middle of 1998 and completed by early 1999.

Future roadway surface improvements in front of the proposed subdivision site include pavement widening, installation of curb and gutter, construction of sidewalk and grade adjustment wall.

Future drainage improvements include the installation of catch basins, the construction of a stilling basin and the installation of a triple 9' x 3' concrete box culvert across Lower Honoapiilani Road. The box culvert and related structures were designed to convey the 100-year storm runoff of Pohakukaanapali Gulch Watershed. It was also designed to carry 100-year runoff at developed conditions from the entire area of the proposed subdivision site (10.9 acres) and to intercept the existing 72" x 44" arch-pipe drain from the Mahinahina Ventures Subdivision. The inlet structure and stilling basin will be constructed within the proposed subdivision lot.

V. PRELIMINARY SUBDIVISION LAYOUT:

The proposed development is for the creation of 45 R-1 residential lots on the property for the sole purpose of providing housing for bonafide employees of Maui Land & Pineapple Company and its subsidiaries. R-1 residential lots will have a minimum average width of 60 feet and a minimum area of 6,000 square feet. Corner lots; however, will be provided with minimum average width of 65 feet. Thru lots will have a minimum depth of 100 feet. The schematic subdivision layout is shown on Figure 7.

VI. PROPOSED ONSITE INFRASTRUCTURAL IMPROVEMENTS:

A. GENERAL:

Proposed infrastructural improvements, such as roadways, water, sewer and drainage systems will be designed and constructed in accordance with the guidelines and requirements of appropriate governmental agencies who have jurisdiction over this type of development.

B. ROADWAYS AND TRAFFIC:

The project will be accessed from Lower Honoapiilani Road. Interior roadways will be 44-feet wide with 24-feet wide A.C. pavement, curb and gutter.

Traffic and roadway system are further analyzed in the "Traffic Impact Analysis Report" for the proposed development.

C. WATER SYSTEM:

According to Department of Water Supply (DWS) standards, the average daily demand for a single family residential unit is 600 gallons per day. Thus at 45 lots, the average daily demand for the proposed project is 27,000 gallons per day or about 19 gallons per minute. With a small residential development like this, the size of the distribution line is usually governed by the fire flow requirements. According to DWS standards, fire flow for a single family residential district is 1,000 gallons per minute.

The proposed subdivision will be serviced by a network of 8" pipes as shown on Figure 8. The new system will be connected to the existing waterline on Lower Honoapiilani Road. Individual residential lots will be serviced by 5/8" water meters. Fire hydrants will be spaced at no more than 350 feet apart.

D. SEWER SYSTEM:

The estimated average wastewater flow generated by the proposed 45-lot subdivision is 15,750 gallons per day (gpd) based on Wastewater Reclamation Division's criteria of 350 gpd per residential lots.

The proposed sewer system is shown on Figure 9. The proposed system consisting mainly of 8" PVC sewer pipes will be connected to the existing 24" gravity sewer on Lower Honoapiilani Road.

E. ELECTRICITY/TELEPHONE:

Electrical and telephone services to the project will be tapped off from the existing overhead utility lines on Lower Honoapiilani Road. The onsite utility services will be installed underground and in accordance with the requirements of the respective utility companies.

F. DRAINAGE & GRADING:

1. Drainage:

The proposed design concept for the drainage system is illustrated on Figure 9. The main feature of the design concept is the installation of a retention basin to contain the additional runoff generated by the development, thus attaining a zero runoff increase to Pohakukaanapali Gulch and Lower Honoapiilani Road. The following is a comparison of 10-year storm runoff between existing and new conditions:

To Lower Honoapiilani Road:

Existing Condition = 6.9 cfs (Areas A & B, Fig. 5)

Developed Conditions = 5.7 cfs (Areas 1 & 2, Fig. 11)

Reduction = 1.2 cfs

To Pohakukaanapali Gulch:

Existing Condition = 4.0 cfs

Developed Conditions = 2.8 cfs

Reduction = 1.5 cfs

At developed conditions (Refer to Fig. 11), runoff from Area 1 will flow into Lower Honoapiilani Road to be collected by the existing drain inlet at the northwest corner of the project site. Runoff from Area 2 will also flow toward Lower Honoapiilani Road where it will be collected by either the existing drain inlet or by the future catch basin to be installed by the County. Area 3 will drain into Pohakukaanapali Gulch to be disposed off by the future box culverts across the road. As previously noted, the roadway culvert crossing was designed to handle the 100-year flow of the project site at developed conditions.

The proposed retention basin will be designed to contain the additional 50-year runoff volume. A present condition, the development site will generate a 50-year storm runoff volume of about 56,715 cf; and at developed conditions, the volume will be increased by 72,920 cf to 129,635 cf.

Other features of the proposed drainage system are the installation of catch basins and drain manholes within the proposed roadways. Runoff collected by these structures will then be conveyed to the drainage sump via underground culverts.

a. Alternative Drainage Outlet:

Disposal of runoff from the roadways and interior lots directly to Pohakukaanapali Gulch should be considered as a possible alternative to the construction of a retention

basin. The alternative outlet is shown on Figure 10. If this alternative runoff disposal is approved by the County, it will either eliminate the drainage sump lot or decrease the sump area. Hence, additional residential lots could be developed.

b. Conclusion:

Based on this preliminary drainage investigation, completion of the proposed employee housing development will not have any adverse drainage effects on adjacent lots and downstream properties.

2. Lot Grading:

Referring to Figure 10, grading of Lots 39 to 42, inclusive, is proposed to increase the buildable areas of the lots. Under existing conditions, portions of this lot are within the 100-year inundation limits of Pohakukaanapali Gulch (see Fig. 5). Grading the lots will slightly increase the flood water surface elevation, but still would be confined within the gulch. Hence, the proposed grading will not affect the adjacent Mahinahina Ventures Subdivision. There will be no grading on the southern bank of the gulch.

VII. PROJECTED CONSTRUCTION COSTS:

The preliminary estimated cost is based on the preceding design concepts and present design standards of responsible government agencies. It is also based on present day costs and that an increase of 5% to 10% per year can be

anticipated. A factor of 15%± was added to the construction cost estimate to account for contingencies. The cost presented should be viewed as an "order of magnitude". It does not include cost for planning, engineering services, construction administration and inspection and assessment fees when required by governmental agencies and utility companies. Itemized costs are tabulated on Appendix B. The preliminary estimated projected construction costs are *summarized as follows:*

A.	Roadway & General Grading	$367,000.00
B.	Water System	247,000.00
C.	Drainage System	348,000.00
D.	Sewer System	223,000.00
E.	Electrical, Telephone & CATV Systems	259,000.00

Total Projected Construction Cost = $1,444,000.00

VIII. REFERENCES:

1. Rules for the Design of Storm Drainage Facilities in the County of Maui, Title MC-15, Department of Public Works and Waste Management, County of Maui, Chapter 4.

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

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

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

5. Flood Insurance Rate Maps for the County of Maui, June 1981.

6. Hydrology Report for Honoapiilani Highway (Honokowai to Kahana), F.A.P. RF-030-1(7), prepared by State Department of Transportation, Highways Division, October 1975.

APPENDIX A

DRAINAGE CALCULATIONS

PROJECT: Kapua Village Subdivision

DATE: _____

LOCATION: Mahinahina, Lahaina

HYDROLOGY

TMK: 4-3-09:52

Drainage Area Designation	Inlet Structure/ Designation	Area (Acres)	Length of Overland Flow (feet)	Average Slope, %	Character of Ground	T_c (min.)	C	TM (years)	1-Hour Rainfall (inches)	I (in./hr.)	Q=AIC (c.f.s.)	Remarks
EXISTING CONDITIONS (Ref. to Figure 5)												
A	Existing D.I.	4.8	700	9.0	Ave. Grass	19	0.30	10	2.0	3.40	4.9	
												6.9 CFS to Lower Honoapiilani Road
B	--	1.9	600	10.0	Ave. Grass	18	0.30	10	2.0	3.45	2.0	
C	--	3.9	540	9.0	Ave. Grass	18	0.30	10	2.0	3.45	4.0	To Pohakukaanapali Gulch
NEW CONDITIONS (Ref. to Fig. 11)												
1	Existing D.I	1.7	700	8.0	Ave. Grass	20	0.55	10	2.0	3.30	3.1	
												5.7 CFS to Lower Honoapiilani Road
2	Future CB	1.2	200	9.0	Ave. Grass	12	0.55	10	2.0	3.95	2.6	
3	--	1.5	480	8.0	Ave. Grass	18	0.55	10	2.0	3.45	2.8	To Pohakukaanapali Gulch

JOB NO.: _____

R. T. TANAKA ENGINEERS, INC.
ENGINEERS - SURVEYORS

SHEET ____ of ____

STORM RUNOFF VOLUME

A. Runoff Volume - Runoff volume will be determined by SCS Method.

Ref.: Erosion & Sediment Control Guide for Hawaii, March, 1981, prepared by SCS

Given Data:

Type of Soil at Property = Lahaina Series: Lahaina Silty Clay (LaC)

Hydrologic Soil Group = B

Rainfall Amount (50-year, 6-hour) = 5.5"

Lot Area = 9.3 Acs. (Developabie area only, excluding SPS Easement and Gulch Lot)

1. Existing Runoff Volume

Existing Curve Number, CN = 61 (Range Land, Good Condition)

Runoff depth/inch of rainfall

$$Q = \frac{(P - 0.2S)^2}{P + 0.8S} \qquad \text{Where } S = \frac{1,000}{CN} - 10$$

$$= \frac{1,000}{61} - 10$$

$$= 6.39$$

$$Q = \frac{(5.5 - 0.2 \times 6.39)^2}{5.5 + 0.8 \times 6.39} = 1.68''$$

50-year Runoff Volume:

$$V = \frac{1.68}{12} \times 9.3 = 1.302 \text{ ac./ft.}$$

$$= 56,715 \text{ cf}$$

2. Runoff Volume at Developed Conditions:

Future CN = 85 (65% Impervious)

Runoff depth

$$S = \frac{1{,}000}{85} - 10$$

$$= 1.76$$

$$Q = \frac{(5.5 - 0.2 \times 1.76)^2}{5.5 + 0.8 \times 1.76} = 3.84''$$

50-year Runoff Volume:

$$V = \frac{3.84}{12} \times 9.3 = 2.976 \text{ ac./ft.}$$

$$= 129{,}635 \text{ cf}$$

3. Increase of Storm Runoff Volume Due to Development

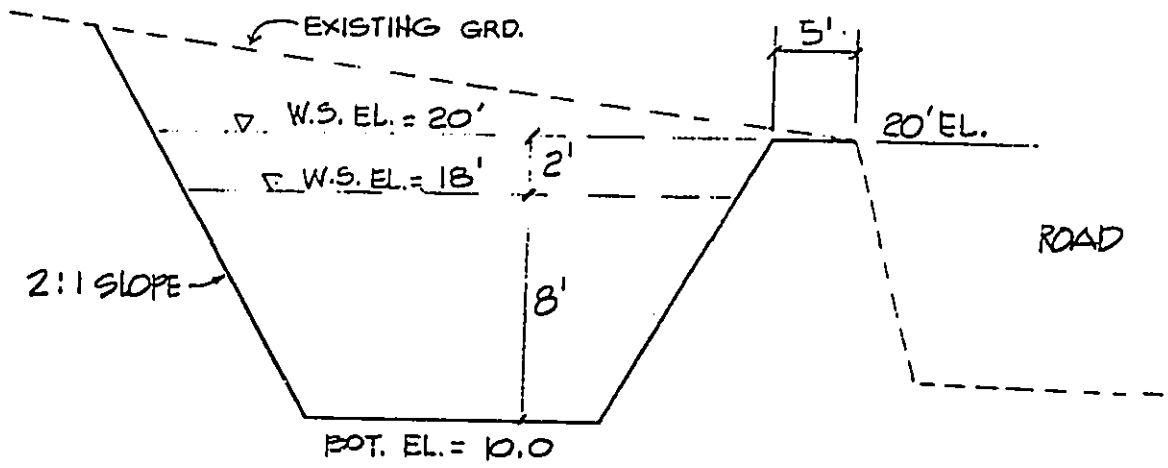
Increase = 129,635 - 56,715

= 72,920 cf

4. Approximate Capacity of proposed Retention Basin:

(Refer to Figure 10)

Typical Section:



Approximate Bottom Area = 180' x 30' = 5,400 SQ. FT.

Capacity @ 18' Elev.:

$$\text{Vol.} = \frac{\text{Bottom Area} + \text{Top Area}}{2} \times h$$

$$= \frac{5{,}400 + 13{,}144}{2} \times 8 = 74{,}176 \text{ cf} > 72{,}920 \text{ cf}$$

Capacity @ 20' Elev.:

$$\text{Vol.} = \frac{5{,}400 + 15{,}400}{2} \times 10 = 104{,}000 \text{ cf}$$

TABLE 25. Runoff curve numbers for selected agricultural, suburban, and urban land use

Land use description		Hydrologic soil group A	B	C	D
Cultivated land[1]					
without conservation treatment		72	81	88	91
with conservation treatment		62	71	78	81
Pasture or range land					
poor condition		68	79	86	89
good condition		39	61	74	80
Meadow					
good condition		30	58	71	78
Wood or Forest land					
thin stand, poor cover, no mulch		45	66	77	83
good cover[2]		25	55	70	77
Open Spaces, lawns, parks, golf courses, cemeteries, etc.					
good condition					
grass cover on 75% or more of the area		39	61	74	80
fair condition					
grass cover on 50% to 75% of the area		49	69	79	84
Commercial and business areas (85% impervious)		89	92	94	95
Industrial districts (72% impervious).		81	88	91	93
Residential[3]					
Average lot size	Average % Impervious[4]				
⅛ acre or less	65	77	85	90	92
¼ acre	38	61	75	83	87
⅓ acre	30	57	72	81	86
½ acre	25	54	70	80	85
1 acre	20	51	68	79	84
Paved parking lots, roofs, driveways[3] etc.		95	95	95	95
Streets and roads					
paved with curbs and storm sewers		95	95	95	95
gravel		76	85	89	91
dirt		72	82	87	89

1. For a more detailed description of agricultural land use curve numbers refer to National Engineering Handbook, Section 4, Hydrology, Chapter 9, Aug. 1972.
2. Good cover is protected from grazing and litter and brush cover soil.
3. Curve numbers are computed assuming the runoff from the house and driveway is directed towards the street with a minimum of roof water directed to lawns where additional infiltration could occur.
4. The remaining pervious areas (lawn) are considered to be in good pasture condition for these curve numbers.

APPENDIX B

PRELIMINARY CONSTRUCTION COST ESTIMATES

APPENDIX B

PRELIMINARY CONSTRUCTION COST ESTIMATE

ORDER OF MAGNITUDE

(1997 Dollars)

Description	Unit		Unit Cost	Total
General Grading & Roadway				
1. Clear and Grub	10	ac.	$3,000.00	$30,000.00
2. Excavation	3,700	c.y.	$10.00	$37,000.00
3. Agregate Base Course	650	c.y.	$60.00	$39,000.00
4. A.C. Pavement, Mix IV	430	ton	$100.00	$43,000.00
5. Concrete Curb & Gutter	2,700	l.f.	$30.00	$81,000.00
6. Wheel Chair Ramp	2	ea.	$500.00	$1,000.00
7. Street Survey Monuments	2	ea.	$500.00	$1,000.00
8. Centerline Monument	11	ea.	$300.00	$3,300.00
9. Regulatory & Warning Signs	12	ea.	$300.00	$3,600.00
10. Grassing	6,700	s.y.	$3.00	$20,100.00
11. Pavement Striping		L.S.		$10,000.00
12. Traffic Control		L.S.		$10,000.00
13. Dust, Erosion and Water Pollution Control		L.S.		$40,000.00
			Subtotal =	$319,000.00
			Contingency (±15%) =	$48,000.00
			Estimated Cost =	$367,000.00

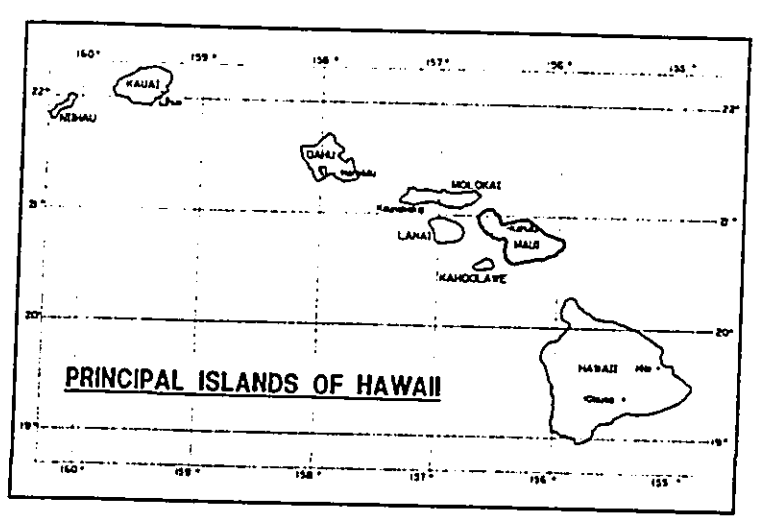
	Description	Unit		Unit Cost	Total
Water System					
1.	8" D.I. Pipe, Cl 52 w/Polywrap	1,750	l.f.	$70.00	$122,500.00
2.	Air Relief Valve w/Manhole	2	ea.	$2,500.00	$5,000.00
3.	Clean-Out Assembly w/Manhole	2	ea.	$3,000.00	$6,000.00
4.	Fire Hydrant Assembly w/Concrete Slab	5	ea.	$2,000.00	$10,000.00
5.	8" Water Valve w/SVB, Cover and Concrete Collar	6	ea.	$800.00	$4,800.00
6.	6" Water Valve w/SVB, Cover and Concrete Collar	5	ea.	$600.00	$3,000.00
7.	Concrete Reaction Block	23	ea.	$300.00	$6,900.00
8.	Reinforced Concrete Jacket	20	l.f.	$200.00	$4,000.00
9.	Doubler Service Lateral	22	ea.	$2,000.00	$44,000.00
10.	Single Service Lateral	1	ea.	$1,500.00	$1,500.00
11.	Connection to Existing Waterline		L.S.		$2,000.00
12.	Chlorination and Testing		L.S.		$5,000.00
				Subtotal =	$214,700.00
				Contigency (±15%) =	$32,300.00
				Estimated Cost =	$247,000.00

Description	Unit		Unit Cost	Total
Drainage System				
1. 18" RCP	50	l.f.	$60.00	$3,000.00
2. 24" RCP	1200	l.f.	$80.00	$96,000.00
3. Catch Basin	8	ea.	$8,000.00	$64,000.00
4. Strom Drain Manhole	6	ea.	$5,000.00	$30,000.00
5. Outlet Structure (GRP)		L.S.		$10,000.00
6. Retention Basin (Excavation, Grassing, etc.		L.S.		$70,000.00
7. 6' High Chainlink Fence with Gate	730	l.f.	$40.00	$29,200.00
			Subtotal =	$302,200.00
			Contingency (±15%) =	$45,800.00
			Total =	$348,000.00

Description	Unit		Unit Cost	Total
Sewer System				
1. 8" PVC Sewer	1,400	l.f.	$50.00	$70,000.00
2. Sewer Manhole	10	ea.	$4,000.00	$40,000.00
3. Shallow Drop Sewer Manhole	1	ea.	$6,000.00	$6,000.00
4. Reinforced Concrete Jacket	50	l.f.	$150.00	$7,500.00
5. Double Service Lateral	22	ea..	$2,000.00	$44,000.00
6. Single Service Lateral	1	ea.	$1,500.00	$1,500.00
7. Connection to Existing SMH		L.S.		$15,000.00
8. Sewer T.V. Inspection and Testing		L.S.		$10,000.00
			Subtotal =	$194,000.00
			Contingency (±15%) =	$29,000.00
			Estimated Cost =	$223,000.00

Description	Unit	Unit Cost	Total
Electrical, Telephone & CATV System	L.S.		$225,000.00
		Subtotal =	$225,000.00
		Contingency (±15%) =	$34,000.00
		Estimated Cost =	$259,000.00

Total Estimated Construction Cost = $1,444,000.00



PROJECT SITE

HONOKAHUA
NAPILI
KAHAKULOA
WAIHEE
HONOKOWAI
KAANAPALI
WAIEHU
WAILUKU
KAHULUI
LAHAINA
KEANAE
MAKAWAO
OLOWALU
PUKALANI
NAHIKU
MAALAEA
KIHEI
KULA
HANA
WAILEA
HALEAKALA
MAKENA
LA PEROUSE BAY

N

LOCATION MAP

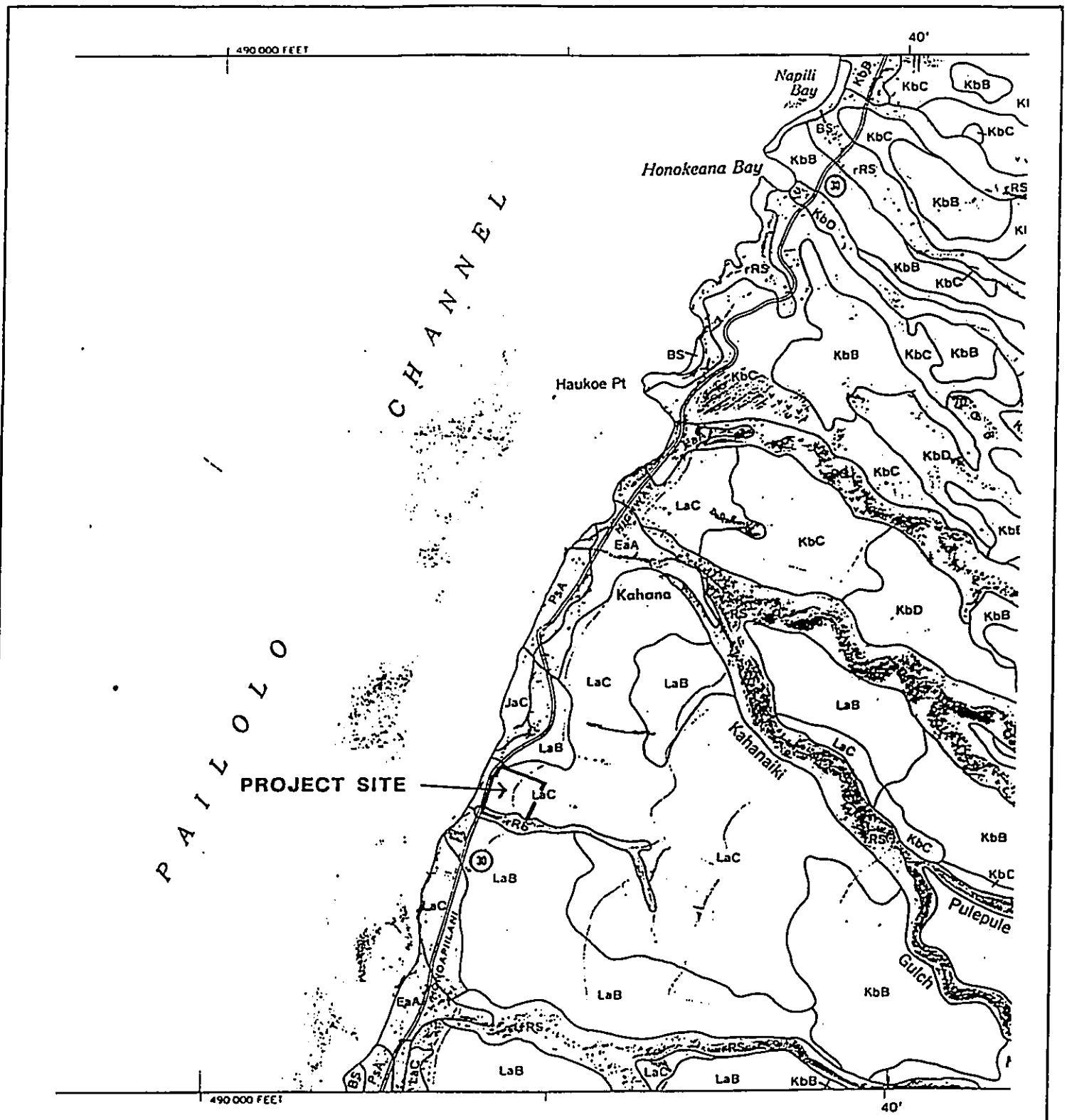
ISLAND OF MAUI

FIGURE 1

371 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS — CIVIL & STRUCTURAL ENGINEERS

JOB NO. _____

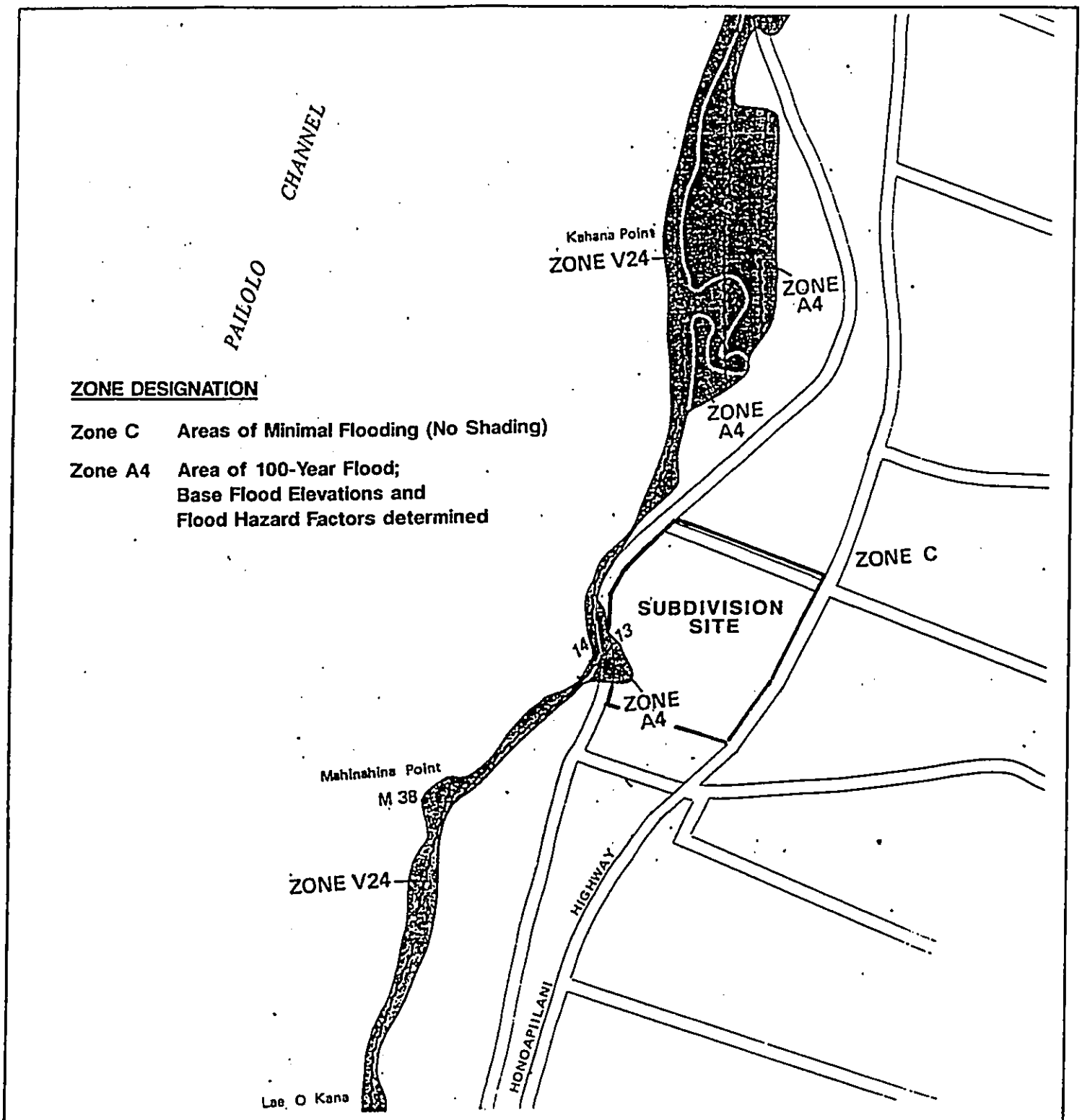


SOILS MAP

Scale: 1" = 2,000'

Reference:
Soil Survey of Islands of Kauai, Oahu,
Maui, Molokai and Lanai, State of Hawaii
Prepared by U.S. Dept. of Agriculture,
Soil Conservation Service, August 1972

FIGURE 2

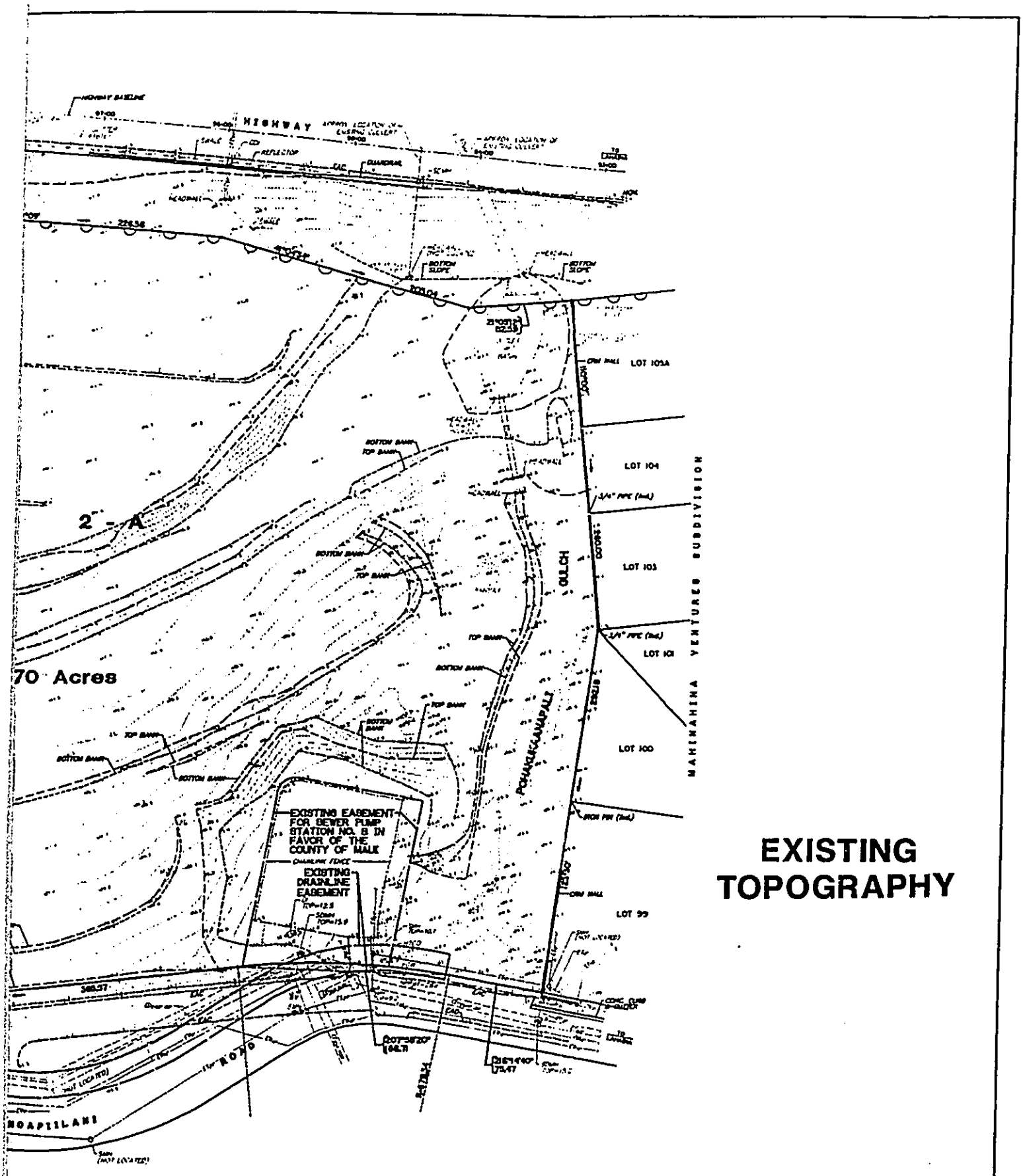


FLOOD MAP

Scale: 1" = 500'

Reference:
Flood Insurance Rate Maps for County of Maui
PNL 150003 0151

FIGURE 3



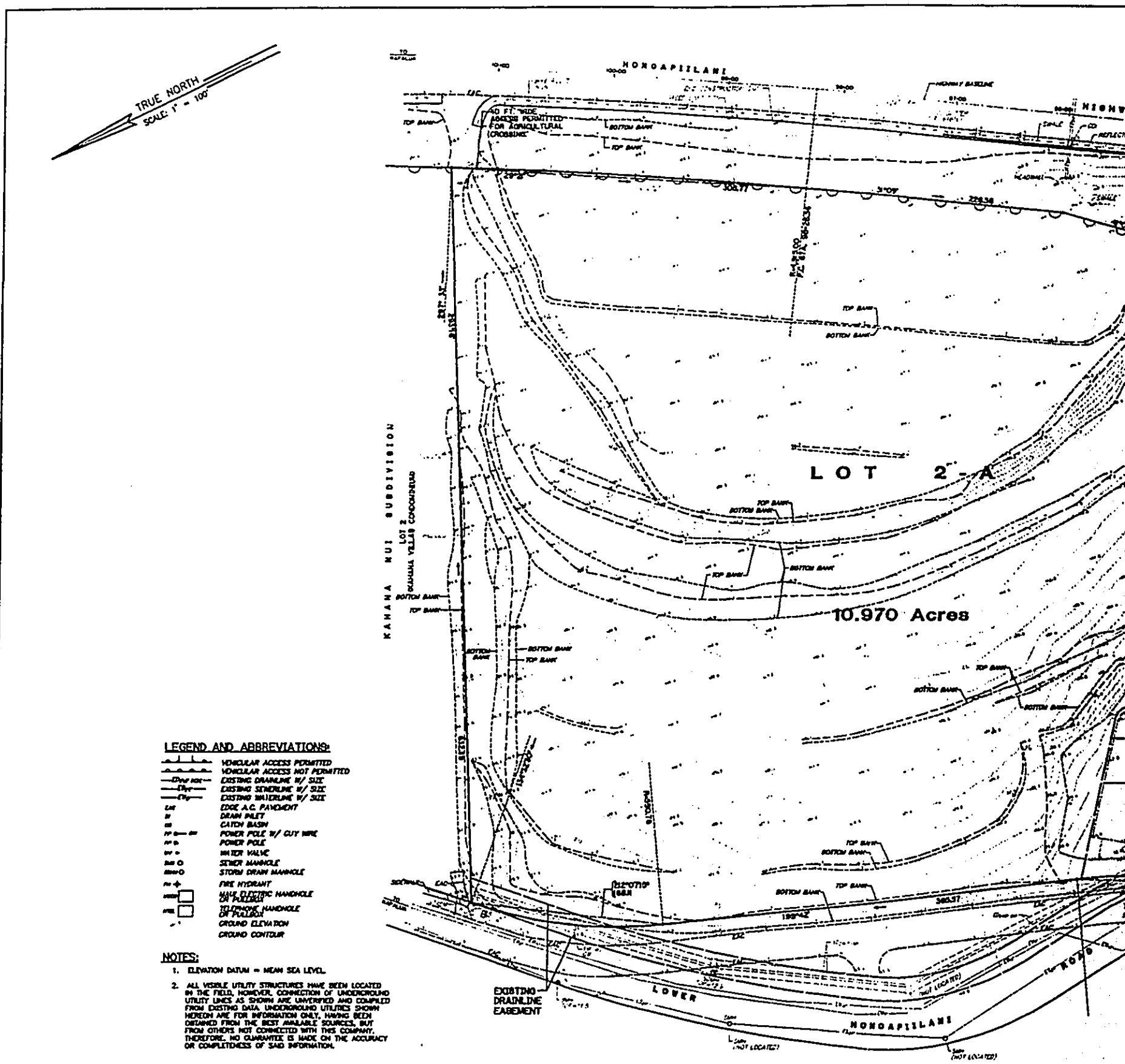
EXISTING TOPOGRAPHY

KAPUA VILLAGE SUBDIVISION

FIGURE 4

ENGINEERS, INC.
& STRUCTURAL ENGINEERS

JOB NO. 97-75



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Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS

