

**PRELIMINARY ENGINEERING REPORT**

for

**PAIA MAIN POST OFFICE**

and

**COUNTRY TOWN BUSINESS/PARKING AREA**

**TMK: 2-5-05: 18 (Portion) and 61**

**1.0 INTRODUCTION**

This report provides descriptions of the project sites and infrastructure that will serve this development. It will also evaluate the existing infrastructure and discuss any improvements that may be required for this development. The Paia Main Post Office is an existing facility on Parcel 61.

**2.0 TOPOGRAPHY**

The topography of the site slopes gently from about elevation 50-feet at the Post Office parcel to about elevation 40-feet at the makai (northerly) portion of the proposed commercial development. Sugar cane is presently grown on the commercial and parking areas by Hawaiian Commercial & Sugar Company.

**3.0 EXISTING INFRASTRUCTURE**

**3.1 Water System:**

The Paia area is served by the Department of Water Supply, County of Maui system. There are two existing waterlines in Baldwin Avenue fronting the project site. There is an 8-inch line on the west side of the Baldwin Avenue and a 6-inch line on the east side of the roadway. There is an existing 100,000 gallon tank at elevation 267-feet and a 300,000 gallon tank at elevation 456-feet, which provide water storage for the Paia system.

The source for the system that serves Paia is the Waihee Wells, which were developed by the Central Maui Source Joint Venture. The three developed wells have a total capacity

of 13.5 million gallons per day. A&B Properties, Inc. is a member of this joint venture that developed these wells and its allocation is 4/19 of the developed capacity.

### 3.2 Wastewater System:

The County of Maui's wastewater system serves the Paia area. There is an existing 8-inch sewerline in Baldwin Avenue. This line is connected to the Paia Sewerage System line in Hana Highway and the wastewater in this system flows to the Kahului Wastewater Reclamation Facility near the airport.

### 3.3 Storm Drainage:

Runoff from the mauka lands and proposed commercial area is retained within the sugar cane field by earth berms placed along Baldwin Avenue, around the Post Office lot and at the makai boundary. Runoff from this area that does not infiltrate into the canefield flows toward a low area near the County's public parking lot on Hana Highway. The estimated runoff from the undeveloped commercial area is 8.1 cubic feet per second (see Appendix B).

Runoff from the Post Office lot is directed into an existing on-site retention basin.

### 3.4 Roadway:

The Post Office and proposed commercial area are located on Baldwin Avenue, approximately 0.2 mile from Hana Highway. The paved roadway is about 24-feet wide, with an asphaltic concrete (ac) sidewalk and ac curbing from the makai boundary of the project to the Post Office property. The existing Post Office improvements for Baldwin Avenue included widening the pavement to 40-feet and constructing new concrete curbing, gutter and sidewalk.

### 3.5 Electrical, Telephone and Cable Television Systems:

The primary electrical, telephone and cable television cables along Baldwin Avenue are on an overhead system.

## 4.0 GRADING

The Post Office lot has been developed so no grading will be done on their property. The area for the proposed commercial and parking lot will be graded when the site is developed. Sugar cane will continue to be grown on this area until that time.

## **5.0 PROPOSED INFRASTRUCTURE IMPROVEMENTS**

### **5.1 Water System Improvements:**

Water consumption for the Post Office is estimated to be about 6,300 gallons per day (gpd). The estimated average daily consumption for the commercial development is estimated to be about 9,000 gpd. The source for the water system in Paia is the Central Maui Source Joint Venture wells in Waihee. A&B Properties, Inc. is one of the four members of the joint venture that developed these wells and has an allocation of 4/19 of the developed water. Water for this development will be from A&B's allocation.

The existing 8-inch waterline in Baldwin Avenue is adequate to provide water to this project. New fire hydrants will be installed to meet the Department of Water Supply's requirements when the commercial buildings are constructed.

### **5.2 Wastewater System:**

The daily average wastewater flow generated by this project is estimated to be about 5,500 gpd. The estimated flow from the existing Post Office is about 300 gpd. The existing 8-inch sewerline in Baldwin Avenue and the Paia wastewater system have the capacity to take these flows to the Kahului Wastewater Reclamation Facility. This facility has adequate capacity for treatment of the wastewater from this development.

### **5.3 Storm Drainage:**

The Post Office has an onsite retention basin so no drainage improvements will be required for their lot. The estimated runoff from the proposed commercial development will be about 11.6 cubic feet per second (cfs) for a 10-year, one-hour storm (see Appendix B). This will be an increase of about 3.5 cfs. Runoff from the country town business development and parking area will be retained by an onsite system. This retention system will be designed to Department of Public Works and Waste Management standards.

### **5.4 Roadway:**

The improvements that will be required to meet County roadway standards on Baldwin Avenue will be provided with the commercial development. This would include widening the pavement approximately 10-feet to match the roadway in front of the Post Office, constructing new concrete curb, gutter and sidewalk from David Spee's property, Parcel 6 of TMK: 2-6-03, up to the new Post Office.

### 5.5 Electrical, Telephone and Cable Television Systems:

Electrical, telephone and cable television services will be provided to the proposed buildings from the existing utility systems on Baldwin Avenue. These services will be designed to meet the utility companies' standards.

## 6.0 CONCLUSION

This preliminary engineering report concludes that the existing infrastructure has the capacity for the Paia Main Post Office and the country town business development. Construction of the existing improvements for the Post Office and the proposed improvements for the commercial project will mitigate the impact of these projects.

FEB 8 2003

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*Final*  
***Environmental Assessment***

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**ENTITLEMENTS REQUESTS  
FOR ( PAIA MAIN POST OFFICE )  
AND ADJACENT COUNTRY  
TOWN BUSINESS/PARKING  
AREA**

Prepared for:

February 2003

The Accepting Authority,  
County of Maui  
Department of Planning  
and  
A&B Properties, Inc.

  
MUNEKIYO & HIRAGA, INC.

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a&b/paiaepo/final/ea.rpt

## Preface

A&B Properties, Inc. (A&B) seeks land use approvals for the following properties at Paia, Maui, Hawaii:

1. A 1.043-acre parcel identified as TMK (2)2-5-5:61, which is the site of the recently completed Paia Main Post Office; and
2. A 5.125-acre parcel identified as TMK (2)2-5-5:18 (por.), which is currently used for sugar cane cultivation.

The U.S. Postal Service (USPS) developed the Paia Main Post Office (Parcel 61) exercising its right to develop this federal facility without local land use approvals ordinarily required. As part of the land sales agreement between the USPS and A&B, it was agreed that A&B would prepare and process applications which would establish the Country Town Business zoning designation for the property.

Concurrently, A&B is seeking appropriate land use designations for an adjoining 5.125-acre parcel owned by Alexander & Baldwin, Inc. to enable the future implementation of Country-Town Business uses, a public parking lot and related public-quasi-public uses. The Country Town Business area encompasses approximately 1.434-acres of the 5.125-acre portion of Parcel 18, while the remaining 3.691-acre area is intended for parking and public quasi-public uses.

Since the proposed land use action involves amendments to the Paia-Haiku Community Plan independent of the County's ten (10) year update process, an Environmental Assessment (EA) has been prepared as required by Chapter 343, Hawaii Revised Statutes. This EA documents the proposed action's technical characteristics, environmental impacts and alternatives. Further, the EA advances findings and conclusions relative to the significance of the project and its surrounding environs.

# ***Chapter 1***

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## ***Project Overview***

## I. PROJECT OVERVIEW

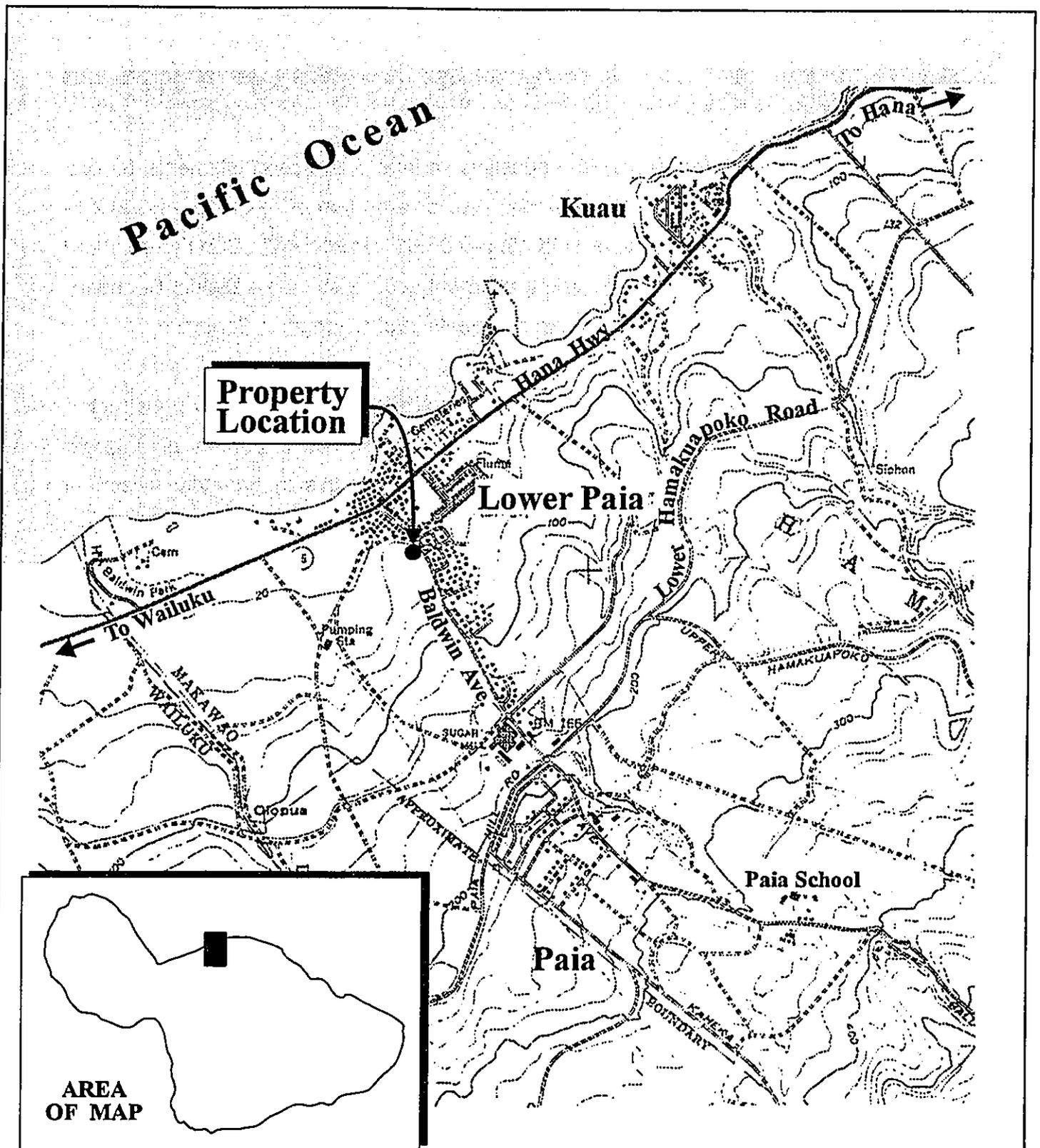
A&B Properties, Inc. (A&B) is requesting various land use entitlements for two (2) parcels located in Paia, Maui, identified as a portion of Tax Map Key (2) 2-5-05:18 ("Parcel 18") and all of TMK (2) 2-5-05:61 ("Parcel 61"). See Figure 1 and Figure 2. The requested land use entitlement actions include a District Boundary Amendment, Community Plan Amendments and Change in Zoning.

