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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS DIVISION

HONOLULU INTERNATIONAL AIRPORT • HONOLULU, HAWAII 96819-1898

December 7, 1992

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OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

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


Dear Mr. Choy:

SUBJECT: Final Environmental Assessment (EA) for United  
Parcel Service  
Parcel Distribution Center, Kahului, Maui, Hawaii

The Department of Transportation has reviewed the final environmental assessment for the subject project and has determined that the proposed action will have no significant impacts. Accordingly, we request that this matter be published in the December 23, 1992 OEQC Bulletin as a negative declaration.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the final EA. Please contact Mr. Shuzo Kimura at 836-6502 if you have any questions.

Very truly yours,

  
Owen Miyamoto  
Airports Administrator

Enclosures: OEQC Bulletin Publication Form

1992-12-23-NA-FA-United Parcel Service Parcel Distribution Center

# United Parcel Service Parcel Distribution Center

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## *Final Environmental Assessment*

Prepared for:

December 1992



United Parcel Service



Michael T. Munekiyo Consulting, Inc.

**United Parcel Service  
Parcel Distribution Center**

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***Final  
Environmental Assessment***

Prepared for:



United Parcel Service

December 1992



Michael T. Munekiyo Consulting, Inc.

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**Preface**

This Environmental Assessment (EA) has been prepared in connection with United Parcel Service's proposed temporary parcel distribution center at Kahului Airport (TMK 3-8-01:19 (portion)). Inasmuch as the proposed project will utilize State-owned lands, this report has been prepared in accordance with Chapter 343, Hawaii Revised Statutes; and Chapter 200 of Title 11, Administrative Rules, "Environmental Impact Statement Rules".

The project site is also located within the County of Maui's Special Management Area (SMA). For this reason, the report assesses the proposed project with respect to the County SMA objectives and policies.



# ***Chapter 1***

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## ***Introduction and Background***

## **I. INTRODUCTION AND BACKGROUND**

### **A. EXISTING UNITED PARCEL SERVICE FACILITIES**

The existing United Parcel Service (UPS) parcel distribution center is presently located within the Kahului Airport, in proximity to the Aloha Airlines' and United Airlines' freight areas in the GSE building. Aloha Airlines unloads and sorts to UPS, who then loads its UPS package cars (vans) for delivery. There is no warehousing at the existing UPS distribution center. Parcels are delivered the same day that they arrive. UPS currently employs 15 hourly, one (1) clerical and two (2) management workers.

### **B. PROJECT NEED**

The existing UPS parcel distribution center will be displaced by the expansion of the airport terminal which is currently underway. Accordingly, UPS must develop an alternate site in order to continue to serve its Maui clients. For this purpose, the State has assigned a portion of TMK 3-8-01:19 to UPS for construction of a temporary facility pending construction of the State's permanent cargo facilities within the airport.

### **C. PROJECT LOCATION AND LAND OWNERSHIP**

The proposed temporary UPS parcel distribution center will be relocated to a one acre State of Hawaii-owned parcel TMK 3-8-01:19 (portion), located in the Kahului Airport District on Hemaloha Street. See Figure 1. The site is bordered to the northeast by the terminal entrance road which runs parallel to Hemaloha Street. See Figure 2. The site is currently utilized as a construction baseyard. The parcel to the northwest, which borders Keolani Place, is vacant. Keolani Place serves as the primary access to Kahului Airport.

The property will be leased to UPS on a month-to-month permit basis, not to exceed five (5) years.

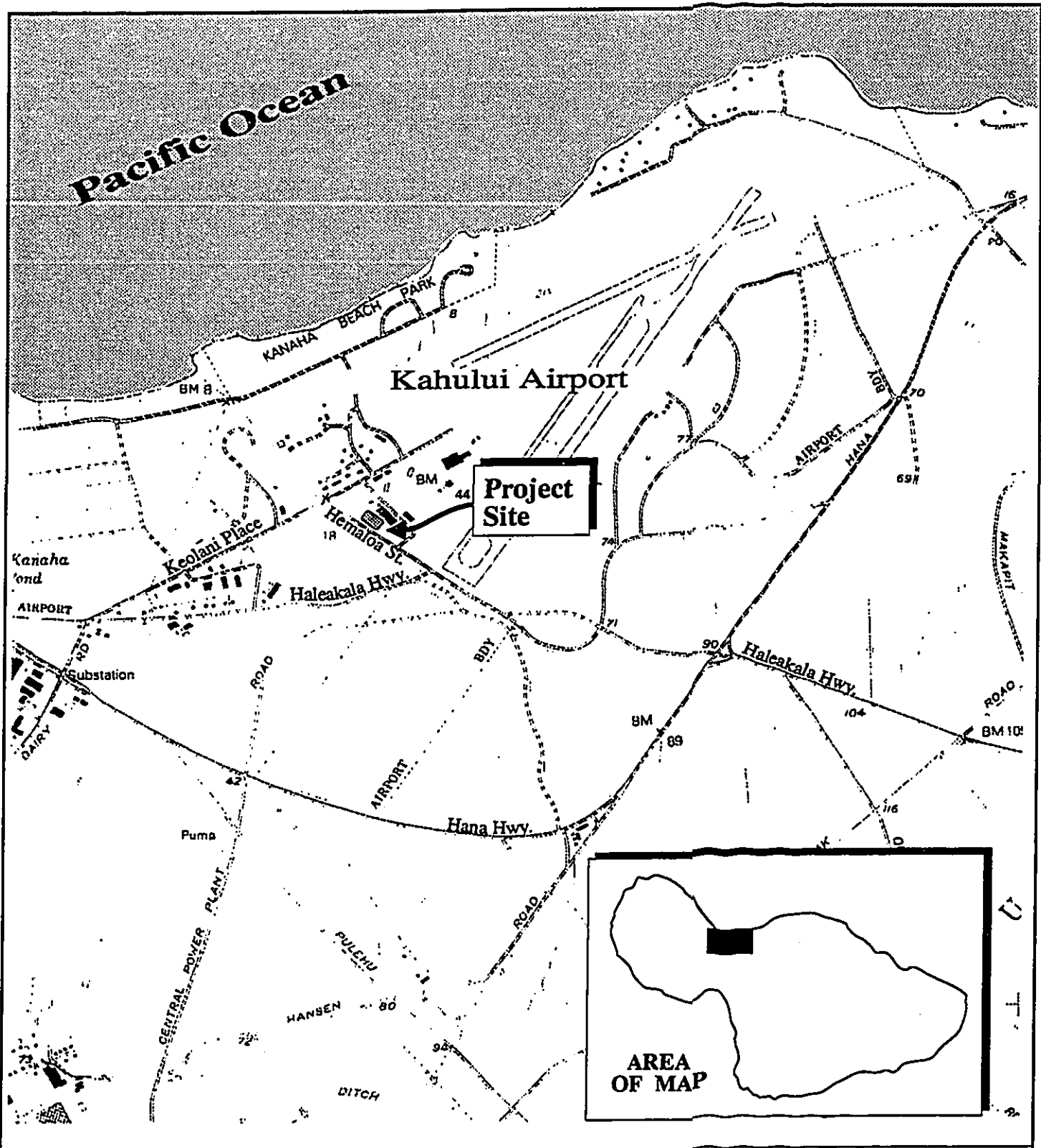
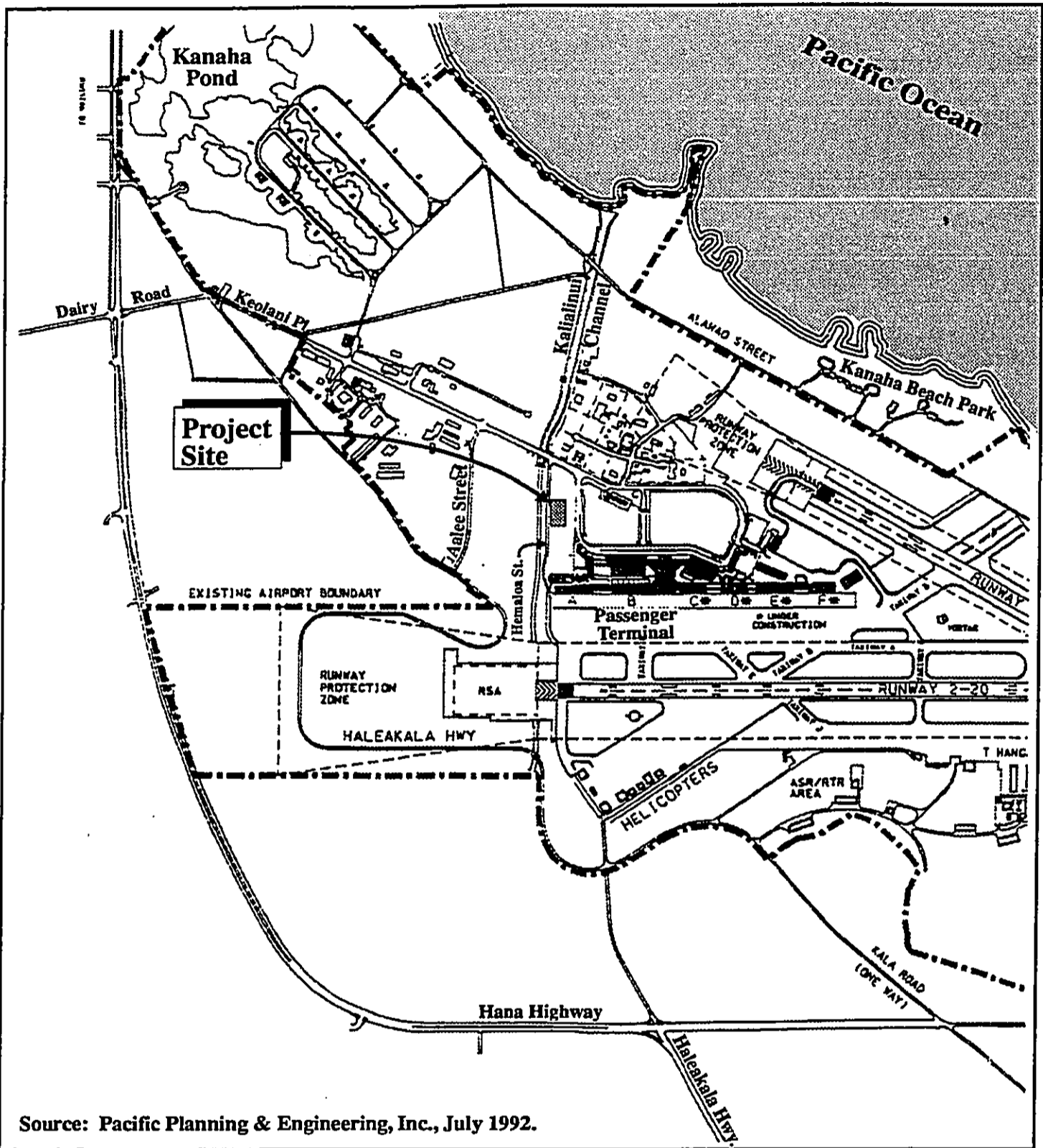


Figure 1

UPS Cargo Facility  
Regional Location Map

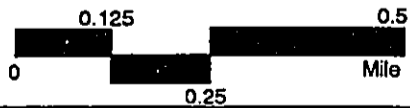


  
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Source: Pacific Planning & Engineering, Inc., July 1992.