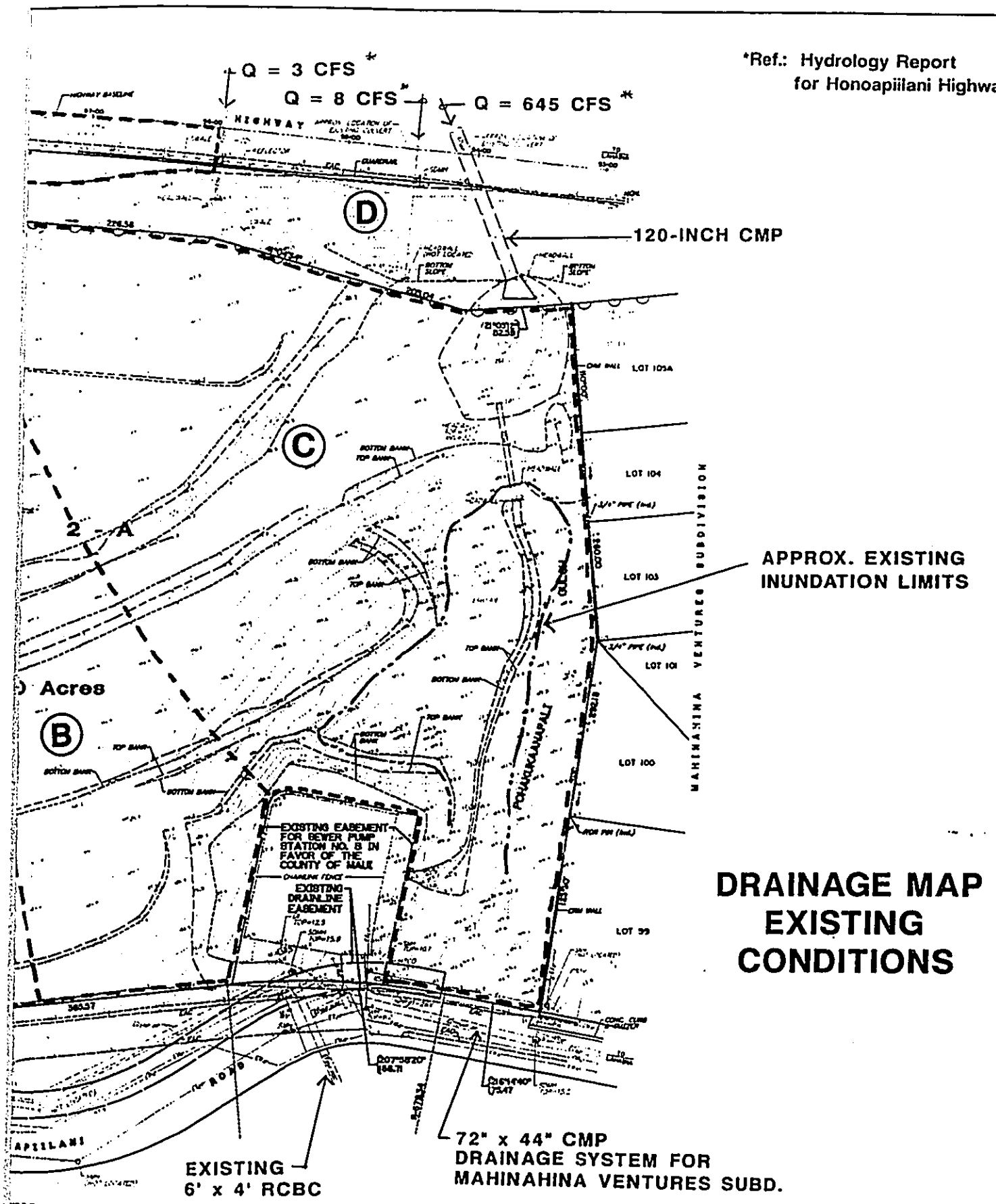


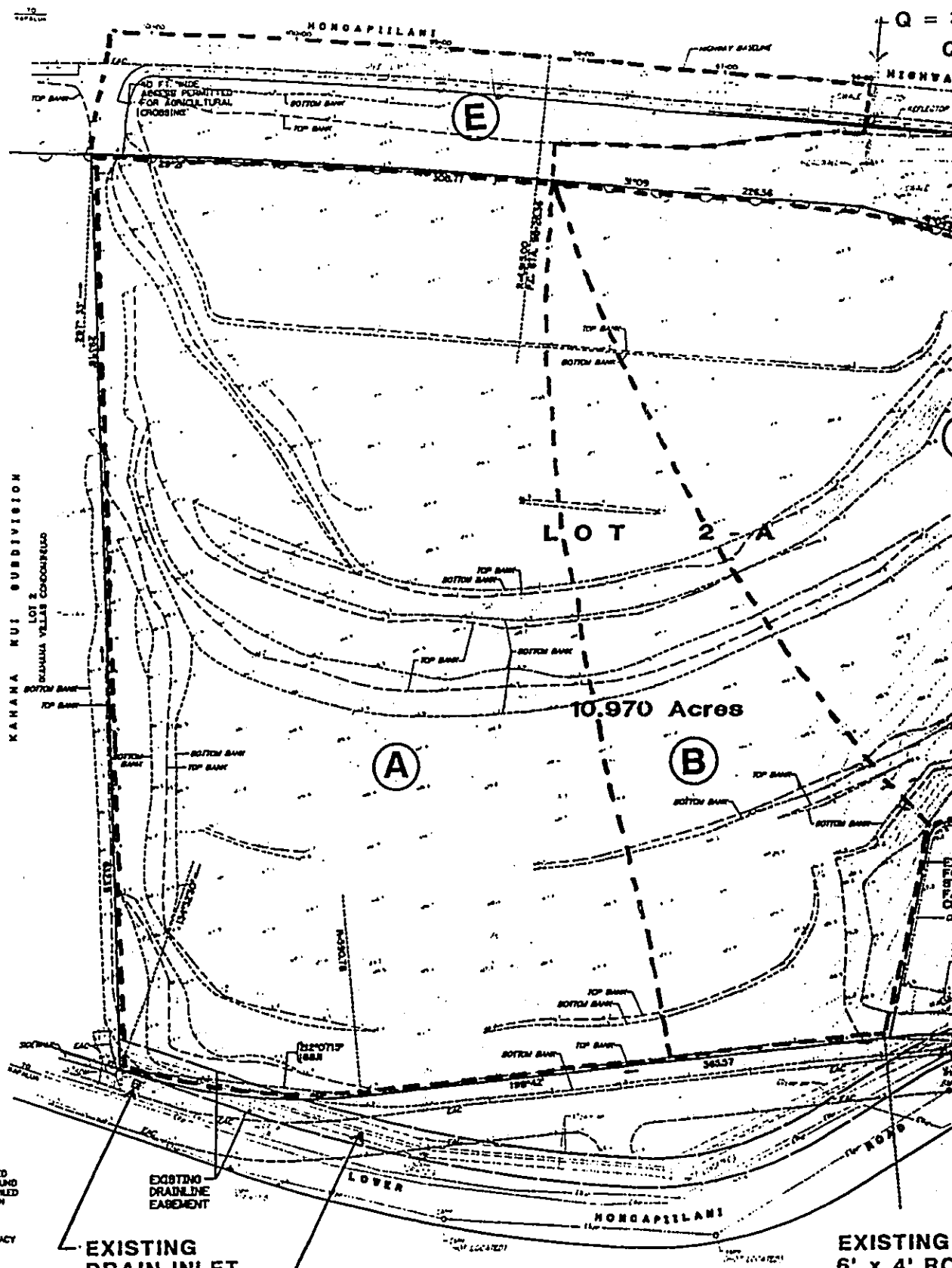
FIGURE 5

ENGINEERS, INC.
STRUCTURAL ENGINEERS

JOB NO. 97-75

TRUE NORTH
SCALE: 1" = 100'

Ⓓ DRAINAGE AREA DESIGNATION



LEGEND AND ABBREVIATIONS:

- VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS NOT PERMITTED
- EXISTING DRAINLINE W/ SIZE
- EXISTING SEWERLINE W/ SIZE
- EXISTING WATERLINE W/ SIZE
- EDGE A.C. PAVEMENT
- DRAIN INLET
- CATCH BASIN
- POWER POLE W/ GUY WIRE
- POWER POLE
- WATER VALVE
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- VAULT, ELECTRIC HANDHOLE OR PULLBOX
- TELEPHONE HANDHOLE OR PULLBOX
- GROUND ELEVATION
- GROUND CONTOUR

NOTES:

1. ELEVATION DATUM = MEAN SEA LEVEL.
2. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD, HOWEVER, CONNECTION OF UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES, BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.

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WAILUKU, MAUI, HAWAII 96793

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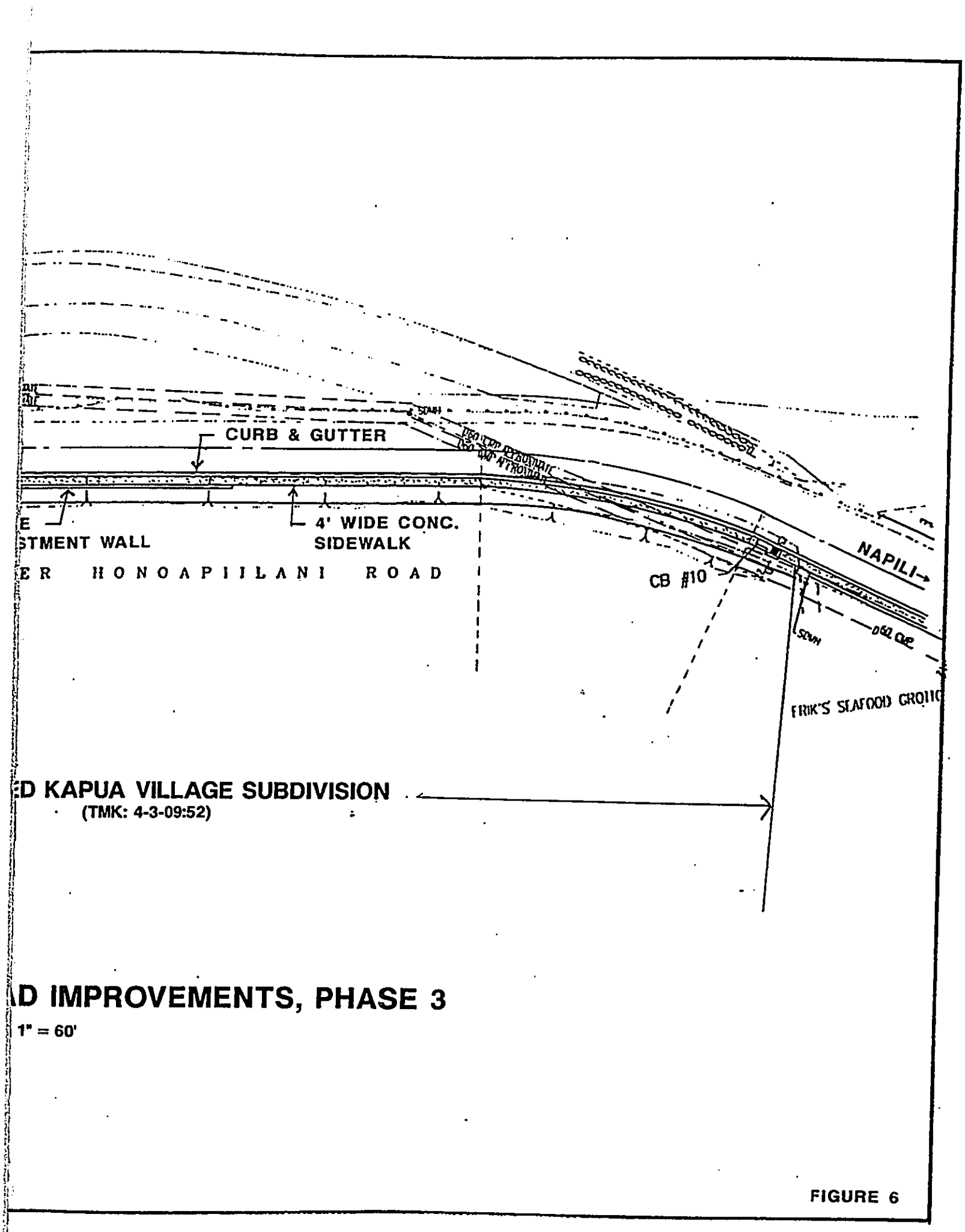
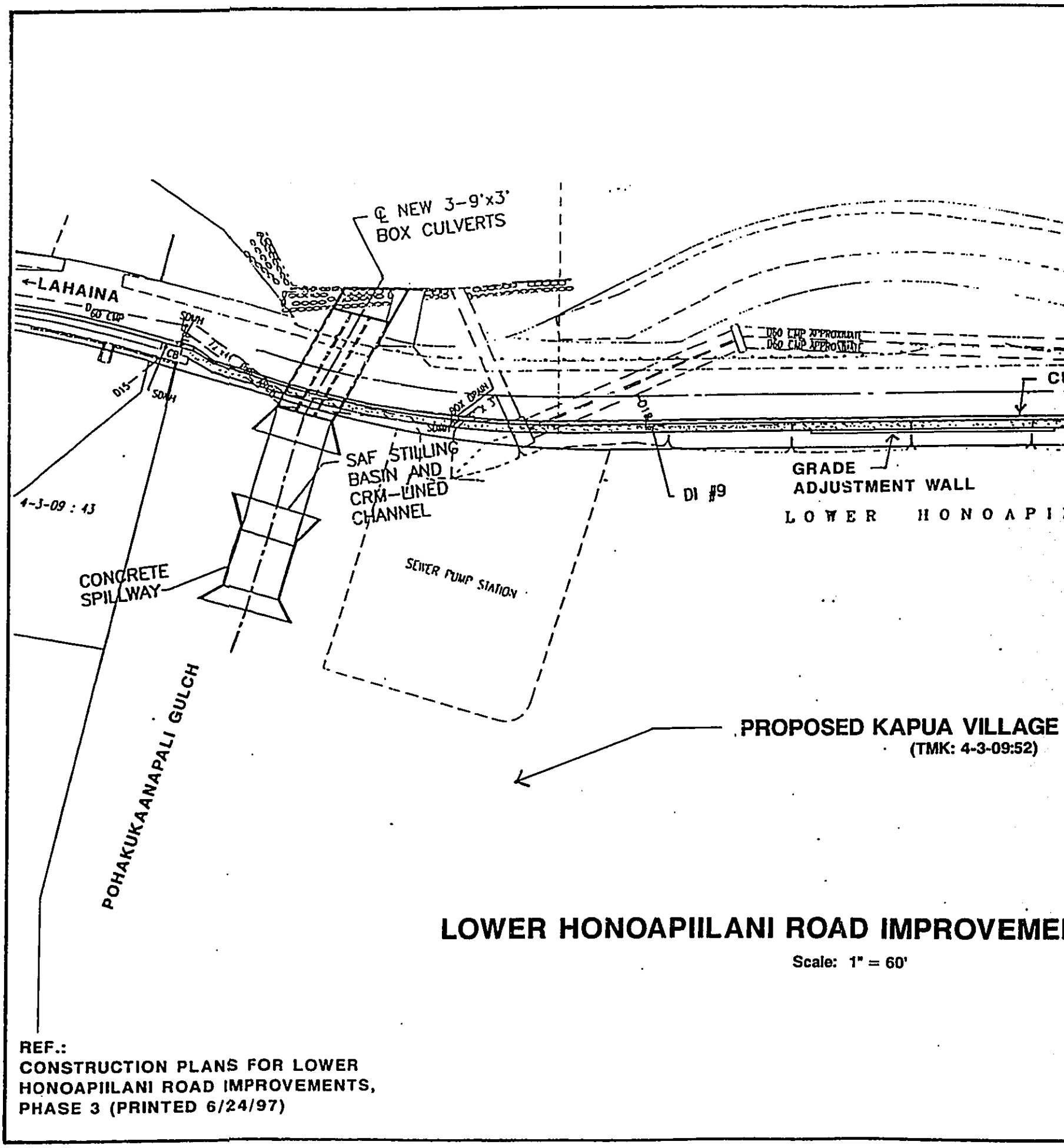
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS



AD IMPROVEMENTS, PHASE 3

1" = 60'

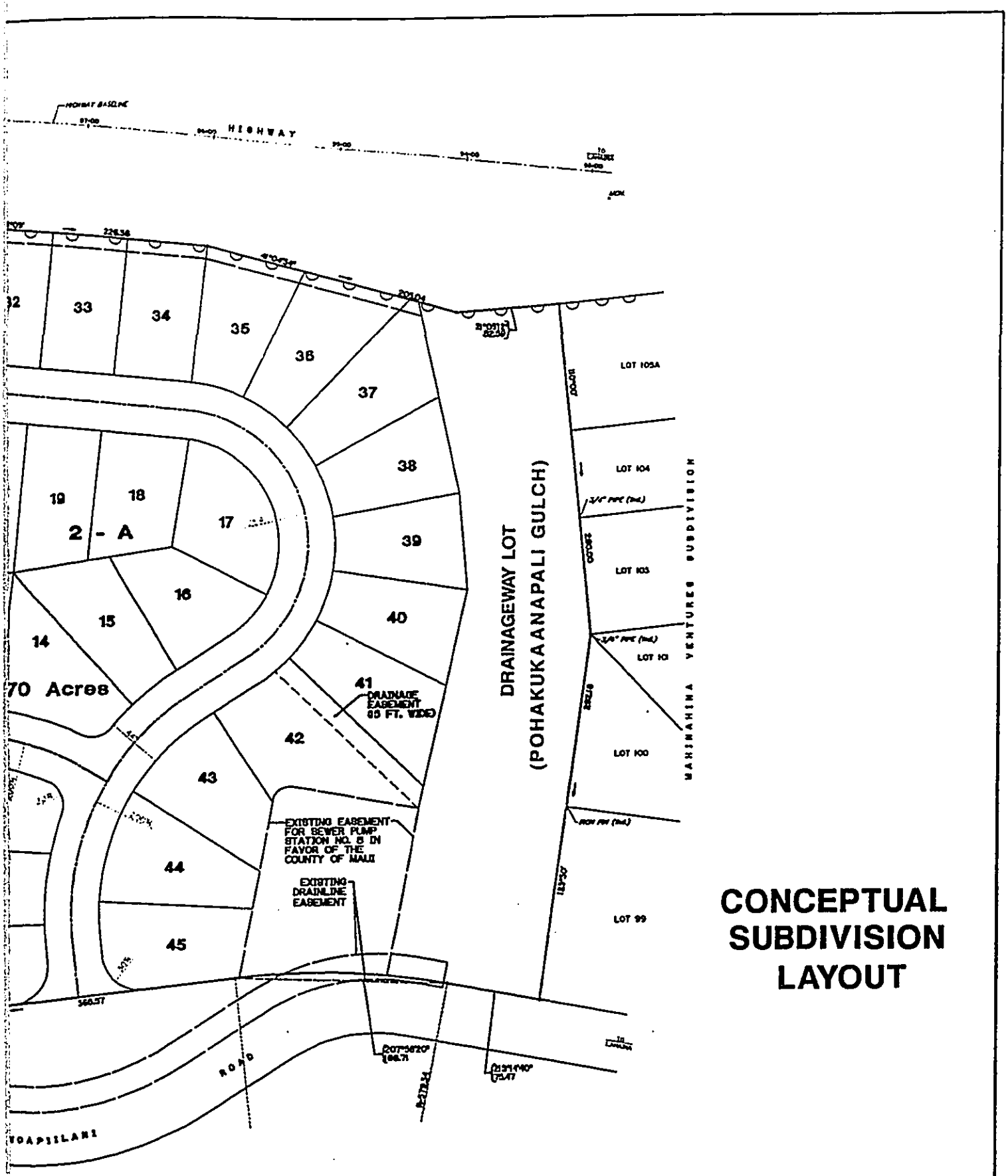
FIGURE 6



LOWER HONOAPIILANI ROAD IMPROVEME

Scale: 1" = 60'

REF.:
CONSTRUCTION PLANS FOR LOWER HONOAPIILANI ROAD IMPROVEMENTS, PHASE 3 (PRINTED 6/24/97)



CONCEPTUAL SUBDIVISION LAYOUT

KAPUA VILLAGE SUBDIVISION

FIGURE 7

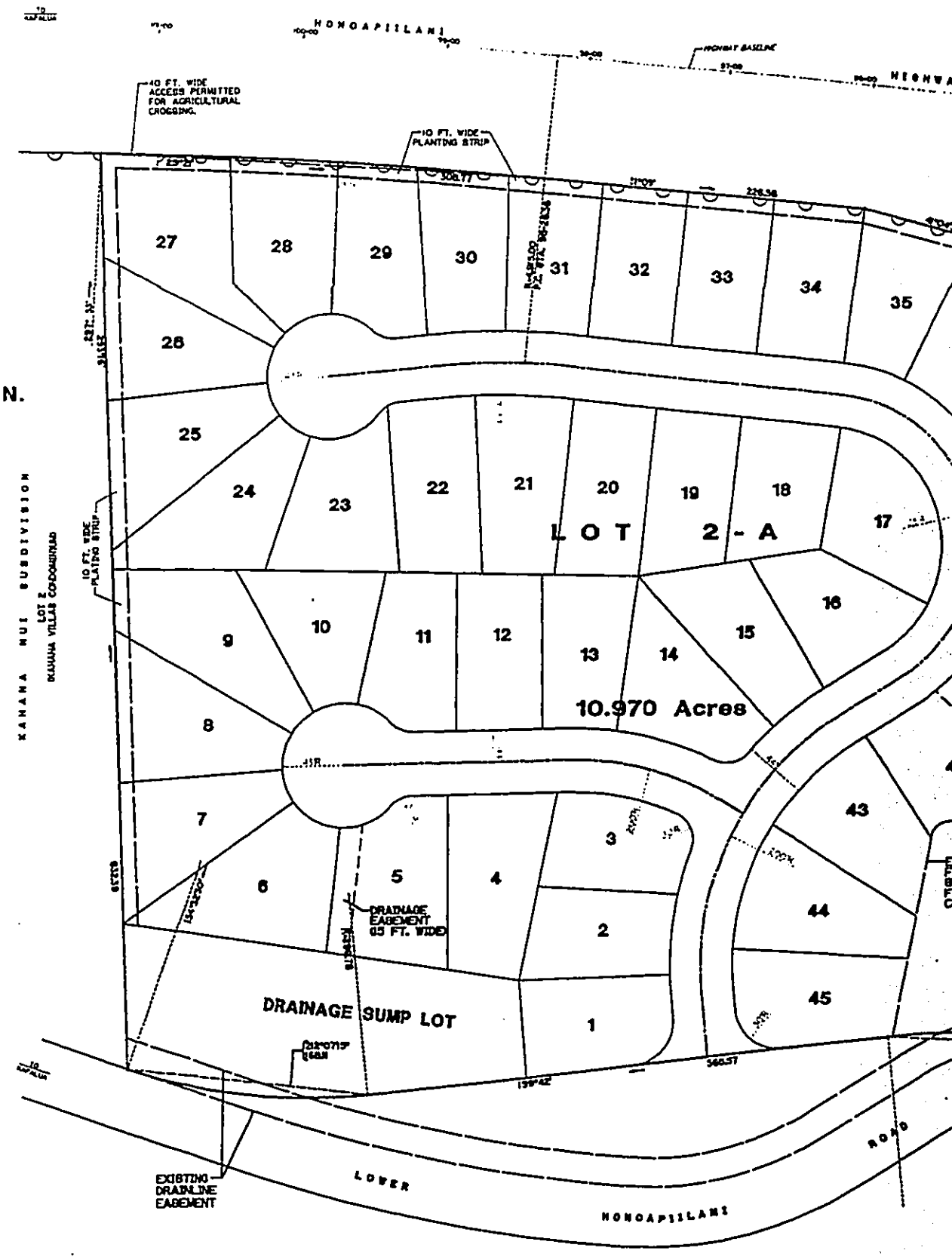
ENGINEERS, INC.
& STRUCTURAL ENGINEERS

JOB NO. 97-75

TRUE NORTH
SCALE: 1" = 100'

NOTES:

1. MIN. LOT AREA = 6,000 SQ. FT.
2. MIN. LOT WIDTH = 60 FT.
   CORNER LOT WIDTH = 65 FT. MIN.
3. ROADWAY WIDTH = 44 FT.



LEGEND

VEHICULAR ACCESS PERMITTED
VEHICULAR ACCESS NOT PERMITTED

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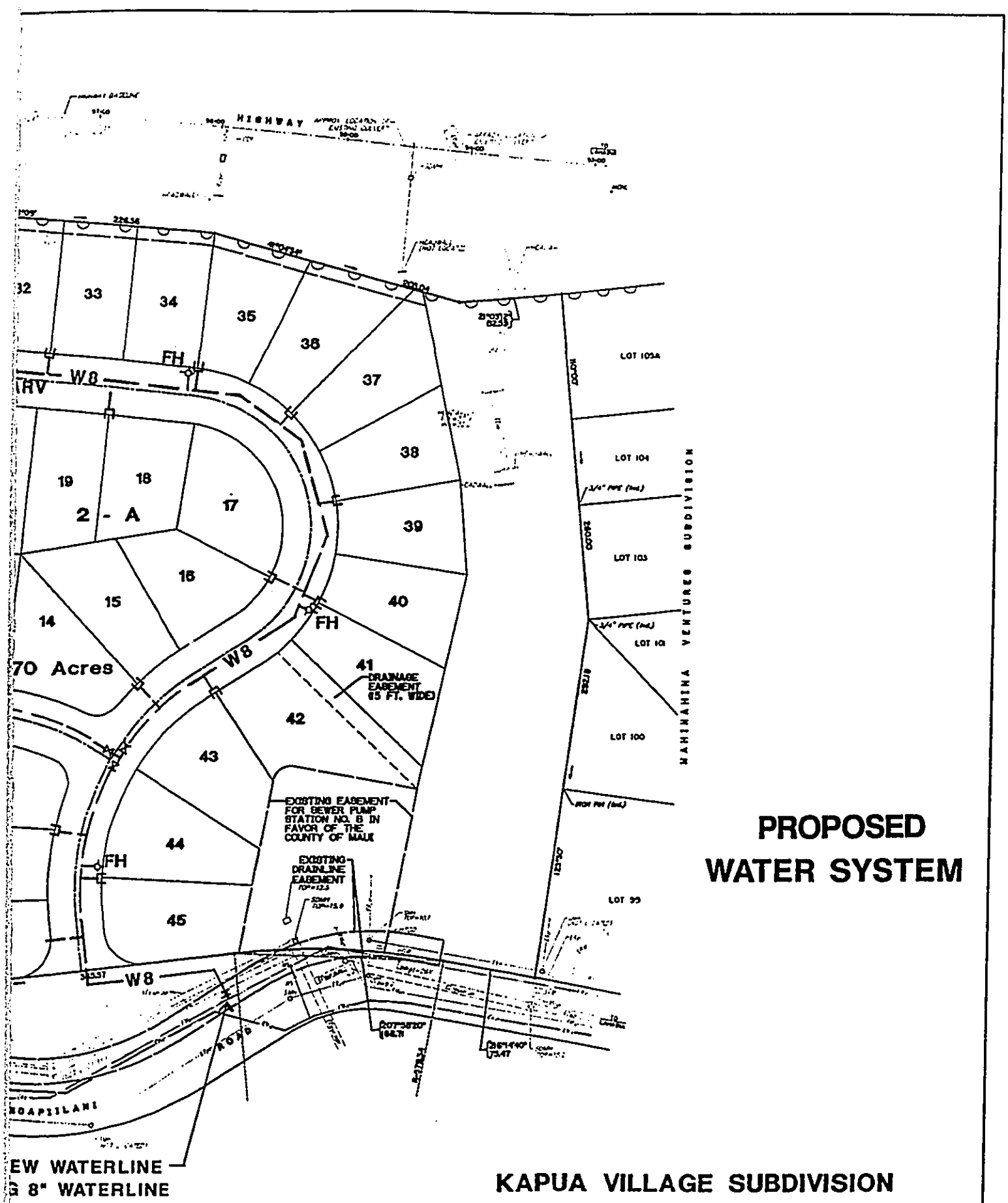
Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTUPAL ENGINEERS



PROPOSED WATER SYSTEM

KAPUA VILLAGE SUBDIVISION

FIGURE 8

ENGINEERS, INC.
& STRUCTURAL ENGINEERS

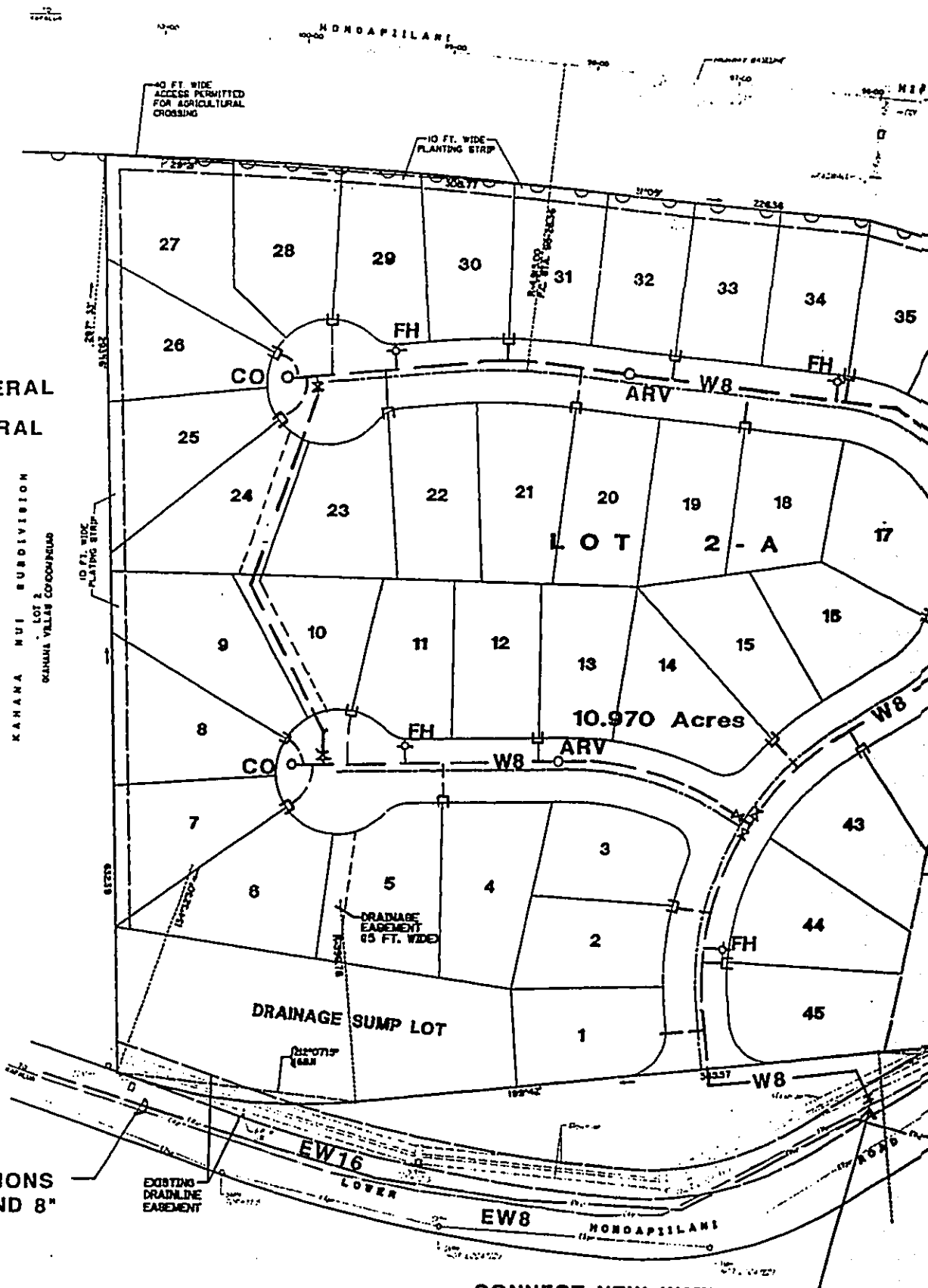
JOB NO. 97-75

TRUE NORTH
SCALE: 1" = 100'

WATER SYSTEM LEGEND:

- EW — EXISTING WATERLINE
- W8 — NEW WATERLINE
- DOUBLE SERVICE LATERAL
- SINGLE SERVICE LATERAL
- CO — CLEAN-OUT W/M.H.
- ARV — AIR RELIEF VALVE W/M.H.
- WATER VALVE
- FH — FIRE HYDRANT