Parcel 61 is a 1.043-acre property which is the site of the recently constructed Paia Main Post Office. See Figure 3. Parcel 18 is a portion of a larger agricultural lot which is approximately 361.383 acres in size, primarily utilized for *cultivation of sugar cane*. Parcel 18 encompasses approximately 5.125 acres, located on the eastern edge of the parcel, parallel and adjacent to Baldwin Avenue. See Figure 4. Both Parcel 61 and Parcel 18 have a land use history of sugar cane production. Both parcels possess multiple land use designations, as indicated in Figure 5.

The Paia Main Post Office was formerly located at the Bank of Hawaii building on Baldwin Avenue, in a lease space of approximately 1,500 square feet. Due to localized growth trends, the site was constrained by size and parking facilities. As such, the United States Post Office (USPS) opted to relocate to Parcel 61, completing construction of the new facility in September 2000, which was designed in accordance with the Paia-Haiku Country Town Design Guidelines.

The new facility is approximately 4,000 square feet in size and includes 35 parking stalls for customers and employees. The Paia Main Post Office is generally staffed by five (5) employees, with a service area limit of Paia Elementary School to the east, Spreckelsville to the west and the Old Maui High School to the east.

To facilitate construction of the post office, A&B subdivided Parcel 61 from the



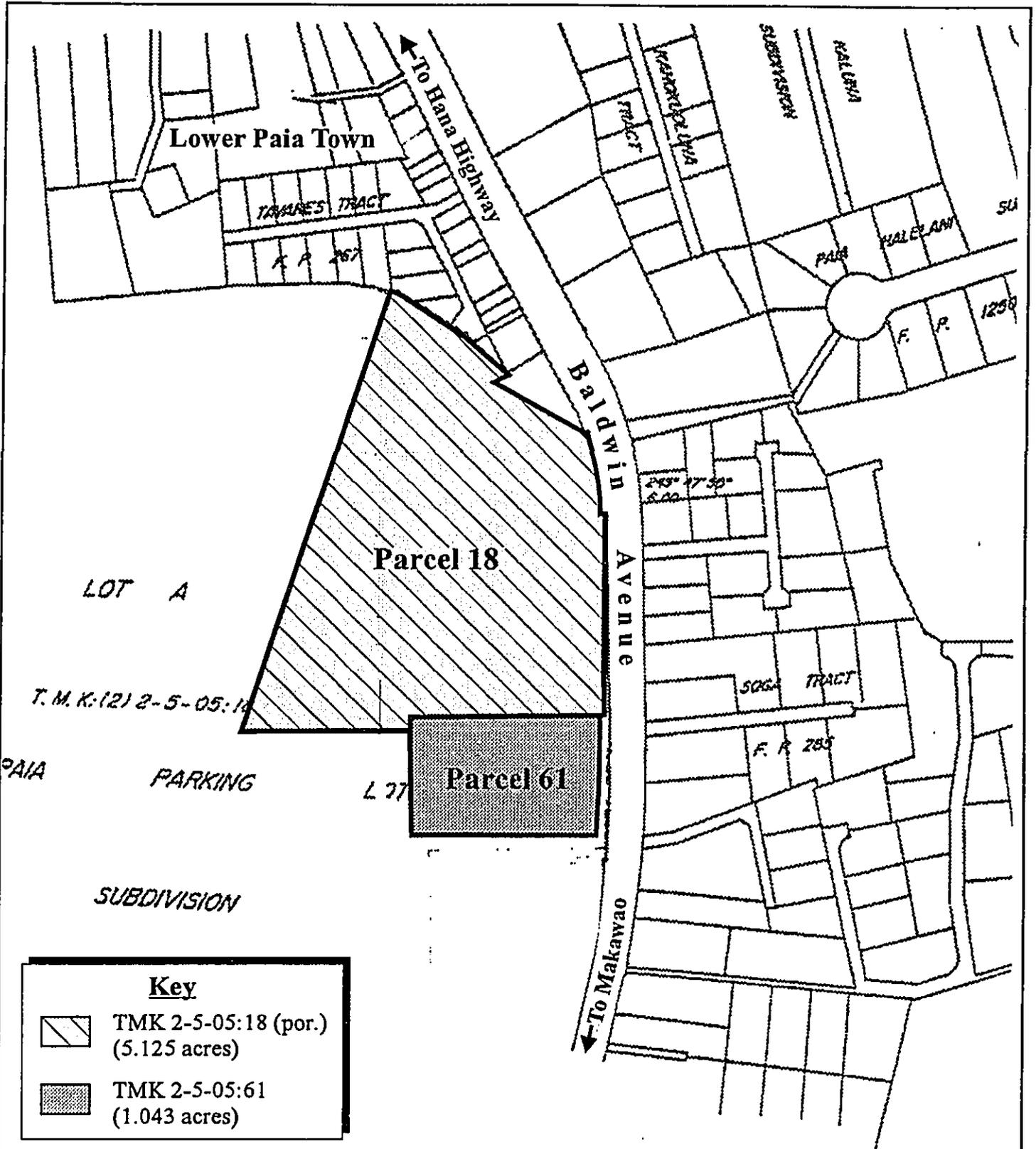
Source: U.S. Geological Survey

Figure 1 Entitlements Requests for Paia Main Post Office and Adjacent Country Town Business/Parking Area Regional Location Map



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.



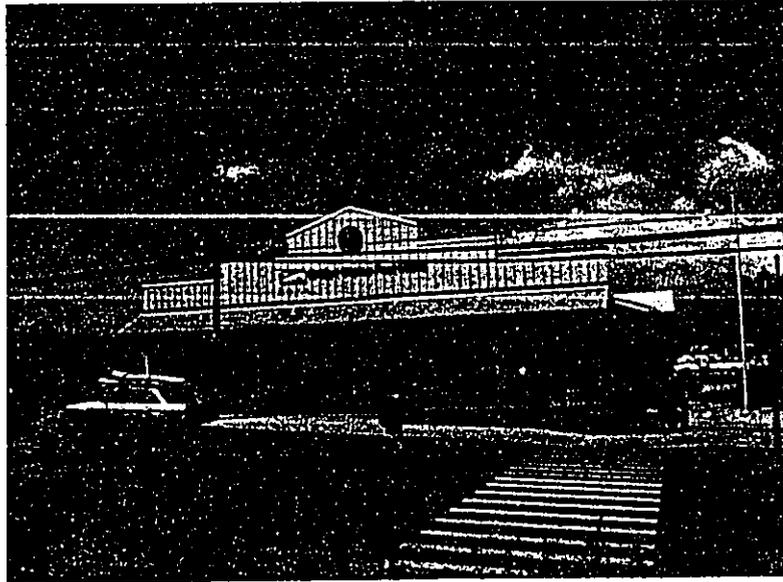
Source: A&B Properties, Inc.

**Figure 2 Entitlements Requests for Paia Main Post Office and Adjacent Country Town Business/Parking Area Site Location Map**



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.



Looking West (From Baldwin Avenue)



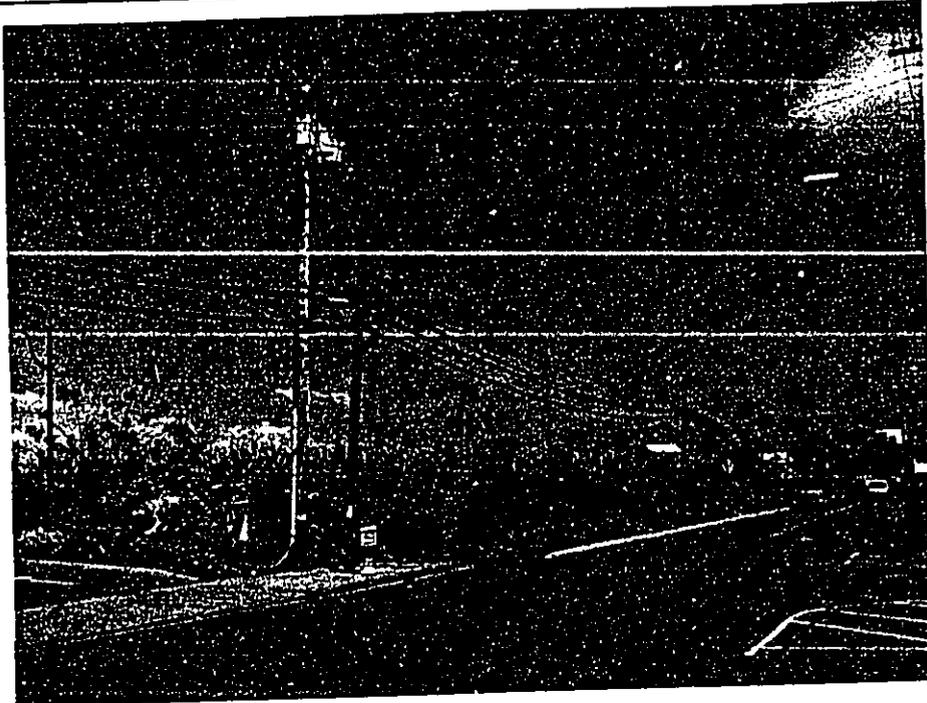
Looking South (From Baldwin Avenue)