**Figure 2**                      **UPS Cargo Facility**  
**Site Location Map**



  
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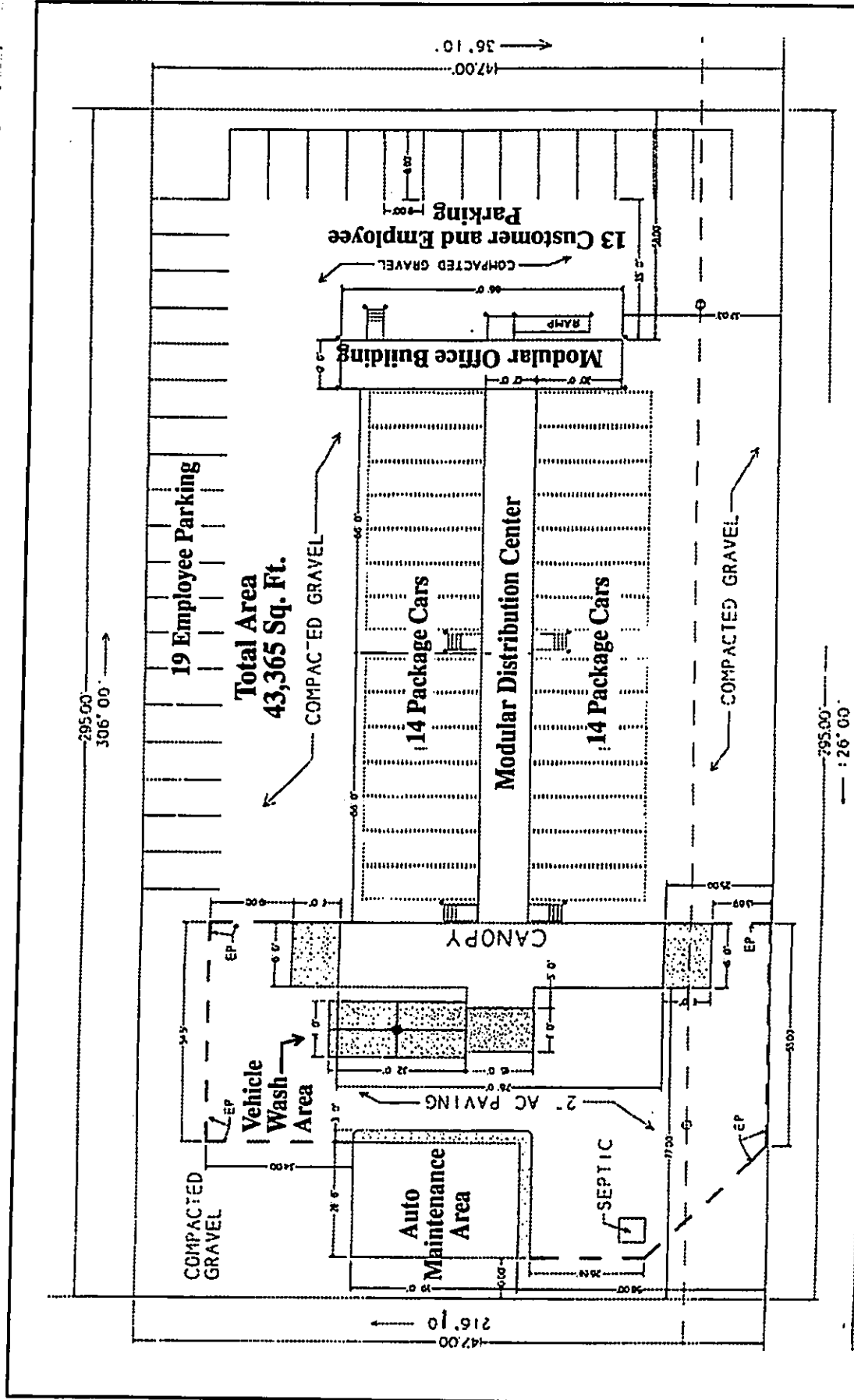
**D. PROPOSED ACTION**

The proposed action involves the development of a new parcel distribution center for UPS. Improvements will consist of the construction of a temporary Modular Distribution Center (MDC) to serve as a central loading dock which can load 28 package cars, 14 on each side of the MDC. See Figure 3. UPS currently owns and operates 15 package cars. Over the next ten (10) years, UPS plans to increase service by putting into service an additional nine (9) package cars (total of 24 package cars).

A temporary Modular Office Building (MOB) will also be constructed. This building will include a commercial counter for customers wishing to send packages via UPS. The hours of operation will remain unchanged. UPS is open from 7:00 a.m. to 7:00 p.m. A total of 32 parking stalls will be provided within the site.

The UPS parcel distribution center will also include a vehicle wash area and an automobile preventive maintenance/inspection area. Wastewater from the vehicle wash area and from the Modular Office Building will be processed by a septic system.

It is anticipated that the temporary facilities will operate for a period of approximately five (5) years, until the Department of Transportation completes the construction of new, permanent cargo handling facilities within the airport district.



Hemaloa Street

Figure 3

UPS Cargo Facility  
Site Plan



NOT TO SCALE



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# ***Chapter II***

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## ***Description of the Existing Environment***

## **II. DESCRIPTION OF THE EXISTING ENVIRONMENT**

### **A. PHYSICAL SETTING**

#### **1. Existing and Surrounding Land Use**

The proposed UPS parcel distribution center is within the Kahului Airport District on Hemaloa Street. No permanent structures are located in the immediate vicinity of the proposed site.

The site is currently undeveloped. It is graded and almost entirely covered by gravel. A grub pile borders the parcel on the northwest side while the border on the northeast slopes up to the terminal access road. The site itself is currently utilized as a construction baseyard and as a parking area for construction workers. The recently channelized Kaliainui Gulch lies parallel and adjacent to Hemaloa Street across from the proposed site.

Land use in the greater vicinity is characterized by commercial and light industrial activities. Within the surrounding area there are retail outlets, wind surfing shops, car rental outlets and auto body repair shops. The proposed project is compatible with surrounding land uses. Further, by its nature the proposed parcel distribution center needs to be located in the immediate vicinity of the airport.

#### **2. Climate**

Like most of Hawaii, Maui's climate is relatively uniform year-round. Characteristic of Hawaii's climate, the project site experiences mild and uniform temperatures year-round, moderate humidity, and a consistent northeasterly tradewind. Variations in climate are largely dependent on elevation and location.



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Average temperatures in the vicinity of the project site range from lows in the 60's to highs in the 80's. August is historically the warmest month, while January and February are the coolest. Rainfall at the project site average approximately 20 inches per year, 80 percent of which occurs during the wet season, between the months of November and April. Winds in the Kahului region are predominantly out of the northeast and often attain speeds of 40 to 45 miles per hour in the vicinity of the project site.

**3. Topography and Soil Characteristics**

The project site is situated on relatively flat land at an approximate elevation of 17 to 28 feet above sea level. See Figure 4.

Underlying the proposed site and surrounding areas are soils of the Pulehu-Ewa-Jaucas association. See Figure 5. These soils are deep, well-drained soils that have a moderately fine textured to course textured subsoil, and are found on low uplands. The soil type specific to the project site is Molokai silty clay loam, 0 to 3 percent slope (MuA) of the Molokai series. Runoff is slow to medium and the erosion hazard is slight to moderate. See Figure 6.

**4. Flood and Tsunami Hazard**

Channelization of Kalialinui Gulch, which runs along Hemaloa Street, was completed in 1990. With this major drainage improvement, flood hazard potential at the property is now considered minimal (Pacific Planning and Engineering, Inc., 1992). The project site lies beyond tsunami inundation limits identified on the flood insurance rate map for this area.