LEGEND
VEHICULAR ACCESS PERMITTED
VEHICULAR ACCESS NOT PERMITTED



APPROX. LOCATIONS EXISTING 16" AND 8" WATERLINES

CONNECT NEW WATERLINE TO EXISTING 8" WATERLINE

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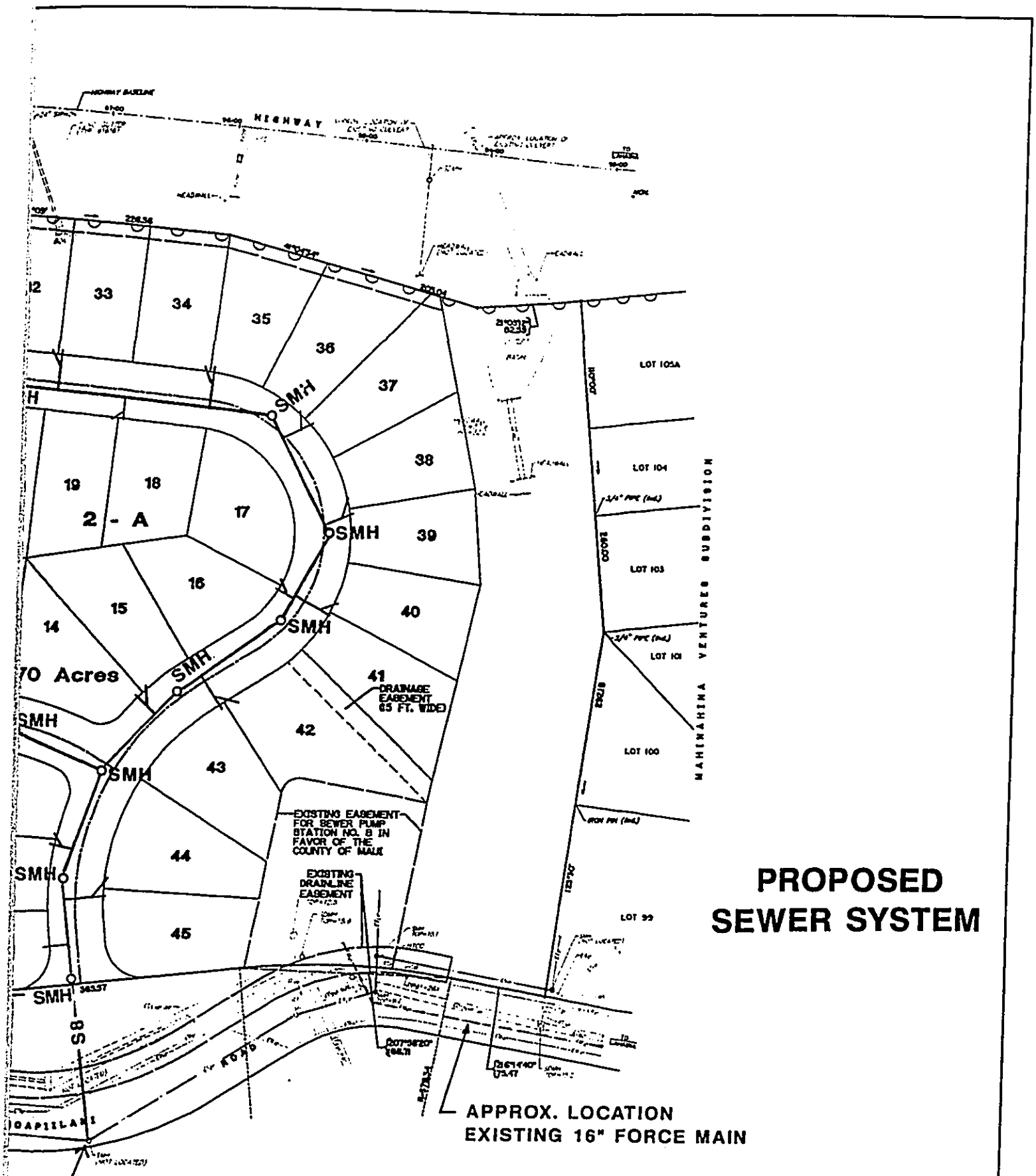
Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS



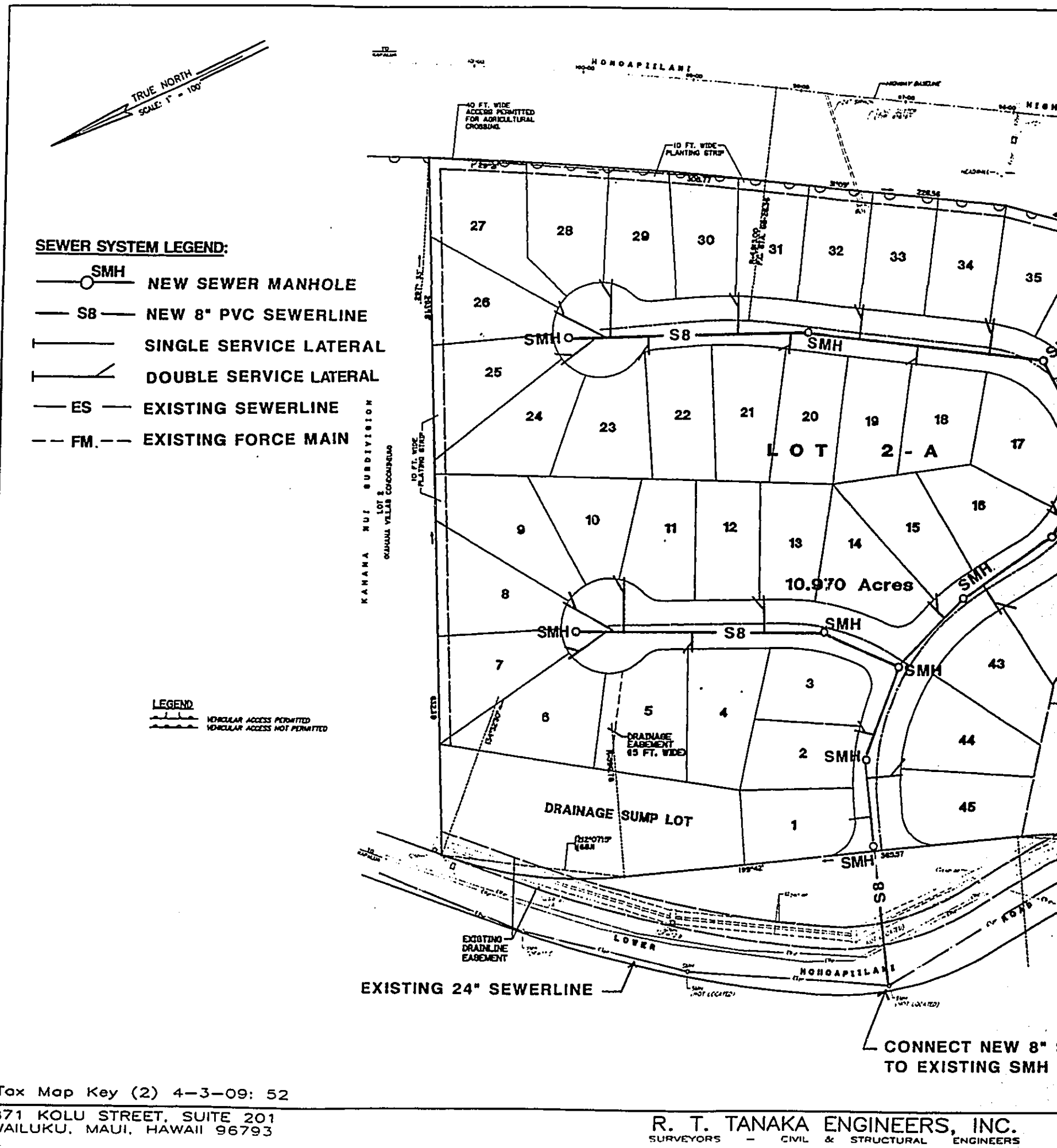
PROPOSED SEWER SYSTEM

KAPUA VILLAGE SUBDIVISION

FIGURE 9

ENGINEERS, INC.
& STRUCTURAL ENGINEERS

JOB NO. 97-75



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Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
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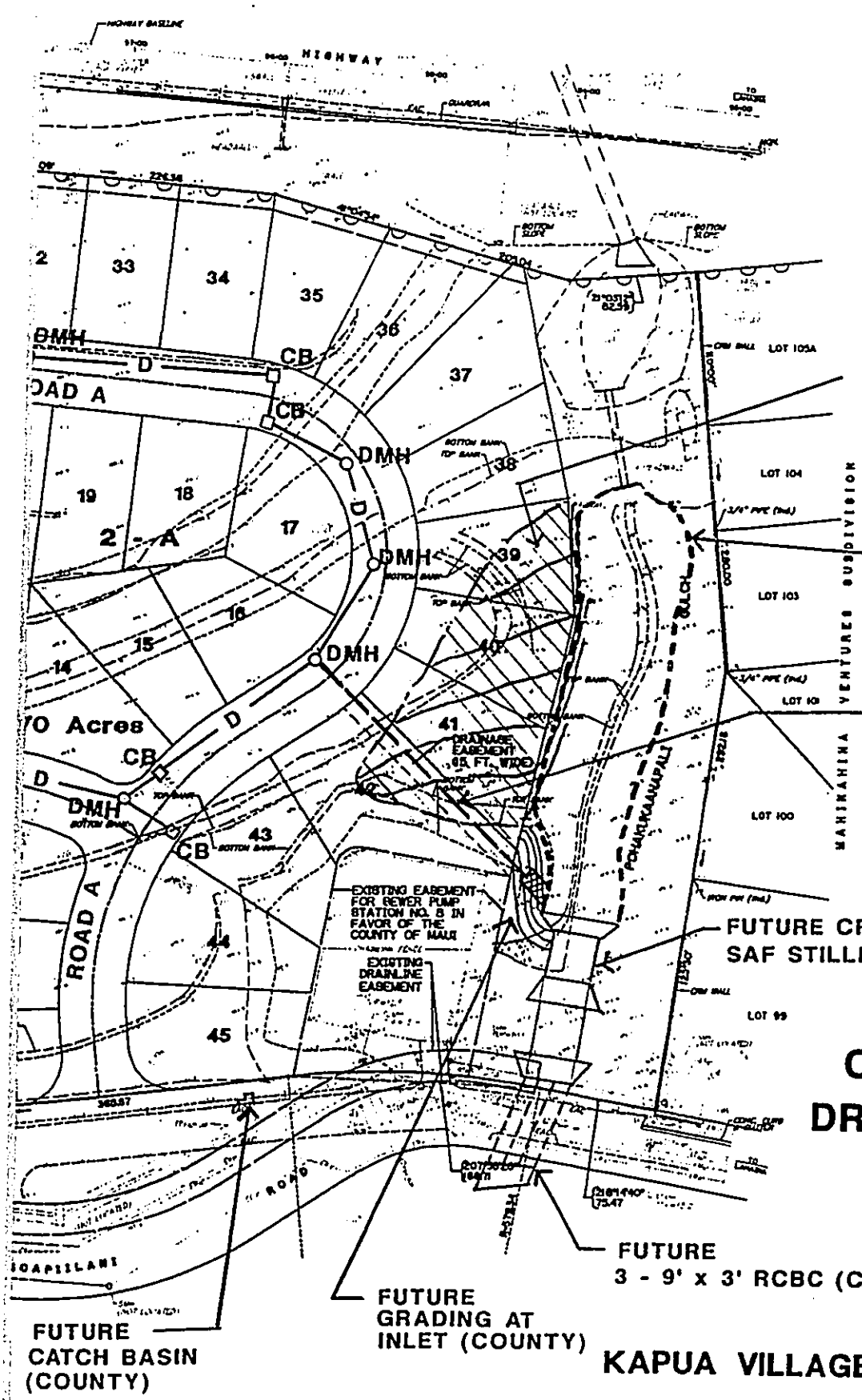

CONCEPTUAL DRAINAGE PLAN

KAPUA VILLAGE SUBDIVISION

FIGURE 10

ENGINEERS, INC.
& STRUCTURAL ENGINEERS

JOB NO. 97-75

TRUE NORTH
SCALE 1" = 100'

DRAINAGE SYSTEM LEGEND:

CB — **NEW CATCH BASIN**

DMH — **NEW STORM DRAIN MANHOLE**

D — **NEW DRAINLINE 24" UNLESS NOTED**

OUTLET

NOTE:
FUTURE DRAINAGE IMPROVEMENTS BY THE COUNTY WERE TAKEN FROM PLANS FOR LOWER HONOAPIILANI ROAD IMPROVEMENTS, PHASE 3

LEGEND AND ABBREVIATIONS:

- VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS NOT PERMITTED
- EXISTING DRAINLINE W/ SIZE
- EXISTING SEWERLINE W/ SIZE
- EXISTING WATERLINE W/ SIZE
- EDGE A.C. PAVEMENT
- DRAIN INLET
- CATCH BASIN
- POWER POLE W/ GUY WIRE
- POWER POLE
- WATER VALVE
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- MAUI ELECTRIC MANHOLE OR PULLBOX
- TELEPHONE MANHOLE OR PULLBOX
- GROUND ELEVATION
- GROUND CONTOUR

NOTES:

1. ELEVATION DATUM = MEAN SEA LEVEL.
2. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD, HOWEVER, CONNECTION OF UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES, BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.

HONOAPIILANI

40 FT. WIDE ACCESS PERMITTED FOR AGRICULTURAL CROSSING

10 FT. WIDE PLANTING STRIP

HIGHWAY BASELINE

KAHANA NUI SUBDIVISION

LOT 2 KAHANA VILLAS CONDOMINIUM

10 FT. WIDE PLANTING STRIP

ROAD A

ROAD B

LOT 2-A

10.970 Acres

DRAINAGE EASEMENT 65 FT. WIDE

DRAINAGE SUMP LOT

EXISTING DRAINLINE EASEMENT

LOWER HONOAPIILANI ROAD

EXISTING DRAIN INLET

PROPOSED RETENTION BASIN
TOP = 20.0
BOT. = 10.0±

FUTURE CATCH BASIN (COUNTY)

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Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

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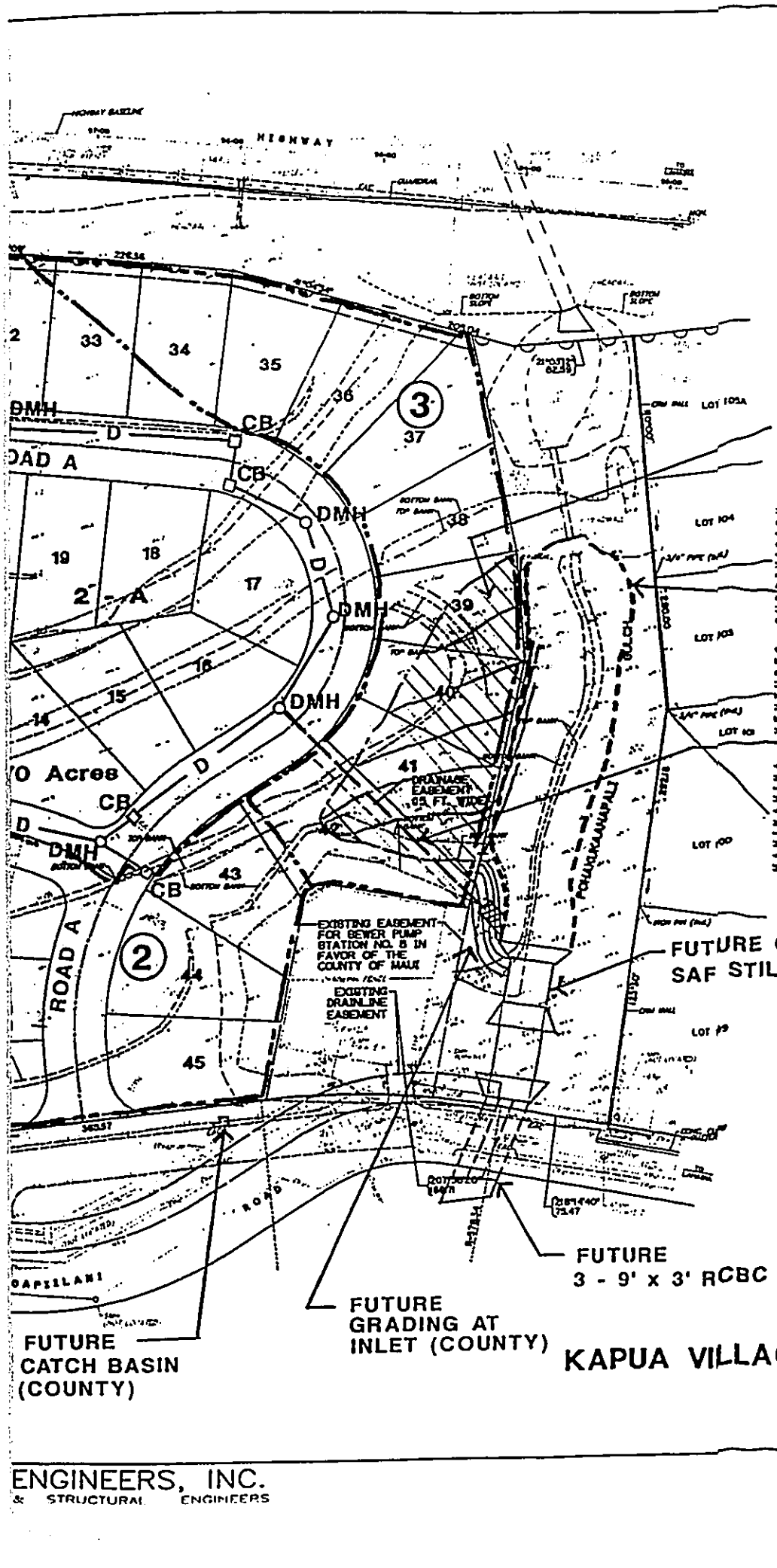

DRAINAGE MAP NEW CONDITIONS

KAPUA VILLAGE SUBDIVISION

FIGURE 11

ENGINEERS, INC.
& STRUCTURAL ENGINEERS

JOB NO. 97-75

TRUE NORTH
SCALE 1" = 100'

DRAINAGE SYSTEM LEGEND:

- CB — NEW CATCH BASIN
- DMH — NEW STORM DRAIN MANHOLE
- D — NEW DRAINLINE 24" UNLESS NOTED
- OUTLET
- (2) — DRAINAGE AREA DESIGNATION

NOTE:
FUTURE DRAINAGE IMPROVEMENTS BY THE COUNTY WERE TAKEN FROM PLANS FOR LOWER HONOAPIILANI ROAD IMPROVEMENTS, PHASE 3

LEGEND AND ABBREVIATIONS:

- VEHICULAR ACCESS PERMITTED
- VEHICULAR ACCESS NOT PERMITTED
- EXISTING DRAINLINE W/ SIZE
- EXISTING SEWERLINE W/ SIZE
- EXISTING WATERLINE W/ SIZE
- EDGE A.C. PAVEMENT
- DRAIN INLET
- CATCH BASIN
- POWER POLE W/ GUY WIRE
- POWER POLE
- WATER VALVE
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- MAUI ELECTRIC HANDHOLE OR PULLBOX
- TELEPHONE HANDHOLE OR PULLBOX
- GROUND ELEVATION
- GROUND CONTOUR

NOTES:

1. ELEVATION DATUM = MEAN SEA LEVEL.
2. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD. HOWEVER, CONNECTION OF UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES, BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.

HONOAPIILANI
ROAD A
ROAD B
LOT 2-A
10.970 Acres
DRAINAGE SUMP LOT
DRAINAGE EASEMENT 45 FT. WIDE
EXISTING DRAINLINE EASEMENT
LOWER HONOAPIILANI
KAHANA NUI SUBDIVISION
LOT 2 KAANAPALI VILLAS CONDOMINIUM

EXISTING DRAIN INLET

PROPOSED RETENTION BASIN
TOP = 20.0
BOT. = 10.0±

FUTURE CATCH BASIN (COUNTY)

D:\DRAW1\97-75\STURN.DWG (5000) "FILE:STURM"

Tax Map Key (2) 4-3-09: 52

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WAILUKU MAUI HAWAII 96793

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SURVEYORS - CIVIL & STRUCTURAL ENGINEERS

Appendix - B
Archaeological
Inventory Report

SCS Project Number 124-1

AN INVENTORY SURVEY OF A 12 ACRE PARCEL OF LAND IN THE POHAKU *AHUPUA`A*, LAHAINA DISTRICT, ISLAND OF MAUI, HAWAI`I (TMK 4-3-9:52).

By:
Leann McGerty, B.A.
and
Robert L. Spear, Ph.D.
November 1997

Prepared for:
Maui Land and Pineapple Company, Inc.

SCIENTIFIC CONSULTANT SERVICES Inc.

711 Kapiolani Blvd. Suite 777 Honolulu, Hawai`i 96813

ABSTRACT

At the request of Maui Land and Pineapple Company, Inc., Scientific Consultant Services, Inc. (SCS) conducted an archaeological inventory survey of a 12 acre parcel in Kahana Ahupua`a, Lahaina District, West Maui (TMK:4-3-9:52). The survey was completed in November of 1997.

No archaeological sites were identified within the project area and no further archaeological work is necessary.

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LIST OF FIGURES

INTRODUCTION

At the request of Maui Land and Pineapple Company, Inc., Scientific Consultant Services, Inc. (SCS) conducted an archaeological inventory survey of a 12 acre parcel in Pōhaku Ahupua`a, Lahaina District, West Maui (TMK 4-3-9:52; Figure 1).

Fieldwork was conducted by Leann McGerty and John Risedorf in November of 1997 under the overall direction Robert L. Spear, Ph.D.

PHYSICAL SETTING

GEOLOGY

Maui, the second largest island in the Hawaiian chain, was formed by the joining of two volcanoes. East Maui consists of Haleakala Volcano. The project area is situated along the coast of the West Maui volcano (Mt. Kukui) which eventually rises to a height of 5,788 feet. The mountain's topography includes deep canyons, steep ridges, and a few gulches situated on the lower slopes.

PROJECT AREA

The project area was located in the *ahupua`a* of Kahana on the western slopes of Mt. Kukui (Figure 2). Bordering the project to the east was the Hono-a-Pi`ilani Highway, to the north was a condominium complex, to the east was the Lower Hono-a-Pi`ilani Road, and to the south was a housing development. A small, dry unnamed wash or gulch extended along the southern boundary of the project area, originating from the east. A large pipe drained water from the upper section of the wash, under the Hono-a-Pi`ilani Highway, to and through, the project area to the sea. Although dry during the survey, water had previously eroded a deep cut at the bottom of the wash. A sewer pumping station was located on the western boundary, abutting Lower Hono-a-Pi`ilani Road. The main project area had been heavily impacted by pineapple cultivation until 15 years ago. Several dirt roads followed the contours of the land and pieces of plastic pipes and black plastic sheeting used in planting were evident in the top soil layer.

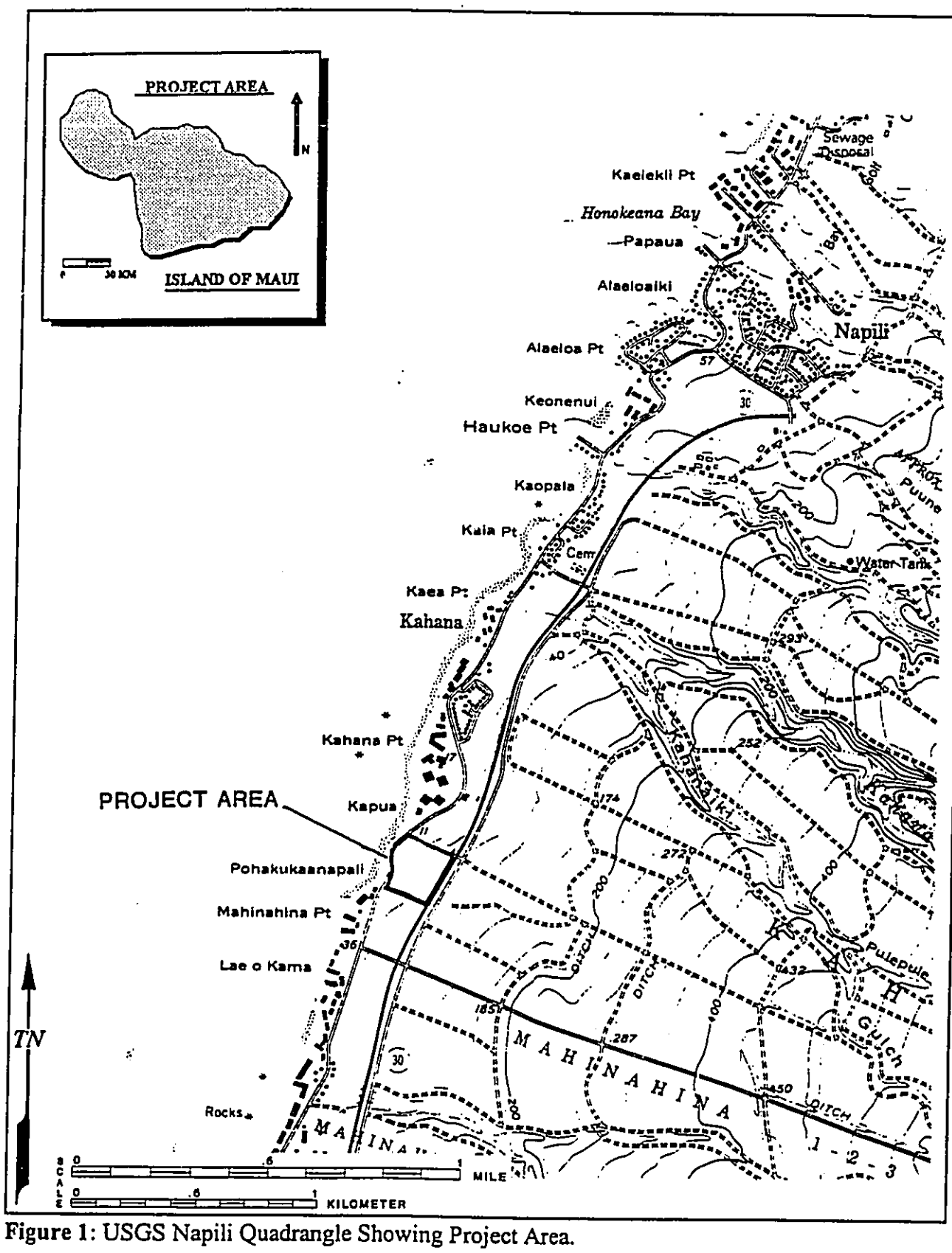

Figure 1: USGS Napili Quadrangle Showing Project Area.

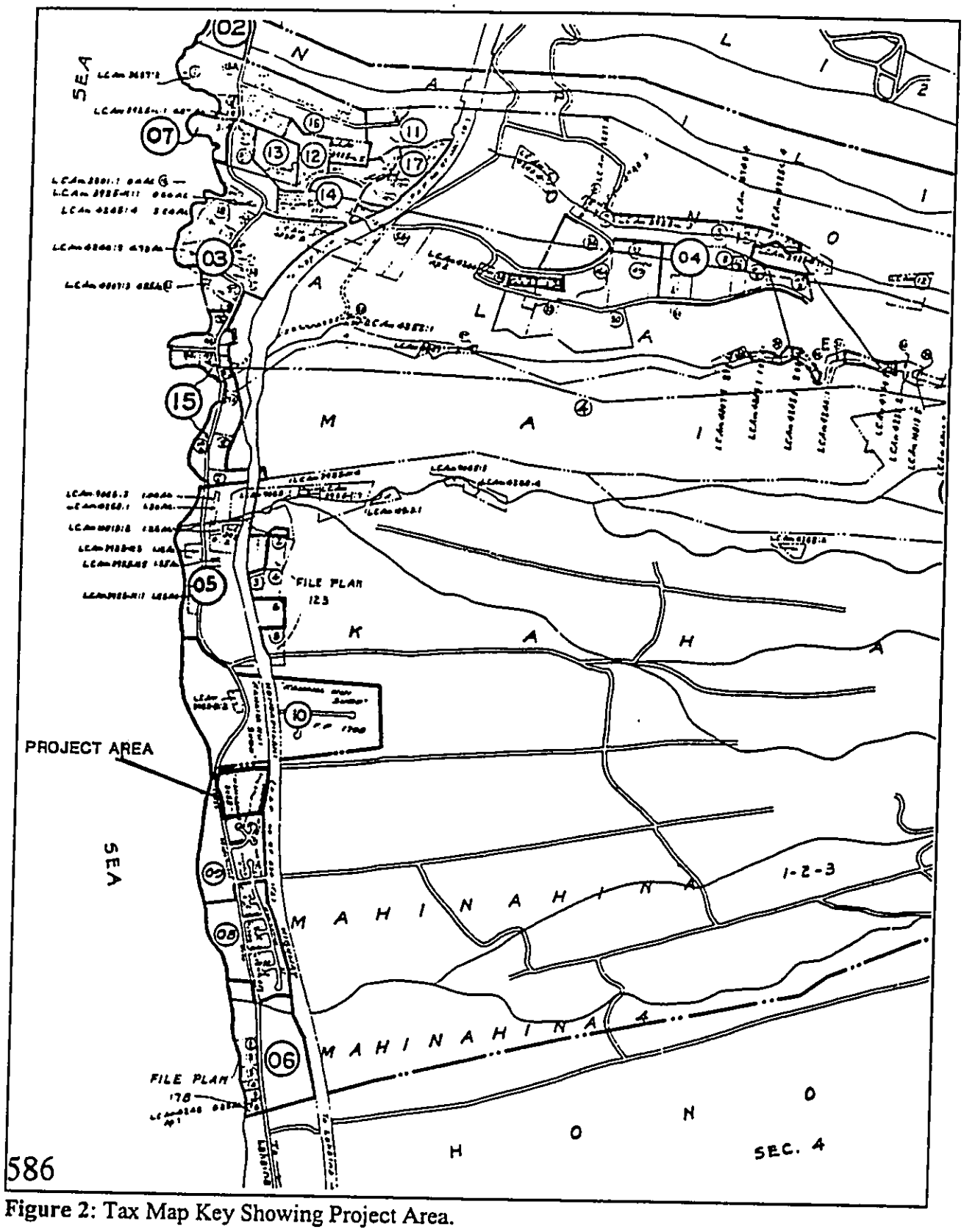

Figure 2: Tax Map Key Showing Project Area.

SOILS

Two soil types in the Pulehu-Ewa-Jaucas Association were identified. The Pulehu-Ewa-Jaucas Association are soils that are deep, nearly level to moderately sloping, well drained to excessively drained, and have a moderately fine textured to coarse-textured subsoil or underlying material found on alluvial fans and in basins (Foote *et al.* 1972:8).

Lahaina silty clay predominates the project area (LaC). These soils developed in material weathered from basic igneous rock found on 7 to 15 percent slopes. The run off of this soil is medium. The Lahaina Series was used for truck crops, pasture, sugarcane, and pineapple. and erosion hazard is moderate (ibid.:79).

A small gulch at the southern end of the project area consisted of rough broken and stony land (rRS). This consisted of very steep stony gulches where runoff is rapid and geologic erosion is active. The soil material is usually 20 to 40 inches deep covering saprolite or bedrock. Surface stones and exposed outcrops are common. Some areas of colluvium and/or alluvium may be present at the bottoms of the gulches (ibid.:119; Figure 3).

VEGETATION

Since the project area had been impacted by modern activities, mainly pineapple cultivation, there was secondary growth consisting of exotic species covering the slope. Thick exotic grasses, *koa haole* (*Leucaena Leucocephala*), and African tulip (*Spathodea campanulata)* predominate (Figure 4).

LAND USE

POLITICAL BOUNDARIES

According to oral traditions, Maui island was under one rule from the late A.D. 1500s to western contact in 1778 (Fornander 1969: II 78, 87; Cordy and Athens 1988). Although prehistoric information is limited concerning Maui, extrapolation of archaeological information from other Hawaiian islands suggest a pattern of settlement. Windward areas would have been the first to be occupied (A.D. 300 to 600) and as time passed and the population grew, the dry leeward areas were utilized on a more permanent bases (A.D. 1000 to 1200; Cordy and Athens 1988; Kirch 1985).

Figure 3: Unnamed Wash in the Project Area. View to West.

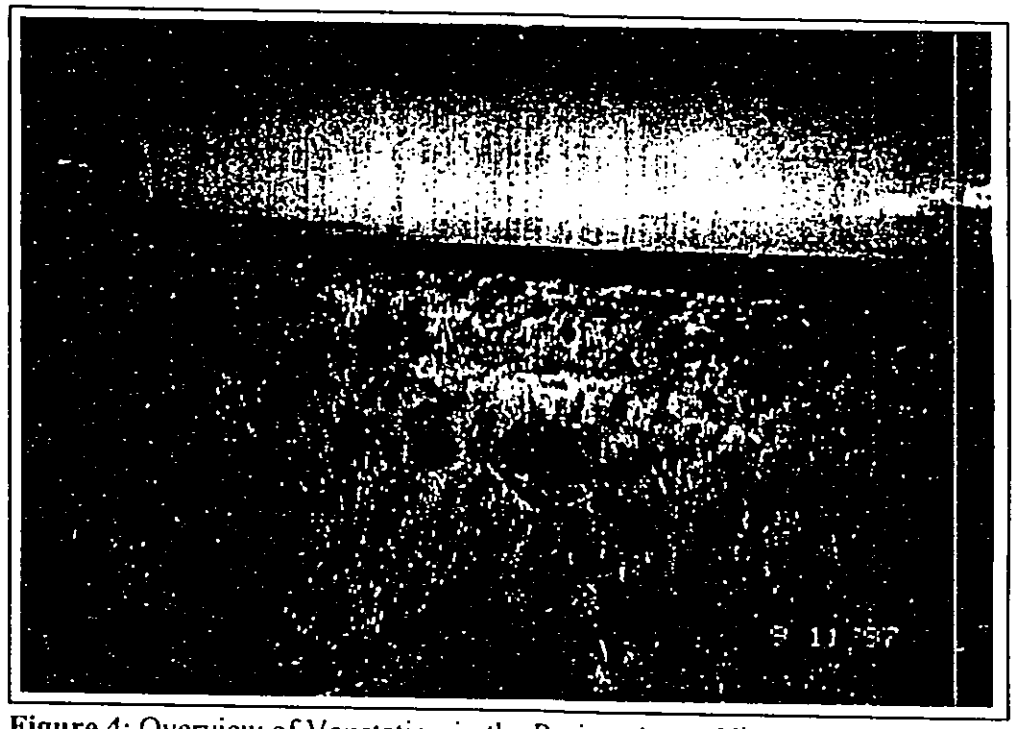

Figure 4: Overview of Vegetation in the Project Area. View to Southwest.