Figure 3 Entitlements Requests for Paia Main  
Post Office and Adjacent Country Town  
Business/Parking Area

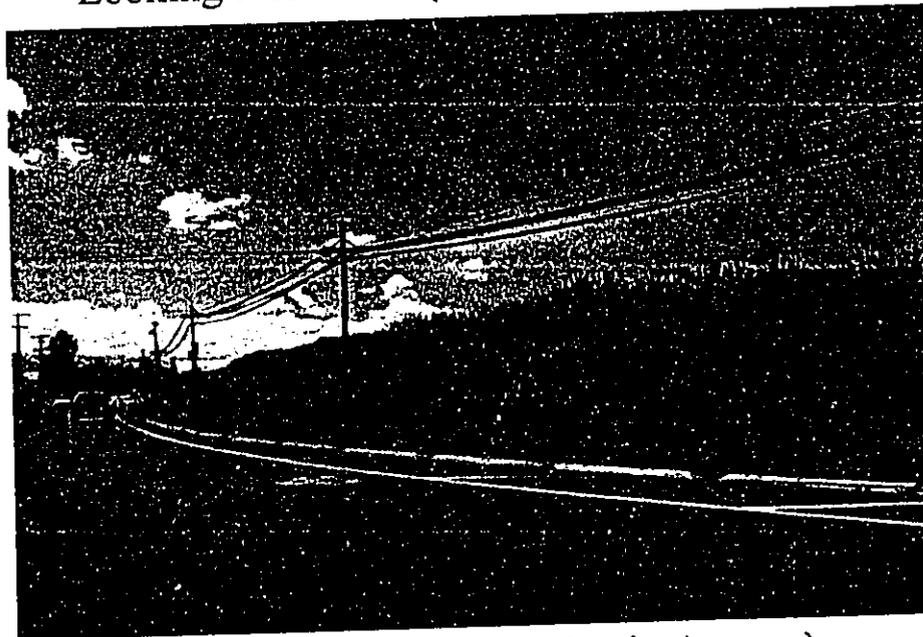
Photographs of Paia Post Office  
(Parcel 61)

Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.



Looking Northwest (From Baldwin Avenue)

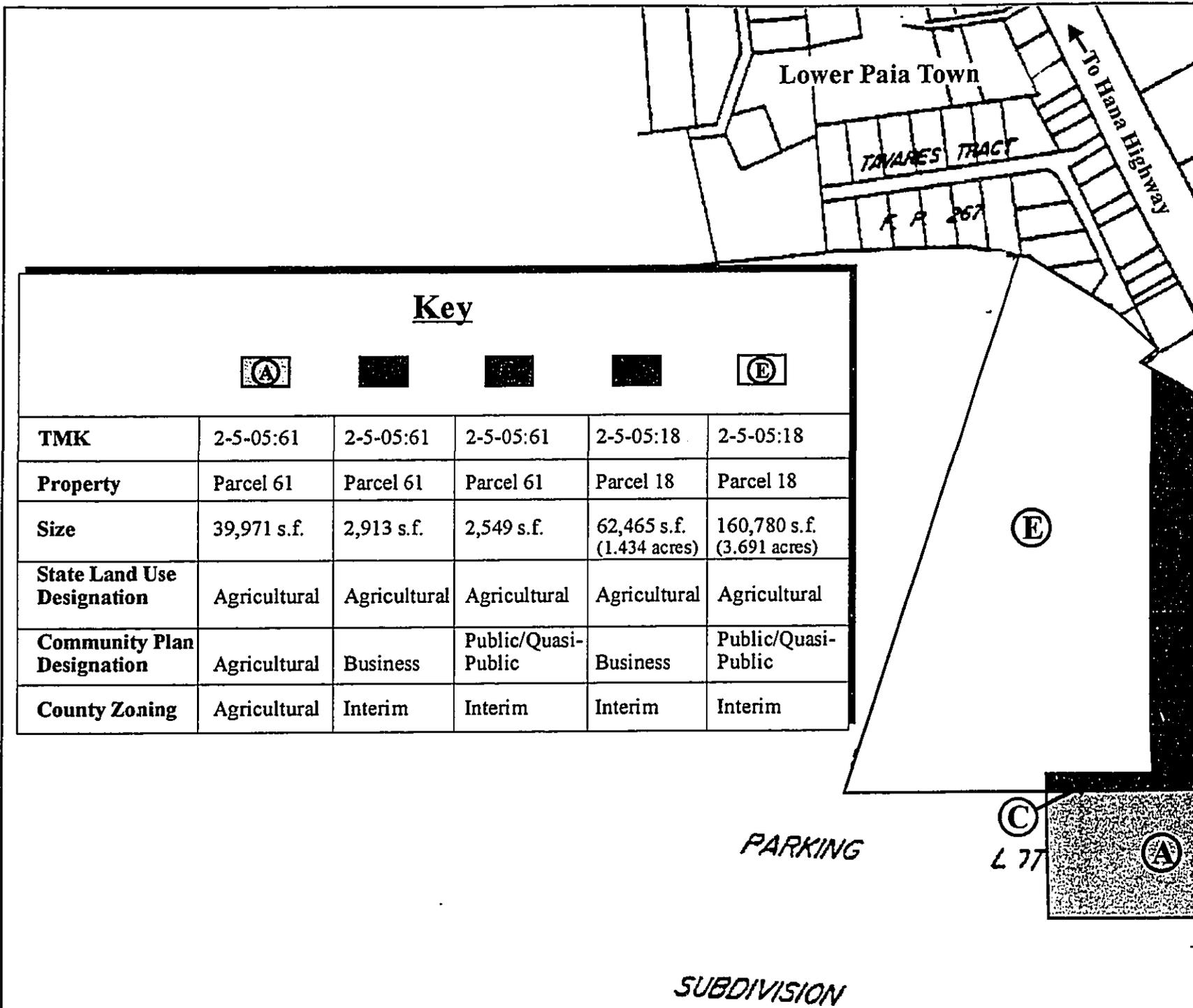


Looking South (From Baldwin Avenue)

Figure 4 Entitlements Requests for Paia Main  
Post Office and Adjacent Country Town  
Business/Parking Area  
Photographs of Parcel 18

Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.

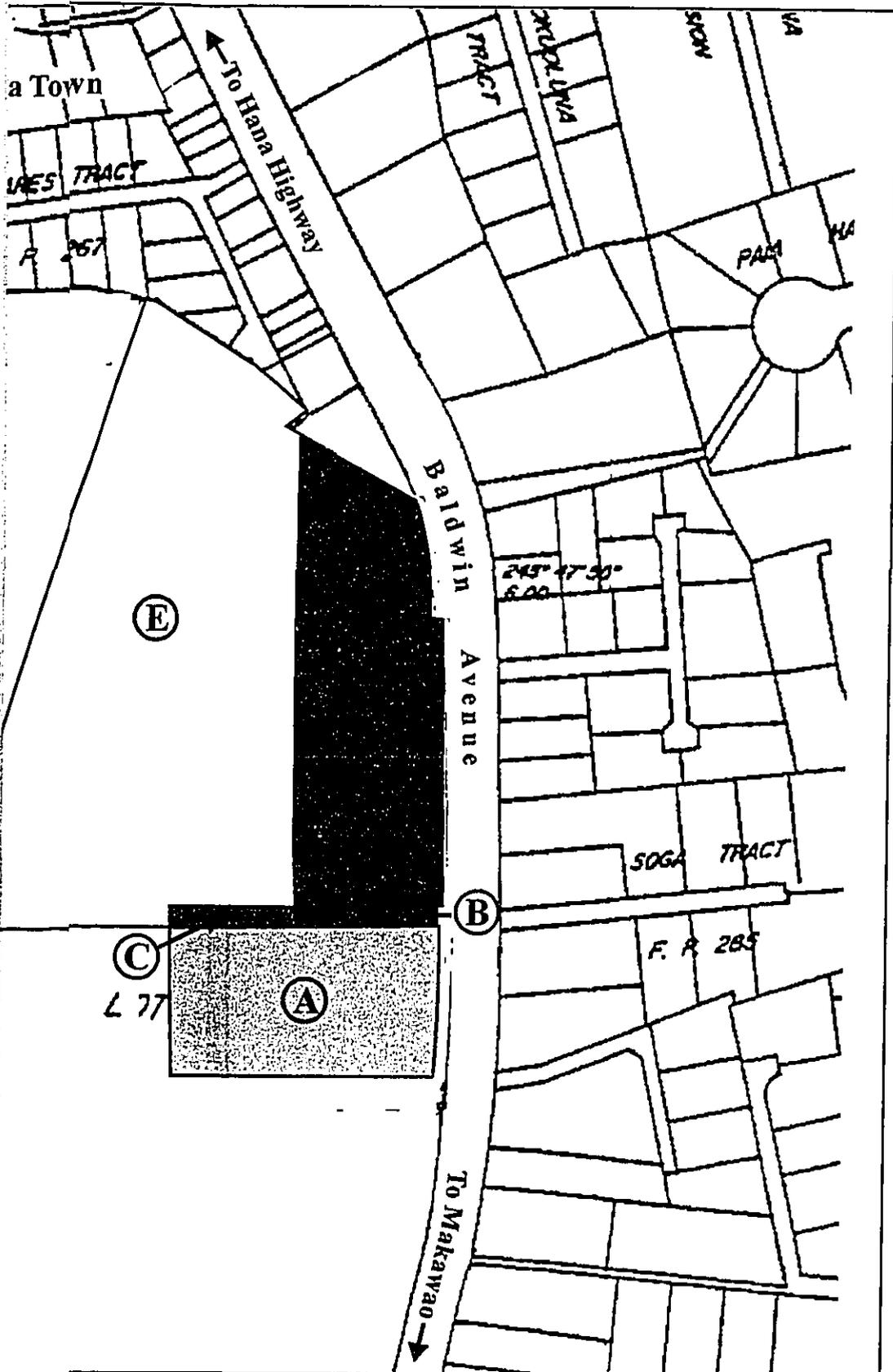


Source: A&B Properties, Inc.