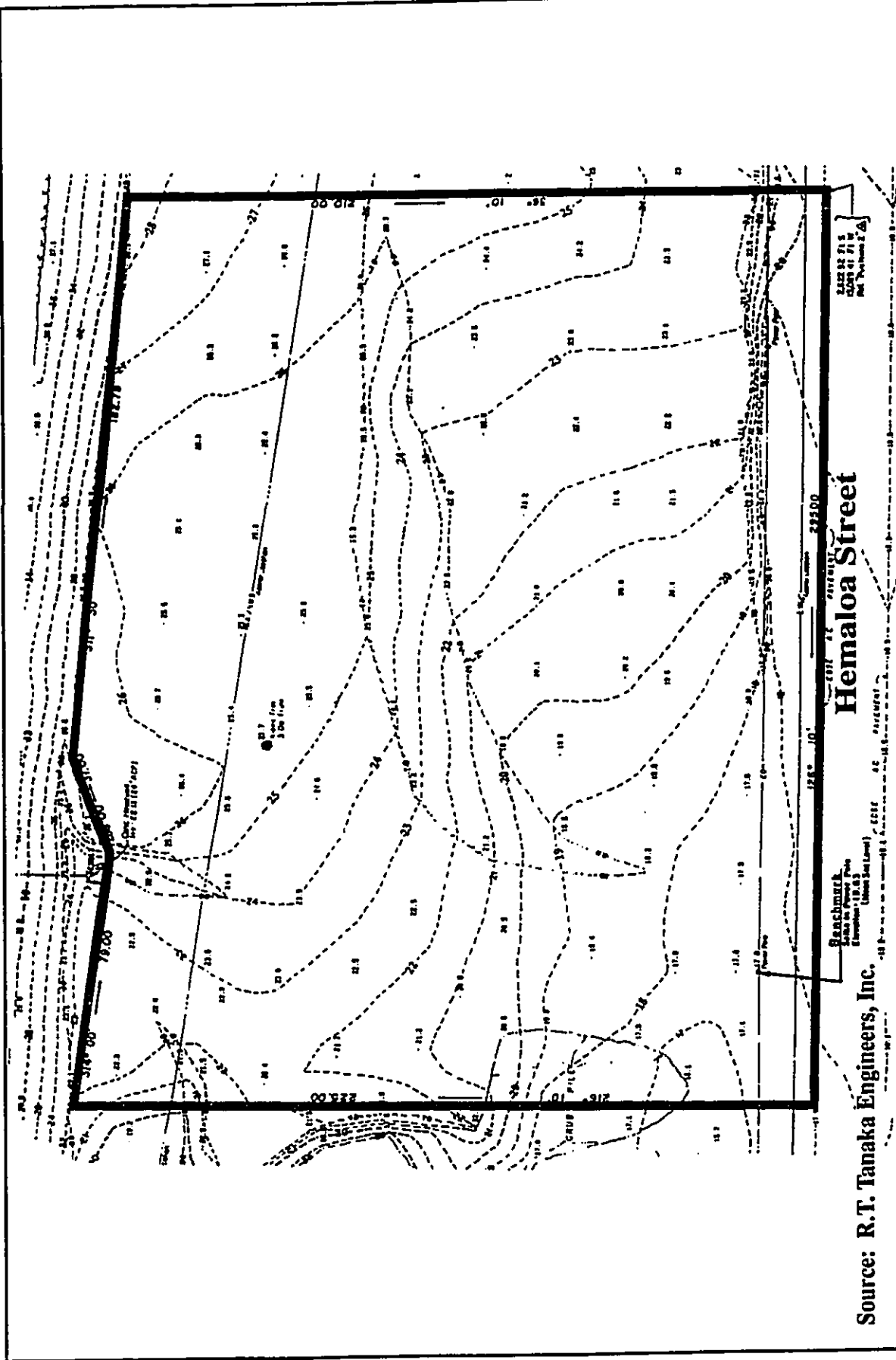


Figure 4



UPS Cargo Facility  
Topographic Site Conditions

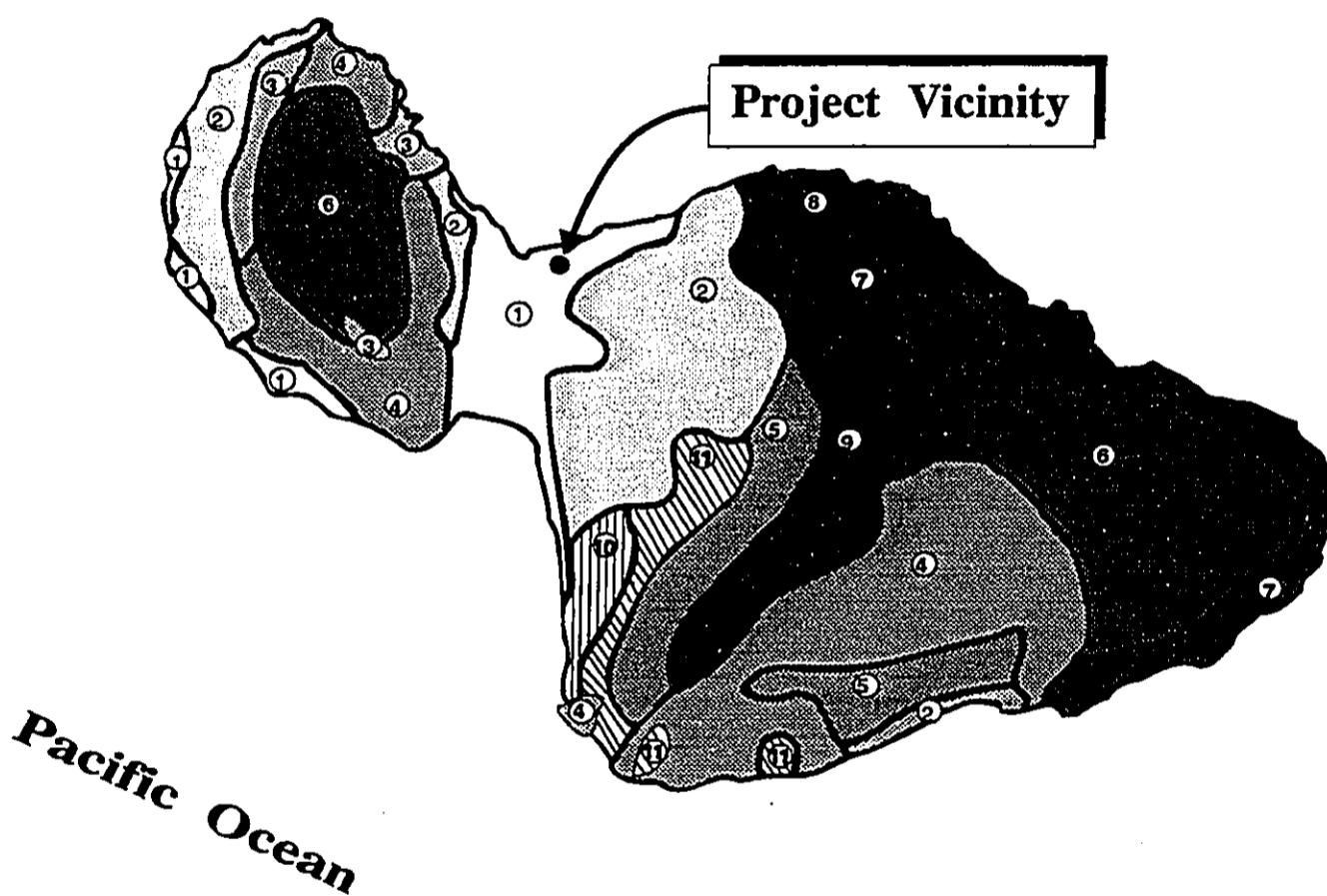
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## LEGEND

- |  |  |
|--|--|
| <p>① Pulehu-Ewa-Jaucas association</p> <p>② Waiakoa-Keahua-Molokai association</p> <p>③ Honolulu-Olelo association</p> <p>④ Rock land-Rough mountainous land association</p> <p>⑤ Puu Pa-Kula-Pane association</p> <p>⑥ Hydrandepts-Tropaquods association</p> | <p>⑦ Hana-Makalae-Kailua association</p> <p>⑧ Pauwela-Haiku association</p> <p>⑨ Laumaia-Kaipoi-Olinda association</p> <p>⑩ Keawakapu-Makana association</p> <p>⑪ Kamaole-Oanapuka association</p> |
|--|--|



Map Source: USDA Soil Conservation Service

**Figure 5**

**UPS Cargo Facility  
Soil Association Map**



  
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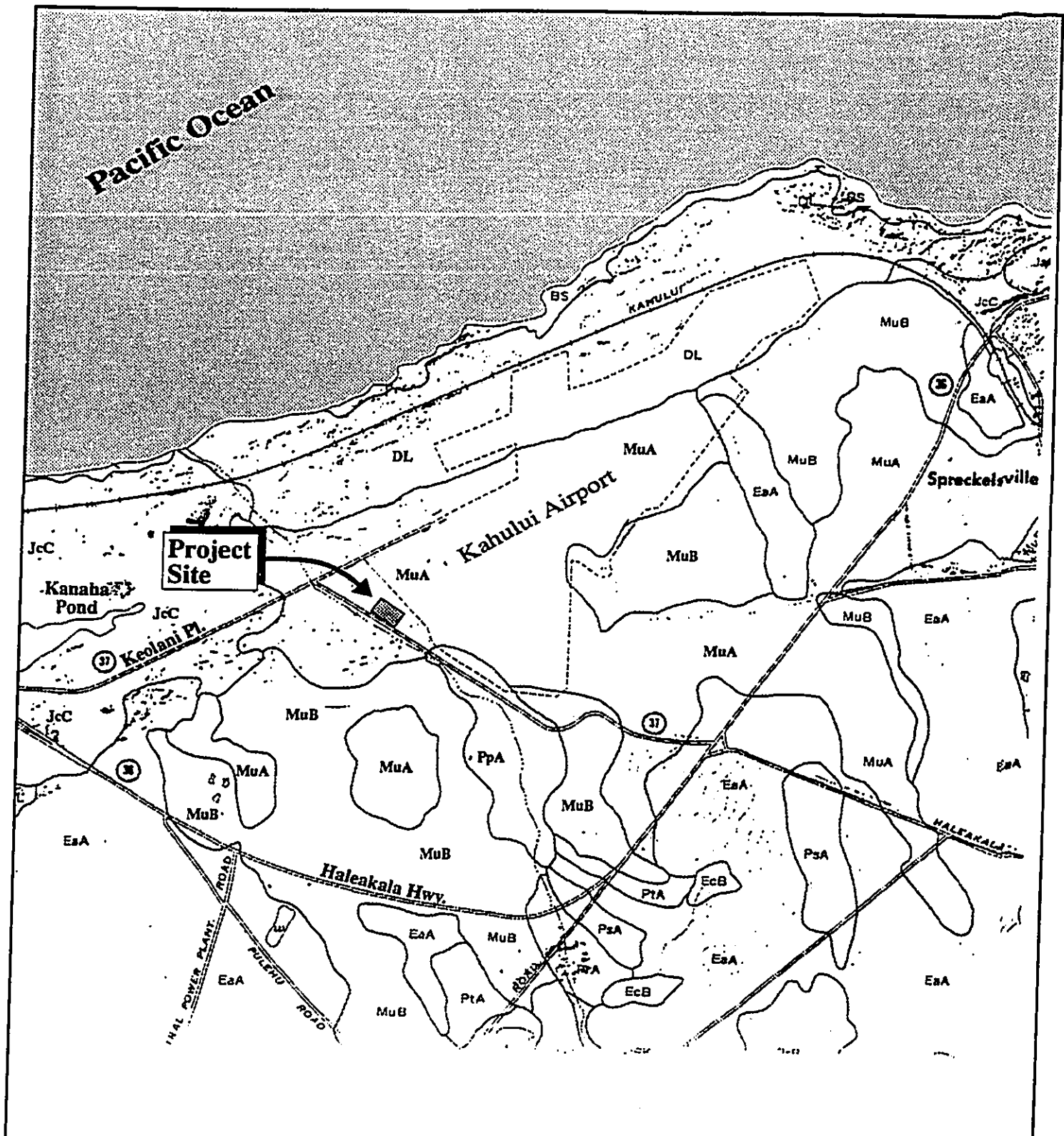


Figure 6

UPS Cargo Facility  
Soil Classifications



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5. **Flora and Fauna**

The project site falls within the kiawe and lowland shrub vegetation zone. Characteristic plants of this zone are kiawe, koa haole, finger grass and pili grass. The dominant plants in all vegetation zones at lower elevations are species introduced to Hawaii since 1778. Vegetation at the project site includes introduced grasses and shrubs which are predominantly located along the Hemaloa Street roadway edge and along the edge of the parcel's northwest property line.

Endemic, indigenous and mitigatory birds can be found at the nearby Kanaha Pond Wildlife Refuge, and thus may frequent the vicinity. However, there are no wetlands associated with project site itself. Accordingly, the site does not offer habitat to these bird species.

Feral mammals which may be associated with the project site include the mongoose, mice, rats and feral cats.

6. **Archaeological Resources**

The only known historic site in the general vicinity of the project site is Kanaha Pond, a designated wildlife sanctuary. Considerable development within the Kahului Airport District makes the presence of significant historic sites unlikely. Past grading of the proposed UPS site itself makes the likelihood of surviving archaeological or historic remnants highly unlikely.

7. **Air Quality**

Air quality analysis conducted for the Final Environmental Impact Statement: Kahului Airport Master Plan Update found that State and Federal emission standards for Carbon Dioxide and Nitrogen Oxide are not currently being exceeded. Airport-generated emissions are

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transported in a southerly to southwesterly direction by prevailing tradewinds.

**8. Noise**

Aircraft noise contours at Kahului Airport indicate the proposed site falls within the 65 to 70 Ldn contours, within the "Significant Exposure" category. Vehicular noise levels at the site are less than 65 Ldn.

**B. COMMUNITY SETTING**

**1. Population**

Maui County's population constitutes an estimated 9 percent of Hawaii's 1.1 million residents in the State. The population of Maui island itself was 91,360 in 1990, up 42 percent from Maui's 1980 population. The population growth rate of Maui County is considerably higher than that of the State overall, which showed a 15 percent increase between 1980 and 1990. Growth in Maui County is expected to continue, with resident population projections to the year 2000 and 2010 estimated to be 123,900 and 145,200 respectively.

The Wailuku-Kahului Community Plan region follows the Countywide pattern of population growth, with the region's 1987 population of 29,839 expected to rise to 43,549 by the year 2000 and to 54,763 by the year 2010.

**2. Economy**

The Kahului region is the Island's center of commerce. Combined with neighboring Wailuku, the region's economic character encompasses a broad range of commercial, service, and

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governmental activities. In addition, the region is surrounded by large agricultural acreage which include sugar cane fields, pineapple fields, and macadamia nut orchards.