TRADITIONAL LAND USE

The project area lies within the *ahupua`a* (a traditional land division) of Kahana, in the district of Lahaina on the western side of the West Maui Mountains. Maui`s political boundaries were the most confusing of all the islands with individual districts not clearly delineated. Traditionally, West Maui was divided into two districts, Lahaina and Kā`anapali, and East Maui consisted of nine clearly defined districts.

The area surrounding Lahaina and Kā`anapali was thought to have been well populated in ancient times. The *ali`i nui* were known to favor its climate, as well as the abundant resources provided by the sea and the well-watered mountain valleys.

The capital of Maui, was said by Fornander (1918-1919, Vol.5:540-541) to have been situated at Keka`a (Kā`anapali), near the project area, during the time of the *ali`i nui* Kaka`alaneo (early 1500s). Fornander says there were many houses and crops such as potatoes, bananas, and sugar cane which were grown near Lahaina at Hāhākea and Wahikuli.

Farther north of Keka`a are five valleys originating high in the west Maui mountains known as Honokōwai, Kahana, Honokahua, Honolua, and Honokōhau. All five valleys had extensive *lo`i* lands located in the valley bottoms, where terraces rose tier on tier in symmetrical stone-faced *lo`i* (Handy and Handy 1972:494).

> In all three valleys which you mention . . . as well as Kahana, there was considerable taro raised in olden times; as a matter of fact, a great deal was raised in Honokowai, where there must have been 30 or 40 acres under cultivation at one time. . . . Honokohua did not have much taro land, but Honolua and Kahana had several acres each (Fleming in Handy 1940:106)

Information concerning the wars between two sons of Kekaulike, Kauhi`aimokuakama and Kamehamehanui (full brother of Kahekili), is given by Kamakau (1961:74). He records war strategies applied by Kauhi to West Maui, including Honokōwai, an *ahupua`a* south of the project area.

Alapa`i had come from Hawai`i island to support Kamehameha-nui and Peleioholani had arrived from O`ahu to join with Kauhi. Alapa`I had spent a year preparing for his battle with Kauhi. In 1738 Alapa`I proceeded to dry up the streams of Kaua`ula, Kanaha, and Mahoma near Lahaina.

> . . . The wet taro patches and the brooks were dried up so that there was no food for the forces of Ka-uhi or for the country people. Alapa`I's men kept close watch over the brooks of Olowalu, Ukumehame, Wailuki, and Honokawai (sic). . .(Kamakau 1961:74)

Peleioholani moved his troops from Honokahua and Honolua to Honokōwai, south of the project area, where an immense battle was fought, forcing the warriors of Alapa`i to retreat to Keawawa (ibid).

POST-CONTACT

Early observations from the journals of Menzies, traveling with Vancouver in 1793, referred to Lahaina and neighboring regions. He praised the agricultural abilities of the Hawaiians, describes fields and watering methods, and was extremely impressed with all he saw (Menzies 1920:105, 112).

Vancouver, on the other hand, recorded what was described by him as the results of long and continued wars between Kahekili and Kamehameha I (1798).

> To the ravage and destruction of *Tamaahmaah's* wars, the wretched appearance of the crops was to be ascribed of this they grievously complained, and were continually pointing out the damages they had sustained; the despoiled aspect of the country was an incontrovertible evidence of this melancholy truth. Most of the different tenements in the lands formerly cultivated, were now lying waste, their fences partly or intirely [sic] broken down, and their little canals utterly destroyed; nor was a hog or a fowl any where to be seen. By far the larger portion of the plain was in this ruinous state; and the small part that was in flourishing condition bore the evident marks of very recent labor.

After subjugating all but the island of Kaua`i, Kamehameha moved his court to Lahaina in 1802-1803. To be able to supply his retinue with provisions, Kamehameha had the damage previously done to Lahaina and vicinity during the wars with Kahekili repaired. Walls for the *lo`i* were rebuilt and crops were again successfully grown.

The port of Lahaina was extremely popular during the first half of the 19th century. A large settlement had grown up around the *ali`i nui* and foreign whaling ships filled the harbor. In 1846, about 400 ships arrived at the port of Lahaina, all needing new supplies and to be fed during their stay in port (Martin 1979:61). Well-watered valleys like Honokōwai and Kahana containing permanent streams could be depended upon to sustain a large population and probably provided staples to the ships as well as the burgeoning population in the Lahaina-Kā`anapali region.

In the 1840's a drastic change in the traditional land tenure resulted in a division of island lands and a system of private ownership based on western law. The *maka`āinana* were able to make claims, if they had been made aware of the foreign procedures, on parcels they were cultivating and living on. These were called Land Commission Awards (L.C.A.). If occupation could be established through witnesses, they were issued a Royal Patent number and could then take possession of the property. Commoners claiming houselots in Honolulu, Hilo, and Lahaina were required to pay commutation to the government before obtaining a Royal Patent on their awards (Chinen 1961:16). At least ten L.C.A. claims were registered for the *ahupua`a* of `Alaeloa, Kahana, and Honokōwai. No claims were awarded for the project area. Many of the *ahupua`a* in the Kā`anaplai region became government lands and could be purchased outright.

In 1853, all of the *ahupua`a* of Kahana, as well as several others, were purchased from the government by Baldwin, Pogue, and Bishop (Land Patent Grant 1166). It was at this time (the 1850's), that Kahana and Māhinahina ( the *ahupua`a* to the south) began to be used for pasturing cattle (Alexander letters 1852, as quoted in Griffin and Lovelace page 63). Hawaii Government Survey Maps that were color coded for land use in 1885 (W.D. Alexander,

surveyor) shows land north of Honokōwai designated for "grazing land". Honokōwai and land to the south were being used for sugar cane.

The sugar industry in West Maui was controlled by the Pioneer Mill Co. in Lahaina. James Campbell established the Pioneer Mill plantation in 1865 and 35 years later, he controlled 3,600 acres extending along Ka`anapali. North of Ka`opala Gulch in the *ahupua`a* of Kalaeloa, was Baldwin's land and pineapple cultivation. A railroad was built through the region for agricultural activities.

The fertile valleys on the Kā`anapali region continued producing *kalo* into the 1930s when root-rot began to take its toll on plant production. Some of the *lo`I* were abandoned and others were then planted in rice (Handy and Handy1972:494).

In the *ahupua`a* of Kahana, ranching continued until around 1915 when pineapple extended south, impacting the project area. Resort and Condominium developments began along the coast in the 1970's, replacing some of the agricultural areas.

PREVIOUS ARCHAEOLOGY

Many of the archaeological studies conducted in West Maui were concentrated in areas to be developed for tourism (Figure 5).

In 1928 and 1929, Winslow Walker (1931) conducted an island wide archaeological survey. Walker recorded four sites along the west coast, three of which are completely destroyed. The fourth site, a small rectangular stone wall enclosure was located in `Alaeloa Ahupua`a.

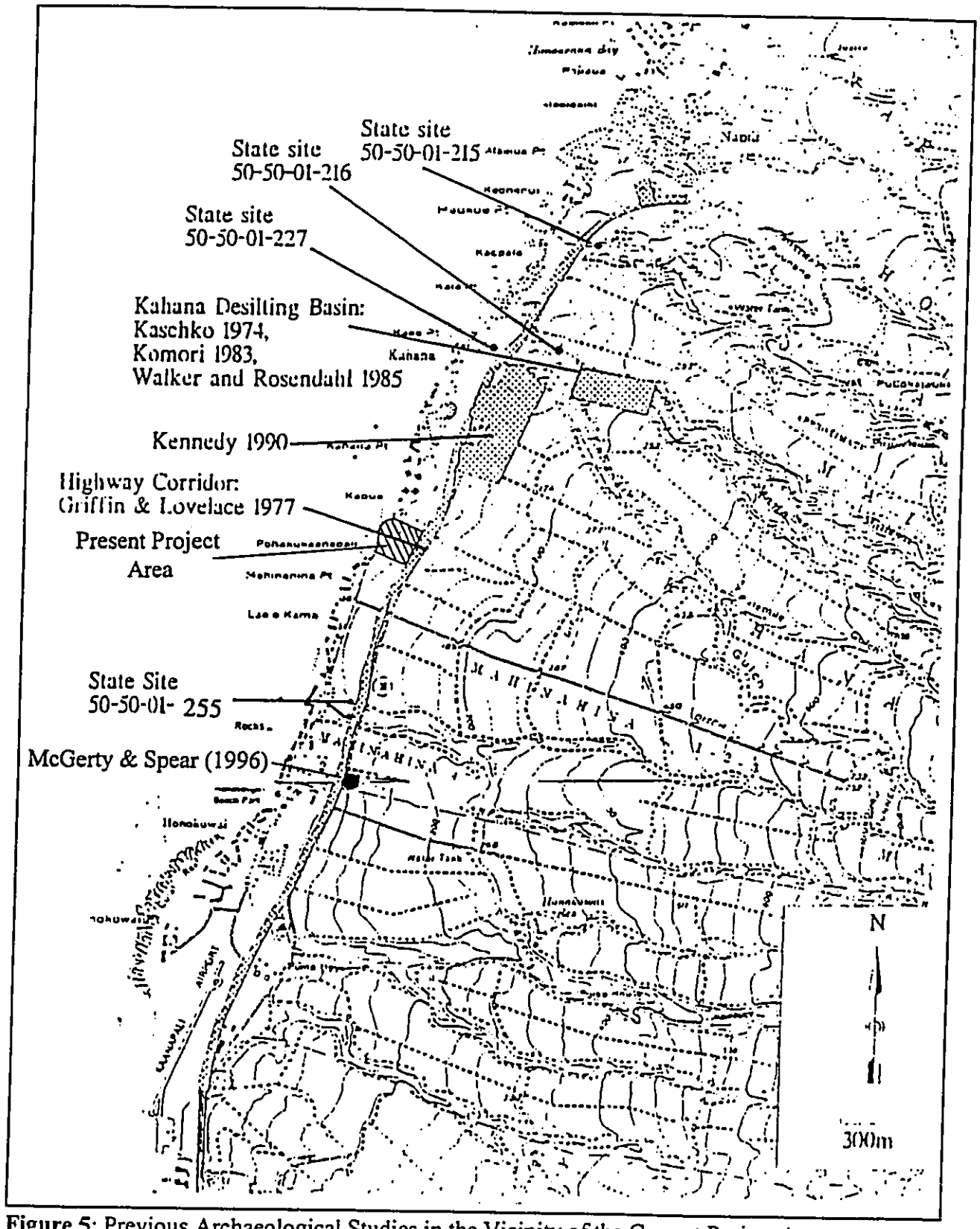

Figure 5: Previous Archaeological Studies in the Vicinity of the Current Project Area.

A Statewide Inventory of Historic Places for the island of Maui was conducted in 1973. Petroglyphs and a number of stone wall alignments were located in two different sections of Honokōwai Gulch (Site 1207, 1208) (Bishop Museum).

The realignment of a section of Hono-a-Pi`ilani Highway in 1975 called for an archaeological surface survey of the highway corridor. The section to be surveyed extended across four *ahupua`a* from Honokōwai to `Alaeloa Ahupua`a. Survey concentrated in the gulches of Honokōwai, Māhinahina, Kahana, Mailepai, and `Alaeloa, as the flat lands between the gulches had been impacted by modern agriculture. Salvage work was conducted on the extensive midden deposit (Site 225) that had been uncovered in Māhinahina Gulch, south of the project area. It was concluded that this site represented a prehistoric, repetitively occupied, temporary habitation site (Griffin and Lovelace 1977).

Kahana Iki Gulch, north of the project area, contained two sites (216 and 227) interpreted as being a prehistoric. Site 216 was a free-standing wall and Site 227 was a retaining wall that had been modified during the historic period to form a roadbed. Other sections of historic retaining walls lining portions of Kahana Iki were thought to be the result of road projects during the 1930s and 1940s (ibid.:17, 27).

An archaeological Reconnaissance Survey of proposed airstrip at Māhinahina was conducted in 1982 (Hommon and Ahlo 1982). The area was being used for agriculture at the time and had undergone extensive clearing and field preparation. No archaeological or historical sites were observed.

Based on the recommendations of an earlier survey (Kaschko 1974), archaeological investigations were conducted north of the present project area at Kahana Gulch in 1983 (Komori 1983). Seven archaeological sites including such features as terraces, a midden deposit, stone alignments, an enclosure, a small rock shelter with an artifact found on the surface, and wall

segments were identified. Two of the seven sites were considered related to prehistoric activity in the area. The other sites were interpreted as historic.

Testing of archaeological cultural remains in the Honolua Watershed, in Kahana, was conducted in 1984 (Walker and Rosendahl 1985). Three of the sites, previously identified in Komori's 1983 study were included in this new report. Background research showed that the vicinity of their project area had previously consisted of three L.C.A.'s which were referred to as *kula `uala*. As other lots were awarded the same individuals near the coast, it was concluded these features represented their inland agricultural fields and temporary habitations. Their primary residence would have been situated on the coast. Re-interpretation of previous studies with the addition of the new data suggested that the Kahana Gulch was utilized by native Hawaiians for the cultivation of sweet potato during the early historic period, and, most likely during the late prehistoric period.

A stone ruin at Kahana was investigated in 1986 (Kennedy 1986). It was concluded that the structure represented the ruins of a basalt rock, coral block, and cement church from the mid-1800s. Three other features were identified including a rectangular low stone mound, and an historic walkway. Backhoe trenching was conducted resulting in no cultural material except a single round nail.

Archaeological inventory survey and subsurface testing was conducted at Kahana in 1990 (Kennedy 1992). Two historic sites were identified including a two tiered basalt rock platform and a single petroglyph. Excavation of the platform revealed a late pre-Contact or early historic burial which was preserved *in situ*. The rock containing the petroglyph was not associated with the burial and had been moved to its present position when the fields were cleared for sugar cane cultivation.

SETTLEMENT PATTERN

Griffin and Lovelace (1977) suggested that the *ahupua`a* of Māhinahina, directly to the south, contained marginal agricultural potential and that occupation would have probably been for short periods of time, to tend limited crops, while the primary residence was on the coast of Māhinahina or even Honōkowai.

This pattern of temporary inland residence would seem to be verified by the archaeological evidence excavated from Site 225 in Māhinahina Gulch containing a midden deposit thought to represent occasional use (Griffin and Lovelace 1977). However, Griffin and Lovelace offer an alternative hypothesis for this cultural evidence. They suggested it was possible that Site 225 was the edge of a larger site and evidence for permanent use was destroyed. They concluded, however, that the environment was significantly marginal and that permanent habitation and agricultural use was unlikely.

Cordy and Athens (1988) suggested that in harsh environments such as Honua`ula (southeast Maui) people settled on both the coast and inland. Early surveys indicated that temporary or seasonal habitation and some agricultural activities occurred on the coast and slightly inland. Areas where rainfall was adequate was the primary farming zone. Permanent habitation and intensity of settlement were correlated to rainfall (ibid.:23, 24).

In the case of Kahana, agricultural efforts would have been rewarded using the main stream gulch of Kahana, perhaps supplemented by agriculture in Kahana Iki by less demanding crops such as sweet potato. Permanent habitation would have been nearby or on the coast close to the entrance of Kahana Gulch. A white sand beach begins directly across the Lower Hono-a-Pi`ilani Road from the project area and was the first beach after the rocky coast of Māhinahina Ahupua`a. This gentle landing probably provided easy access to marine resources and to Kahana Ahupua`a, as well as, furnishing an ideal location for permanent habitation.

Based on the of archaeology that has been conducted and the archival records, a model reflecting permanent occupation on the shore (out of the project area) associated with limited agriculture in the lower *kula* region would seem probable. Some temporary habitation features may also be found in small garden areas near the coast. Gulches, such as the unnamed wash at the southern end of the project area, may contain agricultural features such as terracing, modified outcrops, walls, and mounds situated to take advantage of any flow of water.

However, the majority of the project area was used for cattle grazing for over 50 years and subsequently planted in pineapple cultivation for over 70 years. The extensive impact of animal and agricultural activities in the project area would have destroyed any surface archaeological features in the main portion of the project area.

METHODOLOGY

FIELD METHODS AND RESULTS

The inventory survey was conducted to establish the presence or absence and the extent of archaeological remains within the project area. Sites were to be mapped, photographed, limited testing was to be conducted, and assessments of significance and recommendations were to be determined for recorded sites. Pedestrian sweeps were conducted by a crew of two within the project area. Since ground visibility was generally fair, the sweep lines were approximately five meters apart. The project area was surveyed with sweeps east to west and north to south. Special attention was given to road cuts and disturbed soil areas in case any subsurface features had survived historic activities (Figure 6). Survey continued into the unnamed gulch that had been extensively eroded by fast moving water issuing down the slope from a large water pipe at the edge of the Hono-a-Pi`ilani Highway. Again, special attention was given to cuts in the bank. Boulders with bulldozer scars where found along the wash and the edges of the plantation roads (Figure 7). No archaeological remains were identified in the project area.

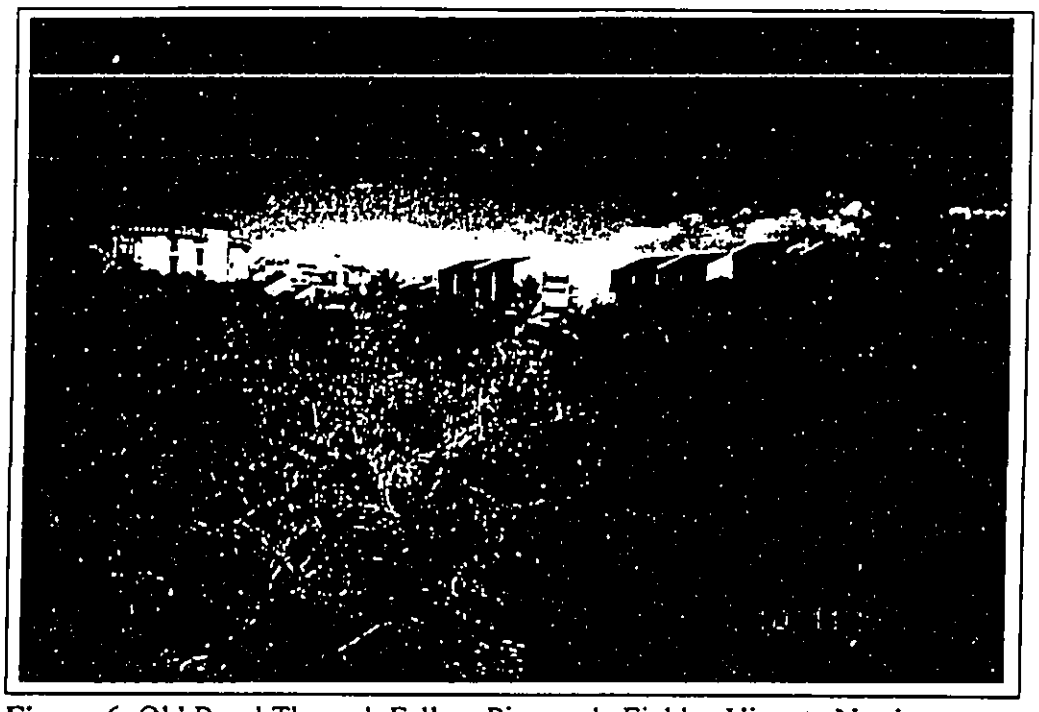

Figure 6: Old Road Through Fallow Pineapple Fields. View to North.

Figure 7: Boulder with Bulldozer Scars in the Project Area. View to South.

DISCUSSION

Settlement models based on the archival and archaeological data suggested that permanent habitation was on the coast with occasional inland agricultural features. Based on the documented post-contact record, it was clear that because the of the impact of ranching and pineapple cultivation, no intact surface features were expected to remain in the project area. This expectation was confirmed by the archaeological inventory survey which did not identify any significant surface archaeological features. Examination of exposed cut-faces along roads and the one unnamed gulch, also, failed to identify significant surface or sub-surface deposits. Based on the absence of surface features and the lack of observed subsurface deposits, no excavations were considered necessary.

CONCLUSIONS

The archival and background research indicated that no significant archaeological sites would be present within the project area. The inventory survey confirmed this. No further archaeological work needs to be conducted within the project area.

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Appendix - C
Traffic
Impact Analysis

TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED

KAPUA VILLAGE SUBDIVISION

PREPARED FOR

MAUI LAND & PINEAPPLE COMPANY, INC.

PREPARED BY

THE TRAFFIC MANAGEMENT CONSULTANT

TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED

KAPUA VILLAGE SUBDIVISION

PREPARED FOR

MAUI LAND & PINEAPPLE COMPANY, INC.

DECEMBER 19, 1997

PREPARED BY

TMC

THE TRAFFIC MANAGEMENT CONSULTANT

RANDALL S. OKANEKU, P. E., PRINCIPAL • 1188 BISHOP STREET, SUITE 1907 • HONOLULU, HAWAII 96813

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for the Proposed

Kapua Village Subdivision

I. Introduction

A. Purpose of Study

The purpose of this study is to analyze the traffic impacts resulting from the proposed Kapua Village Subdivision in Mahinahina, Lahaina, Maui. The Kapua Village Subdivision is being developed as single-family residential housing for the employees of Maui Land & Pineapple Company, Inc. This report presents the findings and recommendations of the study.

B. Scope of Study

The scope of this study includes:

1. Description of the proposed project.
2. Evaluation of existing roadway and traffic conditions.
3. Analysis of future traffic conditions without the proposed project.
4. Development of trip generation characteristics for the proposed project.
5. Superimposing the site-generated traffic over future traffic conditions.
6. The identification and analysis of traffic impacts resulting from the proposed project.
7. Recommendation of improvements, as necessary, that would mitigate the traffic impacts resulting from the development of the proposed project.

C. Study Area

The study area for the traffic impact analysis includes the following intersections:

1. Honoapiilani Highway at Akahele Street
2. Honoapiilani Highway at Hoohui Road

3. Lower Honoapiilani Road at Akahele Street

4. Lower Honoapiilani Road at Hoohui Road

5. Lower Honoapiilani Road at the proposed subdivision road.

D. Project Characteristics

Maui Land & Pineapple Company, Inc. is planning to develop a 45-lot, single-family residential subdivision for its employees. The property is identified as Tax Map Key (2) 4-3-09:52. The project site is located on the mauka (east) side of Lower Honoapiilani Road across from Pohaku Park. Figure 1 depicts the vicinity of the project. Access would be provided by a subdivision road on Lower Honoapiilani Road. For the purpose of the traffic impact analysis, it is assumed that the proposed project will built-out and fully occupied by the Year 2001. The site plan is depicted on Figure 2.

II. Existing Conditions

A. Existing Land Uses

The project site is currently undeveloped. The land uses, surrounding the project site, are primarily residential in nature. The Pohaku Park is located across from the project site on Lower Honoapiilani Road. The Kapalua Airport is located on the mauka side of Honoapiilani Highway. The Kahana Gateway Shopping Center is located along Honoapiilani Highway, north of Hoohui Road. Kahana Ridge and Kahana Nui are recently completed subdivisions, located on the mauka side of Honoapiilani Highway.

B. Area Roadway System

Honoapiilani Highway is a high quality, two lane, two way arterial highway between Napili and Wailuku. Within the study area, Honoapiilani Highway is signalized at Akahele Street and at Hoohui Road. The posted speed limit on Honoapiilani Highway in the project vicinity is 45 miles per hour (mph).

Lower Honoapiilani Road is a two-way, two-lane roadway, which extends from Honokowai to the south to Kapalua to the north. Within the study area, there are no provisions for exclusive left turn lanes on Lower Honoapiilani Road. Fronting the project site, Lower Honoapiilani Road is a curvilinear roadway both horizontally

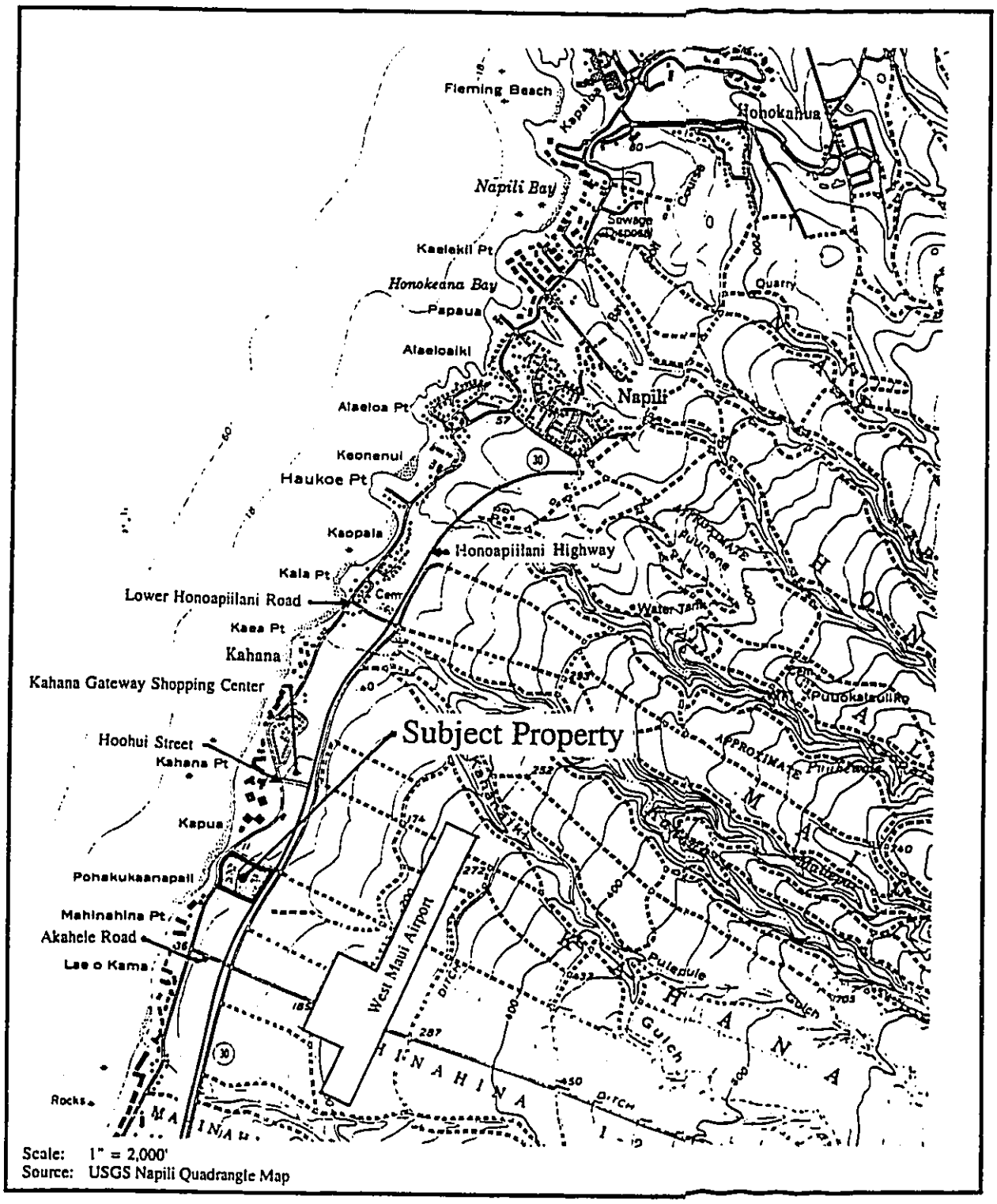


Figure 1 - Vicinity Map

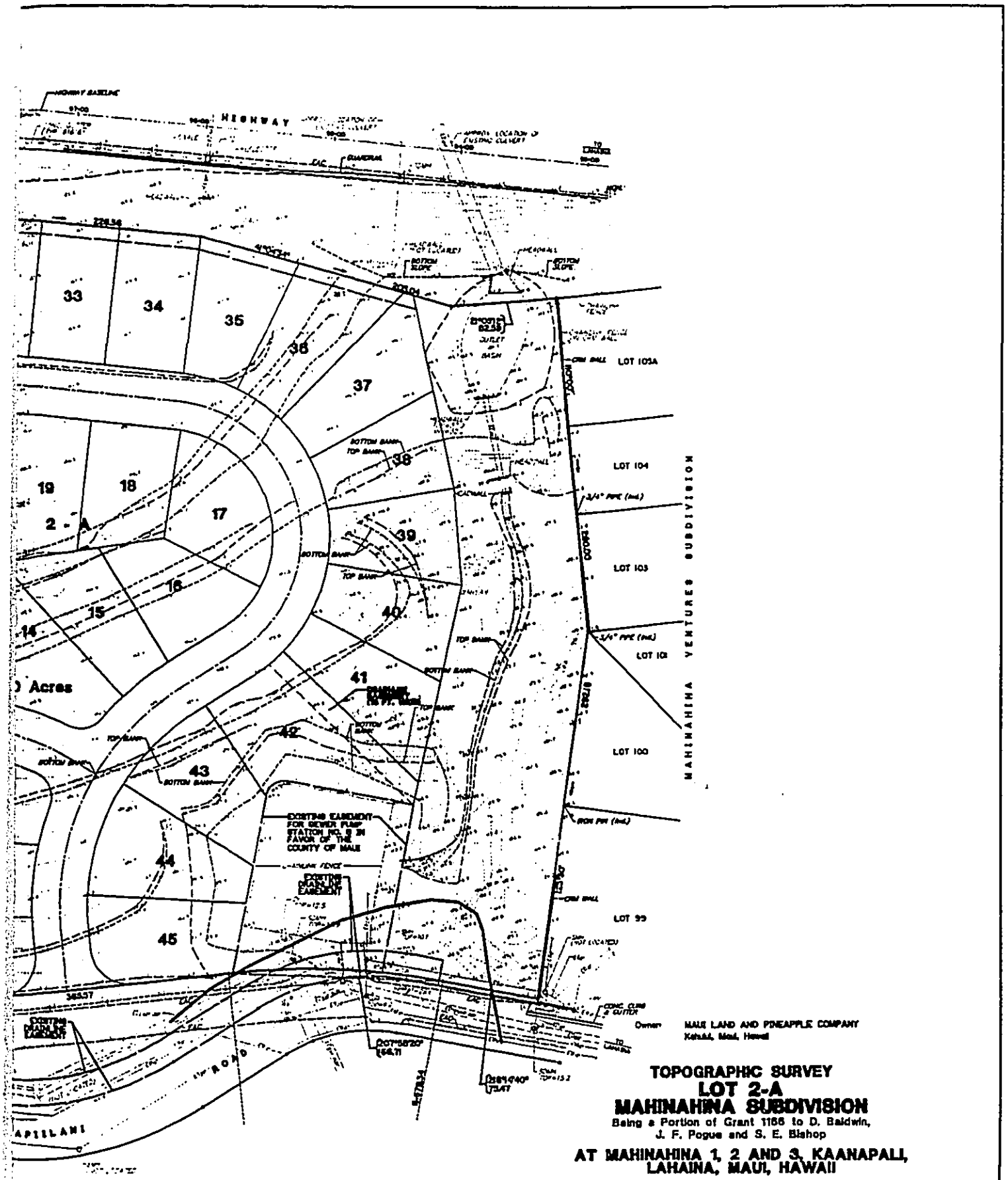
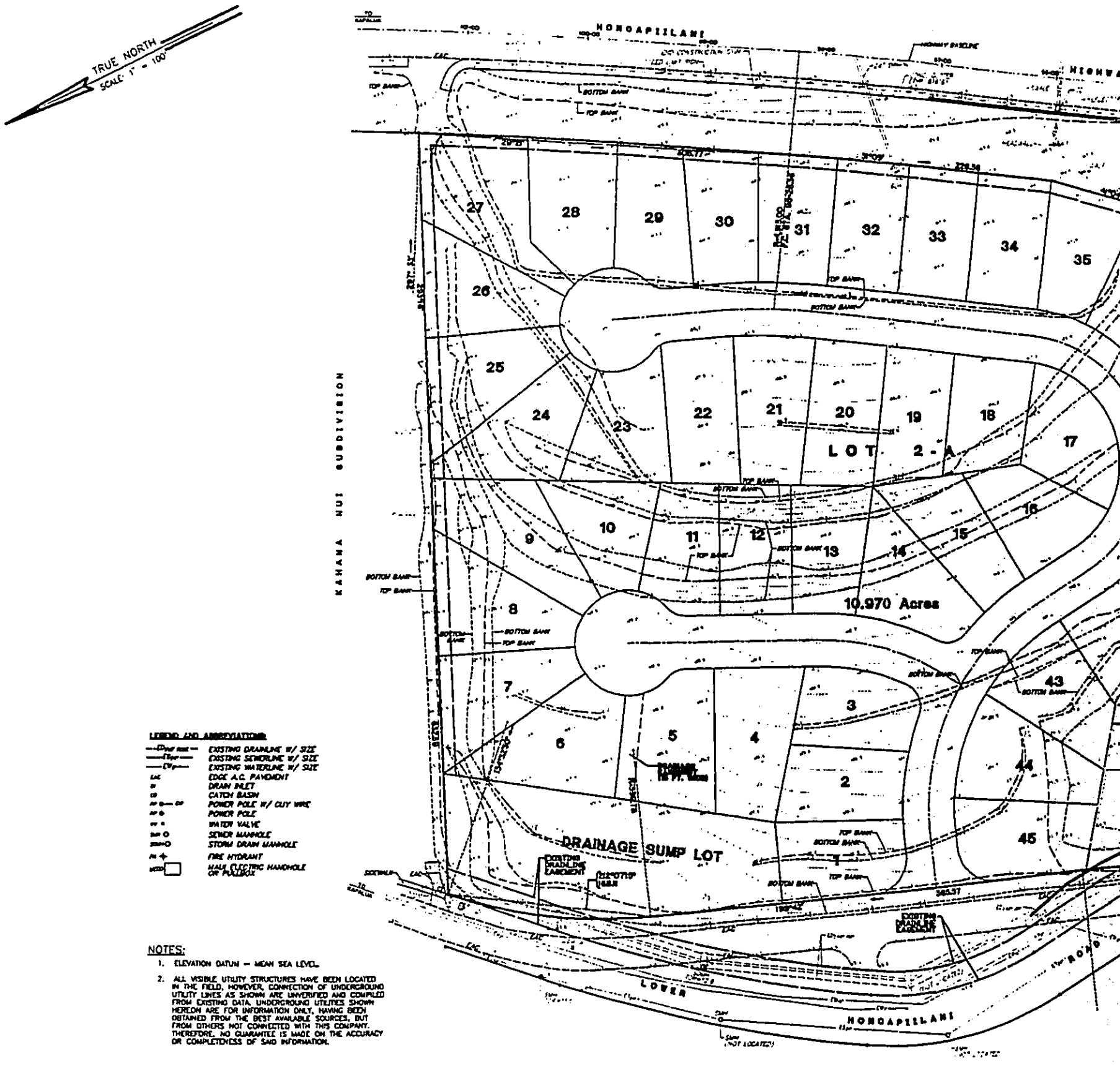


Figure 2 - Site Plan



NOTES:

1. ELEVATION DATUM = MEAN SEA LEVEL.
2. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD, HOWEVER, CONNECTION OF UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES, BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.