Figure 5

Entitlements Requests for Paia Main Post Office  
 Adjacent Country Town Business/Parking Area  
 Land Use Summary





Main Post Office and  
Business/Parking Area  
Boundary

NOT TO SCALE

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larger TMK 2-5-05:18, and transferred ownership of the lot to the USPS in August 1999. The USPS exercised its right to develop the federal facility without the necessary local land use entitlements ordinarily required. As part of the land sales agreement between USPS and A&B, it was agreed that A&B would prepare and process applications which would establish the Country Town Business zoning designation for Parcel 61. Accordingly, A&B has two (2) objectives for establishing desired land use designations for Parcel 61 and Parcel 18. First, to establish the desired land use designations for Parcel 61 and the Paia Main Post Office. Second, to establish zoning designations for Parcel 18 consistent with the Paia-Haiku Community Plan. Table 1 summarizes the proposed land use requests.

**Table 1**

Area (Refer to Figure 3)	Affected Parcel	Proposed State Land Use Boundary Amendment Request	Proposed Paia-Haiku Community Plan Land Use Amendment Request	Proposed County Zoning Request
<b>A</b>	Portion of Parcel 61	Agricultural to Urban	Agricultural to Business	Agricultural to Country Town Business
<b>B</b>	Portion of Parcel 61	Agricultural to Urban	Business*	Interim to Country Town Business
<b>C</b>	Portion of Parcel 61	Agricultural to Urban	Public/Quasi- Public to Business	Interim to Country Town Business
<b>D</b>	Portion of Parcel 18	Agricultural to Urban	Business*	Interim to Country Town Business
<b>E</b>	Portion of Parcel 18	Agricultural to Urban	Public/Quasi- Public*	Interim to Public/Quasi- Public

\* No Community Plan Amendment required.

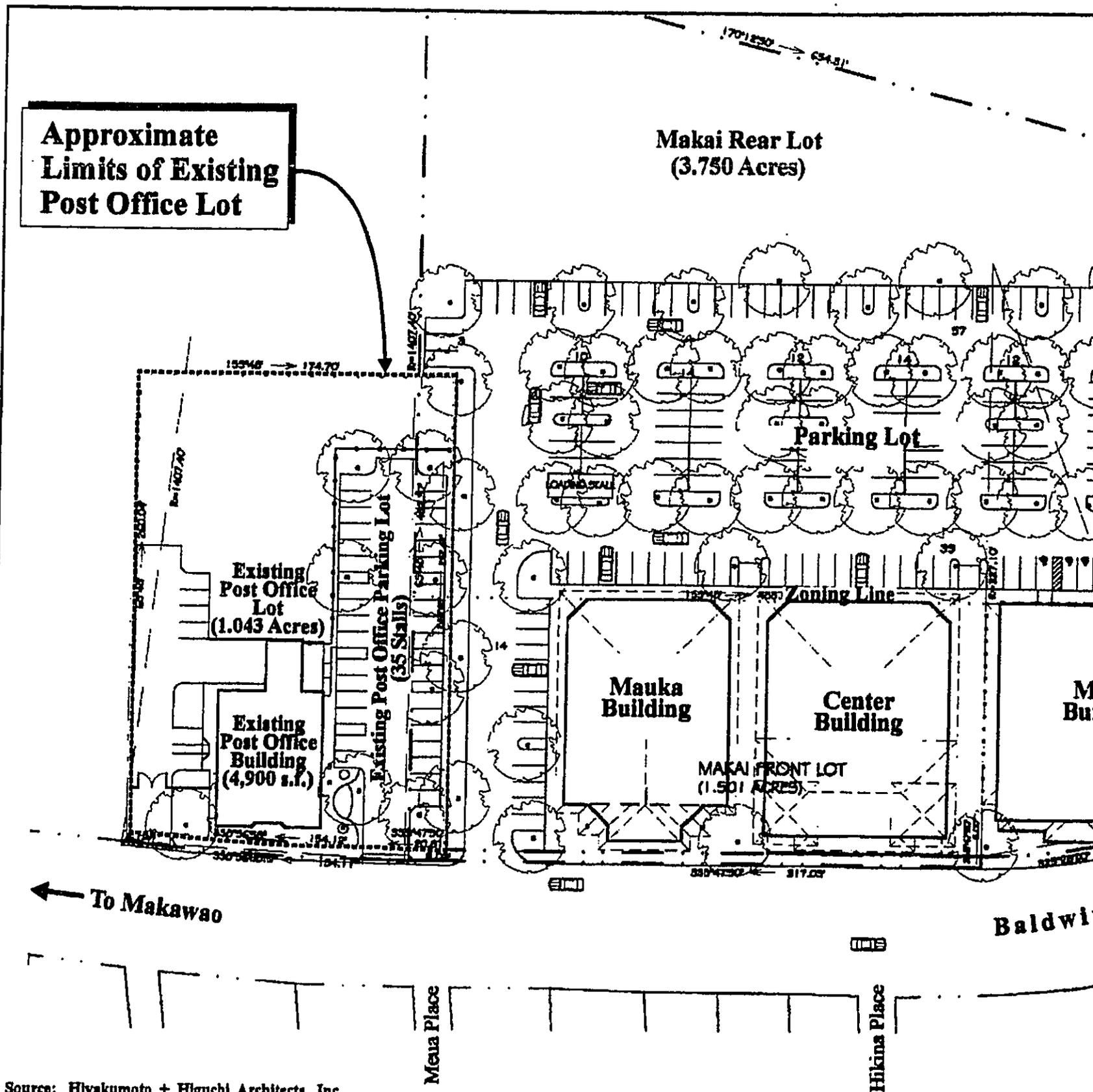
At this time, there are no specific plans for commercial development in connection with the proposed land use requests. However, future business uses encompassing a country town business commercial complex would eventually

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be constructed on the 1.434-acre portion of Parcel 18 (Area D), consistent with the existing scale and character of Lower Paia Town. Area E would be utilized for parking purposes and other possible small scale public/quasi-public uses.

Although there are no specific development plans for Parcel 18, conceptual level site design analysis has been completed to establish a preliminary basis for functional evaluation. See Figure 6. The conceptual plan presented in Figure 6 is not intended to represent a proposed site development scenario, but rather to indicate the spatial and functional relationships of buildings and parking utilizing performance standards of the County of Maui's Country Town Business zoning district. The 1.434-acre area proposed for Country Town Business use is intended to reflect the existing Country Town ambiance of Paia Town. A conceptual architectural elevation representative of the design theme desired for this area is shown in Figure 7. The conceptual elevations illustrate the desired effects of massing, roof forms, facade patterns and material types which govern the character of Paia Town. In keeping with this design theme, the 3.691-acre parking area is situated to the rear of the property. Refer to Figure 6.

As the proposed requests include Community Plan Amendments, this Environmental Assessment (EA) has been prepared pursuant to Chapter 343, Hawaii Revised Statutes.

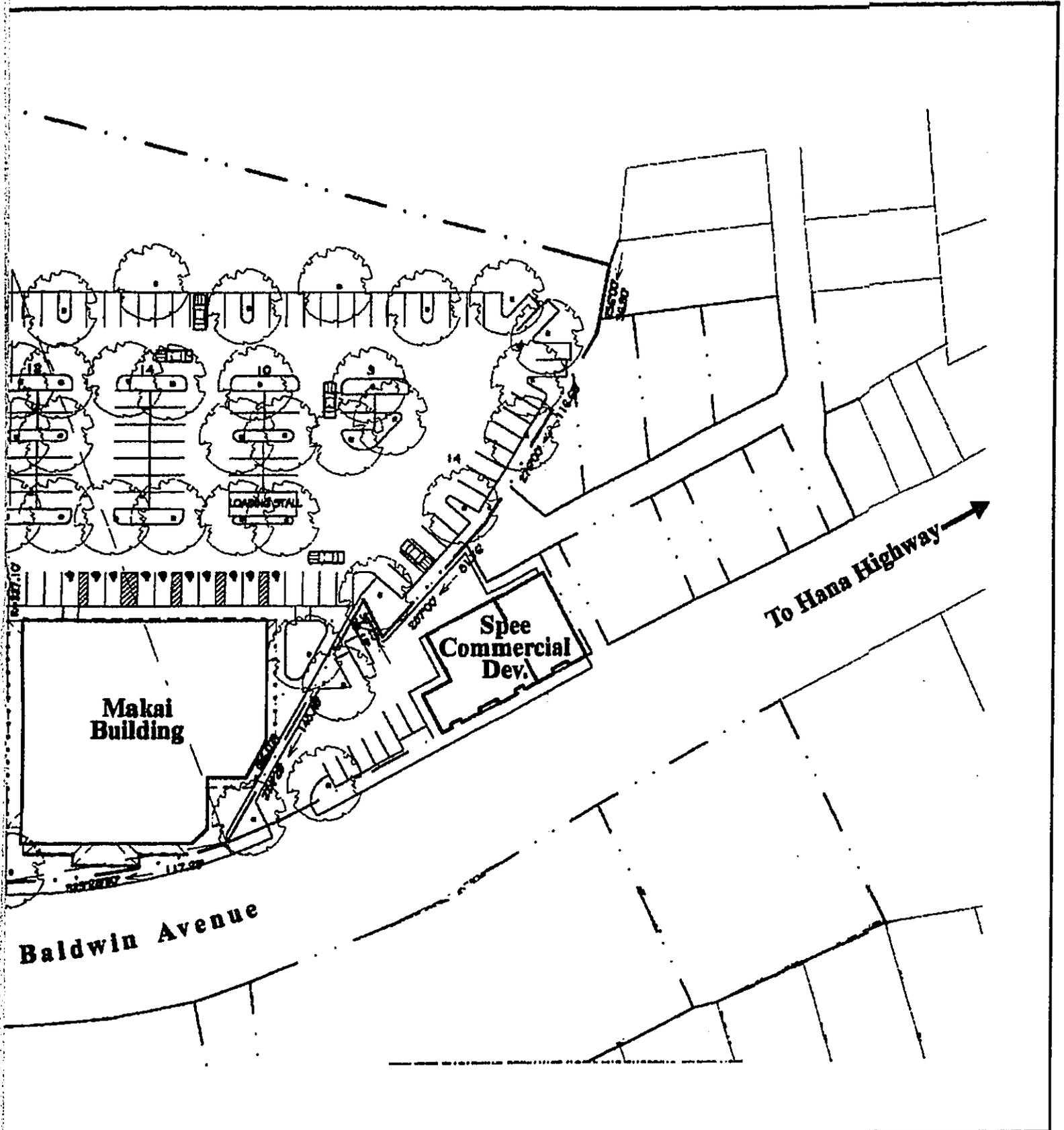


Source: Hiyakumoto + Higuchi Architects, Inc.