The vast expanses of agricultural lands managed by HC&S and Wailuku Agribusiness Company, is considered a key component of the local economy.

**3. Police and Fire Protection**

Police protection for the Wailuku-Kahului region is provided by the County Police Department headquartered at the Wailuku Station, approximately three (3) miles from the project site. The region is served by the Department's Central Maui patrol which includes approximately 100 full-time personnel.

Fire prevention, suppression, and protection services for the Wailuku-Kahului region is provided by the County Department of Fire Control's Kahului Station, located on Dairy Road in Kahului, approximately one (1) mile from the project site. The Kahului Station is staffed by eleven (11) full-time personnel.

**4. Medical Facilities**

Maui Memorial Hospital, the only major medical facility on the island, services the Wailuku-Kahului region. Acute, general and emergency care services are provided by the 145-bed facility. In addition, numerous privately operated medical/dental clinics and offices are located in the area to serve the region's residents.

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5. **Recreational Facilities**

The Wailuku-Kahului region encompasses a full range of recreational opportunities, including shoreline and boating activities at the Kahului Harbor and adjoining beach parks, and individual and organized athletic activities offered at numerous County parks and the War Memorial Complex. The project site is in close proximity to Kanaha Beach Park, which offers opportunities for various shoreline recreation activities.

6. **Schools**

The Wailuku-Kahului region is served by the State Department of Education's public school system as well as several privately operated schools accommodating elementary, intermediate and high school students. Department of Education facilities in the Kahului area include Lihikai and Kahului Schools (Grades K-6), Maui Waena Intermediate School (Grades 7-8), and Maui High School (Grades 9-12).

C. **INFRASTRUCTURE**

1. **Roadway System**

The Wailuku-Kahului region is served by a roadway network which includes arterials, collectors and local roads. Major roadways include Kaahumanu Avenue, the principal linkage between Kahului and Wailuku, Lower Main/ Beach Road, Hana Highway and Puunene Avenue.

The UPS parcel distribution center will be served by Hemaloa Street via Keolani Place. Keolani Place is a four-lane, two-way roadway which is the primary access route for Kahului Airport and its ancillary facilities.



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The development of the new UPS parcel distribution center constitutes a relocation of an existing use within the airport environs.

2. **Water System**

The Wailuku-Kahului region is served by the Board of Water Supply's (BWS) domestic water system. Water drawn from the Iao Aquifer, which serves the Central Maui region, has a sustainable yield of 20 million gallons per day (mgd). Recent estimates place the monthly average withdrawal from the aquifer at over 18 mgd.

An existing 16-inch waterline is located along Hemaloa Street.

3. **Wastewater System**

Domestic wastewater generated in the Wailuku-Kahului region is conveyed to the County's Wailuku-Kahului Wastewater Reclamation Facility located along Amala Place, approximately one (1) mile from the project site. The County of Maui is currently upgrading the Wailuku-Kahului Wastewater Reclamation Facility to increase the plant's design capacity from 6.0 mgd to 7.9 mgd. Facility upgrades should be completed in early 1993.

4. **Solid Waste Disposal**

Single-family residential solid waste collection service is provided by the County of Maui on a once-a-week basis. Residential solid waste collected by County crews are disposed of at the County's 55-acre Central Maui Landfill, located four miles southeast of the Kahului Airport. In addition to County-collected refuse, the Central Maui Landfill accepts commercial waste from private collection companies.

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5. **Drainage System**

Storm runoff from the project site sheet flows in a westerly direction towards a drain inlet located along Hemaloa Street. See Appendix A. Runoff from the drain inlet discharges into the Kalialinui drainage culvert which carries flows to the ocean.

6. **Electric Power and Telephone Service**

Electrical and telephone services are provided by Maui Electric Company and GTE Hawaiian Telephone, respectively. An overhead pole system is located along Hemaloa Street.

# ***Chapter III***

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## ***Potential Impacts and Mitigation Measures***

### **III. POTENTIAL IMPACTS AND MITIGATION MEASURES**

#### **A. IMPACTS TO THE PHYSICAL ENVIRONMENT**

##### **1. Surrounding Land Uses**

Development of the proposed project is not expected to cause any adverse impacts to surrounding land uses. Development of the temporary UPS parcel distribution center is consistent and compatible with adjacent and surrounding land uses.

##### **2. Flora and Fauna**

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

The proposed project will not impact wetland areas and associated wildlife habitat.

##### **3. Archaeological Resources**

The proposed project will not impact historic or cultural resources. The site has been previously graded and covered with gravel.

##### **4. Air Quality and Noise**

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

Construction activities will also result in noise impacts. Heavy construction equipment, such as bulldozers, front end loaders, and materials-carrying trucks and trailers will be the dominant source of

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noise during the construction phase. All construction activities will be limited to normal, daylight working hours. Because the ambient noise levels in the vicinity of the project site are already high, construction activities should not significantly impact the noise environment.

The proposed project will not have significant long-term noise or air quality impacts.

**5. Scenic and Open Space Resources**

As the site is not adjacent to Keolani Place, it will not impact the view corridor along Keolani Place. While the northeast boundary of the property abuts the terminal access road, the combination of existing landscaping and slope (the site drops down approximately ten feet from the terminal access road) will render the facility unobtrusive to motorists entering the airport. (The height of the proposed structures will not exceed 15 feet.)

**B. IMPACTS TO COMMUNITY SETTING**

**1. Population and Local Economy**

The proposed action represents a relocation of an existing commercial activity within the airport district. With the addition of a customer counter, one additional clerical position will be required. Accordingly, the total number of employees will increase from 18 to 19 with the relocation.

UPS' ten-year business plan for its Maui operations reflects a need for nine (9) additional package cars. It is estimated that each package car would require approximately 1.25 employees. It is

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estimated, therefore, that 11 additional employees would be needed at the end of the ten-year business planning period.

Inasmuch as the UPS parcel distribution center provides an existing airport-dependent service, the action is entirely consistent with the micro-economy of the airport district.

2. **Agriculture**

The proposed action will not impact agriculture. The site is not currently in agricultural use, nor has it been in the recent past.

3. **Public Services**

Relocation of the proposed UPS parcel distribution center will not result in any adverse impacts to public service requirements. The proposed action will not result in an immediate change in employment levels and therefore, will not affect requirements for recreational facilities, police and fire protection, medical facilities and schools.

C. **IMPACTS TO INFRASTRUCTURE**

1. **Roadways**

The proposed project represents a relocation of an existing airport-related use within the airport district. Accordingly, the proposed action is not anticipated to impact roadway systems serving the airport.

The Maui UPS will employ 15 hourly, two (2) clerical and two (2) management workers at the new site. The relocation of the parcel distribution center within the airport will not result in a significant net increase in employee-generated traffic. The majority of employees

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will arrive at the facility between 6:00 a.m. and 8:00 a.m. Employees would finish their work shift between 4:00 p.m. and 6:00 p.m. From an operational standpoint, package cars will normally leave the facility between 7:30 a.m. and 8:00 a.m. Returning vans would arrive back at the facility between 5:00 p.m. and 5:30 p.m. Each van would be dispatched once per day.

The provision of a commercial counter will also result in additional traffic to the facility. It is estimated that approximately 15 to 20 customers per day would utilize the commercial counter. Customer traffic would be spread over 4 hours during the business day (12:00 p.m. to 4:00 p.m.). It is noted that the temporary use of the site will be for approximately five (5) years, to allow for planning and phasing of new permanent cargo facilities at the airport.

2. **Water System**

Water for the project will be supplied by the domestic system serving the area. The proposed project is expected to generate a daily water use of approximately 250 gallons per day (GPD) (using an estimated demand of 140 GPD per 1,000 square feet of building area and approximately 50 GPD for wash purposes). However, because the proposed action represents a relocation of an existing use, the project does not result in a net increase in water demand.

3. **Wastewater System**

The total average daily flow of wastewater from the proposed action is estimated to be 200 gallons per day. Wastewater will either be conveyed to the County's wastewater collection system or to an individual wastewater treatment system (e.g., septic tank) approved by the State Department of Health.

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4. **Solid Waste Disposal**

As the proposed action represents a relocation of existing activities, there is not expected to be an increase in the generation of solid waste.

5. **Drainage System**

Runoff generated onsite will sheet flow to an existing drain inlet located along Hemaloa Street, then piped to the Kaliialinui drainage culvert for discharge to the ocean. The proposed project will increase surface runoff (100-year storm) at the site from 1.1 cubic feet per second (cfs) to 3.8 cfs. See Appendix A. The proposed project will not alter drainage patterns and will not adversely impact downstream or adjacent properties.



# ***Chapter IV***

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***Relationship to Land Use  
Plans, Policies, and Controls***

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

##### **A. STATE LAND USE DISTRICT**

The project site falls within the State Urban District. The proposed action is a permitted use within the Urban district.

##### **B. HAWAII STATE PLAN**

The proposed action is in compliance with Chapter 226 of Hawaii Revised Statutes (HRS), the Hawaii State Planning Act. More specifically, HRS 226-104(a)(3) seeks to ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the state. The proposed action will further the stated goal of providing adequate support services.

HRS 226-104(b)(1) seeks to encourage urban growth primarily to existing urban areas where adequate public facilities are already available. Because the proposed site is adjacent to like land uses in the airport area, the action is in compliance with this section.

##### **C. GENERAL PLAN OF THE COUNTY OF MAUI**

The General Plan of the County of Maui (1990 Update) provides long-term goals, objectives and policies directed toward the betterment of living conditions in the County. Addressed are social, environmental, and economic issues which influence both the quantity and quality of growth in Maui County.

The proposed action is in keeping with Section III (B)(1) of the General Plan of the County of Maui, which proposes that all developments are well designed and are in harmony with their surroundings. The proposed UPS parcel distribution center, situated amongst like uses, supports this objective.

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Section II(A)(1)(b) of the County General Plan seeks to provide an economic climate which will encourage controlled expansion and diversification of the County's economic base by supporting programs and services which provide economic diversification. The proposed action is in keeping with this section as it provides a diversified service in affiliation with the local economy's transportation sector.

Section II(A)(2)(a) of the General Plan seeks to encourage industries that will utilize the human resources available from within Maui County. Relocating the UPS parcel distribution center is in keeping with this provision by continuing to provide employment opportunities for Maui residents.

**D. WAILUKU-KAHULUI COMMUNITY PLAN**

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

Land use guidelines are also set forth by the Wailuku-Kahului Community Plan Land Use Map. See Figure 7. The subject parcel is designated "Airport" by the Community Plan. The proposed project provides ancillary services to the airport.