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Tax Map Key (2) 4-3-09: 52

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS

and vertically. The existing alignment of Lower Honoapiilani Highway along the project frontage limits available sight distances within the highway right-of-way. The posted speed limit on Lower Honoapiilani Road is 25 mph. .

Akahele Street is a two-way, two-lane roadway between Honoapiilani Highway and Lower Honoapiilani Road. Akahele Street is stop-controlled at its Tee-intersection with Lower Honoapiilani Road. Akahele Street extends mauka of Honoapiilani Highway to the Kapalua Airport.

Hoohui Road is a two-way, four-lane, divided roadway between Honoapiilani Highway and Lower Honoapiilani Road. Hoohui Road is stop-controlled at its Tee-intersection with Lower Honoapiilani Road. Hoohui Road extends in the mauka direction to the Kahana Ridge Subdivision.

C. Traffic Volumes and Conditions

1. General

a. Field Investigation

The field investigation was comprised of a site inspection of the road and traffic conditions, and traffic count surveys during the AM and PM peak periods of traffic. The traffic count survey was conducted between the hours of 6:00 AM and 9:00 AM in the morning, and between 3:00 PM and 6:00 PM in the afternoon on November 12 and 13, 1997 at the following intersections:

- Honoapiilani Highway at Akahele Street
- Honoapiilani Highway at Hoohui Road
- Lower Honoapiilani Road at Akahele Street
- Lower Honoapiilani Road at Hoohui Road

b. Capacity Analysis Methodology

The highway capacity analysis, performed for this study, is based upon procedures presented in the "Highway Capacity Manual" (HCM), Special Report 209, Transportation Research Board, and the "Highway Capacity Software", Federal Highways Administration.

Level of Service (LOS) is defined as "a qualitative measure describing operational conditions within a traffic stream". Several factors are included in determining LOS such as: speed, delay, vehicle density, freedom to maneuver, traffic interruptions, driver comfort, and safety. LOS "A", "B", and "C" are considered satisfactory levels of service. LOS "D" is generally considered a "desirable minimum" operating level of service. LOS "E" is an undesirable condition and LOS "F" is an unacceptable condition.

"Volume-to-capacity" (v/c) ratio is another measure indicating the relative traffic demand to the road's traffic carrying ability. A v/c ratio of 0.50 indicates that the traffic demand is utilizing 50% of the roadway's capacity.

2. Existing AM Peak Hour Traffic Analysis

The AM peak hour of traffic occurs between 7:00 AM and 8:00 AM. The intersections within the study area operate at satisfactory Levels of Service, i.e., LOS "C" or better. Figure 3 depicts the existing AM peak hour traffic volumes and results of the Level of Service analysis.

3. Existing AM Peak Hour Traffic Analysis

The PM peak hour of traffic occurs between 4:30 PM and 5:30 PM. The intersections within the study area operate at LOS "B" or better. The existing PM peak hour traffic volumes and capacity conditions are depicted in Figure 4.

III. Future Conditions

A. Planned Roadway Improvements

The County of Maui Department of Public Works is planning to improve Lower Honoapiilani Road in the vicinity of the proposed project. The roadway improvements include constructing curbs, gutters, and sidewalks along the project frontage. A grade adjustment wall is also included in the County's plans to retain the existing cut slope along a portion of the project frontage. The acquisition of additional right-of-way from the project site is not anticipated to accommodate the County roadway improvements.

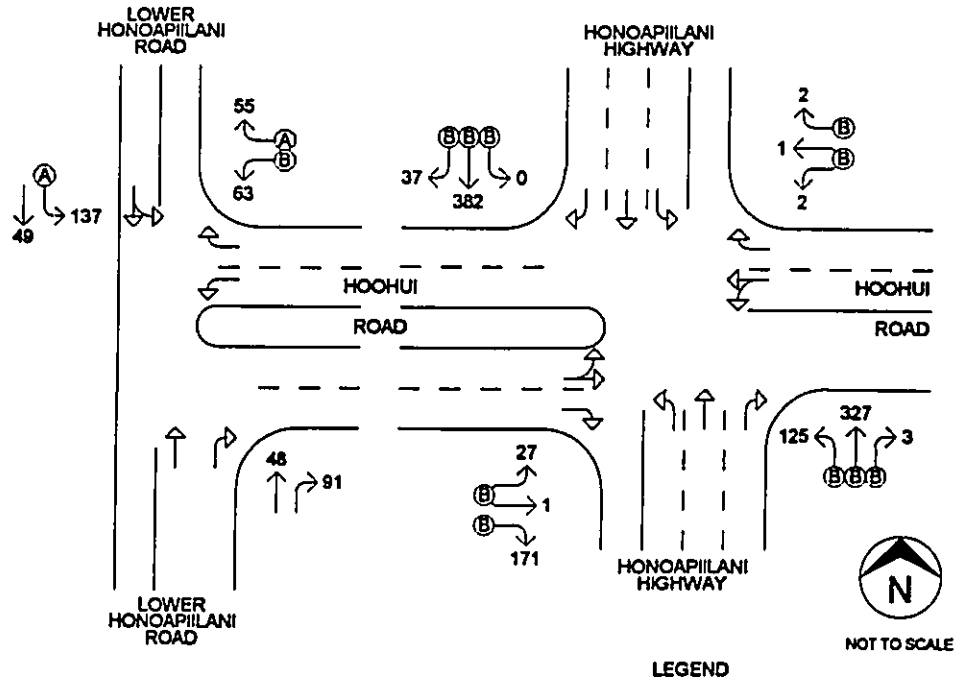


Figure 3 - Existing AM Peak Hour Traffic

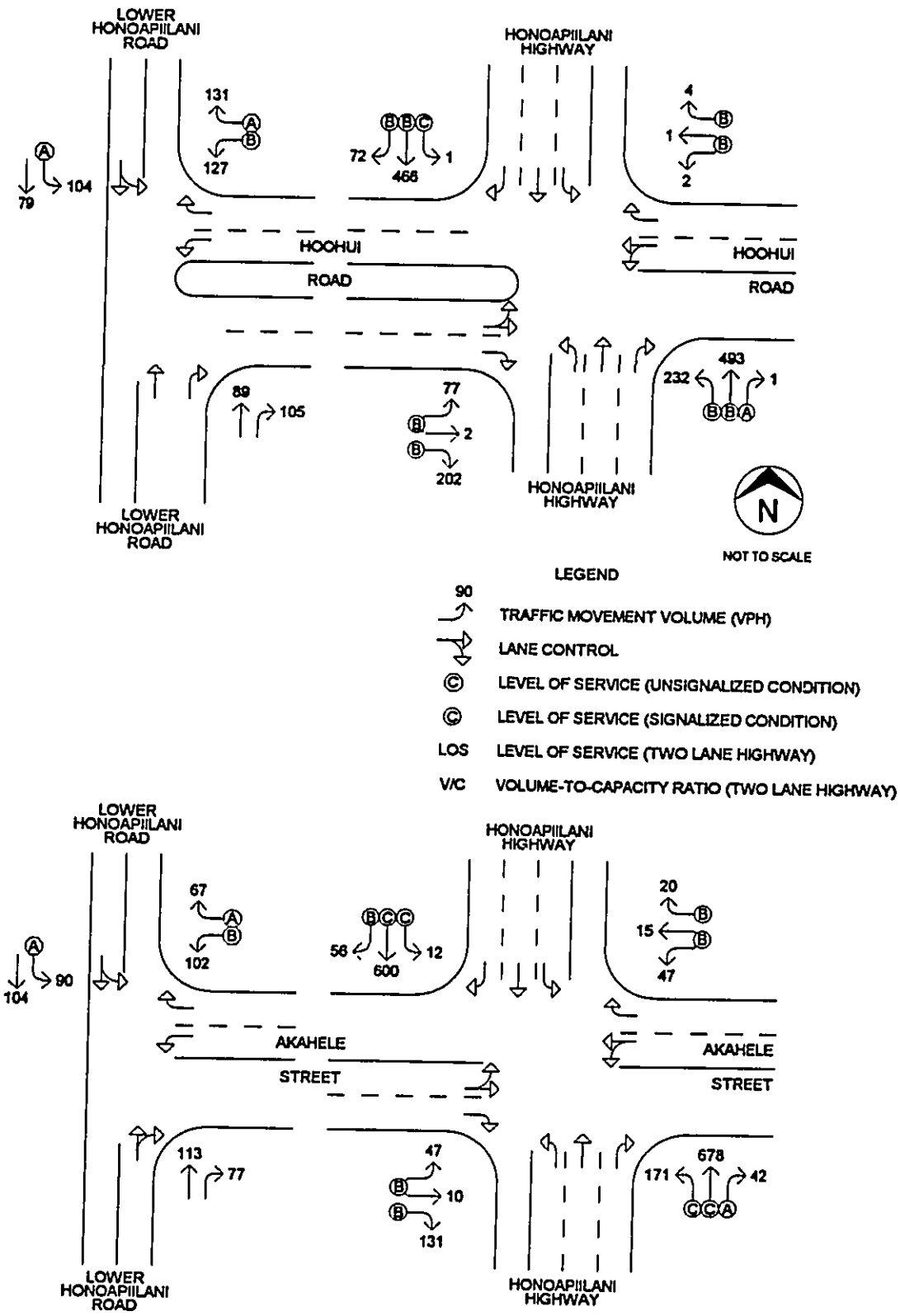


Figure 4 - Existing PM Peak Hour Traffic

B. Projected Traffic

1. Site-Generated Traffic

a. Trip Generation Methodology

The trip generation methodology used in this study is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in "Trip Generation, 6th Edition", 1997. The ITE trip rates are developed empirically, by correlating the vehicle trip generation data with various land use characteristics, such as vehicle trips per dwelling unit.

b. Trip Generation Characteristics

The proposed single-family residential subdivision would contain 45 dwelling units (DU), assuming one DU per lot. The Kapua Village Subdivision would generate a total of 40 vehicles per hour, during the AM peak hour of traffic, 10 vph entering and 30 vph exiting the project site. During the PM peak hour, the proposed project would generate a total of 52 vph, 34 vph entering and 18 vph exiting the project site. Table 1 summarizes the AM and PM peak hour of traffic vehicle trip generation summary, respectively.

Table 1. Summary of Trip Generation Characteristics

Land Use Intensity = 45 Single-Family DU			VPH/DU	Total VPH
Peak Hour of Adjacent Street Traffic	AM Peak Hour Traffic	Enter	0.23	10
		Exit	0.69	30
		Total	0.92	40
	PM Peak Hour Traffic	Enter	0.75	34
		Exit	0.42	18
		Total	1.17	52

2. Travel Forecasting Methodology

The travel forecast is based upon the traffic projections published in the "Maui Long-Range Land Transportation Plan", dated February 1997, prepared for the State of Hawaii Department of Transportation (DOT) and the County of Maui Department of Public Works and Planning Department. The Year 2020 peak hour traffic forecasts at the Kahana Stream screenline are compared with 1997 DOT Traffic Survey Data for the Island of Maui to develop the traffic forecast for the Year 2001. The travel forecast analysis indicates that traffic increases at a rate of approximately 1.3% per year using 1997 as the base year. A growth factor of 1.052 is used in projecting through traffic demands to the Year 2001.

3. Other Developments in the Area

The Kahana Ridge is residential subdivision located on Hoohui Road, mauka of Honoapiilani Highway. The site has recently completed construction, but not yet occupied. Kahana Nui is an agricultural subdivision located on the mauka side of Honoapiilani Highway, between Akahele Street and Hoohui Road. Traffic generated by these projects have been added to the growth in through traffic.

4. Projected Traffic Without Project

Figures 5 and 6 depict the Year 2001 AM and PM peak hour traffic projections without the proposed project and the results of the Level of Service analysis, respectively. The intersections within the study area are expected to continue to operate at satisfactory Levels of Service during both the AM and PM peak hours of traffic.

5. Cumulative Traffic With Project

The site-generated traffic is superimposed over the Year 2001 AM and PM peak hour traffic. The proposed subdivision would provide housing for Maui Land & Pineapple Company, Inc. employees. Since most of the employees are expected to work in the Napili and Kapalua areas, it is assumed that 80 percent of the traffic, generated by the proposed subdivision, would be destined for points north of the project site. The remaining 20 percent would be bound for destinations, located to the south of the project site. The traffic impact analysis for the proposed project is discussed in the following section.

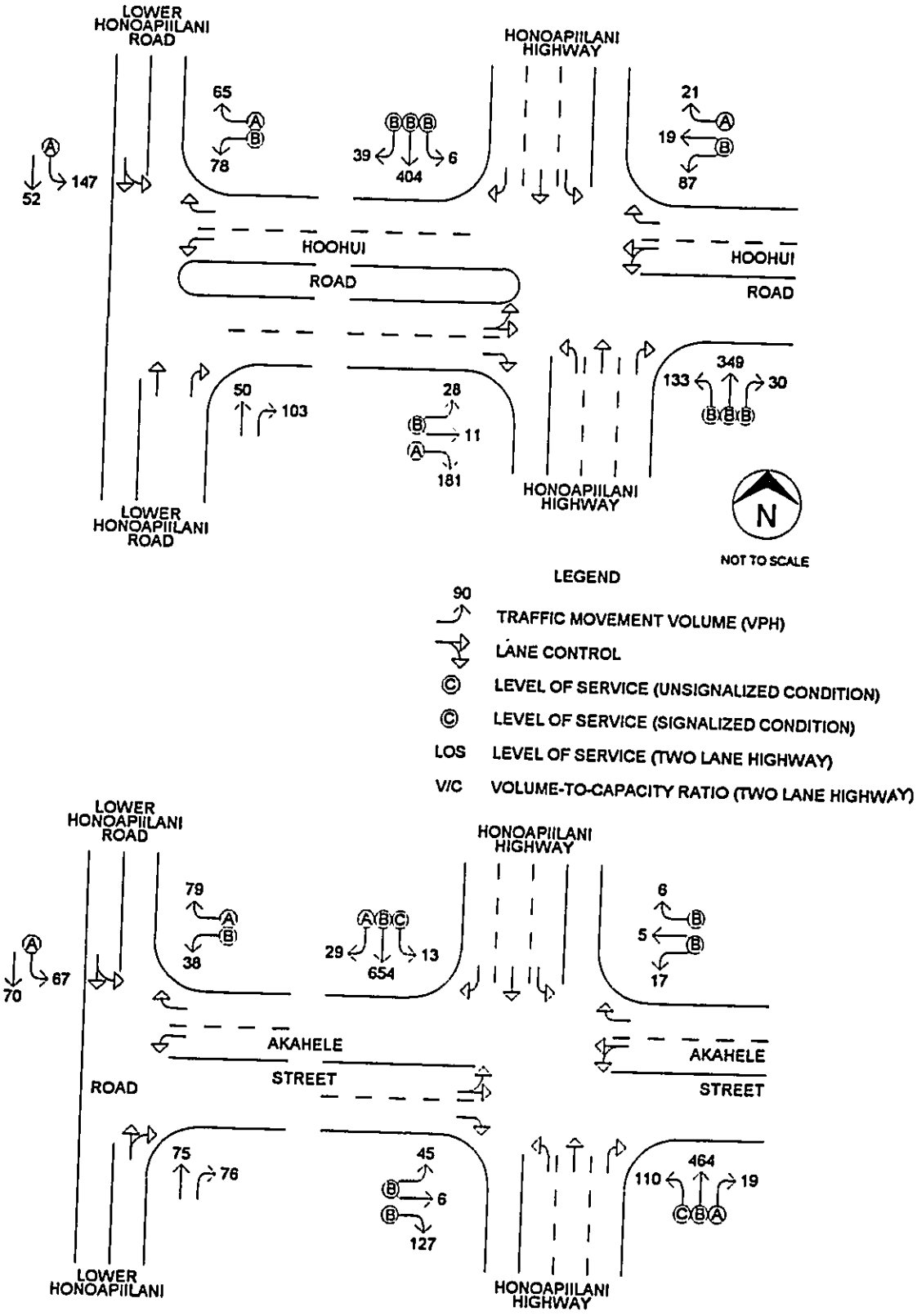
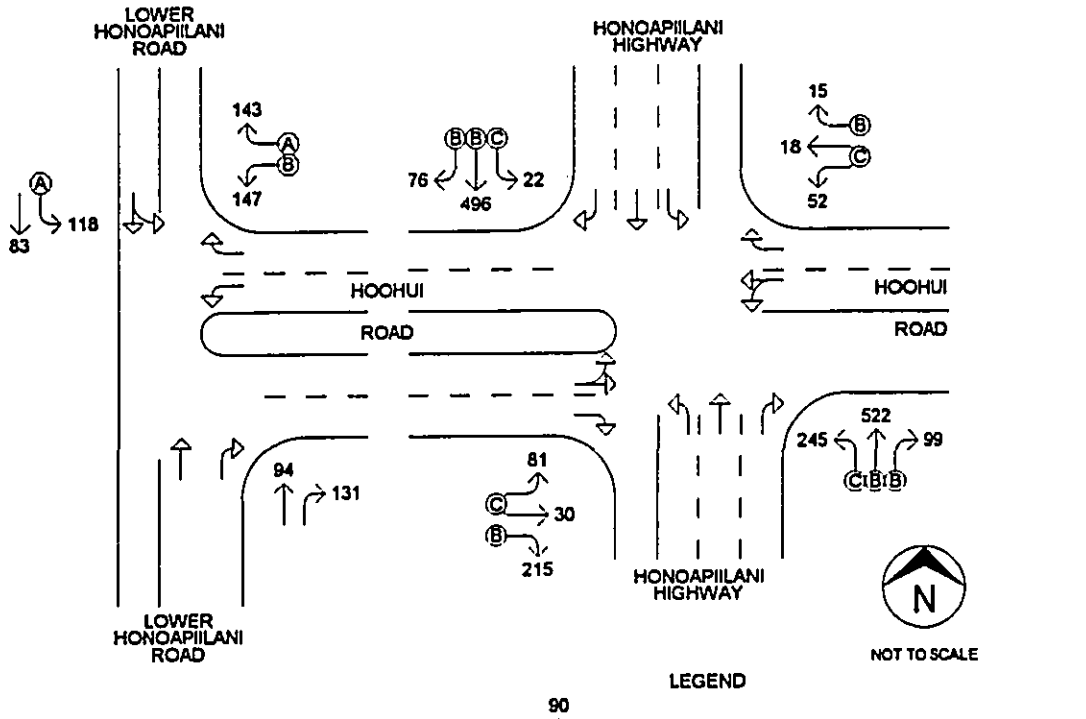


Figure 5 - Year 2001 AM Peak Hour Traffic W/O Project



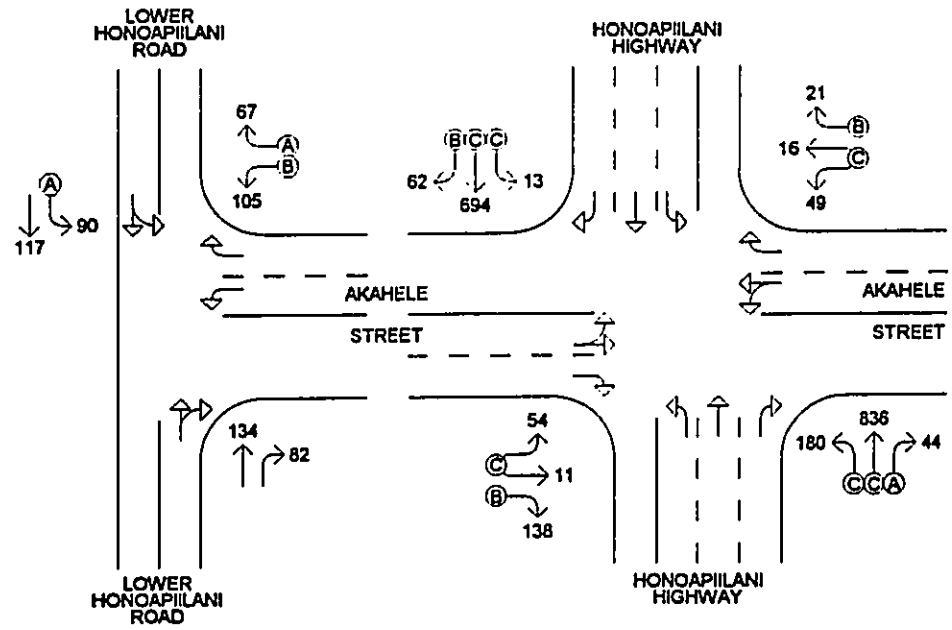


Figure 6 - Year 2001 PM Peak Hour Traffic W/O Project

IV. Traffic Impact Analysis

A. Peak Hour Traffic Impacts

Figures 7 and 8 depict the projected AM and PM peak hours of traffic with the site-generated traffic and results of the Level of Service analysis. The LOS at the Lower Honoapiilani Road intersections, within the study area, are expected to remain unaffected by the site-generated traffic. The Honoapiilani Highway intersections, within the study area, are expected to operate at satisfactory Levels of Service. Table 2 summarizes the traffic impacts of the proposed Kapua Village Subdivision on the intersections within the study area.

Table 2. Summary of Traffic Impact Analysis

Scenario	Peak Hour	Honoapiilani Highway Intersection				Lower Honoapiilani Rd	
		Akahele Street		Hoohui Road		Akahele Street	Hoohui Road
		LOS	v/c	LOS	v/c	*LOS*	*LOS*
Year 2001 Peak Hour Without Project	**AM**	B	0.70	B	0.64	B	B
	PM	C	0.86	B	0.69	B	B
Year 2001 Peak Hour With Project	**AM**	B	0.70	B	0.66	B	B
	PM	C	0.86	B	0.69	B	B

LOS = Overall intersection Level of Service (signalized conditions)
v/c = Overall intersection volume-to-capacity ratio (signalized conditions)
LOS = Level of Service on critical traffic movement (unsignalized conditions)

The turning movements at the intersection of Lower Honoapiilani Road and the Project Access Road are expected to operate at LOS "B" or better during both the AM and PM peak hours of traffic. The AM and PM peak hour volumes along Lower Honoapiilani Road at the study intersections do not meet volume warrants for exclusive left turn lanes, according the American Association of State

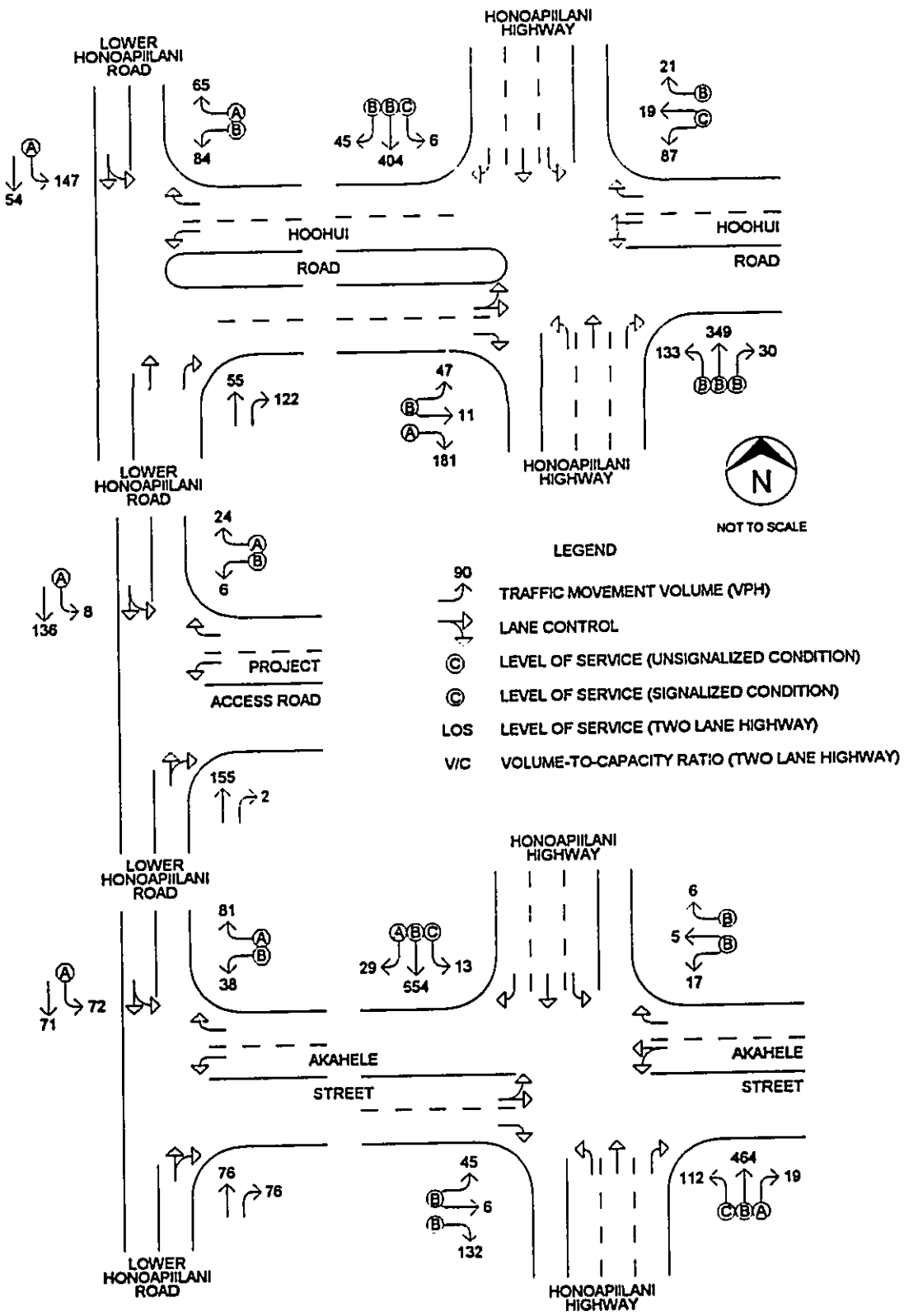


Figure 7 - Cumulative AM Peak Hour Traffic With Project

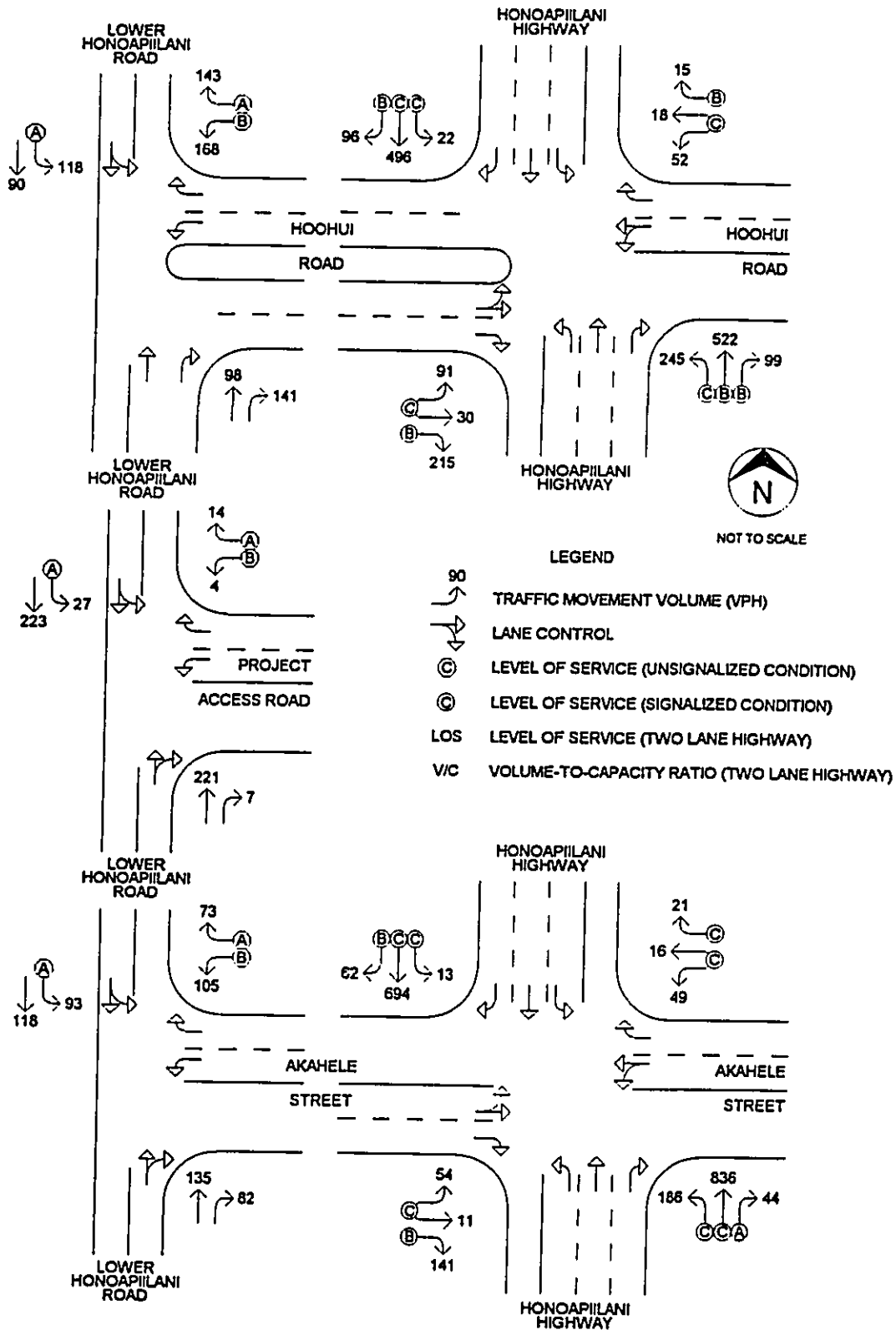


Figure 8 - Cumulative PM Peak Hour Traffic With Project

Transportation Officials (AASHTO) guidelines. However, an exclusive left turn lane on southbound Lower Honoapiilani Road should be considered at the Project Access Road due to the limited sight distances along the project frontage.

B. Intersection Sight Distance Requirements

1. Sight Triangle

The sight triangle is defined by the line of sight between a motorist approaching on Lower Honoapiilani Road and a motorist stopped on the Project Access Road, the sight distance requirement measured along Lower Honoapiilani Road, and the path of the motorist on the Project Access Road turning onto Lower Honoapiilani Road. The sight triangle should be clear of all obstructions, including structures, signs, cut slopes, and vegetation.

Lower Honoapiilani Road is posted at 25 mph, therefore a minimum design speed of 30 mph is recommended to determine the required sight distances. At 30 mph, AASHTO recommends minimum sight distances of 375 feet in length in both the left and right directions. These sight distances would permit a vehicle to make a left or right turn onto Lower Honoapiilani Highway without being overtaken by a vehicle traveling in the same direction.

A review of the construction drawings of Lower Honoapiilani Road indicates that the sight triangle may be obscured by the cut slope located along the project frontage to the north of the Project Access Road intersection. The cut slope may require grading within the roadway right-of-way to provide a clear line of sight. The sight triangle to the south of the Project Access Road could be established by proper maintainance of vegetation within the roadway right-of-way. Additional traffic mitigation measures may be required if the minimum sight distances are not feasible due to the physical constraints of the existing roadway.

2. Decision Sight Distance

Decision sight distance is the distance required to allow enough time for a motorist, driving at the design speed, to identify an unexpected hazard and complete a safety maneuver. The decision sight distance provides motorists with a greater margin of safety than the minimum AASHTO stopping sight distance of 200 feet for a 30 mph design speed.

The decision sight distance would provide for a motorist on southbound Lower Honoapiilani Road enough time to prepare to stop safely behind a vehicle turning left into the Project Access Road. AASHTO recommends a minimum 500 feet of sight distance between a motorist on southbound Lower Honoapiilani Road and the Project Access Road intersection.

A review of the construction drawings again indicates that the cut slope along the project frontage may obscure the sight distance along southbound Lower Honoapiilani Road. Additional grading of the cut slope into the project site may be required to provide a clear line of sight. Further traffic mitigation measures may be required if the minimum sight distance cannot be achieved due to the existing alignment of Lower Honoapiilani Road and physical constraints of the proposed subdivision.

V. Recommendations

A. Access

1. The following intersection sight distances should be established during the design phase and verified during the construction phase of the development:
   a. Minimum intersection sight distances of 375 feet should be established from the Project Access Road intersection to Lower Honoapiilani Road approaches in both the north (right) and south (left) directions.
   b. A minimum sight distance of 500 feet should be established from the southbound approach on Lower Honoapiilani Road to its intersection with the Project Access Road.
2. Consideration should be given by Maui Land and Pineapple Company, Inc. to permit the County of Maui to cut the existing slope into the project site during their construction of the Lower Honoapiilani Road improvements. This would allow the County to eliminate the proposed grade adjustment wall on the project frontage and it would improve the sight distances from the Project Access Road and along Lower Honoapiilani Road.
3. The Project Access Road should be striped to provide separate left turn and right turn lanes at Lower Honoapiilani Road.

B. Off-Site Traffic Improvements

No off-site traffic improvements are recommended at this time.

VI. Conclusion

The traffic, generated by the proposed Kapua Village Subdivision, is not expected to significantly impact peak hour traffic in the vicinity of the project. Sight distance concerns at the Project Access Road should be addressed during the design and construction phases of the development.