Figure 6

# Entitlements Requests for Paia Main Country Town Business/Park Conceptual Site Development



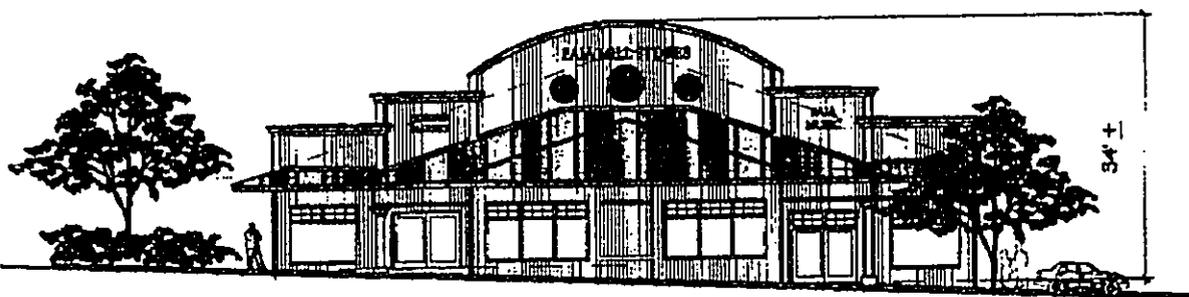


Main Post Office and Adjacent  
Business/Parking Area  
Development Plan

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Existing Front Elevation for Paia Main Post Office  
(Looking West)



Mauka Building\*



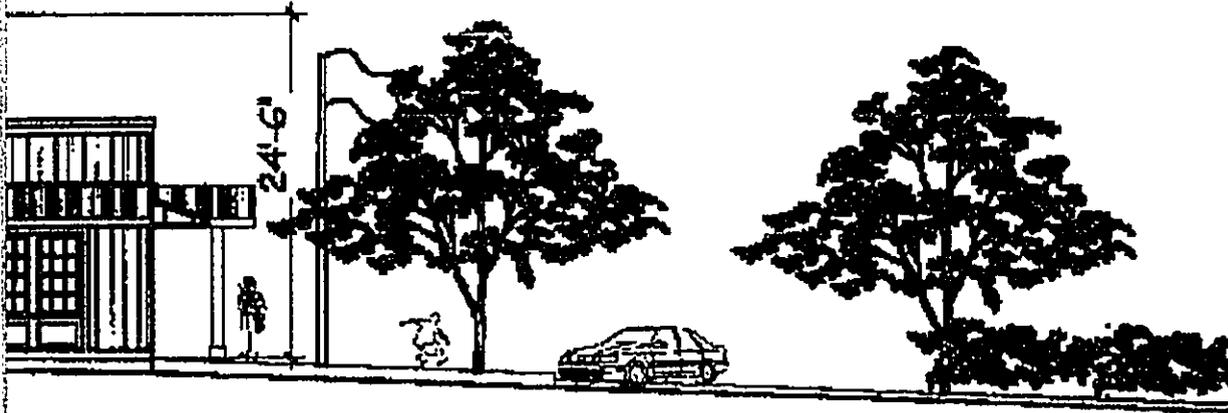
Center Building\*  
Front Elevation Along Baldwin Avenue (Looking East)

Source: Hiyakumoto + Higuchi Architects, Inc.

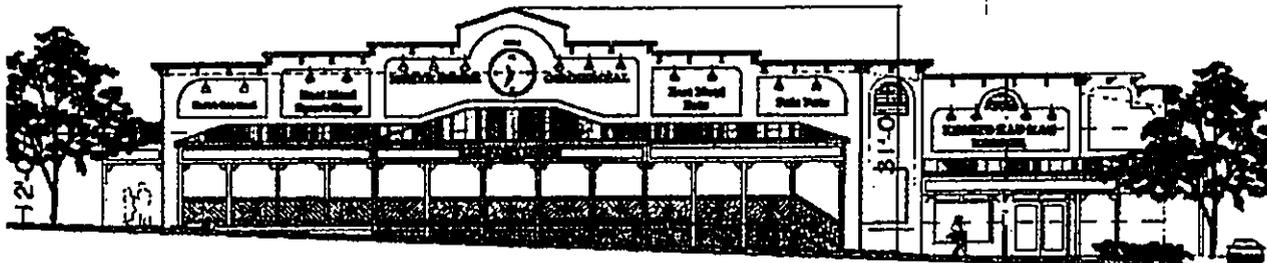
Figure 7

Entitlements Requests for Paia Main  
Country Town Business/Industrial  
Existing Elevation for Paia Main Post Office  
Elevations for Future Development

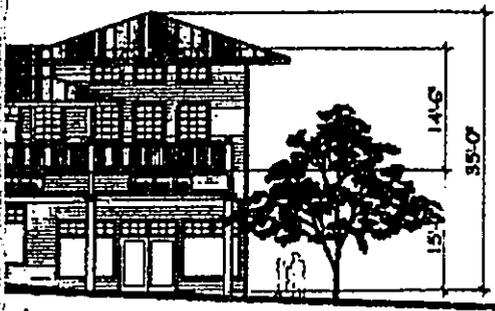
Prepared for: A&B Properties, Inc.



Post Office Along Baldwin Avenue  
(West)



Makai Building\*



avenue (Looking West)

\*Conceptual design based on Paia-Haiku  
County Town Design Guidelines

Main Post Office and Adjacent  
Business/Parking Area  
Main Post Office and Illustrative  
Development of Parcel 18

NOT TO SCALE

# ***Chapter II***

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***Description of the  
Existing Environment***

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

### **A. PHYSICAL ENVIRONMENT**

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

In general, Paia Town is noted for its plantation-era architecture and small town ambiance. The business/commercial establishments of Paia are primarily located along Hana Highway and Baldwin Avenue, with the area in the vicinity of the Hana Highway-Baldwin Avenue intersection serving as a focal point of business/commercial activity. Existing town businesses include retail shops, restaurants, boutiques and real estate businesses. Interspersed between business/commercial uses are existing residential uses, vacant lots, and public uses.

Typical commercial establishments are one-story in height with occasional two-story buildings adding variety to the streetscape. Building frontages are typically located at or near the front property line. Parking is available along the main roadway frontage with additional interior parking often accessed by an alleyway or adjacent interior street.

Parcels 18 and 61 are located in Lower Paia Town, approximately 0.5 mile mauka (east) of the Baldwin Avenue-Hana Highway intersection. Immediately west (makai) of the subject property is the Spee Commercial Development, while lands to the south and east of the subject parcels are utilized in the cultivation of sugar cane. Across Baldwin Avenue, to the north, are the Paia Plaza and the F. Garcia Building business establishments, as well as the residential neighborhoods of Melia Place and Hikina Place.

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2. **Climate**

Like most of the State of Hawaii, Maui experiences a relatively uniform year-round climate with mild temperatures, moderate humidity and consistent northeasterly tradewinds. However, local terrain can greatly influence the climate in different areas. The region experiences a relatively even climate with little seasonal and day-night temperature variation. Cool tradewinds from the northeast help keep the warm summer months pleasant.

Temperatures in Paia range from 54 to 94 degrees, with the lowest temperatures typically occurring between December and February, and the highest temperatures in August and September. Situated at the base of Haleakala, Paia is located directly in the path of the northeast tradewinds. The tradewinds usually range from 15 to 25 miles per hour (mph) and increase in strength during the day from March to September. Winds generally become light and variable during the absence of the tradewinds. The diurnal heating and cooling of the island creates onshore sea breezes during the day and offshore land breezes at night.

Paia receives about 25 inches of rainfall annually. Following the wet winter/dry summer pattern typical for most of Hawaii, the Paia-Haiku region usually receives two (2) to three (3) times of its average monthly rainfall in the winter months compared to the summer months.

3. **Topography and Soil Characteristics**

The topography of Paia Town slopes gently upward from sea level to an elevation of about 340 feet above mean sea level (amsl) near Paia School. The town of Paia is located on a lower sloping plain,

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with development generally clustered around Hana Highway and Baldwin Avenue. The subject parcels are located along Baldwin Avenue, at an elevation of approximately 45 feet amsl, with a gentle east to west slope.

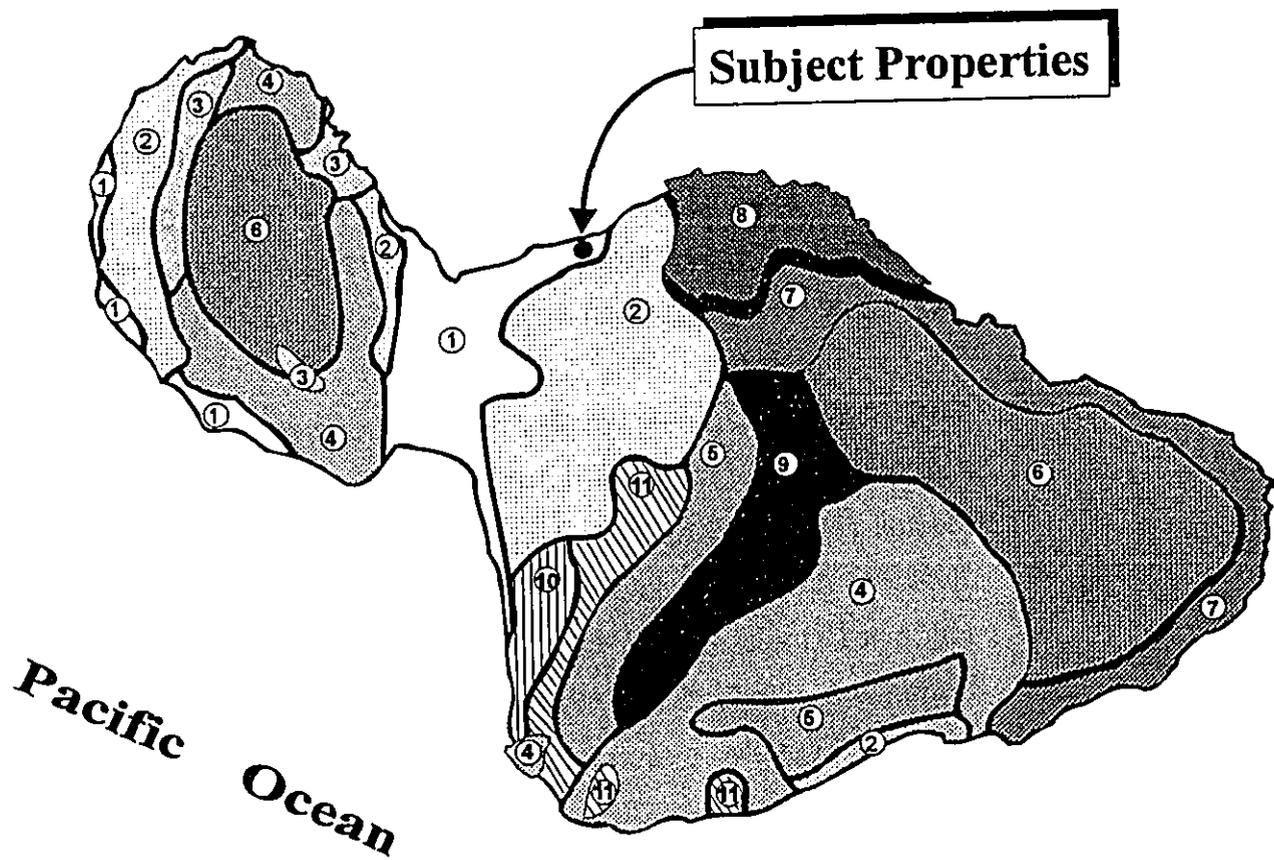
The soils underlying the subject area are of the Pulehu-Ewa-Jaucas association. See Figure 8. These deep, nearly level to moderately sloping, well to excessively drained soils occur on alluvial fans and basins. The subsoil is moderately fine to coarse textured.