**E. SPECIAL MANAGEMENT AREA OBJECTIVES AND POLICIES**

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

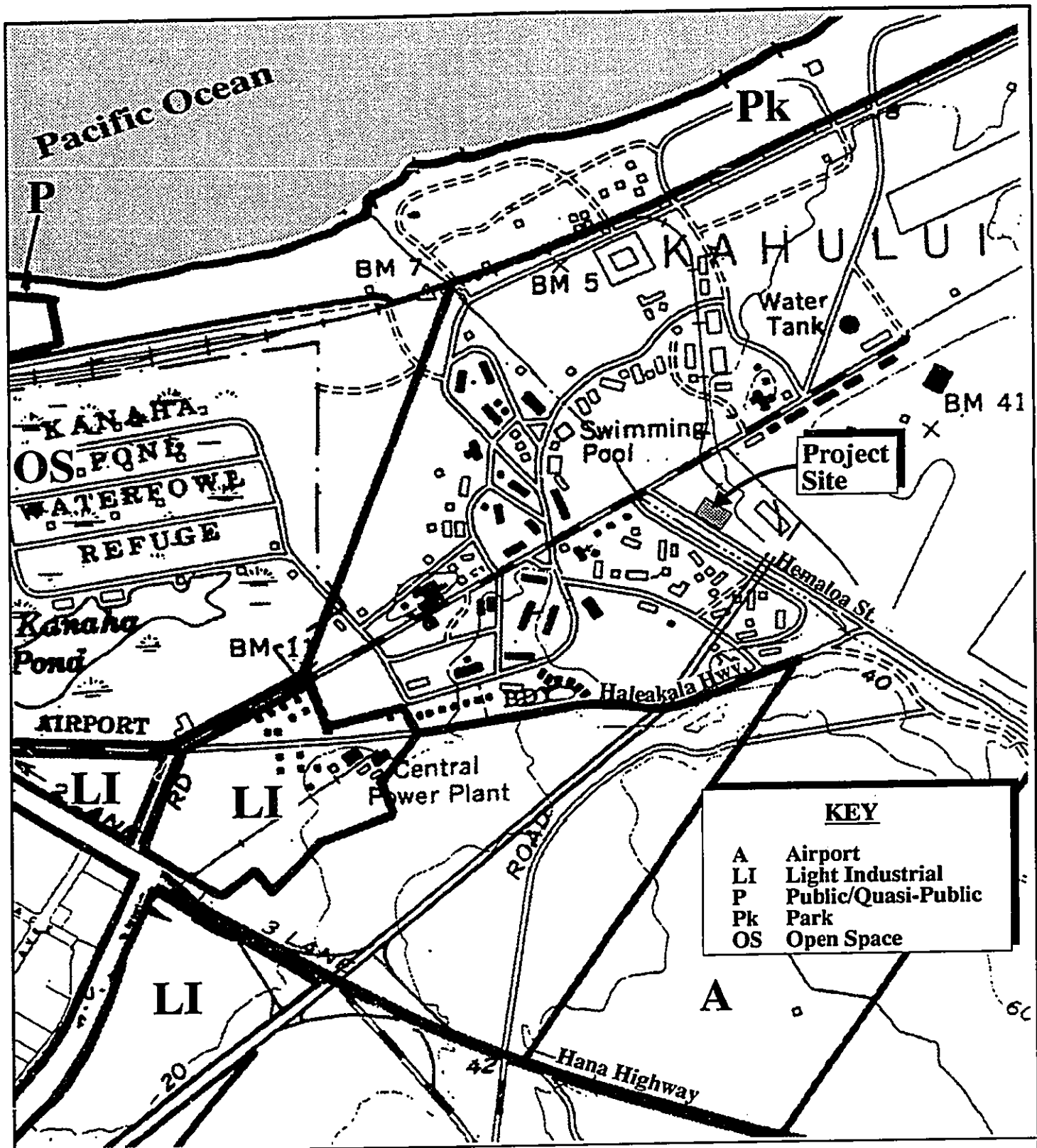


Figure 7

UPS Cargo Facility  
Community Plan Land Use Designations



  
 Michael T. Munekiyo Consulting, Inc.  
 Prepared for: United Parcel Service

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

1. **Recreational Resources**

**Objective:** Provide coastal recreational resources accessible to the public.

**Policies:**

1. Improve coordination and funding of coastal recreation planning and management; and
2. Provide adequate, accessible and diverse recreational opportunities in the coastal zone management area by:
  - a. Protecting coastal resources uniquely suited for recreation activities that cannot be provided in other areas,
  - b. 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,
  - c. Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value,
  - d. Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation,
  - e. Encouraging expanding public recreational use of county, state, and federally owned or controlled shoreline lands and waters having recreational value,
  - f. 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,

- 
- g. 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 proposed project will not impact existing recreational resources. In addition, the project will not generate a need for additional recreational resources.

**2. Historical/ Cultural Resources**

**Objective:** 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:**

1. Identify and analyze significant archaeological resources;
2. Maximize information retention through preservation of remains and artifacts or salvage operations; and
3. Support state goals for protection, restoration, interpretation and display of historic resources.

**Response:**

Immediate surrounding areas have been fully developed and there is no evidence of historic or cultural resource value associated with the site.

**F. SCENIC AND OPEN SPACE RESOURCES**

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

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**Policies:**

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

**Response:**

The proposed project will not adversely impact scenic or open space resources. The proposed project will not involve significant alteration to the existing topographic character of the site and will not affect view corridors. Moreover, building mass and height will be consistent with the existing character of the surrounding environs.

**G. COASTAL ECOSYSTEMS**

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

**Policies:**

1. Improve the technical basis for natural resource management;
2. Preserve valuable coastal ecosystems of significant biological or economic importance;
3. Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and

- 
4. Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards.

**Response:**

Appropriate soil erosion mitigation measures will be implemented during the construction of the project to protect surrounding properties. From a long-term perspective, the project is not anticipated to impact coastal ecosystems.

**H. ECONOMIC USES**

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

**Policies:**

1. Concentrate in appropriate areas the location of coastal dependent development necessary to the state's economy;
2. 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 area; and
3. 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:
  - a. Utilization of presently designated locations is not feasible,
  - b. Adverse environmental effects are minimized, and
  - c. Important to the state's economy.



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**Response:**

The proposed site for the UPS parcel distribution center is within the Kahului Airport District. The proposed project represents a relocation of an existing use within the airport district and is consistent with like uses in the district. Because of the nature of the services it provides, UPS must be situated near the airport to efficiently load and off-load parcels from planes for distribution. Further, as UPS provides a needed parcel distribution service to Maui's businesses and residents, its location at this site is appropriate and necessary.

**I. COASTAL HAZARDS**

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

**Policies:**

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

**Response:**

The Final Environmental Impact Statement: Kahului Airport Master Plan Update indicates that the proposed UPS site is within an area where flood hazard has been minimized by Kalialinui Gulch improvements. Channelization of Kalialinui Gulch was completed in 1990. Storm runoff from the project will be accommodated by existing drainage facilities along Hemaloa Street.

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**J. MANAGING DEVELOPMENT**

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

**Policies:**

1. Effectively utilize and implement existing law to the maximum extent possible in managing present and future coastal zone development;
2. Facilitate timely processing of application for development permits and resolve overlapping of conflicting permit requirements; and
3. 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:**

Development of the proposed project will be 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 permitting process.

# ***Chapter V***

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## ***Agencies Consulted During the Preparation of the Environmental Assessment***

**V. AGENCIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT**

The following agencies were consulted during the preparation of the Draft Environmental Assessment:

1. U.S. Army Corps of Engineers  
Pacific Ocean Division  
Building 230  
Fort Shafter, Hawaii 96858
2. Mr. David Nakagawa, Chief Sanitarian  
Department of Health  
54 High Street  
Wailuku, Hawaii 96793
3. Mr. Robert Siarot, Maui District Engineer  
Department of Transportation  
650 Palapala Drive  
Kahului, Hawaii 96732
4. Department of Land and Natural Resources  
State Historic Preservation District  
1325 L. Main Street, #108  
Wailuku, HI 96793
5. Mr. David Craddick, Director  
Department of Water Supply  
200 South High Street  
Wailuku, Hawaii 96793
6. Mr. Lloyd Lee  
Department of Public Works  
Division of Engineering  
200 South High Street  
Wailuku, Hawaii 96793
7. Mr. Aaron Shinmoto Chief Staff Engineer  
Department of Public Works  
200 South High Street  
Wailuku, Hawaii 96793
8. Mr. Eassie Miller  
Department of Public Works  
Wastewater Reclamation Division  
200 South High Street  
Wailuku, Hawaii 96793

# *References*

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Austin, Tsutsumi and Associates, Inc., Island-Wide Long-Range Highway Plan for Maui, Final Report, Executive Summary, prepared for Department of Transportation, Highways Division, Planning Branch, October 1990.

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

Department of Business and Economic Development, The State of Hawaii Data Book 1990, Honolulu, 1990.

Pacific Planning and Engineering, Inc., Final Environmental Impact Statement: Kahului Airport Master Plan Update, prepared for State of Hawaii, Department of Transportation, July 1992.

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

# ***Appendix A***

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## ***Preliminary Drainage and Soil Erosion Control Study***

PRELIMINARY  
DRAINAGE AND SOIL EROSION CONTROL STUDY  
FOR  
UNITED PARCEL SERVICE SITE  
AT  
KAHULUI AIRPORT  
AT KAHULUI, MAUI, HAWAII  
TMK: 3-8-01:19 (PORTION)

PREPARED FOR:

UNITED PARCEL SERVICE  
25201 PASEO DE ALICIA #200  
LAGUNA HILLS, CA - 92653

PREPARED BY:

R. T. TANAKA ENGINEERS, INC.  
871 KOLU STREET, SUITE 201  
WAILUKU, HAWAII - 96793

OCTOBER 1992



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I. PRELIMINARY DRAINAGE STUDY

A. EXISTING CONDITIONS:

The existing drainage runoff affecting the proposed United Parcel Service (UPS) site is generated by the project area itself and by runoff from an adjacent area that is collected by the drainage system of the Kahului Airport Frontal Road (see Figure 5).

Runoff from the project site sheet flows in a westerly direction towards inlet No. 2 connected to a triple 9' x 22' box culvert and eventually into the ocean via the Kalialinui Gulch outlet.

B. APPLICATION OF THE DRAINAGE MASTER PLAN:

The County of Maui Drainage Master Plan does not outline any recommendation for improvements within the limits of the proposed project site.

C. FLOOD STUDY:

Panel 0190C of the Flood Insurance Rate map shows the proposed project site within Zones "A5" and "B" (Figure 4). With the recently completed improvements to Kalialinui gulch, which included the installation of a triple 9' x 22' concrete box culvert adjacent to the proposed project site to carry the anticipated flow to the ocean, it is our opinion that the proposed project site now lies within Zone "C", areas of minimal flooding.

The proposed project site is outside of the potential tsunami inundation limit.

D. PROPOSED DEVELOPMENT PLAN:

United Parcel Service (UPS) proposes to improve a 1.0 acre site within the Kahului Airport parcel (TMK: 3-8-01:19) between Hemaloa Street and the Frontal road, approximately 500 feet southeast of Keolani Place (see Figure 2).

The proposed improvements to the UPS site include a temporary office building, a covered area for loading and distribution of packages, an auto maintenance area and appurtenant areas for employee and customer parking (see Figure 6).

The site will be graded to accommodate these proposed improvements and a 2' high berm will be added along the rear and the sides to prevent mauka runoff from entering the site.

The runoff generated onsite will sheet flow across the site and then be directed toward existing Drain Inlet No. 2 where it will be piped to Kalialinui Gulch.

The runoff generated offsite including that flowing from the existing 24" culvert crossing the frontal road will be directed around the proposed UPS site toward existing Drain Inlet No. 2.