Appendix - D
Planning Department Report to the Maui Planning Commission

BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAII

In The Matter of the Application of **Chris Hart & Partners** **on behalf of** **Maui Land & Pineapple Company, Inc.** Requesting a State Land Use District Boundary Amendment from the State Agricultural District to the State Urban District, a Change in Zoning from the Agricultural District to the R-1 Residential District, and a Special Management Area Use Permit for the Kapua Village Subdivision comprised of 10.970 Acres located at Tax Map Key 4-3-009: 052 Mahinahina, Maui, Hawaii	**DOCKET NO. DBA980001** **CIZ980002** **SM1980001** **KAPUA VILLAGE SUBDIVISION** **(DASII)**

MAUI PLANNING DEPARTMENT'S REPORT
TO THE MAUI PLANNING COMMISSION
MAY 26, 1998 MEETING

DEPARTMENT OF PLANNING
COUNTY OF MAUI
250 S. HIGH STREET
WAILUKU, MAUI, HI. 96793

(DBA980001) District Boundary Amendment
(CIZ980002) Change in Zoning
(SM1980001) Special Management Area Use Permit
(DASII)

BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAII

In The Matter of the Application of)	
)	**DOCKET NO. DBA980001**
Chris Hart & Partners)	**CIZ980002**
on behalf of)	**SM1980001**
Maui Land & Pineapple Company, Inc.)	**KAPUA VILLAGE SUBDIVISION**
)	**(DASII)**
Requesting a State Land Use District)	
Boundary Amendment from the State)	
Agricultural District to the State Urban)	
District, a Change in Zoning from the)	
Agricultural District to the R-1)	
Residential District, and a Special)	
Management Area Use Permit for the)	
Kapua Village Subdivision comprised of)	
10.970 Acres located at **Tax Map**)	
Key 4-3-009: 052 Mahinahina, Maui,)	
Hawaii)	

THE APPLICATION

This matter arises from applications for a State Land Use District Boundary Amendment from the State Agricultural District to the State Urban District, a Change in Zoning from the Agricultural District to the R-1 Residential District, and a Special Management Area Use Permit filed on December 31, 1997 and certified as complete and ready for processing by the Department of Public Works and Waste Management on January 6, 1998. The application was filed pursuant to Section 205-3.1, HRS; Title 19, Zoning, Chapter 19.68 and Section 19.510.040 of the Maui County Code; Change in Zoning; and Sections 12-202-12 and 12-202-15, Special Management Area Rules of the Maui Planning Commission; by Mr. Christopher L. Hart, ("Applicant") on behalf of Maui Land & Pineapple Company, Inc. (Owner); for the development of a 45 lot single family employee housing subdivision and related infrastructural improvements at Lower Honoapiilani Road, Mahinahina, Island of Maui and County of Maui, identified as Maui Tax Map Key No. 4-3-009: 052 ("Property").

PURPOSE OF THE APPLICATION

The Applicant is requesting a State Land Use District Boundary Amendment, a Change in Zoning, and a Special Management Area Use Permit in order to design and construct a 45-lot employee housing subdivision located in Mahinahina, Maui, Hawaii. The subject property is approximately 10.970 acres. The land use changes are being proposed to conform with the change in the community plan land use designation in the West Maui Community Plan (1996) from Park to Single Family Residential.

APPLICABLE REGULATIONS

LAND USE COMMISSION DISTRICT BOUNDARY AMENDMENT

Pursuant to Section 205-3.1 Amendments to district boundaries, Hawaii Revised Statutes, pertaining to petitions for boundary amendment involving land areas of fifteen acres or less, except in conservation districts, shall be determined by the appropriate county land use decision-making authority. Further, pursuant to Title 19 Zoning, Chapter 19.68 State Land Use District Boundaries, certain responsibilities for the administration of boundary amendments are delegated to the planning commission.

Urban District:

Standards for reviewing a Land Use Commission Urban District Boundary Amendment are found under Title 15, Subtitle 3 State Land Use Commission, Chapter 15 Land Use Commission Rules, Subchapter 2, SS 15-15-18 of the Hawaii Administrative Rules as follows:

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

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

(A) Proximity to centers of trading and employment except where the development would generate new centers of trading and employment;

(B) Substantiation of economic feasibility by the petitioner;

(C) Proximity to basic services such as sewers, transportation systems, water, sanitation, schools, parks, and police and fire protection; and

(D) Sufficient reserve areas for urban growth in appropriate locations

criteria established pursuant to Sections 205-16, 205-17 and 205A-2, HRS.

(b) In its review of any petition for reclassification of district boundaries pursuant to this chapter, the commission shall specifically consider the following:

(1) The extent to which the proposed reclassification conforms to the applicable goals, objectives, and policies of the Hawaii State Plan and relates to the applicable priority guidelines of the Hawaii State Plan and adopted functional plans;

(2) The extent to which the proposed reclassification conforms to the proposed reclassification conforms to the applicable district standards.

(3) The impact of the proposed reclassification on the following areas of state concern:

(A) Preservation or maintenance of important natural systems or habitats;

(B) Maintenance of valued cultural, historical, or natural resources;

(C) Maintenance of other natural resources relevant to Hawaii's economy including, but not limited to agricultural resources;

(D) Commitment of state funds and resources;

(E) Provision for employment opportunities and economic development; and

(F) Provision for housing opportunities for all income groups, particularly the low, low-moderate and gap groups; and

(4) In establishing the boundaries of the districts in each county, the commission shall give consideration to the general plan of the county in which the land is located.

(C) Amendments of a land use district boundary in conservation districts involving land areas fifteen acres or less shall be determined by the commission pursuant to this subsection and section 205-3.1, HRS.

safety and welfare. The conditions shall be reasonably conceived to mitigate the impacts emanating from the proposed land and shall meet the following criteria:

1. That the public shall be protected from the potentially deleterious effects of the proposed use; and

2. That the need for public services created by the proposed use shall be fulfilled.

Special Management Area Use Permit:

Standards for reviewing a **Special Management Area (SMA)** application are found under HRS 205A-26 and § 12-202-10 and § 12-202-11 of Chapter 202, Special Management Area (SMA) Rules of the Maui Planning Commission.

In evaluating an action the following factors, but not limited to same, may constitute a significant adverse effect on the environment:

(A) Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;

(B) Significantly curtails the range of beneficial uses of the environment;

(C) Conflicts with the County's or the State's long-term environmental policies or goals;

(D) Substantially affects the economic or social welfare and activities of the community, County or State;

(E) Involves substantial secondary impacts, such as population changes and increased effects on public facilities, streets, drainage, sewage, and water systems, and pedestrian walkways;

(F) In itself has no significant adverse effect but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

(G) Substantially affects a rare, threatened, or endangered species of animal or plant, or its habitat;

(H) Is contrary to the state plan, county's general plan, appropriate community plans, zoning and subdivision ordinances;

(B) The development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature; and

(C) That the development is consistent with the county general plan and zoning. Such a finding of consistency does not preclude concurrent processing when a general plan or zoning amendment may also be required.

(3) The Authority shall seek to minimize, where reasonable:

(A) Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough, or lagoon;

(B) Any development which would reduce the size of any beach or other area usable for public recreation;

(C) Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management areas and the mean high tide line where there is no beach;

(D) Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and

(E) Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

PROCEDURAL MATTERS

1. **On December 31, 1997,** the applicant sent the notice of application for the change in zoning to landowners and recorded lessees within 500 feet of the subject property.

2. **On February 4, 1998,** the applicant published a "Notice of Application" for the Special Management Area Use Permit in the Maui News. A copy of the "Notice of Application" is on file in the Maui Planning Department.

3. **On April 7, 1998, 47** days prior to the hearing, the Maui Planning Department mailed a notice to the applicant and appropriate state and county agencies

East: Across Honoapiilani Highway are fields cultivated in pineapple and the West Maui Airport. Beyond the airport are additional fields cultivated in pineapple.

West: Across Lower Honoapiilani Road and directly across from the subject property is the County of Maui's Pohaku Beach Park ("S-Turns")

4. Site Description -- The subject property is located on the mauka side of Lower Honoapiilani Road, Mahinahina, Lahaina, Island of Maui and is identified as Tax Map Key 4-3-009:052. See Exhibits 1 - 3. The subject property is bounded by Lower Honoapiilani Road and the west and Honoapiilani Highway on the east and is situated midway between Akahele Street and Hoohui Road.

   The project site, having an approximate area of 10.970 acres, is currently vacant and covered with various grass, weeds and trees. The project site was formerly used for pineapple cultivation up until 15 years ago. The property generally slopes from a high point along its eastern (mauka) edge to the low points along the western (makai) edge. The Pohakukaanapali Gulch, which runs in a mauka-makai direction, passes under the highway via a 120-inch CMP culvert and traverses through the southern portion of the property. Also, an existing County sewer pump station, surrounded by a chainlink fence, is located near the southwestern corner of the property along Lower Honoapiilani Road.

5. Ownership --Maui Land & Pineapple Company, Inc.

Existing Services

1. Water -- The West Maui region is served by the Board of Water Supply's domestic water system. Water drawn from the Kanaha Valley is conveyed to this region for distribution and consumption. The County water system services the coastal areas from Launiupoko to Kaanapali and from Honokowai to Napili.

   In addition to the County system, the West Maui region is served by private water systems, including the Kaanapali Water Corporation's (KWC) system, which services the Kaanapali Resort, and the Kapalua Water System, which provides water service to the Kapalua Resort.

2. Sewers -- Domestic wastewater generated in the Honokowai region is conveyed to the County's Wastewater Reclamation Facility located

Electrical and Phone service to the subject property will be supplied by existing overhead utility lines along Lower Honoapiilani Road. The on-site utility services will be installed underground and in accordance with the requirements of the respective utility companies.

6. Parks -- The Lahaina region encompasses a full range of recreational opportunities, including shoreline and boating activities and adjoining beach parks, and individual and organized athletic activities offered at numerous County parks.

7. Schools -- The State Department of Education operates three (4) schools in the Lahaina area. Princess Nahienaena Elementary and Kamehameha III Elementary Schools covers grades K-5, While Lahaina Intermediate School includes grades 6-8. Public school students in grades 9-12 attend Lahainaluna High School.

8. Solid Waste -- The nearest landfill site is the Central Maui Landfill in Puunene.

9. Public Services -- Police protection for the Lahaina region is provided by the County Police Department Headquartered at the Lahaina Civic Center Station. Fire protection services are offered by the County's Fire Department. The Lahaina Fire Station, which services the Lahaina region is located at the Lahaina Civic Center.

   Maui Memorial Hospital in Kahului, the only major medical facility on the island, services the Lahaina region. Acute, general and emergency care services are provided by the 180-bed facility. In addition, numerous privately operated medical/dental clinics and offices are located in the area to serve the region's residents.

DESCRIPTION OF THE PROJECT (Exhibits 1- 8)

The proposed project is located on the mauka side of Lower Honoapiilani Road, Mahainahina, Lahaina, Island of Maui and is identified as Tax Map Key 4-3-009:052. The subject property is bounded by Lower Honoapiilani Road on the west and Honoapiilani Highway on the east and is situated midway between Akahele Street and Hoohui Road. The applicant, Maui Land & Pineapple Company, Inc. (ML&P) is seeking a State Land Use District Boundary Amendment, a Change in Zoning, and a Special Management Area Use Permit in order to design and construct a 45-lot employee housing subdivision located in Mahinahina, Maui, Hawaii. The subject property is approximately 10.970 acres and is designated "Single-Family" by the West Maui Community Plan. The 45 residential lots will have a mininum lot size of 6000 square

12. Department of Agriculture, Honolulu -- See letter dated March 2, 1998 (Exhibt 22)

13. Department of Accounting and General Services - Survey Division -- See letter dated February 23, 1998 (Exhibit 23)

14. Department of Education Office of the Superintendent -- See letter dated February 18, 1998 (Exhibit 24)

15. Department of Business, Economic Development & Tourism, Land Use Commission -- See letter dated February 4, 1998 (Exhibit 25)

16. Department of Business Economic Development & Tourism, Office of Planning -- See letter dated February 9, 1998 (Exhibit 26)

17. Department of Human Services - Maui -- No response provided

18. Department of Defense Office of the Diarector of Civil Defense -- See letter dated March 9, 1998 (Exhibit 27)

19. United States Department of Agriculture, Natural Resources Conservation Service -- See letter dated February 18, 1998 (Exhibit 28)

20. Department of the Army Corps of Engineers -- See letters dated February 26, 1998 (Exhibit 29)

21. Maui Electric Company, Ltd. -- See letter dated February 4, 1998 (Exhibit 30)

ANALYSIS

LAND USE

1. STATE LAND USE DISTRICTS

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes the four (4) major land use districts in which all lands in the State are placed. These districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The proposed project falls within the "Agricultural" district. The proposed improvements would be permitted within the "Urban" District, therefore, the applicant is requesting a Land Use District Boundary Amendment from "Agricultural"

Objectives: To encourage development which reflects the character and culture of Maui county's people.

3. WEST MAUI COMMUNITY PLAN

The project is located in the West Maui Community Plan region. This region is one (1) of nine (9) Community Plan regions established in the County of Maui. The Community Plans establish regional planning guidelines and implement the objectives and policies of the Maui County General Plan.

The County of Maui recently conducted a comprehensive update of each regional Community Plan. The proposed project is in keeping with the objectives and policies of the West Maui Community Plan. The proposed subdivision site is designated "Single-Family" by the West Maui Community Plan Land Use Map. The proposed subdivision is consistent with the "Single-Family" designation.

The purpose of ML&P's employee housing program is to provide ML&P employees the opportunity to purchase a residential lot at an affordable price. As part of ML&P's program for West Maui employees, Honokeana Phase I and Phase II residential employee subdivisions were proposed in Napilihau. Honokeana Phase I, which included 38 lots, was completed in 1990 and the residential lots were subsequently sold to ML&P employees. However, development plans for Phase II were abandoned as a result of the West Maui Community Plan review process when residents requested tht the land proposed for Phase II be amended on the West Maui Community Plan Land Use Map from "Single-Family" to "Park". In return, the land located across from "S-Turns" (the subject property) was redesignated on the West Maui Community Plan Land Use Map from "Park" to "Single- Family". As a result, ML&P is pursuing their employee housing program at the site of this re-designated parcel instead of the originally planned Honokeana Phase II site. The purpose of this application is to establish consistency between the recently amended West Maui Community Plan Land Use Map and the State Land Use Commission District Boundary and County Zoning.

4. MAUI COUNTY ZONING

The subject property is zoned "Agricultural". A change in zoning to "R-1 Residential" is required to allow the establishment of the proposed subdivision.

reviewed and approved by this office (SHPD DOC NO: 9712BD05). Based on the results of this survey, it was found that the proposed construction will have "no effect" on historic sites, as none were located in the project area."

INFRASTRUCTURE AND PUBLIC FACILITIES AND SERVICES

1. **Water** -- The West Maui region is served by the Board of Water Supply's domestic water system. Water drawn from the Kanaha Valley is conveyed to this region for distribution and consumption. The County water system services the coastal areas from Launiupoko to Kaanapali and from Honokowai to Napili.

   The proposed subdivision will be serviced by network of 8-inch pipes. The new system will be connected to the existing waterline along Lower Honoapiilani Road. Individual lots will be serviced by a 5/8-inch water meter. Fire hydrants will be installled in the subdivision and spaced no more than 350 feet apart. Fire protection for the subject property is provided by existing fire hydrants fronting the subject property along Lower Honoapiilani Road. These will be supported by additional fire hydrants on-site, which will be placed within subdivision, on the new roadways, at 350 feet maximum interval per Maui county, Department of Water Supply residential standards. The Department of Water Supply had no comments.

2. **Sewers** -- Domestic wastewater generated in the Honokowai region is conveyed to the County's Wastewater Reclamation Facility located mauka of the Honoapiilani Highway. The surrounding region is serviced by a 24-inch County gravity sewer line located along Lower Honoapiilani Road. The 24-inch sewer line discharges into the existing County Sewage Pump Station No. 8, which is located within the project site. Sewage from the pump station is transported to the Lahaina Wastewater Reclamation Plant located about 1 ½ miles away.

   The estimated average wastewater flow generated by the proposed 45-lot subdivision is 15,750 gallons per day (gpd) based on the County's Wastewater Division criteria of 350 gpd per residential lot. The proposed system for the

flows down toward Lower Honoapiilani Road and eventually overflow the roadway.

The Department of Public Works and Waste Management in a memorandum dated March 3, 1998 (Exhibit 12) stated: "4. A detailed and final drainage report and a Best Management Practices Plan (BMP) shall be submitted with the grading plans for review and approval prior to issuance of grading permits. The drainage report shall include hydrologic and hydraulic calculations and the schemes for disposal of runoff waters. It must comply with the provisions of the "Rules for Design of Storm Drainage Facilities in the County of Maui" and must provide verification that the grading and runoff water generated by the project will not have an adverse effect on adjacent and downstream properties. The BMP plan shall show the location and details of structural and non-structural measures to control erosion and sedimentation to the maximum extent practicable."

The Department of Health in a letter dated March 5, 1998 (Exhibit 17) stated: "1. Any work in Pohakukaanapali Gulch may require the approval of the Army Corps of Engineers (COE). The applicant should the COE to identify whether a federal permit is required. A Section 401 Water Quality Certification is required from the Clean Water Branch, Department of Health, if a federal permit is required. 2. Any construction discharge into State waters will require a National Pollutant Discharge Elimination System (NPDES) permit from the Clean Water Branch."

The Department of Land and Natural Resources Land Division in letter dated April 24, 1998 (Exhibit 20) stated: "This is a follow-up to our letter (Ref.: DBA98001.RCM) dated March 24, 1998, regarding the subject matter. Attached herewith is a copy of our Engineering Branch's comments related to Stream Channel Alteration Permit and possible FEMA restrictions for the proposed project.

COMMENTS:

A stream Channel Alteration permit (SCAP) may be required for the proposed grading of Lots 39 to 42. The SCAP

"1. A road widening lot shall be provided for the adjoining half of Lower Honoapiilani Highway and improved to County standards to include, but not limited to, pavement widening, construction of curb, gutter and sidewalk, street lights, and relocation of utilities underground. Said lot shall be dedicated to the County upon completion of the improvements.

2. All structures, such as walls, trees, etc., shall be removed or relocated from the road widening strip. The rear boundaries of the road widening strip shall be clearly marked to determine if said structures have been properly removed and relocated.

3. A 30' radii shall be provided at all intersections of the proposed subdivision road/driveway and the adjoining Lower Honoapiilani Highway.

5. The applicant shall construct, at a minimum, the traffic and road improvements as described in the "Recommendations" in the Traffic Report dated December 19, 1997 by Traffic Management Consultants.

6. A site plan and a "sight distance" report to determine required sight distance and available signt distance at existing and proposed street intersections shall be provided for our review and approval.

7. The applicant shall obtain street name approval from the Commission on Naming Streets, Parks and Facilities and show street names on the map."

The Department of Transportation in a letter dated February 9, 1998 (Exhibit 18) stated: "The subject project is not anticipated to have a significant impact on our State transportation facilities."

5. **Electrical and Telephone --**

Maui Electric Company Ltd. In a letter dated February 4, 1998 (Exhibit 30) stated: "In reviewing the information transmitted and our records, we have no objection to the subject project."

6. **Parks** -- The proposed project will not adversely affect recreational facilities.

Comment 3 response: "The remaining requirements for the 21 lots will be met through the payment of the applicable park dedication fees. In sum, ML&P will utilize 21 kof their remaining balance of 65 park credits to meet 50% of the park dedication requirements. The remaining requirement for 21 lots will be met through the payment of money."

7. **Schools** -- The proposed project will not impact the public school system.

   The Department of Education in a letter dated February 18, 1998 (Exhibit 24) stated: "The Department of Education has no comment on the proposed 45-lot single-family subdivision."

8. **Solid Waste** -- The project will have no impact on solid waste or solid waste facilities. The Department of Public Works and Waste Management, Solid Waste Division, in a memorandum dated March 3, 1998 (Exhibit 12), had no comments.

9. **Public Services** -- Police, fire and medical services are not expected to be adversely impacted by the proposed project. The project will not extend existing service area limits for emergency services.

   The County of Maui Department of Fire Control in a letter dated Februarv 12, 1998 (Exhibit 14) stated: "The Department of Fire Control has no objection to the Kapua Village Subdivision, provided it meets the requirements of the Fire Code in effect at the time of construction."

   The Police Department in a memorandum dated February 13, 1998 (Exhibit 15) stated: "The newly created lots will have a positive impact on the call for Police service in the area, only in consideration of other newly developed subdivisions, likewise in the area."

   The Department of Defense Office of the Director of Civil Defense in a letter dated March 9, 1998 (Exhibit 27) stated: "We do wish to offer a proposal that the developer consider relocating aa civil defense siren from its present location along Honoapiilani Highway and installing it into the

The Department of Business, Economic Development & Tourism Office of Planning in a letter dated February 9, 1998 (Exhibit 26) stated: "Given the project's close proximity to the West Maui Airport, noise complaints from residents of the subdivision may be a serious community concern. For this reason, this concern should be thoroughly discussed, and information regarding noise contours generated by the airport should be provided."

The applicant responded in a letter dated April 16,1998 (Exhibit 31) which states: "The potential for noise impacts to residents of West Maui was a serious concern during the establishment of the Kapalua Airport by Hawaiian Airlines in the late 80s. Restrictions were established which control the type of aircraft, hours of operation, numbers of flights, and aircraft noise. These restrictions were codified into rules by the State Department of Transportation when the airport was transferred to the State of Hawaii (Chapter 39, Subtitle 2, Title 19, Hawaii Administrative Rules). Specifically the rules limit operations to daylight hours, prohibit jet powered aircraft anf prohibit helicopter operations. The rules also establish maximum allowable noise levels for aircraft as well as for "Effective Perceived Noise Levels" for takeoff, approach and sideline."

OTHER GOVERNMENTAL APPROVALS

1. **Department of The Army, U.S. Army Engineer District, Honolulu, Fort Shafter, Hawaii** -- In a letter dated February 26, 1998 (Exhibit 29), stated: *a. Based on the information provided, a DA permit may be required for any work performed in Pohakukaanapali Gulch. For further information, please contact Mr. Peter Galloway of our Regulatory Section at 438-9258 (extension 15) and refer to file number 980000096. b. The flood hazard information provided on page 7 of the project assessment report is correct.*

   In a letter dated April 20, 1998 (Exhibit 32) the Department of the Army stated: " This responds to your letter of April 7, 1998, which transmitted additional photographic and other information about the site of the proposed Kapua Village project at Mahinahina, Maui Hawaii. Based ont the information you have provided, I have determined that the project will not impact waters of the U.S., including

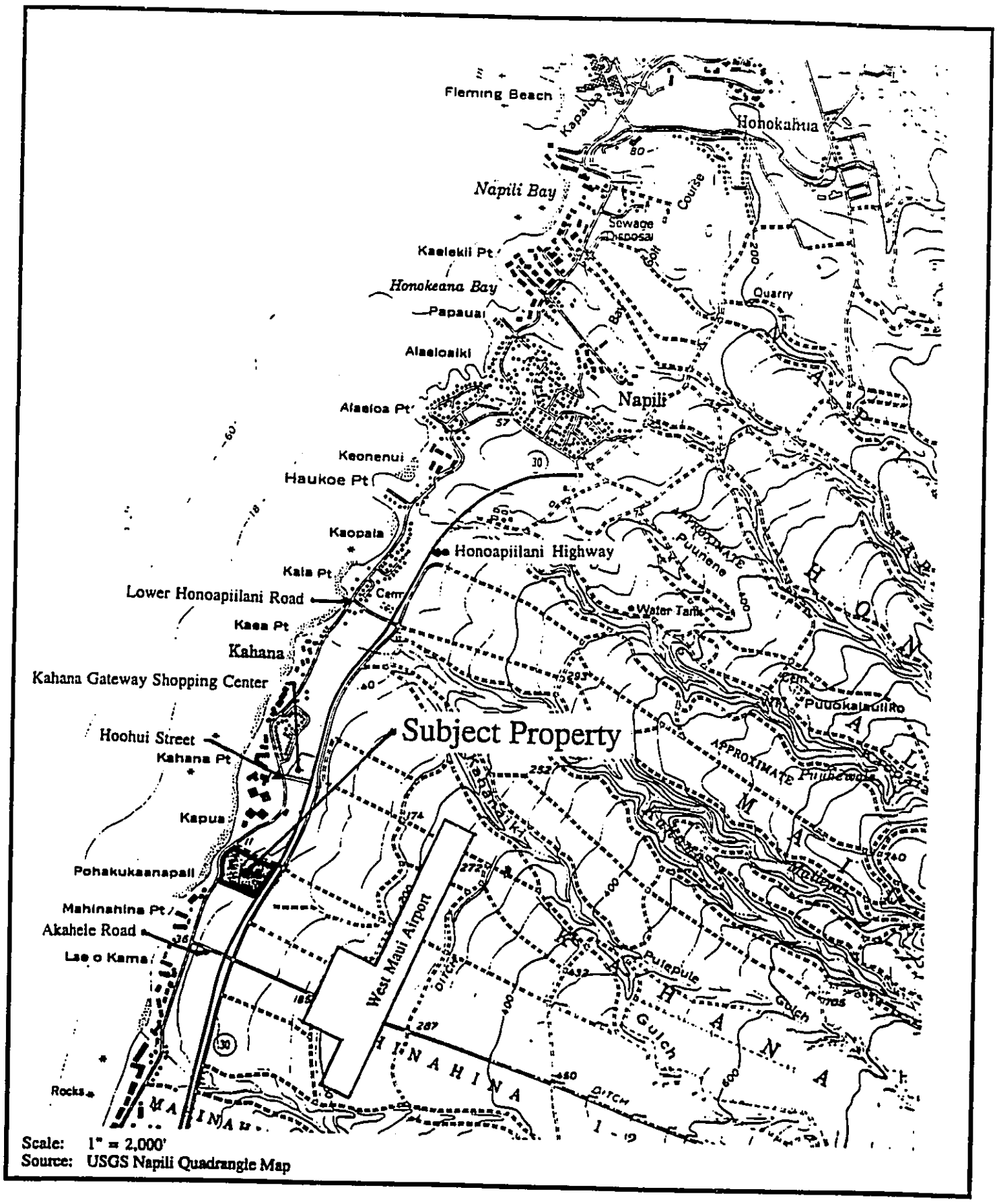
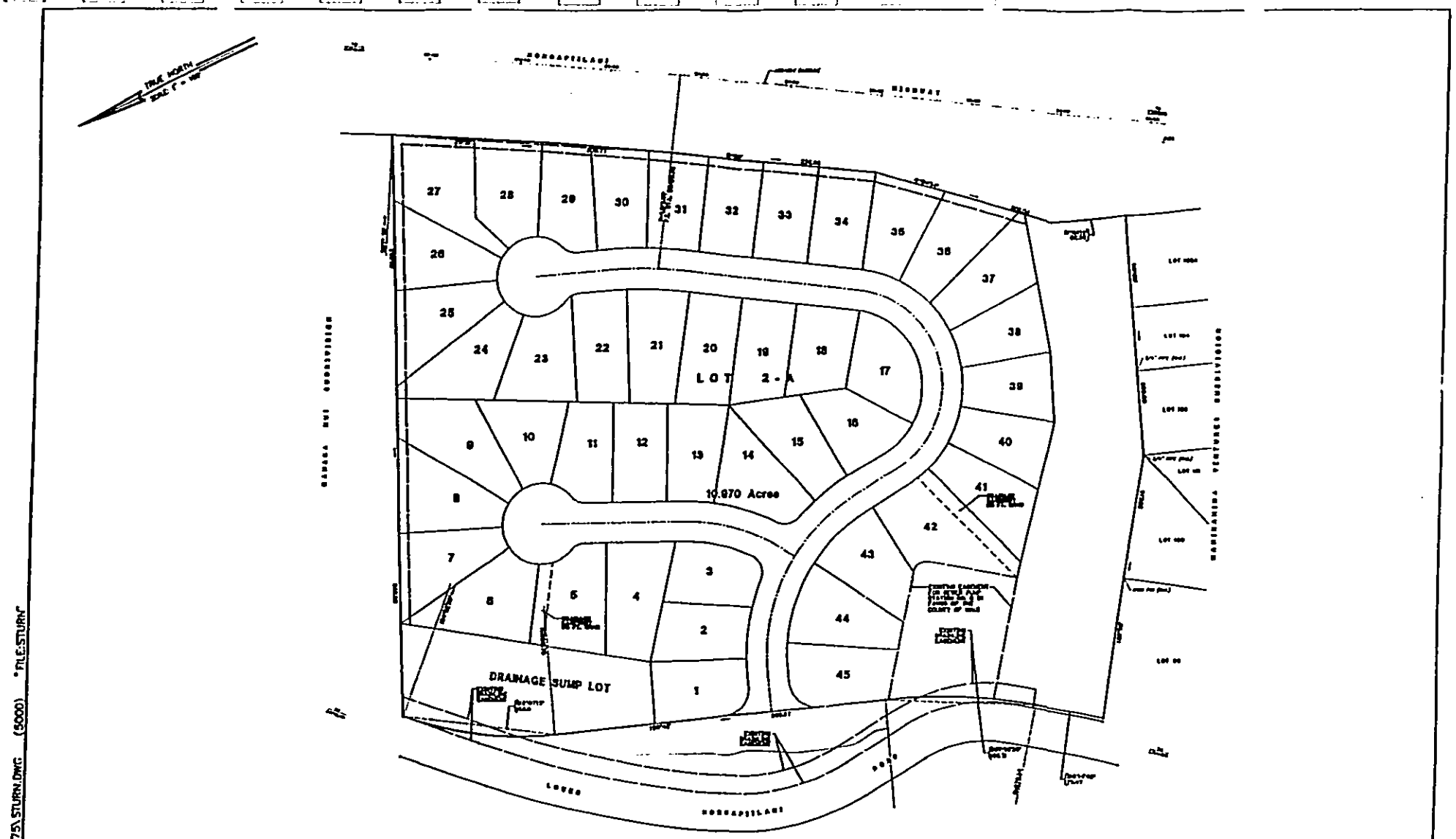


Exhibit - 1

Project Vicinity Map
Kapua Village Subdivision

EXHIBIT 1



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Tax Map Key (2) 4-3-09: 52

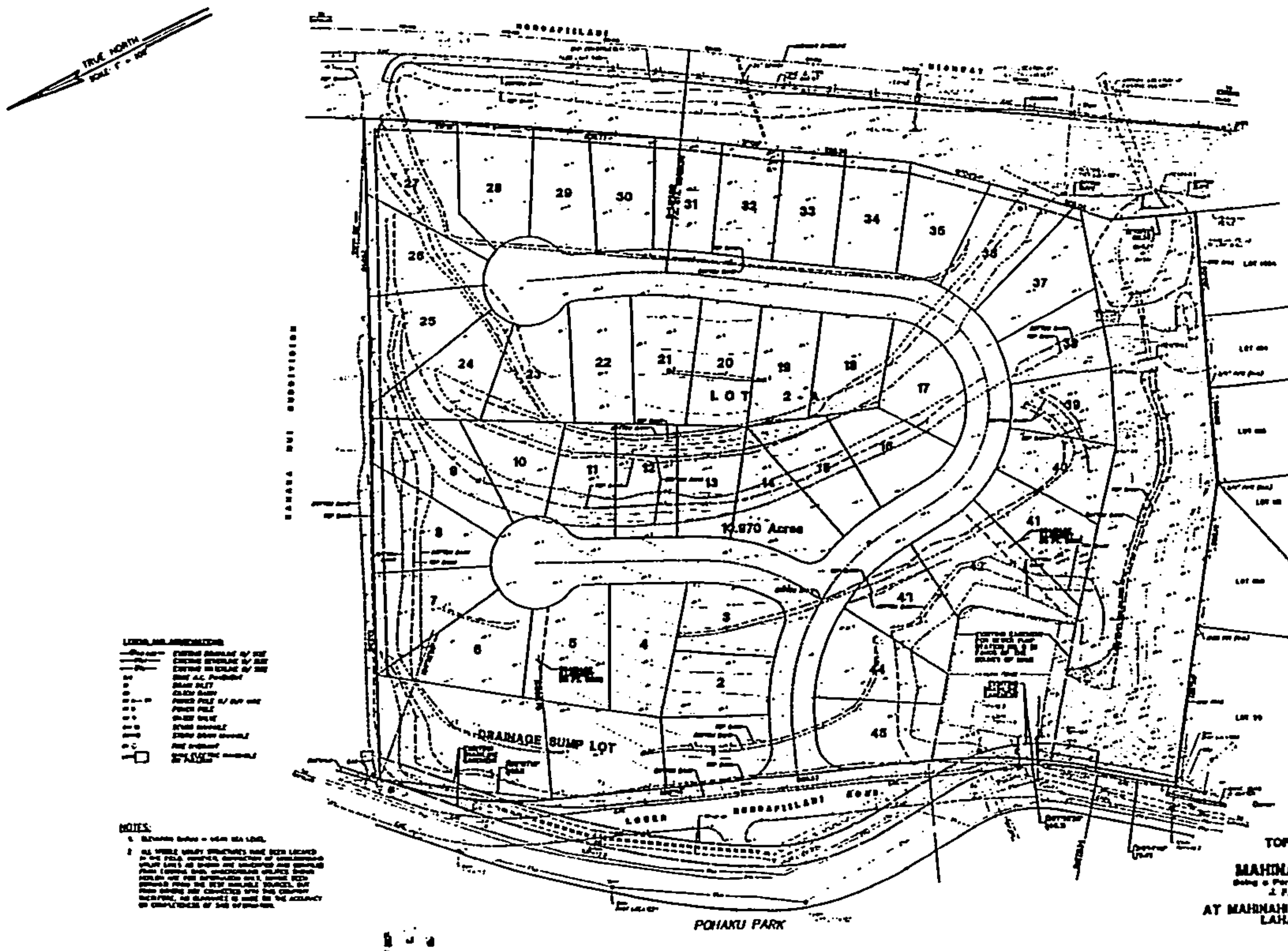
871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS

JOB NO. 97-75

Exhibit 3

EXHIBIT 3



TOPOGRAPHIC SURVEY
LOT 2-A
MAHINAHINA SUBDIVISION
AT MAHINAHINA 1, 2 AND 3, KAANAPALI,
LAHAINA, MAUI, HAWAII

Exhibit 5

Tax Map Key (2) 4-3-09: 52

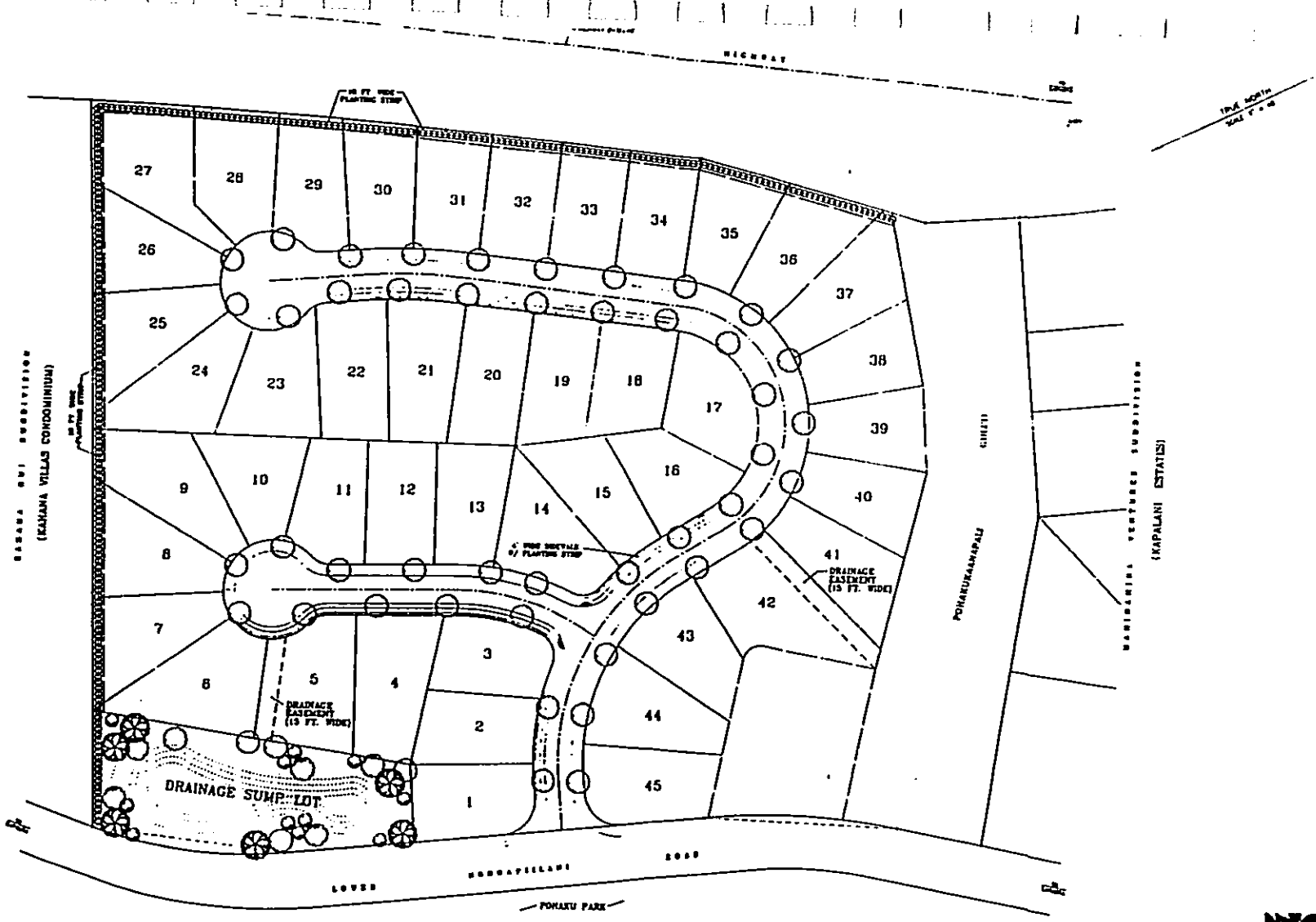
871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS - CIVIL & STRUCTURAL ENGINEERS

JOB NO. 97-75

D:\DRAW1\97-75\STURN.DWG (5000) "FILE:STURN"

EXHIBIT 5



KAPUA VILLAGE

LAHAINA, MAUI, HAWAII
T.M.K. (2) 4 - 3 - 09 : 52

CONCEPT LANDSCAPE PLAN

EXHIBIT 7

CHRIS HART & PARTNERS

Exhibit-7

COUNTY MAUI
PLANNING DEPARTMENT
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

APPLICATION TYPE: CHANGE IN ZONING APPLICAION (Rev.8/95)

DATE: December 30, 1997

PERMIT TYPE: CIZ PROJECT NAME: Kapua Village Subdivision

PROPOSED DEVELOPMENT: 45 lot single family employee housing subdivision and related infrastructural improvements. Lots will have a minimum size of 6,000 S.F.