The specific soil types underlying the project site are the Paia silty clay, 3 to 7 percent (PcB). See Figure 9. These soils are typically found on nearly level areas, noted for moderate permeability, slow runoff and a slight erosion hazard.

The State Department of Agriculture has established three (3) categories of Agricultural Lands of Importance to the State of Hawaii (ALISH). The ALISH system classifies lands into "Prime", "Unique" and "Other Important Agricultural Land". The remaining lands are "Unclassified". Utilizing modern farming methods, "Prime" agricultural lands have the soil quality, growing season, and moisture supply needed to produce sustained crop yields economically, while "Unique" agricultural lands possess a combination of soil quality, location, growing season, and moisture supply currently used to produce sustained high yields of a specific crop. "Other Important Agricultural Land" includes those which have not been rated as "Prime" or "Unique". As indicated by the ALISH map, the land encompassing the proposed subject properties falls within the "Prime" category. See Figure 10.

# LEGEND

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



Map Source: USDA Soil Conservation Service

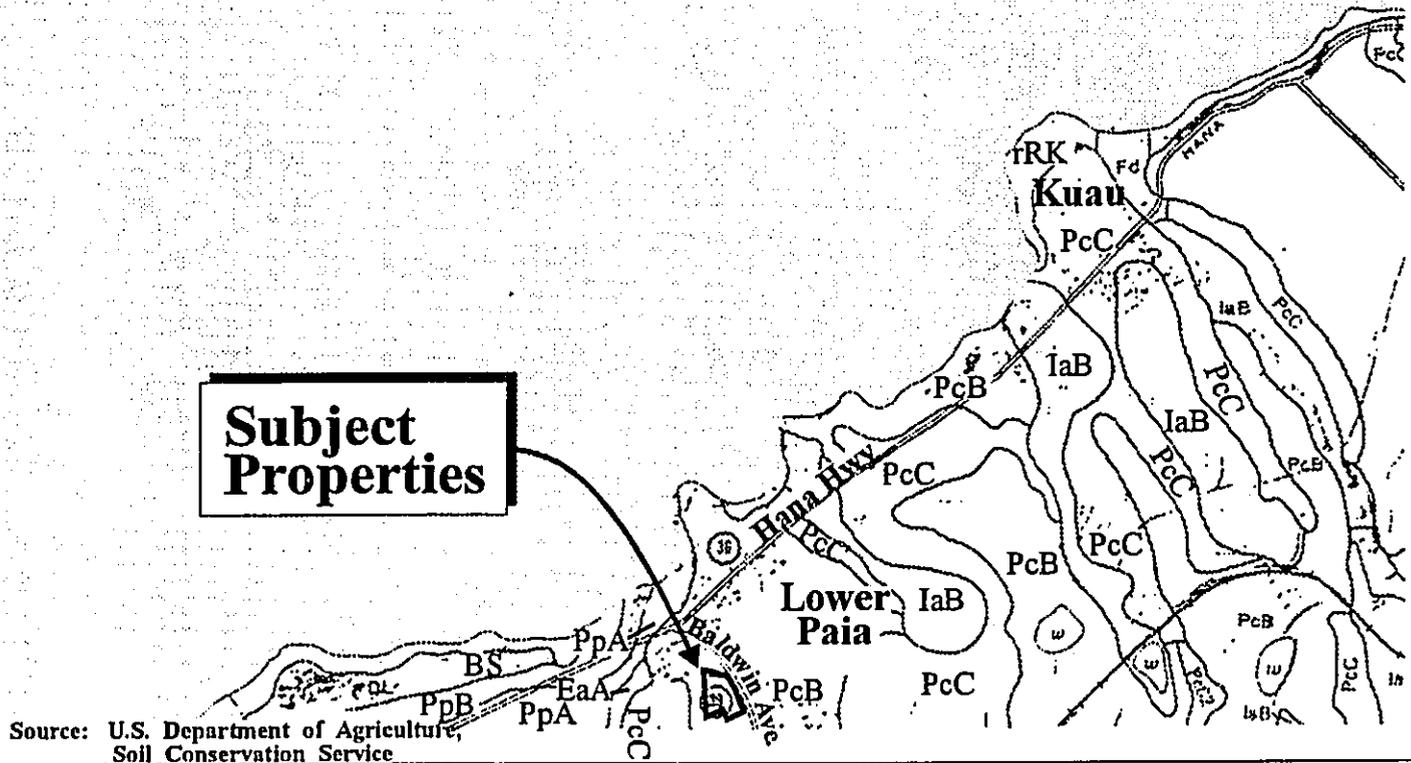
Figure 8 Entitlements Requests for Paia Main <sup>NOT TO SCALE</sup>  
 Post Office and Adjacent Country Town  
 Business/Parking Area  
 Soil Association Map



MUNEKIYO & HIRAGA, INC.

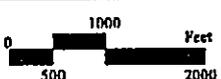
Prepared for: A&B Properties, Inc.

Pacific Ocean



Source: U.S. Department of Agriculture, Soil Conservation Service

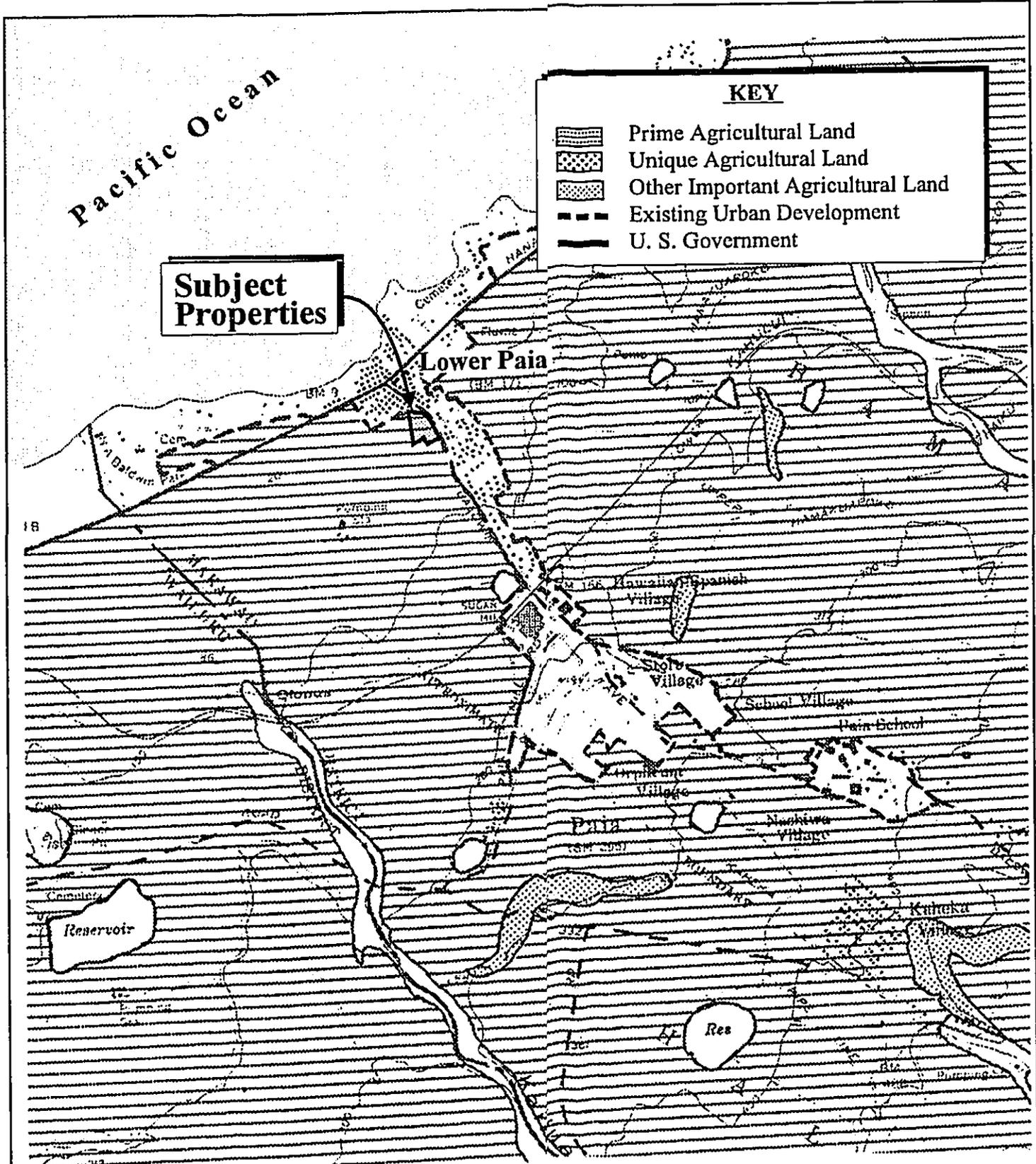
Figure 9 Entitlements Requests for Paia Main Post Office and Adjacent Country Town Business/Parking Area Soil Classification Map



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.