E. STORM RUNOFF:

The rational method,  $Q = CiA$  was used to determine drainage runoff. The different factors used in the application of the rational method were based on applicable graphs and tables of the Maui County Drainage

Master Plan, 1971. The storm discharges are based on a 100-year storm intensity.

1. Determine Runoff Coefficient, C:

Existing Conditions

Infiltration	0.07 (med.)
Relief	0.00 (flat)
Vegetal Cover	0.03 (good)
Development Type	<u>0.15</u> (ag.)

$$C = 0.25$$

Developed Conditions

Infiltration	0.07 (med.)
Relief	0.00 (flat)
Vegetal Cover	0.03 (good)
Development Type	<u>0.55</u> (business)

$$C = 0.65$$

2. Drainage Areas:

The onsite drainage area is approximately 1.0 acres.

3. Estimated runoff is based on 100-year (1-hr.) storm intensity with  $I = 2.5''$ .

4. Hydrology Calculations

(Existing Conditions)

There exists one distinct drainage basin under existing conditions. This basin drains in a westerly direction towards an existing drain inlet which empties into Kalialinui Gulch.

$$\text{Area} = 1.0 \text{ ac.}$$

$$C = 0.25$$

Ave. Slope = 3%

Length = 320'

Tc = 19.0 min.

I = 2.5 in.

i = 4.3 in./hr.

$$Q = CiA = 0.25 \times 4.3 \times 1.0 = 1.1 \text{ cfs}$$

Thus; for Existing Conditions:

$$Q_{\text{Existing}} = 1.1 \text{ cfs}$$

(Developed Conditions)

Area = 1.0 ac.

C = 0.65

Ave. Slope = 2%

Length = 380'

Tc = 6.8 min.

I = 2.5 in.

i = 5.9 in./hr.

$$Q = CiA = 0.65 \times 5.9 \times 1.0 = 3.8 \text{ cfs}$$

Thus; for Developed Conditions:

$$Q_{\text{Developed}} = 3.8 \text{ cfs}$$

## II. PRELIMINARY SOIL EROSION CONTROL STUDY

- A. The type of soil at the site belongs to Molokai Series (MuA) as classified by the Soil Conservation Service of the United States Department of Agriculture. Generally, these soils are characterized by moderate permeability, slow runoff and slight erosion hazard (see Figure 3). The erodibility factor of Molokai Silty Clay Loam (MuA) is 0.17.

B. HESL SOIL LOSS FOR PROJECT DURING CONSTRUCTION:

Erosion rate, as set forth by the County of Maui Ordinance are as follows:

$$E = RKLSCP$$

Where:

$$R = \text{Rainfall Factor} = 170 \text{ tons/acre/year}$$

$$K = \text{Soil Erodibility Factor} = 0.17$$

$$L = \text{LS Factor} = \text{Slope Length} = 320 \text{ feet}$$

$$S = \text{LS Factor} = \text{Slope Gradient} = 3\% \text{ (average)}$$

$$LS = \text{Slope - Length Factor} = 0.407$$

$$C = \text{Cover Factor, Use Bare Soil} = 1.0$$

$$P = \text{Control Factor, Construction Site} = 1.0$$

$$E = 170 \times 0.17 \times 0.407 \times 1.0 \times 1.0 = 12 \text{ tons/acres/year}$$

C. ALLOWABLE EROSION RATE:

$$\text{Coastal Water Hazard (D)} = \text{Class A} = 2$$

$$\text{Downstream Hazard (F)} = 4$$

$$\text{Duration of Site Work} = 1/2 \text{ year}$$

$$\text{Maximum Allowable Construction Area} \times \text{Erosion Rate}$$

$$= 5,000 \text{ tons/year}$$

$$\text{Area of Site} = 1.0 \text{ Ac.}$$

$$\text{Allowable Erosion Rate} = 5,000/1.0 = 5,000 \text{ tons/acre/year}$$

$$\text{Allowable E} = 5,000 > 12$$

D. EROSION CONTROL PLAN:

Erosion control measures will be guided by Chapter 20.08, "Soil Erosion and Sedimentation Control" of the Maui County Code. Some of these measures are:

1. Control of dust by means of waterwagons and/or sprinkler during period of construction.

2. Graded areas shall be thoroughly watered after construction activity has ceased for the day, weekends and holidays.
3. Early construction of drainage swales and structures.
4. Construct temporary diversion ditches away from roadway section to natural drainageways during construction.
5. All exposed graded area shall be grassed or paved immediately upon completion of finish grading.
6. Construct temporary siltation basins during construction to eliminate erosion sediments from entering existing drainage system.

### III. CONCLUSION

The development of the proposed project site will increase runoff by approximately 2.7 cfs (3.8 cfs - 1.1 cfs). Under developed conditions, the improvements to the proposed UPS site will allow onsite drainage to flow into the existing Drain Inlet No. 2, which was designed to convey runoff from future developed upstream properties.

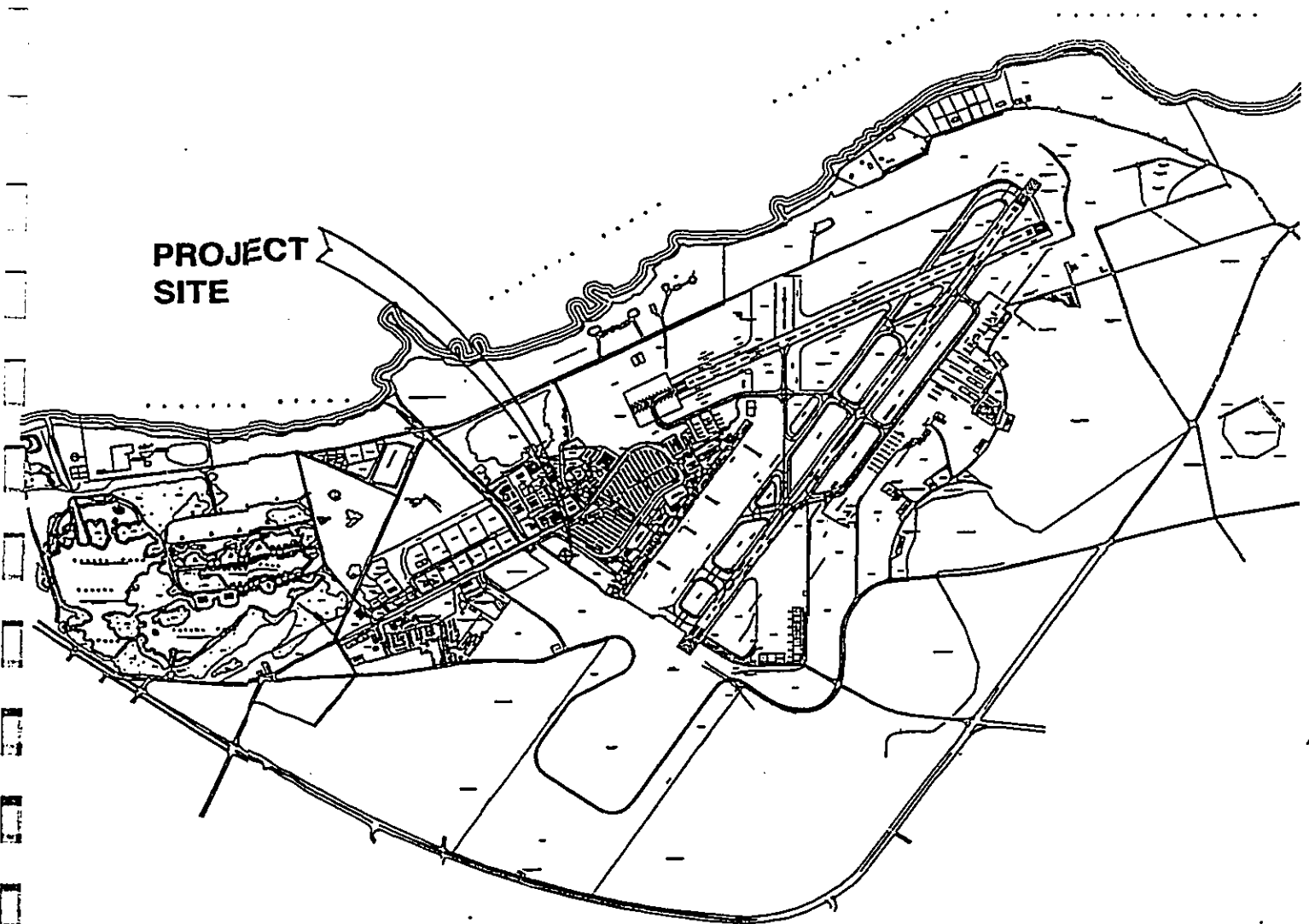
The existing drainage pattern will not change under developed conditions.

The anticipated soil erosion rate is well below the allowable erosion rate.

Thus, with the development of the proposed UPS site improvements and adherence to the erosion control plan, no

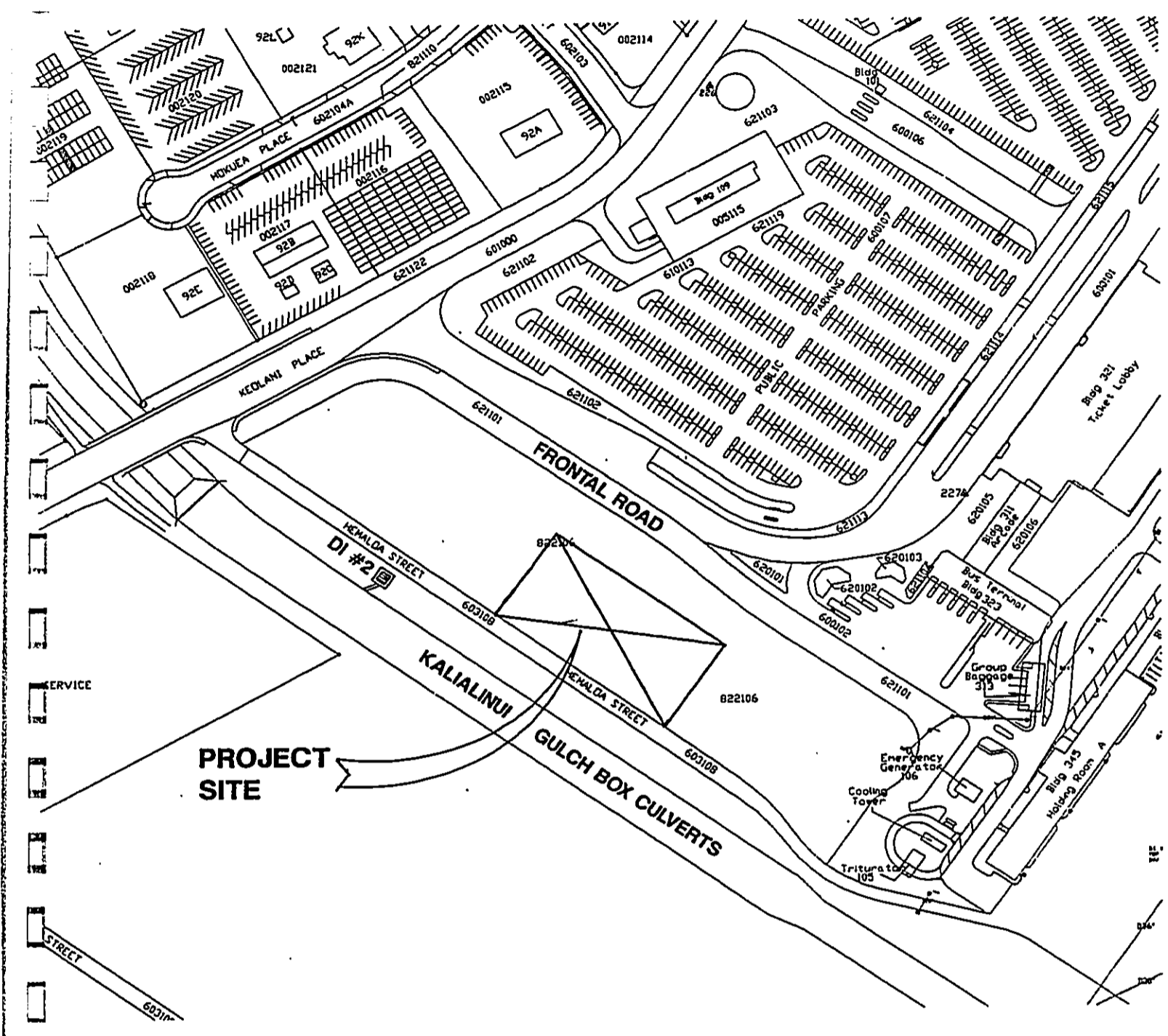
adverse effects to adjacent and downstream properties is anticipated.