TAX MAP KEY #: 4-3-09: 52 HPR #

PROPERTY ADDRESS: Lower Honoapiilani Road, Mahinahina, Maui, Hawaii

OWNER: Maui Land & Pineapple Company Inc. Phone:

Address: P.O. Box 187

City / State: Kahului, HI Zip: 96793

Signature: (See authorization letter)

APPLICANT: Chris Hart & Partners(on behalf of Maui Land & Pineapple Company Inc.) Phone (res):

Address: 1955 Main St. Suite 200 Phone (work): 242-1955

City / State: Wailuku, HI Zip: 96793

Signature: Tony Frampton

CONTACT: Mr. Christopher L. Hart Phone (res):

Address Line 1: 1955 Main St. Suite 200 Phone (work): 242-1955

City / State: Wailuku, HI Zip: 96793

EXISTING USE OF PROPERTY: Vacant land that was previously used for the cultivation of pineapple.

CURRENT STATE LAND USE DISTIRCT BOUNDARY DESIGNATION: Agricultural

COMMUNITY PLAN DESIGNATION: Single Family

MAUI COUNTY ZONING DESIGNATION: Agricultural

OTHER SPECIAL DESIGNATIONS: Special Management Area

EXHIBIT 9

COUNTY OF MAUI
PLANNING DEPARTMENT
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

LAND USE COMMISSION DISTRICT BOUNDARY
APPLICATION TYPE: CHANGE/RECLASSIFICATION (Rev.2/95)

DATE: December 30, 1997

PERMIT TYPE: SLUC/DBA PROJECT NAME: Kapua Village Subdivision

PROPOSED DEVELOPMENT: 45 lot single family employee housing subdivision and related infrastructural improvements. Lots will have a minimum size of 6,000 square feet

TAX MAP KEY #: 4-3-09: 52 HPR #

PROPERTY ADDRESS: Lower Honoapiilani Road, Mahinahina, Maui, Hawaii

OWNER: Maui Land & Pineapple Company Inc. Phone:

Address: P.O. Box 187

City / State: Kahului, HI Zip: 96732

Signature: (See authorization letter)

APPLICANT: Chris Hart & Partners (on behalf of Maui Land & Pineapple Company Inc.) Phone (res):

Address: 1955 Main St. Suite 200 Phone (work): 242-1955

City / State: Wailuku, HI Zip: 96793

Signature: Roy Thompson

CONTACT: for Mr. Christopher L. Hart Phone (res):

Address Line 1: 1955 Main St. Suite 200 Phone (work): 242-1955

City / State: Wailuku, HI Zip: 96793

EXISTING USE OF PROPERTY: Vacant land that was previously used for cultivation of pineapple.

CURRENT STATE LAND USE DISTIRCT BOUNDARY DESIGNATION: Agricultural

COMMUNITY PLAN DESIGNATION: Single Family

MAUI COUNTY ZONING DESIGNATION: Agricultural

OTHER SPECIAL DESIGNATIONS: Special Management Area

EXHIBIT 11

generated by the project will not have an adverse effect on adjacent and downstream properties. The BMP plan shall show the location and details of structural and non-structural measures to control erosion and sedimentation to the maximum extent practicable.

5. The applicant shall construct, at a minimum, the traffic and road improvements as described in the "Recommendations" in the Traffic Report dated December 19, 1997 by Traffic Management Consultants.

6. A site plan and a "sight distance" report to determine required sight distance and available sight distance at existing and proposed street intersections shall be provided for our review and approval.

7. The applicant shall obtain street name approvals from the Commission on Naming Streets, Parks, and Facilities and show street names on the map.

8. The 100-year flood inundation limits shall be shown on the project site and subdivision plat plans.

9. The developer should be informed that the Wastewater Reclamation Division cannot insure that wastewater system capacity will be available for the project.

10. Provide discussion and calculations (sewer impact study) to substantiate that the existing wastewater system is adequate to serve this project. Wastewater contribution calculations are required before a building permit is issued.

11. The developer is required to fund any necessary off-site improvements to the collection system and wastewater pump stations.

12. A hold harmless agreement should be executed. The signed agreement is required before the Wastewater Reclamation Division will give its recommendation for final subdivision approval.

If you have any questions, please contact David Goode at 243-7845.

DG:co/mt
S:\LUCA\CZM\KAPUA.

EXHIBIT 12.1

LINDA CROCKETT LINGLE
MAYOR

RONALD P. DAVIS
CHIEF

HENRY A. LINDO, SR.
DEPUTY CHIEF

'98 FEB 13 A10:02

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

COUNTY OF MAUI
DEPARTMENT OF FIRE CONTROL

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

February 12, 1998

Don Schneider, Staff Planner
Department of Planning
250 S. High Street
Wailuku, HI 96793

RE: Kapua Village Subdivision

Dear Mr. Schneider

The Department of Fire Control has no objection to the Kapua Village Subdivision, provided it meets the requirements of the Fire Code in effect at the time of construction.

Thank you for the opportunity to comment.

Sincerely

Leonard F. Niemczyk, Captain
Fire Prevention Bureau
Department of Fire Control

EXHIBIT 14

TO : HOWARD TAGOMORI, CHIEF OF POLICE
MAUI COUNTY POLICE DEPARTMENT

VIA : CHANNELS

FROM : SERGEANT BRIAN DE MELLO
LAHAINA PATROL DIVISION, DISTRICT IV

SUBJECT : KAPUA VILLAGE SUBDIVISION SURVEY

ASSIGNMENT:

Assigned to conduct an inquiry into the proposed KAPUA VILLAGE subdivision scheduled for construction in 1998; within the area of POHAKU PARK between Mahinahina and Kapalua.

POTENTIAL IMPACT AND MITIGATING MEASURES:

In short term , the proposed subdivision will have some adverse impact upon the existing conditions with the construction of subdivision improvements as well as residential dwellings. Noise conditions from construction equipment, would be the primary source of noise during the construction period. The contractors have stated that they will adhere to the State Department of Health noise regulations.

Other areas of concern include the exit way proposed; which is adjacent to the exit way of Pohaku Park. This establishes an intersection. It is suggested that the area be plainly visible and properly marked with signs to forewarn motorists that an intersection exists in that area.

The subject of 45 additional houselots in the area suggest that perhaps in light of other new subdivisions being recently built; will in fact add to the potential need of additional Police service in the area. Other new subdivisions and projects include the Napilihau Villages, that consists of 198 new family oriented dwellings. The Kahana Ridge subdivision, which will include 75 new family oriented dwellings; the Napili Ridge Project, again consisting of nearly 70 dwellings of similar designs, and finally the Haku Hale Subdivision consisting of 30 dwellings. Considering that above given circumstances, these will indeed create a need for additional Police coverage.

SUMMARY:

The subject development has been proposed in accordance with residential zoning and the Community plan designations. The location is considered complimentary to the urban uses within West Maui. The newly created lots will have a positive impact on the call for Police service in the area, only in consideration of other newly developed subdivisions, likewise in the area.

Noted:
Carl Ching
2/10/98

RESPECTFULLY SUBMITTED:
SERGEANT Brian DE MELLO 7000
02/08/98

Capt. [illegible]

EXHIBIT 15.1

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

LAWRENCE MIIKE
DIRECTOR OF HEALTH

STATE OF HAWAII '98 MAR 12 P1:40
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

In reply, please refer to

March 5, 1998

98-023

Mr. David W. Blane
Planning Director
County of Maui
Planning Department
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Blane:

Subject: State Land Use District Boundary Amendment (DBA980001)
Change in Zoning (CIZ980002), Special Management Area
Permit (SM1980001)
Kapua Village Subdivision
Mahinahina, Maui
TMK: 4-3-9: 52

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

Water Pollution

1. Any work in Pohakukaanapali Gulch may require the approval of the Army Corps of Engineers (COE). The applicant should contact the COE to identify whether a federal permit is required. A Section 401 Water Quality Certification is required from the Clean Water Branch, Department of Health, if a federal permit is required.

2. Any construction discharge into State waters will require a National Pollutant Discharge Elimination System (NPDES) permit from the Clean Water Branch.

If you have any questions on this matter, please call the Clean Water Branch in Honolulu at (808) 586-4309.

Noise

Construction activities must comply with the provisions of Chapter 11-46, Hawaii Administrative Rules, "Community Noise Control."

EXHIBIT 17.0

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

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

'98 FEB 11 P12:40

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

IN REPLY REFER TO:
STP 8.8389

February 9, 1998

Mr. David W. Blane
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Blane:

Subject: Kapua Village Subdivision
State Land Use District Boundary Amendment (DBA 980001)
Change in Zoning (CIZ 980002)
Special Management Area Use Permit (SM1 980001)
TMK: 4-3-009: 052

Thank you for your transmittal of January 26, 1998.

The subject project is not anticipated to have a significant impact on our State transportation facilities.

Construction plans for work within our highways right-of-way must be submitted for our review and approval.

We appreciate the opportunity to provide comments.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

EXHIBIT 18

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

'98 APR 24 P1:27
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

April 24, 1998

LD-NAV
Ref.:2DBA9801.RCM

Honorable David W. Blane
Planning Director
County of Maui
Planning Department
250 S. High Street
Wailuku, Hawaii 96793

Dear Mr. Blane:

SUBJECT: Review : State Land Use District Boundary Amendment
Change in Zoning & Special Management Area Use Permit
I. D. Nos.: DBA 980001 CIZ980002 and SM1980001
Applicant : Chris Hart & Partners, on behalf of, Maui Land and Pineapple Company, Inc.
Project : Kapua Village Employee Housing Subdivision
Location : Mahinahina, Island of Maui, Hawaii
TMK : 2nd/ 4-3-09: Parcel 52

This is a follow-up to our letter (Ref.:DBA98001.RCM) dated March 24, 1998, regarding the subject matter.

Attached herewith is a copy of our Engineering Branch's comments related to Stream Channel Alteration Permit and possible FEMA restrictions for the proposed project.

Should you have any questions, please feel free to contact Nicholas A. Vaccaro of the Land Division's Support Services Branch at 1-808-587-0438.

Very truly yours,

DEAN Y. UCHIDA

c: Maui Land Board Member
At Large Land Board Member
Maui District Land Office

EXHIBIT 20.0

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

MICIIAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

GILBERT COLOMA-AGARAN

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

'98 MAR -9 P12:55

DEPT OF [illegible]
COUNTY [illegible]
RECEIVED

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

February 13, 1998

Mr. David Blane, Director
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

LOG NO: 21026
DOC NO: 9802BD06

Dear Mr. Blane:

SUBJECT: Chapter 6E-42 Historic Preservation Review of a State Land Use District Boundary Amendment; Change in Zoning; and Special Management Area Use Permit for the Kapua Village Subdivision
Mahinahina Ahupua`a, Lahaina District, Island of Maui
TMK 4-3-09: 52 (DBA980001; CIZ980002; SMA980001)

This letter is a Historic Preservation review of a State Land Use District Boundary Amendment, Change in Zoning, and Special Management Area Use Permit for the Kapua Village Subdivision in Mahinahina Ahupua`a. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field check was conducted of the subject property.

An archaeological inventory survey report of the subject property was reviewed and approved by this office (SHPD DOC NO: 9712BD05). Based on the results of this survey, it was found that the proposed construction will have "no effect" on historic sites, as none were located in the project area.

In the event that unrecorded historic remains (i.e. subsurface fire hearths, artifacts, or human skeletal remains) are inadvertently uncovered during any construction on the property, all work should cease in the vicinity and the contractor should immediately contact the State Historic Preservation Division.

If you have any questions please contact Boyd Dixon at 243-5169.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

EXHIBIT 21

BD:jen

cc. Ralph Nagamine, Maui County Department of Public Works (fax: 243-7972)

BENJAMIN J. CAYETANO
GOVERNOR

SAM CALLEJO
COMPTROLLER

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

'98 FEB 25 P12:16

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

FILE NO. _____

February 23, 1998

MEMORANDUM

TO: Mr. David W. Blane, Planning Director
Maui County Planning Department

ATTN.: Mr. Don Schneider, Staff Planner

FROM: Randall M. Hashimoto, State Land Surveyor

SUBJECT: I.D. No.: DBA980001, CIZ980002, SM1980001
TMK: 4-3-009:052
Project Name: Kapua Village Subdivision
Applicant: Chris Hart and Partners on Behalf of
Maui Land and Pineapple Company, Inc.

REMARKS:

The subject proposal has been reviewed and confirmed that no Government Survey Triangulation Stations and Benchmarks are affected. Survey has no objections to the proposed project.

Randall M. Hashimoto
RANDALL M. HASHIMOTO
State Land Surveyor

EXHIBIT 23

BENJAMIN J. CAYETANO
GOVERNOR

ESTHER UEDA
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2359
Honolulu, HI 96804-2359
Telephone: 808-587-3822
Fax: 808-587-3827

'98 FEB -6 P12:43

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

February 4, 1998

Mr. David W. Blane
Director of Planning
Planning Department
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Blane:

Subject: State Land Use District Boundary Amendment (DBA980001); Change in Zoning (CIZ980002); and Special Management Area Use Permit (SM198001) - Kapua Village

We have reviewed the subject applications and supporting document as transmitted by your memorandum dated January 26, 1998, and confirm that the subject area, identified as TMK: 4-3-09: 52, is within the State Land Use Agricultural District.

We have no further comments to offer at this time.

Thank you for the opportunity to provide comments on the subject applications.

If you have any questions in regards to this matter, please feel free to contact me or Leo Asuncion of my staff at 587-3822.

Sincerely,

ESTHER UEDA
Executive Officer

EU:th

EXHIBIT 25

BENJAMIN J. CAYETANO
GOVERNOR

MAJOR GENERAL EDWARD V. RICHARDSON
DIRECTOR OF CIVIL DEFENSE

ROY C. PRICE, SR.
VICE DIRECTOR OF CIVIL DEFENSE

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

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

March 9, 1998

TO: Mr. David W. Blane
Planning Director
Department of Planning
County of Maui

FROM: Roy C. Price, Sr.
Vice Director of Civil Defense

SUBJECT: MAUI LAND AND PINEAPPLE COMPANY, INC., REQUEST FOR CHANGE IN ZONING FROM AGRICULTURAL TO URBAN

We appreciate this opportunity to comment on the Maui Land and Pineapple Company, Inc., request to change the zoning from agricultural to urban at Mahinahina, Maui, Hawaii, TMK: 4-3-09: 52, approximately 10.97 acres.

While we do not have negative comments specifically directed at a boundary change, we do wish to offer a proposal that the developer consider relocating a civil defense siren from its present location along Honoapiilani Highway and installing it into the "drainage sump lot" beside Lower Honoapiilani Road of the proposed subdivision. This location is marked in red on the enclosed copy of Exhibit 7, "Concept Landscape Plan." Installation consists of a siren, pole, and proper grounding. We feel that just as parks, schools, fire hydrants, underground and/or overhead utilities, and sidewalks are planned as integral parts of subdivisions, so must emergency warning systems be planned for the safety of communities.

Our State Civil Defense (SCD) planners and technicians are available to discuss this further if there is a requirement. Please have your staff call Mr. Norman Ogasawara of my staff at 733-4300.

We appreciate your consideration and expressions of interest you may have on this matter.

Enc.

EXHIBIT 27.0

'15D

USDA

United States
Department of
Agriculture

Natural
Resources
Conservation
Service

210 Imi Kala St.
Suite 209
Wailuku, HI
96793-2100

Our People...Our Islands...In Harmony

98 FEB 19 P12:28

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

February 18, 1998

Mr. David Blane, Planning Director
County of Maui
Planning Department
250 S. High Street
Wailuku, Hawaii 96793

Dear Mr. Blane,

Subject: Kapua Village Subdivision; TMK: 4-3-09: 52
I.D. DBA 980001, CIZ 980002, SM1 980001

My only comment to this project is relative to the proposed drainage sump. Where is the emergency spillway for overflows and who will be responsible for operation and maintenance of the structure?

Thank you for the opportunity to comment.

Sincerely,

Neal S. Fujiwara
District Conservationist

EXHIBIT 28

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

'98 FEB 17 P12:54

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

February 4, 1998

Mr. David W. Blane
Planning Director
Maui Planning Department
250 S. High Street
Wailuku, HI 96793

Dear Mr. Blane:

Subject: Kapua Village Subdivision
TMK 4-3-009:052
I.D. DBA 980001, CIZ 980002, SM1 980001

Thank you for allowing us to comment on the subject project.

In reviewing the information transmitted and our records, we have no objection to the subject project. We encourage the developer's electrical consultant to meet with us as soon as practical to verify the project's electrical requirements so that service can be provided on a timely basis.

If you have any questions or concerns, please call Dan Takahata at 871-2385.

Sincerely,

Edward L. Reinhardt

Edward L. Reinhardt
Manager, Engineering

ELR/dt

EXHIBIT 30

Contact was made with both the Maui and Oahu offices of the DOT Airports Division in an effort to obtain noise contour maps. DOT personnel could not locate any such information. Nevertheless, we feel that the established regulations provide sufficient controls to minimize the potential for noise impacts upon future residents. Also, it should be noted that the proposed development is considered as "infill" within an existing community. The location is not unique or sensitive in relation to the airport when compared to the established residential areas in Mahinahina and Kahana.

State Dept. of Defense, Civil Defense (letter dated March 9, 1998)

Comment No. 1:

"...we wish to offer a proposal that the developer consider relocating a civil defense siren from its present location along Honoapiilani Highway and installing it into the 'drainage sump lot'..."

Response:

The developer, Maui Land and Pineapple Company, Inc., is opposed to this proposal. It is our understanding that the proposed development has no special or unique impact on the need for civil defense sirens in the area. According to personnel at Civil Defense, the project site is adequately covered by existing sirens, however, they are interested in moving the existing siren due to complaints from adjoining neighbors. In sum, there appears to be no basis or "rational nexus" to place the financial burden of this relocation entirely on ML&P. As stated in the application, the objective of the proposed subdivision is to provide residential lots to ML&P employees at an affordable price. ML&P is against the imposition of additional costs on the project which would in turn be passed on to the future lot purchasers.

Department of Public Works and Waste Management (letter dated March 3, 1998)

Comment Nos. 1 & 2:

A road widening lot shall be provided.

Response:

It is our understanding that the appropriate right of way was established during the realignment of this section of roadway which occurred when ML&P provided the land for the development of Pohaku Beach Park. The current right of way fronting the project is 56 feet and in some places greater. In addition, the County's construction plans for the Lower Honoapiilani Road Phase III Improvement project show all improvements occurring within the existing right of way.

EXHIBIT 31.1

Comment No. 2:

Only 50% of the park dedication requirements can be met by the application of credits pursuant to the Park Dedication ordinance.

Response:

This provision of the code is acknowledged. Therefore, only 21 credits can be utilized from the aforementioned balance of Park credits. (There are 42 lots in excess of three and 50% of 42 is 21.)

Comment No. 3:

How will the balance of the requirements be met?

Response:

The remaining requirements for the 21 lots will be met through the payment of the applicable park dedication fees.

In sum, ML&P will utilize 21 of their remaining balance of 65 park credits to meet 50% of the park dedication requirements. The remaining requirement for 21 lots will be met through the payment of money.

Department of the Army (letter dated February 26, 1998)

Comment No. 1:

Work within Pohakukaanapali gulch may require a DA permit.

Response:

It does not appear as though this drainageway falls under the Dept. of the Army jurisdiction since it is not delineated on a USGS Quadrangle Map nor does it possess aquatic resource value. We are presently confirming this with the U.S. Army Corps of Engineers office on Oahu. In the event that they determine that the area does fall under their jurisdiction, we will comply with all appropriate permitting requirements.

U.S Department of Agriculture (letter dated February 18, 1998)

Comment:

Where is emergency spillway and who is responsible for maintenance of the structure?

EXHIBIT 31.3

AGREEMENT

THIS AGREEMENT, made and entered into this 14th day of DECEMBER, 1992, by and between the COUNTY OF MAUI, a political subdivision of the State of Hawaii, whose principal place of business is 200 South High Street, Wailuku, Maui, Hawaii 96793, hereinafter referred to as the "COUNTY" and MAUI LAND & PINEAPPLE COMPANY, INC., whose principal place of business is 120 Kane Street, Kahului, Maui, Hawaii 96732, and whose Post Office address is P.O. Box 187, Kahului, Maui, Hawaii 96732, hereinafter referred to as "MAUI PINE",

W I T N E S S E T H :

WHEREAS, the County wishes to acquire the right, title and interest of Maui Pine in and to all of that certain parcel of land, situate at Mahinahina, Kaanapali, Lahaina, Island of Maui, State of Hawaii, more particularly described in Exhibit "A" attached hereto and made a part hereof; and

WHEREAS, Maui Pine wishes to dedicate the subject parcel to the County for park purposes; and

WHEREAS, pursuant to Section 18.16.320 of the Maui County Code, Maui Pine is entitled to receive credit for lands dedicated for park purposes for future projects within the Lahaina Community Plan Region; and

WHEREAS, the appropriate credit for the dedication of the subject parcel is 68 dwelling units, lodging units or lots;

NOW THEREFORE, in consideration of the mutual promises and agreements hereinafter set forth, the parties agree as follows:

EXHIBIT 31.5

COUNTY OF MAUI

By _____
LINDA CROCKETT LINGLE
Its Mayor

MAUI LAND & PINEAPPLE COMPANY INC.

By _____
(Signature)
RICHARD H. CAMERON
(Print Name)
Its Vice President
(Title)

APPROVED AS TO FORM
AND LEGALITY:

_____
HOWARD M. FUKUSHIMA
Deputy Corporation Counsel
County of Maui
C:\WP51\AGMTS\MLPC.AGM(pk)

EXHIBIT 31.7

DESCRIPTION

LOWER HONOAPIILANI ROAD
REMNANT EXCHANGE PARCEL

Being a portion of Grant 1166 to D. Baldwin, J.F. Pogue, and S.E. Bishop situated at Mahinahina 1, 2, and 3, Kaanapali, Lahaina, Island and County of Maui, State of Hawaii.

Beginning at a point on the South corner of this parcel, the coordinates of said point of beginning referred to Government Survey Triangulation Station "MANINI" being:

13,925.12 feet North
10,951.54 feet West

and running by azimuths measured clockwise from True South:

1. Thence along the remainder of Grant 1166 to D. Baldwin, J.F. Pogue, and S.E. Bishop on a curve to the left with a radius of 120.00 feet, the chord azimuth and distance being:
   178° 57' 23.5" 22.82 feet to a point;

2. 173° 30' 75.98 feet along same to a point;

3. Thence along same on a curve to the right with a radius of 270.00 feet, the chord azimuth and distance being:
   191° 45' 169.11 feet to a point;

4. Thence along same on a curve to the right with a radius of 1,120.00 feet, the chord azimuth and distance being:
   216° 39' 06" 259.47 feet to a point;

5. Thence along same on a curve to the left with a radius of 446.78 feet, the chord azimuth and distance being:
   24° 51' 46.5" 80.41 feet to a point;

6. 19° 42' 61.96 feet along same to a point;

7. Thence along same on a curve to the left with a radius of 1,078.00 feet, the chord azimuth and distance being:
   33° 06' 24" 116.84 feet to a point;

8. Thence along same on a curve to the left with a radius of 228.00 feet, the chord azimuth and distance being:
   11° 45' 142.80 feet to a point;

EXHIBIT 3.9

EXHIBIT "A"

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
AND WASTE MANAGEMENT
LAND USE AND CODES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

June 23, 1993

Mr. Albert S. Saiki, P.E., L.S.
R. T. TANAKA ENGINEERS, INC.
871 Kolu Street, Suite 201
Wailuku, HI 96793

SUBJECT: Kahana-Kai Subdivision
TMK: (2) 4-3-05:36
LUCA File #4.643

Dear Mr. Saiki:

This is to acknowledge your request to utilize the applicable amount of parks and playgrounds credits received via an agreement entered into on December 14, 1992 between Maui Land and Pineapple Company, Inc. (ML&P) and the County of Maui to comply with the parks and playgrounds requirement for the subject subdivision. This agreement granted 68 parks and playgrounds credits to ML&P.

As requested, 3 credits were deducted from the original 68 credits. Therefore, ML&P has a remaining balance of 65 parks and playgrounds credits.

If you should have any questions regarding this letter, please call Glen Ueno of our Land Use and Codes Administration at 243-7373.

Very truly yours,

GEORGE N. KAYA
Director of Public Works

GAU:jm

xc: L.U.C.A.
Elizabeth Defoe w/attachment
Howard Fukushima w/attachment

EXHIBIT 31.11

May 7, 1998

William Nishibayashi
County of Maui, Planning Commission
250 South High Street
Wailuku, HI 96793

'98 MAY 11 P1:03

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

Dear William Nishibayashi,

This letter is concerning the proposed low-income housing development at S-turns. My girlfriend and I are owner/occupants at Kahana Villa condominiums, and we were extremely upset when we were informed of the ML&P plans for the adjacent vacant lot. After a year of searching for the right home and investment for us, we decided on Kahana Villa for several reasons. One of the major interest of Kahan Villa, was the notion of having a beautiful oceanside park in our community. We moved to Kahana Villa to escape the common disturbing noise of a low-income neighborhood in Lahaina. The fact of the matter is that a low income housing development simply doesn't belong in an area surrounded by million dollar homes and high-end resort codominiums. To jeopardize the solace and value of this neighborhood, would be a serious miscarriage of justice. We invested our life savings to make our dreams become reality; and the development of a low-income housing project in this lot, would drive down property values and be a detriment to our community. On the other hand the creation of an oceanside park, (in this ideal location) would truly improve not only this community, but it would also enhance the intrinsic value of West Maui. Please hear and understand our cry for this land, for it will effect a great number of people and permanently alter West Maui.

Mahalo and Aloha,

Dave Shively

Kimberly Binning

Kahana Villa F407
(808) 669-3711

EXHIBIT 33

(CONT.- RE ML&P EMPLOYEE HOUSING) RICHARD & MURIEL MARK

reduce all property values including the lot it self and degrade the overall area appearance. This lot with proper development has the potential to increase all property values and improve the appearance of the area.

A park would be the best use of this lot as evidenced by the usage of the small Pohakea Park. But if this is not possible maybe another type of high quality complex would be appropriate. Property values (& Taxes) would increase and living conditions for both residents and visitors would improve.

We ask that all planning commisioners consider the opinion of existing home and property owners in the surrounding area of this land and not approve ML&P request to change the zoning to residential. Further study is needed to determine the best use of this lot.

SINCERELY
Richard A Mark
RICHARD A MARK

MURIEL A MARK

EXHIBIT 34.1

April 27, 1998

290 Middle Road.
Santa Barbara. CA 93108

'98 APR 30 P12:13

DEPT OF

Robert Carroll
Chairman
Maui Planning Commission
County of Maui
250 S. High Street
Wailuku. Maui. HI 96793

RE: 10.97 acre parcel located immediately south of Kahana Villa condominium project at TMK-4-3-09:52. Kahana. Maui.
Land owner- Maui Land & Pineapple

Dear Mr. Carroll,

My wife and I are owners of a residential unit at Kahana Villa. a project adjacent and north of the above land. We bought the condominium some years ago based on assurances from County officials that the subject land was designated park in the Lahaina Community Plan.

I also know that a majority of the approximate 100 other owners at Kahana Villa understood and were advised that this land was to be a park.

MY WIFE AND I ARE ABSOLUTELY OPPOSED TO ANY CHANGE IN ZONING ON THE SUBJECT LAND, ESPECIALLY FROM "PARK" TO "EMPLOYEE HOUSING."

Representatives of the real estate community, the Association of Apartment Owners of Kahana Villa and the owners at Kahana Villa have been continually assured over the years that this land would be a park.

For you information, I have included various correspondence from County of Maui officials regarding this assurance- August 16. 1998: August 22. 1998: April 3. 1991: May 1. 1991: September 28, 1994 and October 31. 1994.

Any deviation from the intended park use would be a great injustice to all the residents of West Maui.

There is so little vacant land in West Maui that is adjacent to the ocean. any deviation from park use would negatively affect the enjoyment of such park facilities for present and future Maui families.

Conversely. there are thousands of acres. especially agricultural land. which could easily be designated for residential use.

EXHIBIT 36

HANNIBAL TAVARES
Mayor

MARILYN MONIZ-KAHOOHANOHANO
Director

KENJI KAWAGUCHI
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PARKS AND RECREATION

1580 Kaahumanu Avenue
Wailuku, Maui, Hawaii 96793

August 16, 1988

Honorable Hannibal Tavares
Mayor, County of Maui
Wailuku, Maui, Hawaii 96793

For transmittal to:

Honorable Velma M. Santos
Chairperson, Planning and
Land Use Committee
County Council
Wailuku, Maui, Hawaii 96793

APPROVED FOR TRANSMITTAL

Hannibal Tavares 8/18/88
Mayor Date

Dear Chairperson Santos:

I met with Mr. Richard Cameron and Mr. Chris Hart on August 3, 1988 to discuss potential park sites generated by Lahaina Project District 1 park assessment requirements.

We identified as a potential public park site an area of about 11.6 acres in the Kahana area below Mahinahina. This area is designated park in the Lahaina Community Plan. We also discussed the possibility of expanding Fleming Beach Park. Mr. Cameron indicated a willingness to consider this request also. He is waiting for archaeological studies of the area to determine what uses of the land are possible. Mr. Cameron will be presenting the above proposal to the Committee in the near future.

Thank you for including me in the planning for Lahaina Project District 1.

Sincerely,

Marilyn Moniz-Kahoohanohano

MARILYN MONIZ-KAHOOHANOHANO
Director of Parks & Recreation

EXHIBIT 36.2

Thank you for your ongoing interest in this particular parcel and its potential as a regional park. If additional clarification is required, please feel free to call me at 244-7735.

Sincerely yours,

CHRISTOPHER L. HART
Planning Department

cc Mayor Tavares
Mrs. Marilyn Moniz-Kahohanohano
Mr. Richard Cameron
Mr. Ralph Masuda

EXHIBIT 36.4

I would appreciate if you would confirm the County's intentions for a park on this particular property and the possible timing.

If you have any questions please do not hesitate to contact me or you may also advise our Association management:

Herbert C. Nikola
Management Consultants of Hawaii, Inc.
727 Wainee Street, Suite 106
Lahaina, Maui 96761

Thank you for your attention to this important matter.

Yours sincerely,

Donald A. Anderson
President
Association of Apartment Owners
of Kahana Villa
4242 Lower Honoapiilani Hwy.
Lahaina, Maui, HI 96761

cc: Tom Sato, Chairman, Planning Commission
Brian Miskae, Director, Department of Planning
Herb Nikola, Management Consultants of Hawaii
Board of Directors, Kahana Villa

EXHIBIT 36.6

Thank you for your interest in this important community issue.