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Source: State of Hawaii, Department of Agriculture

**Figure 10 Entitlements Requests for Paia Main Post Office and Adjacent Country Town Business/Parking Area**  
**ALISH Classification**



MUNEKIYO & HIRAGA, INC.

Prepared for: A&B Properties, Inc.

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4. **Flood and Tsunami Hazard**

According to Flood Insurance Rate Maps (FIRM) for the region, the subject properties are located in Zone C, areas of minimal flooding. See Figure 11. In addition, the County of Maui Tsunami Evacuation Maps indicate the project site is located mauka of the evacuation boundaries.

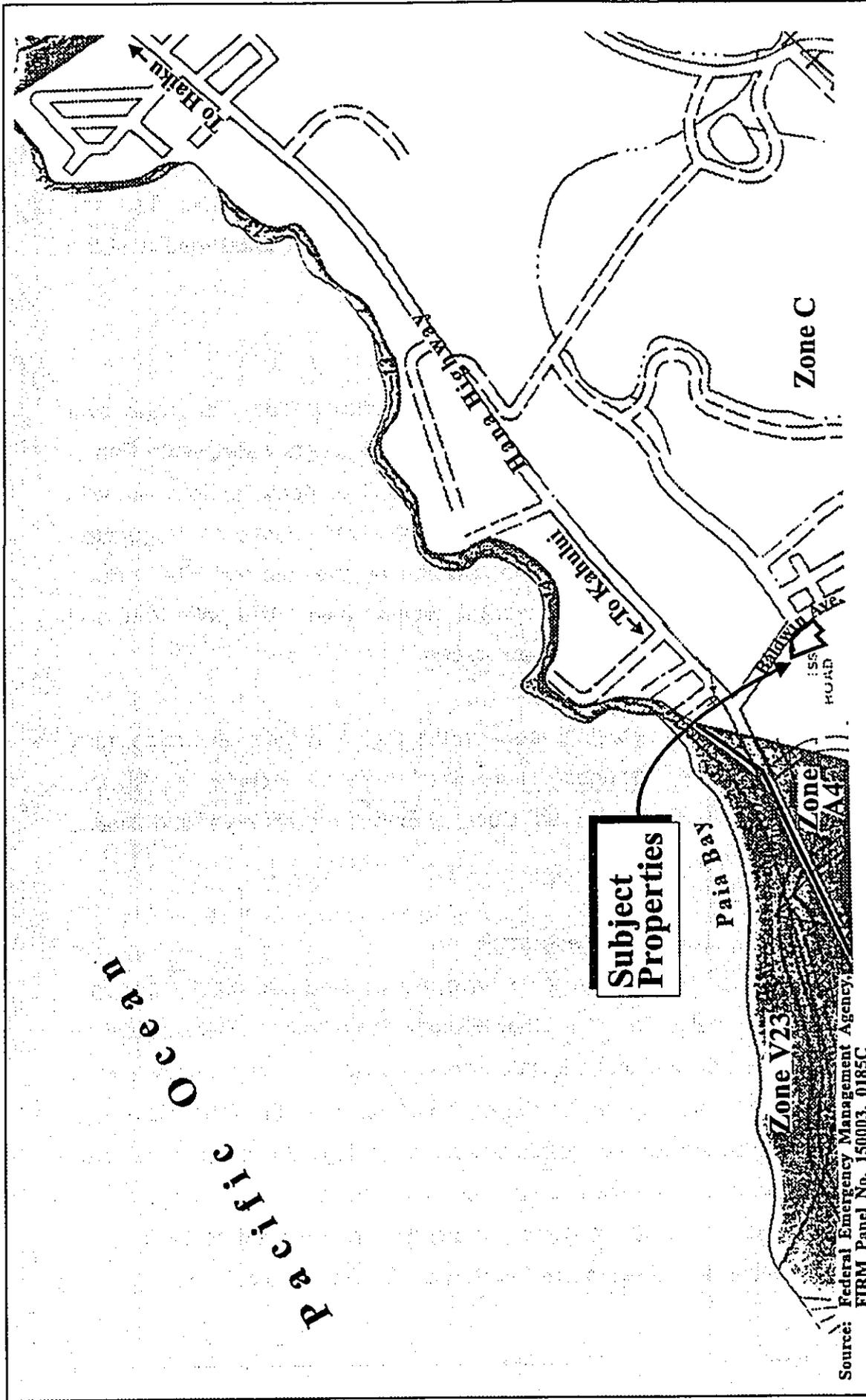
5. **Flora and Fauna**

Parcel 18, the area proposed for Country Town Business and public/quasi-public uses, is cultivated in sugar cane, while Parcel 61, the Paia Main Post Office site, has been landscaped with ornamental trees and shrubs common to the Paia area. Vegetation commonly found in the vicinity of the project site include buffelgrass, koa haole, kiawe, coconut palm, date palm tree, and other grasses and annual weeds.

Introduced terrestrial fauna in the region include rats, mice, feral cats, and mongoose. Introduced avifauna include the Mynah, Spotted Dove, Barred Dove, Japanese White-eye and House Sparrow.

6. **Archaeological Resources**

Parcel 18 and Parcel 61 have a prior land use history of sugar cane cultivation. The State Historic Preservation Division (SHPD) has indicated that prior intensive cultivation has significantly altered the underlying lands. During construction of the Paia Main Post Office, no surface or subsurface archaeological or cultural materials were encountered during construction activities. Similarly, no archaeological or cultural materials are believed to be present within the affected area of Parcel 18. See Appendix A.



Source: Federal Emergency Management Agency,  
 FIRM Panel No. 150003, 0185C

**Figure 11 Entitlements Requests for Paia Main Post Office  
 and Adjacent Country Town Business/Parking Area  
 Flood Insurance Rate Map Designation**



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.

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7. **Air Quality**

There are no point sources of airborne emissions in proximity of Parcels 18 and 61. Air quality in the vicinity of the properties may be affected by a variety of sources, including smoke and dust from sugar cane harvesting and cultivation operations which are adjacent to Paia Town. Although minimal, airborne pollutants are largely attributable to vehicular exhaust from traffic along the region's roadways. However, sources are intermittent and prevailing winds quickly disperse the particulates generated by these temporary sources.

8. **Noise**

Vehicular traffic traveling along Baldwin Avenue and the Hana Highway are the primary sources of noise at the subject properties. Other noise sources are attributable to agricultural operations and natural conditions such as wind and rain.

9. **Scenic and Open Space Resources**

Scenic and open space resources at the subject parcels include views of the Upcountry area and Mount Haleakala to the southeast. Views of the West Maui Mountains are also provided from this vicinity of Paia Town. The subject properties are not part of a scenic corridor.

10. **Chemicals and Fertilizers**

Parcel 18 and Parcel 61 have a land use history of sugar cane cultivation by Hawaiian Commercial and Sugar Company (HC&S). Sugar cane cultivation continues today on Parcel 18, while agricultural activities for Parcel 61 were recently discontinued with the development of the Paia Main Post Office. To assist in sugar

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cane production efforts for Parcel 18 and Parcel 61, HC&S has utilized common fertilizers, including Urea, Phosphoric acid and potash. HC&S has also used various chemicals to protect crops from invasive weeds and pests. The chemicals applied for both properties have been approved by the Environmental Protection Agency (EPA), and applied in accordance with the pesticide labels.

Today, Parcel 61 has been landscaped with climate adaptive plants and shrubs typical of the Paia region. However, the existing landscaping features periodically require the application of common household fertilizers, herbicides and pesticides to assist in general maintenance efforts.

**B. SOCIO-ECONOMIC ENVIRONMENT**

**1. Land Use and Community Character**

The Paia-Haiku Community Plan region is largely agricultural and rural in character. Although Paia is a primary urban center within the region, it retains a "small town" scale and character. The Paia commercial town core is situated around the intersection of Hana Highway and Baldwin Avenue. Existing residential development is generally concentrated around the commercial core, between Paia Town and Kuau, and along Baldwin Avenue to Skill Village, above the old Paia Mill.

The primary agricultural activity in the Paia region is sugar cane. Sugar cane grown in the area was processed at the HC&S Paia Sugar Mill, until the mill permanently closed in September of 2000. Today, all sugar cane from the Paia region is processed at the HC&S Puunene Sugar Mill. Although Paia's identity and character can be traced back to its agricultural past, the town character has

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evolved over the last decade, reflecting its proximity to the North Shore. Today, ocean sporting enthusiasts from around the world travel to Paia to experience Maui's world class ocean resources, with many opting to take both temporary and permanent residence in the area.

2. **Population**

The population of the County of Maui has exhibited relatively strong growth over the past decade with the 2000 population estimated to be 128,241, a 27.6 percent increase over the 1990 population of 100,504 (Maui County Data Book, June 2001). Growth in the County is expected to continue, with resident population projections to the year 2010 estimated to be 136,400 (Maui County Data Book, June 2001).

The Paia-Haiku-Pauwela region follows the County-wide pattern of population growth, with the region's 2000 population estimated at 9,077 (Maui County Data Book, June 2001).

C. **PUBLIC SERVICES**

1. **Police and Fire Protection**

The County of Maui's Police Department is headquartered at its Wailuku Station on Mahalani Street. There are three (3) patrol divisions on the island of Maui, serving the Wailuku, Lahaina and Hana regions. The Wailuku division services Central Maui, Paia-Haiku, Upcountry and the Kihei-Makena areas.

Fire prevention, suppression and protection services for the Paia-Haiku region is provided by the County Department of Fire Control's Paia Station, located along Hana Highway in Paia Town.

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The Paia Station is staffed by 15 full-time personnel (telephone conversation with County of Maui, Department of Fire Control employee Roxanne Medeiros, October 1997).

**2. Medical Facilities**

Maui Memorial Hospital, the only major medical facility on the Island, services the Paia-Haiku region. Acute, general and emergency care services are provided by the 196-bed hospital. Private medical and dental clinics and practices which are located predominantly in the Wailuku-Kahului area also serve residents of Paia-Haiku.

**3. Schools**

The State Department of Education operates one (1) school in the Paia area. Paia Elementary School covers grades K to 5. Public school students from the Paia area would then be serviced by Samuel Kalama Intermediate School in Makawao which covers grades 6 to 8. King Kekaulike High School serves as the region's high school, for grades 9 through 12.