**LOCATION MAP  
KAHULUI AIRPORT  
TMK: 3-8-01:19**

**FIGURE 1**



**VICINITY MAP**  
 Scale: 1" = 200'

**FIGURE 2**

104

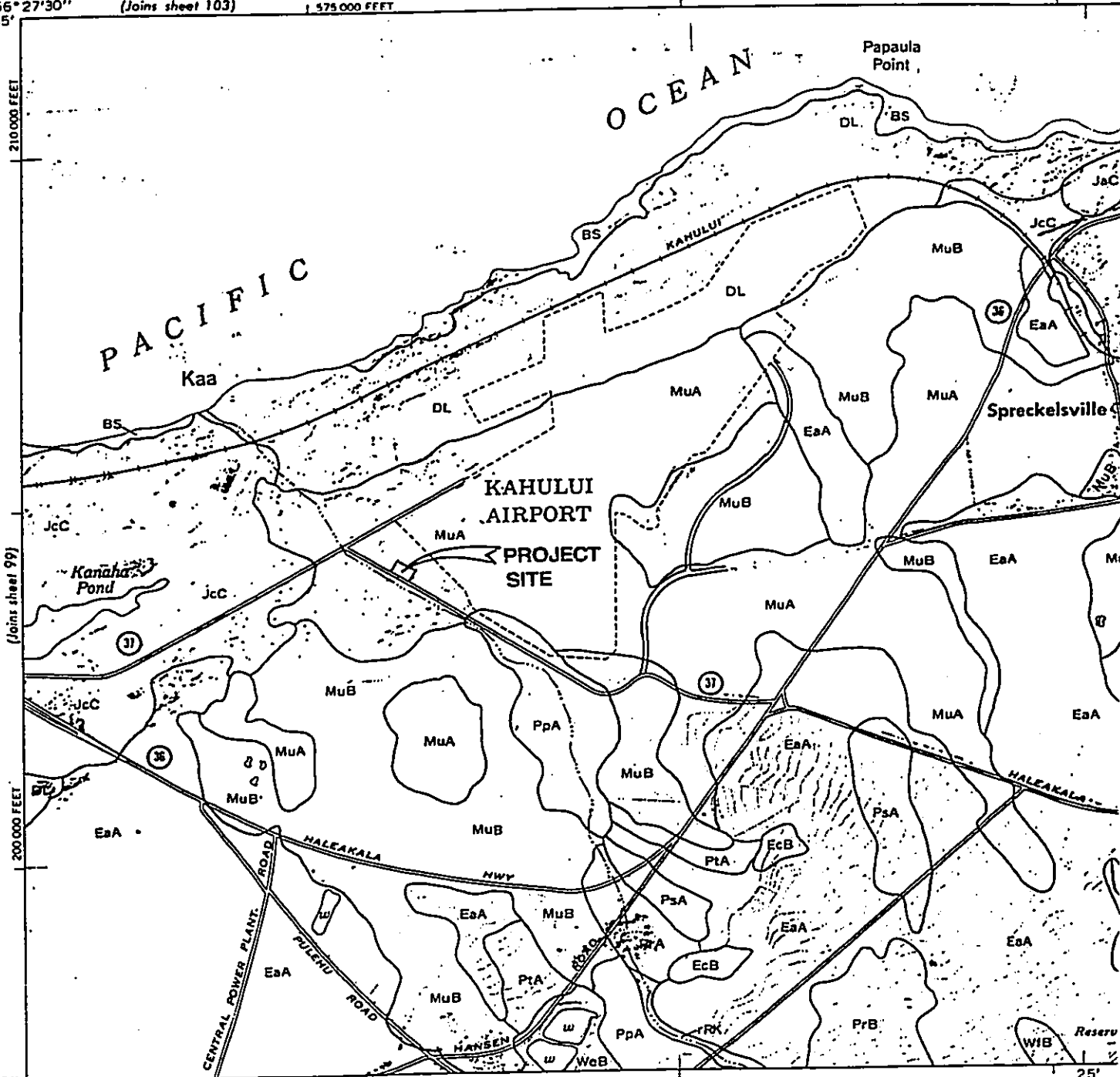
N

156°27'30"  
20°55'

(Joins sheet 103)

1 575 000 FEET

25'



210 000 FEET

(Joins sheet 99)

200 000 FEET

20°52'30"  
156°27'30"

(Joins sheet 105)