Sincerely,

LINDA CROCKETT LINGLE
Mayor, County of Maui

SL:jso
cc: Charmaine Tavares, Director of Parks and Recreation
Brian Miskae, Planning Director
Herbert C. Nikola, Management Consultants of Hawaii, Inc.
c:\letter\kahana

EXHIBIT 36.8

LINDA CROCKETT LINGLE
Mayor
TELEPHONE 243-7855

OFFICE OF THE MAYOR
COUNTY OF MAUI
WAILUKU, MAUI, HAWAII 96793

October 31, 1994

Mr. Donald A. Anderson
290 Middle Road
Montecito, CA 93108

Dear Mr. Anderson:

Thank you for your letter of September 28, 1994 regarding the status of TMK:4-3-009:052 at Kahana.

All discussions about a West Maui Regional Park have involved two parcels of land; one is across the gulch from the Napilihau Subdivision and next to the Kapalua Bay Golf Course, the other is located below the Kapalua/West Maui Airport (between the highway and the airport). Maui Land and Pineapple Company (MLP) has suggested that the site below the airport would be more appropriate in its opinion. To this end, MLP has requested that the "park" designation be removed from the site next to Kahana Villa.

We have commenced negotiations with MLP to now purchase the site below the airport which would contain some 50 acres. This would be used as a regional park for active recreational purposes like soccer, baseball and softball. There are no plans at present to acquire or develop the site next to Kahana Villa however the draft amendments to the Community Plan land use map which has been transmitted to the County Council continues to show the site for future park use.

As the matter of land use designation is now in the hands of the Council, you should contact your West Maui councilmember, Dennis Nakamura, at 243-7680 to express your concerns.

Yours truly,

Linda Crockett Lingle
Mayor, County of Maui

cc: Dennis Nakamura

EXHIBIT 36.9

MARCH 15, 1998
LOS ANGELES, CALIF.
90041-1631

'98 MAR 18 P12:27

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

MAUI PLANNING COMMISSION
The County of Maui, Planning Commission
250 S. High St.
Wailuku, HI 96793

Dear: MS. LOUISE ROSS

As owners of Condos at Kahana Villa, we have been appraised that Maui Land & Pine's intentions to build a subdivision of employee housing at the vacant lot next door to the Kahana Villa.

When we purchased our Condos, we were told that this parcel of land was going to be left as a vacant property, if we had known it would eventually be developed, we would have never made this investment, why would ML&P ever put employee housing there?

We are very opposed to ML&P building anything on these lots, we feel, A) ML&P shouldn't build there at all, but should develop the property like Kapalani Estates, across the field, B) They should at lease bury the power lines, C) They should have a community association that regulates the appearance of the sub-division, D) They shouldn't do anything that will negatively impact our property values, E) They should regulate any animals on their lots, and F) They should be limited as to the height of trees.

We do hope you and the other commission members will take into account all of our concerns.

Thank you for your attention to the above matter.

EXHIBIT 3E

PETER SCHAWALDER

REGINALD A. THOMAS

KAHANA VILLA E-601 & F-510

DR. AND MRS. ABTAHI

'98 MAR 13 P12:19

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

TO: COUNTY OF MAUI, PLANNING COMMISSION

FROM: DR AND MRS. ABTAHI

SUBJECT: ML&P EMPLOYEE HOUSING AND S-TURNS LOT

DATE: 03/11/98

CC: LINDA LINGLE, MAYOR OF MAUI

My wife and I have owned a condominium in Kahana for over ten years now. We are part time residents on the Island, living in our condo each winter. I want to voice my concerns about the employee housing proposed by Maui Land and Pine in Kahana. I feel that this development would have a direct and negative impact on our property values if the development proceeds as planned. Of course, this would also have a negative impact on our tax base also.

I would hope that the Planning Commission directs Maui Land towards a consistent, attractive development. After all, the area is bordered by a upscale housing complex, as well as a luxury condominium. Please consider that the proposed development is the only open site on the west-end of Maui. I ask you, would employee housing be the best use for this special area? I think not.

I would like the commission to know that I am not against all development at this site; rather, we should expect a development worthy of the special nature of the aina there. In this regard, please consider those who have already invested in Kahana when you vote on this issue. Also, please give some thought to those who will follow in the future. The decision you are about to make regarding the zoning and SMA permit will be very important to the Island of Maui. Not just for now, but for years to come.

I thank you in advance for your thought on this matter.

Mahalo and Aloha

Hassan Abtahi

Dr. H. Abtahi
Dorothy R. Abtahi

Dorothy R. Abtahi

EXHIBIT 40

1242 L. HONOAPIILANI, F-602, LAHAINA, HI 96761

WILLIAM & ELEANOR REITER

'98 MAR 10 P12:48

DEPT OF PLANNIN
COUNTY OF MAUI
RECEIVED

March 8, 1998

Commissioner Lorraine Inos
County of Maui, Planning Commission

RE: ML&P EMPLOYEE HOUSING AT S-TURNS

My wife and I own a condominium unit at Kahana Villa and would like to voice our concern about ML&P's proposed development of the property, commonly called S-turns, for employee housing. First off, we would like to commend ML&P for their commitment to their employees and their willingness to provide lots for them. However, we do have serious concerns about the type of development at the S-turns site. This letter details some of these concerns.

The Kahana Villa condominium association has repeatedly been assured this acreage would be set aside for a park. When we bought at our unit in 1985, one of the decision points was that the lot next door would someday be a park. As you are aware, it was just recently the park designation was taken away. Of course, when the zoning change to Residential was proposed, we were somewhat perplexed. Especially considering **this is the only open area by the ocean on the West Side.** The heavy use of Pohaku Park is a testament to the community's acceptance and need for a park at this site. In any case, if this change is approved, the focus is now on what is most beneficial to the community as well as the County of Maui at this location.

A major concern is an employee housing development will not only be a detriment to the community of Kahana, but also significantly reduce property values (and the tax base). I would suggest the commission members drive through an existing ML&P employee housing development. When ML&P offers lots, each employee is free to build as he chooses. This leads to a hodgepodge of houses, some large, some small. Some with immaculate lawns and some with clotheslines in the front yards. I have even seen houses with trash piled beside them. Shouldn't the development of houses at this site enhance the community?

Another issue I would like to raise concerns the power lines at S-turns. I would like to thank the Planning Commission for its efforts to have these buried at the time of road widening. At Kahana Villa, the county told us if we ever applied for a major SMA, we would have to bury the power lines in front of our property as a condition of the permit. In fact, when the Falls of Kahana was constructed, the county forced them to bury the lines in front of their property. Would it not be consistent for ML&P to bury the lines at S-turns?

I understand ML&P has a commitment to their employees. What the planning commission must determine is if the S-turns lot is the appropriate place for such a development. Especially, since ML&P owns so much other property. As we pondered the situation, we asked ourselves if there was a win-win option available. Should the planning commission allow a development at the S-turns site, we believe there is a possibility for everyone to benefit. To do so requires some restrictions on the

1212 L. HONOAPIILANI, E 114 • LAHAINA HI • 96761
PHONE: 669-8735

EXHIBIT 42

1998

Mary Petoskey

'98 MAR 16 P3:05

March 11, 1998

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

ATTENTION: County of Maui, Planning Commission

SUBJECT: PROPOSED EMPLOYEE HOUSING AT S-TURNS

I have lived at Kahana Villa for over fifteen years now. As a retiree, I live here year round and enjoy being an active part of our Maui Community. When I bought my unit, I understood that the lot next door was designated as a park. Because of that, I confidently acquired a unit on the lower floor, knowing nothing would build next door. Little did I know that the park designation could be pulled and reassigned elsewhere. First and foremost, I would like to mention my disappointment with this decision.

Now I'm understandably upset with the proposed development next door. I could understand a nice housing development, but why does there have to be a low-income employee housing sub-division. I've had people explain to me that there will be some nice houses there, but I know not all of them will be nice. I drove through the employee sub-division of ML&P in Napili and am shocked at some of the houses. It doesn't seem to me that some of the folks there take much pride in their homes. One house had two refrigerators in front of the carport! Some houses didn't have finished driveways. I am truly scared of this type of housing starting up next door. Please answer me this, what is going to happen to the price of my condo when the construction goes up next door? And, why do they have the right to do this to me and the other owners at Kahana Villa?

I would like to ask you as a Planning Commission Member to think carefully before allowing an employee housing sub-division next door. If its anything like the one in Napili, I don't know what I'll do. Please remember that your decision affects all of us.

Sincerely,

Mary Petoskey

Mary Petoskey

EXHIBIT 43

4242 L. Honoapiilani, F-203, Lahaina, HI 96761

- 21 / L

Jack Shynne
3101 NE 278th Ave.
Camas, WA 98607

360-834-4999
e-mail - jashynne@triax.com

'98 MAR 24 A8:02

DEPT OF PL...
CO...TY OF ...
RECEIVED

The County of Maui, Planning Commission
Attn: Cindy Smith
250 S. High St.
Wailuku, HI 96793

3/15/98

Dear Ms. Smith:

I am writing to you and the other members of the Planning Commission to express my concerns about the proposed subdivision at the "S" curve. I have owned a unit at Kahana Villa since 1986. When I purchased it, I was told the land to the south which was in agricultural production (pineapples) would become a park in the future.

Because of some back room deal, I guess the park is out. Now I am looking at the prospect of subsidized low income housing next door to my resort rental property, zoning at its finest. If you must do this, how about some conditions attached to the land use permit.

#1. Have a reasonable height restriction on construction and plantings.

#2. Underground all utilities.

#3. Require a community association to enforce strict CC&R's regarding exterior appearance.

The guiding principal I have always followed is not to allow new development to negatively impact existing development. "S" turn lot would still make a great park.

Regards,

J. Shynne

Jack Shynne
Kahana Villa E-113

EXHIBIT 45

Ira B. Weislow
Taipei American School
800 Chung Shan North Road, Sec. 6
Shih Lin, Taipei, Taiwan
Tel: 886-2-2873-9900 Fax: 886-2-2873-1641

March 13, 1998

Ms. Moana Anderson
Maui Planning Commission
250 S. High Street
Wailuku, HI 96793

RE: Rezoning of lots at Tax Map Key 4-3-09:52

Dear Ms. Anderson:

My wife and I are the owners of apartment E408 Kahana Villa. I am writing to express concern regarding the application filed by the Maui Land & Pineapple Company to rezone their property adjacent to Kahana Villa for the purpose of building a housing development. We believe that a park would be the best use of the land for all residents of Maui.

Before purchasing our property in Kahana Villa, we investigated the status of the property in question, and we were pleased to learn that the master plan for the area called for a park. Our decision to invest was largely based the assumption that the park would eventually be built.

In view of the density of development in the Kahana area of Maui, the construction of a park, rather than housing, still appears to be the best use of the land.

If there are issues that we are not aware of which require the Planning Commission to find in favor or Maui Land & Pineapple's request for rezoning, it is our hope that the commission will protect our interests and impose a restriction on the construction which will enure that the residents of Kahana Villa will continue to enjoy an unobstructed view of the ocean. I am sure it is possible for Maui Land & Pineapple to fulfill their objectives without destroying our view.

I am confident the Planning Commission will protect our interests.

Sincerely,

Ira B. Weislow

EXHIBIT 47

Robert Sides

98 MAR 11 P1:01

4242 L. Honoapiilani, F-507, Lahaina, HI 96761

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

March 8, 1998

William Nishibayashi
County of Maui, Planning Commission
250 S. High St.
Wailuku, Hi 96793

Dear Mr. Nishibayashi,

I am writing this letter concerning the proposed development at S-turns. I am an owner of a condominium at Kahana Villa and am justly concerned about this development. As I understand it, ML&P is proposing an employee housing subdivision at this site. My wife and I purchased our unit at Kahana Villa, rather than somewhere else, in part because the lot next door was on the community plan as a park. As I see development occurring in Kahana, mauka of the highway, I really see the need for a park in our area. Additionally, I strongly feel that the planning commission needs to carefully study ***any*** development at this site because this is ***the only open area near the ocean on the westside.***

My main concern is the fact that employee housing, as it now exists (at least as represented in Napili) is clearly a wrong fit for the area. I understand the desire of ML&P to provide employee lots. I also understand the desire of the employees to want lots at this location. However, I question the logic of putting a low-income housing development in the middle of an area with upscale houses on one side, and upscale condominiums on the other. Additionally, where would the Island of Maui benefit from placing a hodgepodge of houses in the ***one*** open viewplane to the ocean from the upper road?

I would strongly urge the planning commission to take a small tour of the existing employee housing subdivision in Napili. I have enclosed some photos for your review. My biggest fear is that once this subdivision is created with no restrictions, then the County will have to live with an eyesore. Subsequently, the tax base will be diminished and the County will have lost an opportunity to create something nice at this site. Truly a park would be the best fit as evidenced by the usage of Pohaku Park. Barring that possibility, I would like to urge the planning commission to consider placing some restrictions on any development in this area, regardless of employee housing for ML&P.

- Bury the power lines at S-turns.
- Limit the height of houses and trees.

EXHIBIT 49

September 10, 1994

Photo's Included

I trust the Planning Commission to view these photos in the proper perspective. I do not make any inference to these individual units or their upkeep. Nor do I want to lead anyone down a path of class envy. Rather, I would just like to show the Commission some photos of the employee housing in Napili. I think it would be safe to say that ML&P envisions the same for us at the S-turns site. If the Commission allows unrestricted employee housing, then I think it's safe to assume we will have the same type of dwellings here.

I have included a couple of photos of Kapalani Estates for comparision.

I took the photos on March 9, at about 10:30 AM. Pleae note that many of the units still have Christmas lighting up. Numerous carports have one or two refrigerators in them. Some houses have debris piled beside them. Some have dirt driveways with multiple cars in them. Some have clotheslines in the front yards.

Please note that none of the houses have any conformity to them. Some appear to be as small as about 1000-1200 sq.ft. Some appear large. Roofs are irregular.

The S-turns lot is special and should, if developed at all, have housing that adds to the area rather than detracts from it. Please consider all of these facts when making your determination for the lot.

EXHIBIT 49.2

Appendix - E
DRAFT EA COMMENT LETTER & RESPONSE

PAUL JOHNSON PARK & NILES

ATTORNEYS AT LAW, A LAW CORPORATION

January 22, 1999

Department of Planning
COUNTY OF MAUI
250 South High Street
Wailuku, Maui, Hawaii 96793

Attn: Julie Higa

RE: Draft Environmental Assessment for Kapua Village
TMK: (2)4-3-09:52

Dear Ms. Higa:

I write on behalf of Kapalani Estates Owners Association, Kahana Villa Association of Apartment Owners, and Myron Resniick in connection with the above-referenced matter. We have reviewed the referenced Draft Environmental Assessment ("EA"). We believe the EA does not adequately support a finding that the proposed development will have no significant enivornmental impact.

While it may be that the project ultimately will be found to threaten no significant impact, the EA must adequately explain how the members of the Planning Commission could reach this conclusion. Stated otherwise, the EA should adequately describe the identifiable environmental effects of the project. Without these adequate descriptions the public commission has no option other than to reject the EA.

Some of the more salient inadequacies are:

Drainage:

1. There is considerable discussion of drainage, yet nowhere is the overall drainage area shown. An adequate Environmental Assessment should show the natural drainage area and the drainage area as modified by the airport and the Honoapiilani Highway.

Maps:

2. The slope and lay of the land are important to understanding drainage impacts, lot layouts, sewer flows, sight lines and other meaningful aspects of the project yet the contour maps shown can not be read. An adequate Environmental Assessment would include a readable contour map with a contour interval that allows a clear understanding of the site.

3. Future Lower Honoapiilani Improvements. The Environmental Assessment states that the 9'x 3' concrete box culverts were sized to include the "100-year runoff at developed conditions from the entire area of the proposed subdivision site...." This indicates that a public agency is increasing its design size as a result of this project. The Environmental Assessment should more adequately describe the interrelationship between the road designs and this subdivision.

Open Space:

4. The site is the last remaining open space between Honokowai, Napili, the Honoapiilani Highway and the Pacific Ocean. Open land is a natural resource that is increasingly valuable to society as our island becomes more populated. Despite this reality the Environmental Assessment does not mention the benefits to society of open space nor does it adequately describe the open land in the area. An exhibit on which open land is shaded in color #1, agricultural land is shaded in color #2 and developed land is shaded in color #3 is recommended.

Exhibits #1 and #2 should be consistent and should show the current land development status. As presented, these exhibits are confusing and misleading.

Wastewater:

5. Page 28 states that the subdivision will not meaningfully affect the wastewater system, but the Environmental Assessment should also be able to state that the wastewater system will not adversely affect the people. Should the sewage lift station fail to operate, where will the sewage first surface, where will it flow and who will be most affected?

Water:

6. Page 28 states that the subdivision is relatively small yet it fails to state that it will not meaningfully affect the water system. As with the sewage system the Environmental Assessment should also address how the water system will affect the people. For example, the Environmental Assessment should address what the static and dynamic water pressures will be at the extremities of this subdivision and what affect these pressures will have on the people.

Flora and Fauna:

7. Page 14 states that a flora and fauna inventory analysis was conducted in 1997, but the analysis was not included in the Environmental Assessment. The flora and fauna, and the effects of the subdivision thereon, can be adequately described only if the analysis is included in or with the Environmental Assessment.

Energy Consumption:

8. The Environmental Assessment states that energy consumption will not be altered yet also states that 45 Maui Land & Pineapple employee families will move from their present residences to these new houses. Clearly the vehicular energy usage will change as 45 vehicles drive each day a mileage that will differ from the present usage. The Environmental Assessment should adequately describe the anticipated energy consumption differences.

In summary, the Environmental Assessment provides information about the project but does not provide enough information to allow a person to make an informed, intelligent decision. In order to make an informed, intelligent decision, a person would need to:

A) Visit the site;

B) Examine the Current Maui Land & Pineapple employee residences; and,

C) Find and examine reports referred to but not included in this Environmental Assessment.

Without the clarity to which we refer, the Environmental Assessment can not adequately describe the identifiable environmental impacts and should therefore not receive acceptance.

Respectfully submitted,

Dennis Niles

DN:lam
F:/ACCTS/KAHANA/COMMS/990122-2.COM

HONOLULU
James T. Paul
David A. Johnson
Corey Y. S. Park
Sheryl L. Nicholson
Robyn B. Chun
Judy A. Tanaka
Sheila L. Y. Sakamoto
Lori A. Obmundsen
Leanne A. N. Nikaido
Pamela W. Bunn
Jonathan R. Peterson
Robert N. E. Piper

MAUI
Dennis Niles
William M. McKeon
Carla M. Nakata

OF COUNSEL
Wayne K. T. Mau

PAUL JOHNSON PARK & NILES

ATTORNEYS AT LAW, A LAW CORPORATION

January 22, 1999

'99 JAN 25 A11:40

CROCKETT, NAKAMURA
WAILUKU, MAUI, HI

Department of Planning
COUNTY OF MAUI
250 South High Street
Wailuku, Maui, Hawaii 96793

Attn: Julie Higa

RE: Draft Environmental Assessment for Kapua Village
TMK: (2)4-3-09:52

Dear Ms. Higa:

This will supplement my comments concerning the referenced Draft Environmental Assessment ("EA"). We believe proceedings in the pending contested case must be stayed pending a proper FONSI determination. If the Commission agrees that the project threatens a significant environmental impact, then an environmental impact statement will be required before the contested case may proceed. We do not believe it would be appropriate for the hearings officer to proceed in the absence of a final EIS.

We believe further that the Planning Commission is the proper authority for making the determinations required pursuant to Chapter 343, Hawaii Revised Statutes.

Please let me know if there are any questions with respect to the position of intervenors in this regard.

Sincerely,

Dennis Niles

DN:lam
F:\ACCTS\KAHANA\COMMS\990122-3.COM

CHRIS HART & PARTNERS

February 18, 1999

Mr. Dennis Niles, esq.
Paul Johnson Park & Niles
P.O. Box 870
Wailuku, Hawaii 96793-0870

RE: Draft Environmental Assessment for Kapua Village
TMK: (2) 4-3-09:52

Dear Mr. Niles:

This letter responds to your letter dated January 22, 1999 which provided comments on the Draft Environmental Assessment for Kapua Village. The following responses are presented in the order they were addressed in your letter.

Drainage

1. The discussion on drainage in the Draft EA focuses on the changes to existing conditions which are being proposed by the project as well as potential impacts and mitigation measures. On page 30 we presented information regarding the 100 year storm flow of Pohakukaanapali gulch (645 cubic feet per second (cfs)) as well as the flows from Honoapiilani Highway. Our project engineer has provided a map which shows the overall drainage basin for Pohakukaanapali Gulch. This map is enclosed herewith and will be included in the Final EA. The design storm runoff flow through the existing 120-inch diameter drainline crossing Honoapiilani Highway which serves the subject gulch is 674 cfs. According to the drainage study for the Kapalua-West Maui Airstrip, the net effect of the airstrip was to lesson the impact to the Pohakukaanapali Gulch by 6 cfs. This information will be included in the Final EA in order to provide the reader with additional information regarding off-site drainage, however, our basic discussion which illustrates that there will be an overall reduction in runoff from the project site to Pohakukaanapali Gulch and Lower Honoapiilani Road, will remain the same.

Maps

2. We will included an easier to read topographic survey map in the Final EA.

3. In designing infrastructure improvements projects for an area, it is standard practice for the Department of Public Works and Waste Management (DPWWM) to size their facilities based upon full build out of an area's community plan land

LANDSCAPE ARCHITECTURE AND PLANNING
1955 MAIN STREET, SUITE 200 · WAILUKU, MAUI, HAWAII 96793-1706 · PHONE: 808-242-1955 · FAX: 808-242-1956

use designations. In the case of the Lower Honoapiilani Road Improvements, Phase III, the subject property was designated single-family in the West Maui Community Plan and as such the design of the affected drainage culverts assumed full build out of the property at typical single family residential densities. This was confirmed with Mr. Joe Krueger of the Engineering Division, Department of Public Works and Waste Management (DPWWM), County of Maui.

Open Space

4. Land use patterns for this area of Maui have been established in the West Maui Community Plan. A colored version of the West Maui Community Plan Land Use Map will be included in the Final EA. In the Honokowai, Mahinahina, and Kahana areas, open space lands are included along the shoreline, in natural drainageways, park areas, and agricultural lands.

Much of the Open space designated land in the area is owned or has been provided by Maui Land & Pineapple Company. This includes a fifty acre park site immediately across Honoapiilani Highway from the project site as well as the Pohaku Park, which was developed via a land exchange between ML&P and the County, immediately to the west of the project site. This beachfrcnt park provides for important ocean access (both visually and physically) in the immediate area. Other significant open space land owned by ML&P includes agricultural fields and forest reserve lands west (mauka) of the Highway.

A significant feature of the open space patterns established in the West Maui Community Plan is the designation of mauka/makai corridors along natural drainage ways. This is noted in our Draft EA on page 35. Within the Honokowai, Mahinahina, and Kahana areas, major gulches and drainageways were designated as Open Space. These major drainageways include Kahana, Mahinahina and Honokawai. However, since the Pohakukaanapali gulch is a minor drainageway it was not so designated. Nevertheless, despite the fact that the Community Plan designates the entire project site for single family use, project plans have incorporated approximately 2.15 acres of landscape easements and open space elements, including approximately 55,750 square feet within the existing drainage basin which will be left in a natural state. In the Final EA, we will supplement our analysis of visual and urban design with a discussion of the land use patterns established by the West Maui Community Plan Land Use Map as it relates to open space.

With regards to Exhibit Nos. 1 & 2, we feel that the if used in combination with the narrative description of existing land uses on pages 9 and 10, the reader will have a clear understanding of the developed conditions in the area.

Lastly, we remind you that decision to designate this parcel for residential use was determined by the Maui County Council's passage of the West Maui Community Plan and the recent Change in Zoning and District Boundary Amendment. Within the context of these land use designations, we feel that the

project has incorporated significant measures to address potential impacts to visual and open space resources in the area.

Wastewater

5. The design of the wastewater collection system on-site will utilize appropriate standards and specifications to ensure that it functions properly. As such, there should be no impact to adjacent or surrounding properties.

The on-site wastewater system will connect to the county's 24 inch gravity sewer line which then discharges into the wastewater pump station which is adjacent to the project site. The 24 inch line and pump station services all of the existing development to the North of the project site. According to the County's Wastewater Division, the estimated average daily flow through this pump station is approximately 1.7 million gallons per day (mgd). The maximum capacity for this pump station is approximately 5.0 mgd. As noted in the Draft EA, the proposed project will generate approximately 15,700 gallons per day, which represents less than one percent of the existing flows through the pump station. The Lahaina Wastewater Reclamation Facility has a design capacity of approximately 9,0 mgd. Average daily flows for the first two weeks in January of this year amounted to approximately 6.3 mgd. Thus, there is roughly 2.7 mgd remaining capacity in the facility. The proposed project's flows would amount to approximately one-half of one percent of this remaining capacity.

Your concerns regarding the failure of the pump station would exist with or without the proposed project. The project should have no significant impact on the likelihood of the pump to fail since it will represent less than one percent of the existing flows and less than one-third of one percent of the pump's capacity. To answer your specific question, if the pump station were to fail, wastewater from the contributory areas north of the project site would probably overflow at the lowest sewer manhole fronting the pump station. If these flows were not contained, they could eventually find their way to the ocean. If a spill occurred the County would be required to notify the State Department of Health and appropriate mitigation measures would have to be implemented, including but not limited to public notification and warnings. However, as stated earlier, the concerns regarding the impacts from a failure of the pump station are not significantly affected by the proposed project given the levels of existing flows and the small percentage contribution that this project represents.

Water:

6. A statement which specifically states that there will be no impact to water service in the area as well as the ability of the existing system to accommodate the proposed project will be included in the Final EA. For your information, for fiscal year 1997, the average daily consumption for the Lahaina system was approximately 4.85 mgd. Our projected consumption is 27,000 gallons per day or approximately one-half of one percent of the 1997 average daily consumption.

According to the project engineer, the anticipated static pressures within the subdivision would be typical of other residences in the area and would range from 80 to 105 psi, depending on elevation. The dynamic pressures would be similar. Your concerns regarding the impacts to water pressures at the "extremities" of the proposed subdivision will be addressed through adherence to the standard requirements of the Department of Water Supply which require that appropriate pipeline sizes be used to ensure that there is a residual pressure of at least 20 psi during peak flows, which in this project's case would be during a firefighting episode. Compliance with the Water Department's standards will ensure that there would be no significant adverse impacts to surrounding properties.

Flora and Fauna:

7. The results of the flora and fauna inventory analysis were included in the Draft EA. The information was gathered during a filed survey conducted on December 18, 1997. The analysis consisted of pedestrian sweeps of the property to identify vegetation on-site. No significant biota types were identified. The analysis concluded that the vegetation was typical of lowland scrub vegetation and that no further work was necessary. This methodology and conclusion is consistent with recent guidelines published by the Office of Environmental Quality Control (OEQC) regarding biological surveys and ecosystem analysis. Among other things these guidelines state the following:

> "Not every environmental review document under HRS 343 will need to include a biological survey. But when such a project could affect biological resources, surveyors and authors of EAs and EIS's are expected to use their professional judgment to decide which of these guidelines are appropriate to apply to their study area. Usually, an EA for a small project, for which a significant impact is not anticipated, will not need the same degree of detailed analysis that should be found in a full EIS." *Environmental Notice*, January 8, 1999

Energy Consumption

8. With regards to differences in energy consumption due to changes in vehicular trips by the 45 families, we offer the following. The project is being offered to employees who work at ML&P's Kapalua work sites. Thus, only those employees who currently reside between the Kapalua area and the project site would have longer work commutes. The increase in these commutes is not significant since the distance between their new residences and work would only be approximately 5 miles. On the other hand, the majority of the employees (estimated at approximately 85%) on ML&P's employee housing list

currently reside farther away from Kapalua than the project site and thus will have shorter work commutes. These employees especially those residing in central, south or east Maui could see substantial reduction in work commuting distances. Thus, since the majority of employees will experience a reduction commuting distances the net effect of the project will be a reduction in vehicular energy usage. However, given the existing level of vehicular energy usage on Maui, these changes will be inconsequential. We will include this discussion in the Final EA.

Summary

The EA was prepared by professional consultants with expertise in the areas of Land Use and Environmental Planning, Civil Engineering, Traffic Engineering, and Archaeology. All of these professionals visited the project site and used their expertise in preparing assessments and studies regarding the potential impacts of the project utilizing accepted industry practices. This information is being presented to professional planners within the Maui County Planning Department who have a great deal of experience in reviewing and assimilating the information contained within the various studies. The Planning Department personnel have visited the project site. In addition, the project has been previously reviewed and commented on by a number of agencies whose comments and concerns have been addressed in the EA. Therefore, it is our professional opinion that the subject EA provides the information necessary for the Planning Department to make an "informed, intelligent, decision" resulting in a Finding of No Significant Impact.

Respectfully yours,

Rory Frampton
Project Planner

cc: Julie Higa, Maui Planning Department
Warren Suzuki, ML&P
William Crockett, esq.
Kirk Tanaka, R.T. Tanaka Engineers
OEQC

JAMES "KIMO" APANA
Mayor

JOHN E. MIN
Director

CLAYTON I. YOSHIDA
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

March 15, 1999

Dennis Niles, Esq.
Paul Johnson Park & Niles
P. O. Box 870
Wailuku, Hawaii 96793-0870

Dear Mr. Niles:

RE: Draft Environmental Assessment for Kapua Village, TMK: 4-3-009:052 (DBA 980001, CIZ 980002, SM1 980001)

The Maui Planning Department (Department) received your letter of January 22, 1999 regarding the above subject matter. The Department does not concur with your opinion that the Maui Planning Commission is the proper authority for making the determinations regarding Chapter 343, Hawaii Revised Statutes. In their March 9, 1999 memorandum, the Deputy Corporation Counsel has confirmed that the Department has the authority to make determinations on Environmental Assessments. A copy of the Deputy Corporation Counsel's memorandum is enclosed.

Should you have any further questions, please call Ms. Julie Higa, Staff Planner, of this office at 243-7814.

Very truly yours,

for JOHN E. MIN
Director of Planning

JEM:JH:cmb
Enclosures
c: Clayton Yoshida, AICP, Deputy Director of Planning
Kelly A. Cairns, Deputy Corporation Counsel
Rory Frampton, Chris Hart & Partners
Julie Higa, Staff Planner
Office of Environmental Quality Control (w/Enclosures)
Project File
General File

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DEPARTMENT OF THE CORPORATION COUNSEL
COUNTY OF MAUI

200 South High Street

Wailuku, Hawaii 96793

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INTEROFFICE CORRESPONDENCE

March 9, 1999

MEMO TO: John E. Min, Director of Planning

F R O M: Kelly A. Cairns, Deputy Corporation Counsel KAC

SUBJECT: Kapua Village, Draft Environmental Assessment

This is in response to your request for advice concerning whether the Planning Department may act as the authority to make the environmental assessment ("EA") determination on the above-referenced project.

We advise that the Planning Department may make the determination on the Kapua Village EA.

Chapter 343, Hawaii Revised Statutes ("HRS"), requires that, when a project triggers the environmental assessment requirements, "the agency receiving the request for approval" prepare an environmental assessment to determine whether an environmental impact statement is required. The Planning Department is the agency with such responsibility according to our interpretation of the above statute and the Office of Environmental Quality Control's ("OEQC") administrative rules for environmental impact statements (Title 11, Chapter 200).

The OEQC's rules state that, for applicant actions, Chapter 343, HRS, requires "the agency processing an applicant's request for approval" prepare the EA. §11-200-6(b). The rules further provide that the authority for acceptance of an environmental impact statement for applicant actions is "the agency initially receiving and agreeing to process the request for an approval." The Planning Department is the first agency to receive the application for a Special Management Area ("SMA") permit and is responsible for processing the application, obtaining agency comments, and ensuring information is complete. The Planning Department also exercises its judgment in making a recommendation to the Planning Commission on the SMA application.

The interveners in the above-referenced project have asserted that the Maui Planning Commission should act as the authority on the EA. Although no reasons are expressly stated, we assume the intervener's position is based on statements made by the Hawaii Supreme Court in Kahana Sunset Owners Association v. County of Maui, 86 Haw. 66 (1997). In Kahana Sunset, the Court indicated that the Planning Commission, as the agency receiving the request for approval, had improperly delegated preparation of an EA to the Department of Public Works.

We do not interpret the Court's statement to mean that the Planning Commission is the only agency responsible for preparation of an EA when an SMA permit is required. In fact, an application for an SMA permit in and of itself does not trigger the EA requirements under section 343-5(a), HRS. Therefore, the fact that the Kapua Village project requires an SMA permit does not by itself mean that the Maui Planning Commission is the accepting authority for an EA.

Rather, we believe the Court found that it was improper for the Planning Commission to allow the EA determination to be made after the decision on the SMA application was already made, since the very purpose of an EA is to provide information to the decision maker. In this case, the determination on the EA will be made before a decision on the SMA application is made by the Planning Commission.

The OEQC rules contemplate the possibility of there being more than one agency that could act as the authority. As such, various factors are set out for determining which agency should act as the authority. §11-200-4(b). These are:

(1) The agency with the greatest responsibility for supervising or approving the action as a whole;
(2) The agency that can most adequately fulfill the requirements of chapter 343, HRS, and this chapter;
(3) The agency that has special expertise or access to information; and
(4) The extent of participation of each agency in the action.

These factors lead to the conclusion that the Planning Department, not the Planning Commission, should make the determination on the EA. Although the Planning Commission, as the authority on coastal zone management matters, may have greater responsibility in giving final approval to the project, factors 2, 3 and 4 above weigh heavily in favor of the Planning Department being responsible for the EA.

The Planning Department has the technical expertise to review the EA. The staff is trained to gather and analyze the information necessary to make informed land use decisions, and indeed, performs such tasks on a daily basis. In fact, pursuant to §12-202-12 of the SMA Rules for the Maui Planning Commission, the Planning Department is responsible for determining when an application is complete and for assessing the impacts of a proposed project.

As a practical matter, the Planning Department has much easier access to information necessary to make the determination on the EA. Without the constraints of notice, agenda and quorum requirements, the Planning Department is more readily able to fulfill the mandate that the EA be prepared at the earliest time practicable.

Finally, the Planning Department's participation in the project application process is extensive. As noted above, the Planning Department initially receives and processes the application, ensures the information provided is complete, corresponds with various governmental agencies concerning the impacts of the project, drafts a report and recommendation to the Planning Commission, presents the project to the Commission, and then is subsequently responsible for enforcement of the conditions of approval.

Based on the factors discussed above, the Planning Department may act as the authority on the EA. Once the environmental review process is completed, the Planning Commission will have the information necessary to evaluate the project under the SMA criteria and make an informed decision on the project.

If you have any questions regarding this matter, please feel free to contact me at 243-7740.