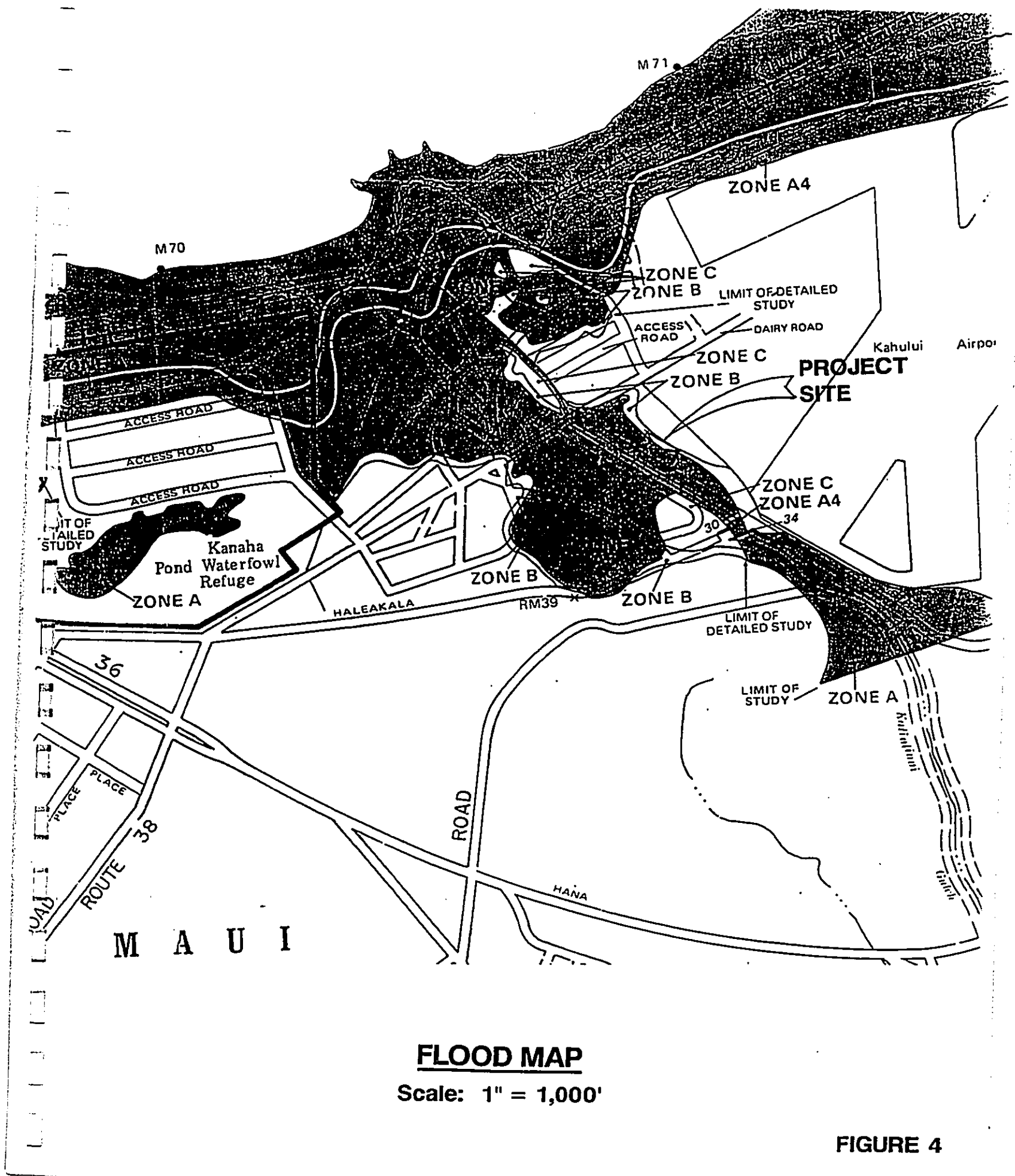
1 575 000 FEET

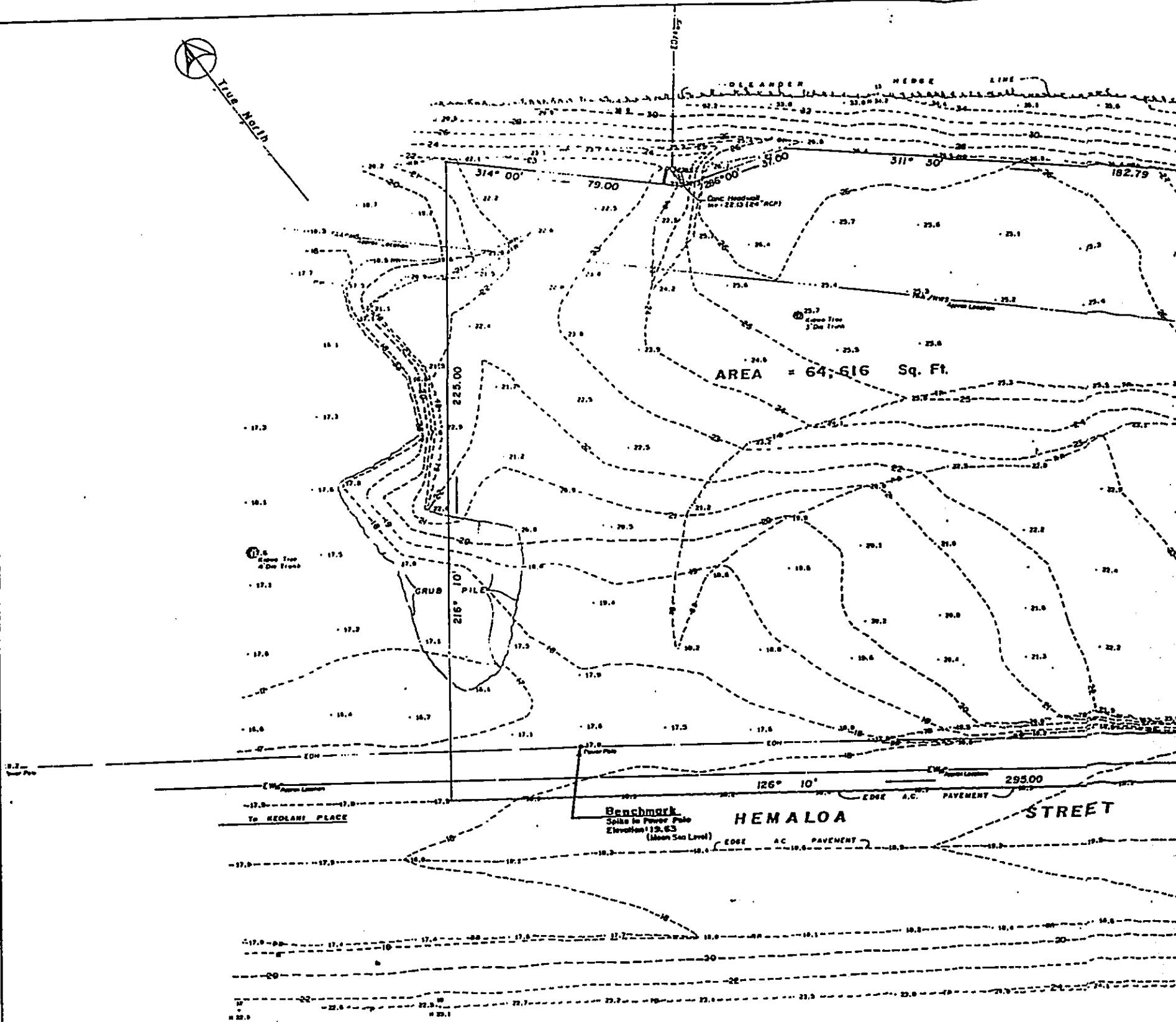
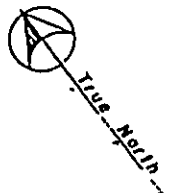
25'

### SOILS MAP

Scale: 1" = 2,000'

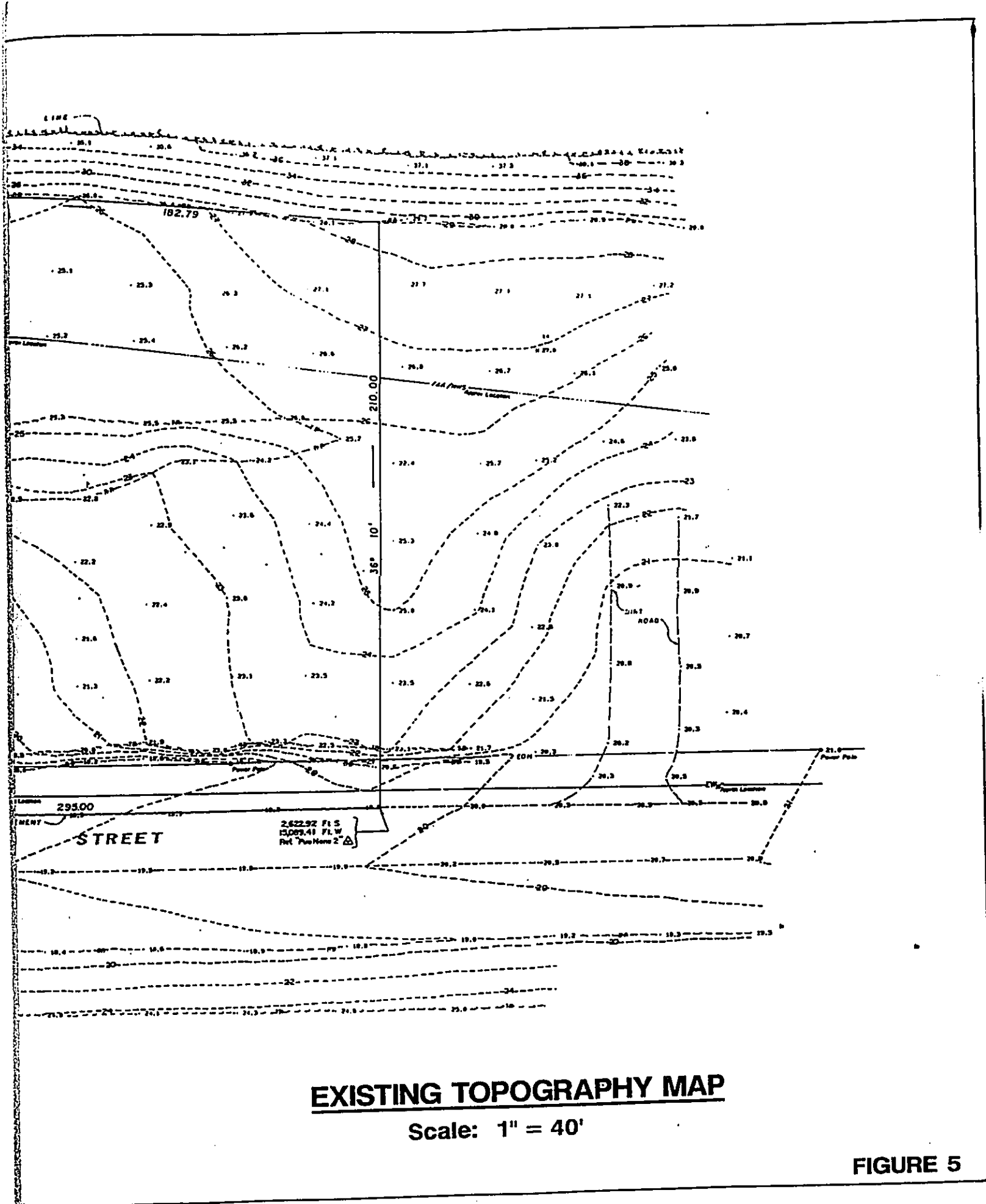
FIGURE 3





**LEGEND:**

- 16.7 Existing Spot Elevation
- - - - - 20 - - - - - Existing Contour
- - - - - 18 - - - - - Existing Top Break
- - - - - 16 - - - - - Existing Bottom Break
- - - - - Existing Overhead Electrical Lines
- EDM Existing Dumb (24" Reinforced Concrete Pipe)
- 10' x 22' RCP Existing Waterline & Sewer (Approximate Location)
- Existing Federal Aeronautics Administration / National Weather Service Cable (Approximate Location)



NOT PART OF DEVELOPEMENT

295.00'  
306' 00'

19 EMPLOYEE PARKING

TOTAL AREA  
43,365 SQ FT

COMPACTED GRAVEL

COMPACTED GRAVEL

VEHICLE WASH AREA

AUTO PMI AREA

2" AC PAVING

SEPTIC

CANOPY

14 PACKAGE CARS

MDC

MDC

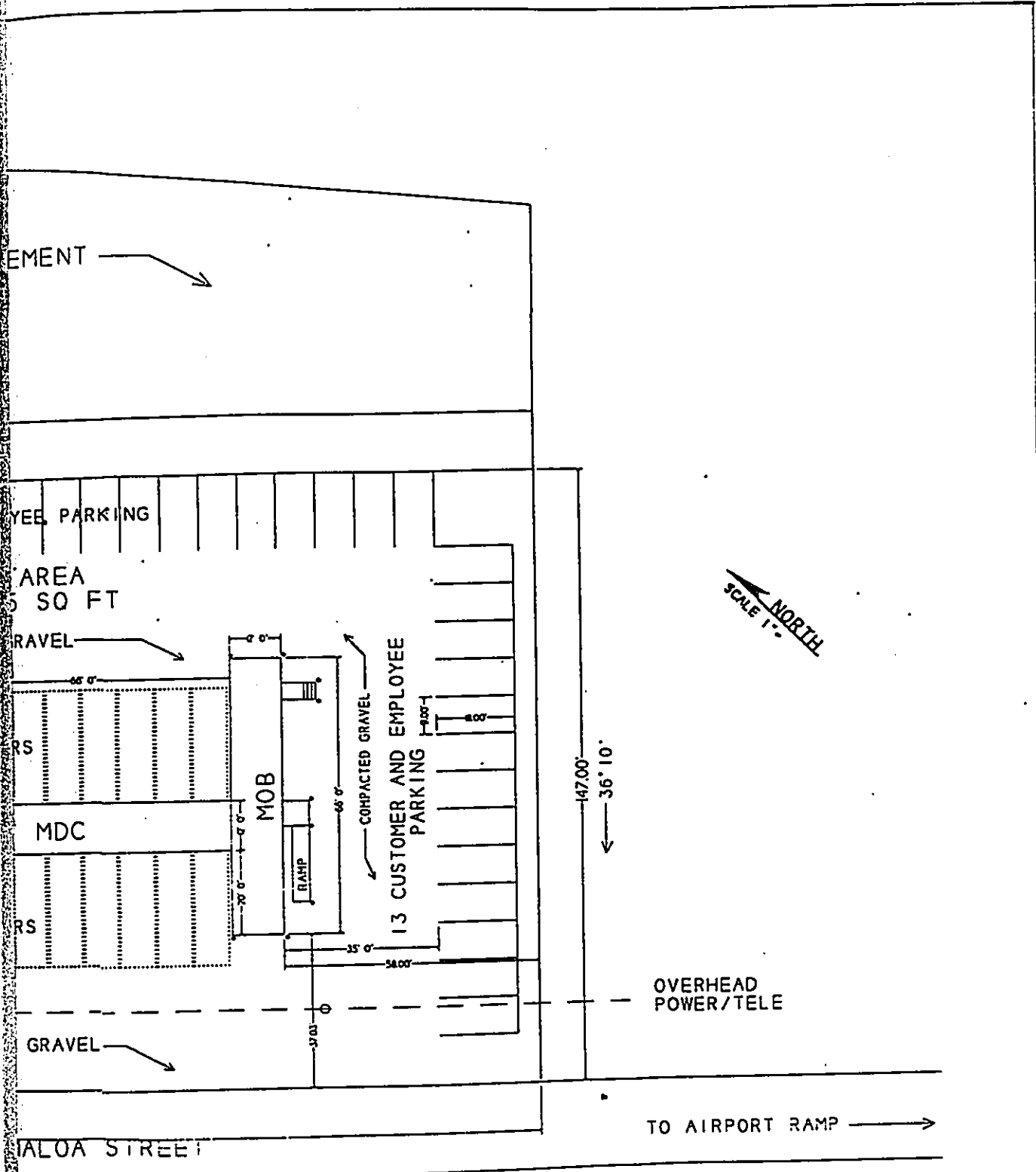
14 PACKAGE CARS

COMPACTED GRAVEL

TO KEOLANI PLACE

295.00'  
126' 00' HEMALOA STREET

**PROPOSED IMPROVEMENT PL**



**IMPROVEMENT PLAN**

UNITED PARCEL SERVICE 25201 PASEO DE ALICIA, #200 LAGUNA HILLS, CA 92653		
DATE 8-28-92	DESIGNED BY	DRAWN BY L. HALE
KAHULUI, MAUI AIRPORT		

**FIGURE 6**