The Doris Todd Memorial Christian School is a private educational facility located in Paia covering grades K to 6.

**4. Solid Waste**

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 is disposed at the County's 55-acre Central Maui Landfill, located four (4) miles southeast of the Kahului Airport. In addition to County-collected refuse, the Central Maui Landfill accepts commercial waste from private collection

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companies.

**D. INFRASTRUCTURE**

**1. Roadways**

The major roadway serving the Paia region is the Hana Highway, which extends from Kahului to Hana. In the Paia area, Hana Highway is a two-way, two-lane arterial. Fronting the project site is Baldwin Avenue, a two-way, two-lane major collector which links the rural towns of Makawao and Paia.

**2. Water**

The Paia area is serviced by the Department of Water Supply's domestic water system. The Waihee Wells, which were developed by the Central Maui Source Joint Venture, are the specific water sources for two (2) tanks servicing Paia, including a 100,000 gallon tank located at an elevation of 267 feet amsl and a 300,000 gallon tank located at an elevation of 456 feet amsl.

Fronting the project site along Baldwin Avenue are two (2) existing waterlines, including a 6-inch line on the east side of the roadway and an 8-inch line on the west side of the roadway. The Paia Main Post Office is serviced by the 8-inch waterline with an estimated water consumption of approximately 700 gallons a day.

**3. Wastewater**

An 8-inch sewerline is located within the Baldwin Avenue right-of-way fronting the project site. The wastewater is transported to the Wailuku-Kahului Wastewater Reclamation Facility via a series of coastal sewerlines, force mains and pump stations.

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The design capacity of the facility is 7.9 million gallons per day. Excluding groundwater and storm water infiltration, current sewage flow volume treated at the facility is approximately 6.6 mgd.

4. **Drainage**

Runoff from the Paia Main Post Office lot is directed into an existing onsite retention basin which was developed at the time of the post office construction.

Runoff from the affected portion of Parcel 18 is currently retained within the existing sugar cane fields by earth berms which are located along Baldwin Avenue, around the Paia Main Post Office lot and along the makai boundary of Parcel 18. Runoff from the undeveloped commercial area which does not infiltrate into the ground flows toward a low area near the County's public parking lot on Hana Highway. Estimated excess runoff from the undeveloped commercial area is approximately 8.1 cubic feet per second. See Appendix "B".

5. **Electricity and Telephone Systems**

Electrical and telephone services in the Paia-Haiku region are provided by Maui Electric Company and Verizon Hawaii, respectively.

# ***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**

The requested land use action is in keeping with the existing land use character of Paia Town. The development of the Paia Main Post Office was designed in accordance with the country town design theme of the Paia area. No adverse impacts to surrounding land uses are anticipated as a result of the proposed land use amendments. Further, the future development of Parcel 18 along Baldwin Avenue will be designed to complement the existing design character of Paia Town.

##### **2. Topography and Landform**

The Paia Main Post Office was constructed on lands formerly utilized for sugar cane cultivation. Excavation activities during the construction of the post office facility did not significantly alter the topographical features and landforms of Parcel 61. As such, no adverse impacts to topography resulted from the development of the Paia Main Post Office.

The approval of requested entitlements for Parcel 18 will not result in adverse landform impacts. The future development of commercial and parking improvements will require grading and excavation activities which will respect adjacent grades and drainage patterns.

##### **3. Flood and Tsunami Hazard**

The subject parcels are designated Zone "C" by the FIRM for this area. The development of the Paia Main Post Office and the future development of a portion of Parcel 18 have not and will not alter

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flood hazard conditions at or around the subject parcels.

4. **Flora and Fauna**

There are no identified significant habitats of rare, endangered, or threatened species of flora or fauna located within the vicinity of the subject properties. During construction of the Paia Main Post Office, Best Management Practices (BMPs) were utilized to mitigate potential adverse impacts to surrounding environs. The construction of the existing facility has not resulted in adverse impacts to the flora and fauna in the area.

The entitlements requested for Parcel 18 is not anticipated to result in adverse impacts to surrounding flora and fauna.

5. **Archaeological Resources**

Lands underlying the Paia Main Post Office and Parcel 18 have been previously utilized in the cultivation of sugar cane which has resulted in significant ground alterations. Refer to Appendix "A". During construction of the Paia Main Post Office, no surface or subsurface archaeological materials were encountered. Proposed construction of the commercial development is not anticipated to impact significant archaeological materials. However, in the event that any archaeological remains or cultural materials are encountered during construction activities, all work in the vicinity of the find will be halted and the State Historic Preservation Division will be contacted to establish appropriate mitigative measures in accordance with Chapter 6E, Hawaii Revised Statutes.

6. **Cultural Resources Assessment**

A cultural impact assessment was completed for the proposed

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project, which included historical research and resident interviews. Refer to Appendix "C". The assessment indicated that the lands in the vicinity of the subject property were used during pre-contact times for farming only, noting that the area's dry plains and slightly arid temperatures made for ideal conditions for the growing of 'uala (*Ipomea batatas*) or sweet potato. However, the report concluded that post-contact use of the lands in sugar cane production has most likely eliminated the possibility of the project site containing significant surface cultural materials. The report did not identify any traditional access ways or significant cultural practices taking place in the vicinity of the project site.

7. **Air Quality**

The operations of the Paia Main Post Office do not impact air quality conditions at the property or surrounding environs.

Similarly, approval of the proposed entitlements request for Parcel 18 is not anticipated to adversely impact air quality standards. Future construction activities (relating to site work) may temporarily impact the ambient air quality in the vicinity. Potential impacts will be mitigated through use of appropriate BMPs, including dust barriers, silt fences, waterwagons and/or sprinklers to control dust, and watering graded areas.

On a long-term basis, the proposed land use amendments and future use of Parcel 18 for country town business and parking uses are not anticipated to adversely impact air quality standards in the project vicinity.

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8. **Noise**

The operations of the Paia Main Post Office do not adversely impact ambient noise levels in the vicinity of the property. Approval of the proposed entitlements request for Parcel 18 will not result in adverse impacts to ambient noise levels. Future construction activities of the commercial and the parking improvements may result in temporary adverse impacts to ambient noise levels. These potential impacts will be mitigated by proper use of BMPs, including use of equipment mufflers or other noise attenuating devices. Further, all construction activities will be limited to daylight working hours. Upon project completion, ambient noise levels in the project vicinity are not anticipated to be adversely impacted.

9. **Scenic and Open Space Resources**

The Paia Main Post Office was designed and constructed to blend with the established architectural character of Paia. Construction of the Paia Main Post Office has not resulted in adverse impacts to the scenic and open space resources in the Paia area, nor does it limit shoreline views. In addition, the requested entitlements for Parcel 18 are not anticipated to have an adverse effect on the visual landscape of Paia.

As reflected in Figure 6 and Figure 7, Parcel 18's country town business design concept will reflect the unique architectural style common to Paia town. Scale, massing and treatment details in combination with landscape planting will help to maintain the visual qualities of Paia Town.

While approximately 5.125 acres will eventually be taken out of

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sugar cane production, this reduction in agricultural space will not adversely impact the open space qualities of the Paia Town area.

**10. Chemicals and Fertilizers**

Parcel 18 and Parcel 61 have prior land use histories of commercial sugar cane cultivation by HC&S, with agricultural operations for Parcel 61 discontinued upon the development of the Paia Main Post Office. Commercial cultivation of Parcel 18 continues today.

Landscape and facility maintenance requirements for the Paia Main Post Office involve the use of common fertilizers and pesticides/herbicides. Where facility life cycle treatment is needed (e.g, termite control), licensed contractors are utilized. Similar practices are anticipated for Parcel 18 when this parcel is developed for country town business and public/quasi-public uses.

**B. IMPACTS TO THE SOCIO-ECONOMIC ENVIRONMENT**

**1. Economy**

The development of the new Paia Main Post Office facility has not resulted in any adverse economical impacts to the local economy. Rather, the addition of a modern postal facility has generally represented a positive contribution to the economy of the Paia community.

The entitlements being requested for Parcels 18 and 61 are intended to address land use consistency requirements advanced by the Paia-Haiku Community Plan and are not anticipated to adversely impact the local economy. However, at a future point in time, Parcel 18 will be developed for country town business and

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parking uses. Economic benefits generally associated with development include those related to construction and related services. From a long-term perspective, the availability of additional retail/commercial space in Paia Town will help to meet the needs of existing and new businesses seeking expanded leasable areas. Further, the availability of additional parking will offer added attraction for customers seeking to shop in Paia Town.

**2. Agriculture**

A total of 6.168 acres of State-designated agricultural lands are affected by the entitlements requests. Parcel 61, site of the Paia Main Post Office, represents 1.043 acres of land which have been taken out of sugar cane production for urban use, with no significant adverse impacts to local productivity.

Parcel 18 includes 5.125 acres, which are proposed for land use redesignation. Although the action will result in a reduction of the overall agricultural lands on the island, the loss of agricultural lands is relatively small, and not anticipated to constitute an adverse impact to the sugar cane productivity of HC&S.

**3. Police, Fire and Medical**

The development of the Paia Main Post Office has not impacted the service capabilities of police, fire, and emergency medical operations. Similarly, the entitlements requests and future development of Parcel 18 for country town business and parking facilities are not anticipated to extend the existing service area limits for emergency services.

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4. **Recreational and Educational Resources**

The current Paia Main Post Office has had no adverse impacts on local recreational and educational resources. The land use designations being requested for Parcel 18 will enable the future development of commercial and parking improvements. These uses are not expected to generate significant new demands for recreational and educational facilities.

5. **Solid Waste**

Since its development, Parcel 61 has been serviced by a private refuse collection company, and has not resulted in adverse impacts to the solid waste processing facility at the Central Maui Landfill.

The approval of requested entitlements for Parcel 18 will likewise not result in adverse impacts to solid waste processing capacities of the County of Maui. As for the future development of Parcel 18, the applicant will coordinate with HC&S to ensure that site development work begins after the existing sugar cane crops have been processed. As such, green waste attributed to site work is anticipated to be minimal.

Once completed, Parcel 18 users will be serviced by a private refuse collection company. Solid waste generated from the project will be disposed at the County's Central Maui Landfill.

C. **IMPACTS TO INFRASTRUCTURE**

1. **Roadways**

A Traffic Impact Analysis Report (TIAR) was completed for the subject action in order to assess the project's potential impact on surrounding roadways. See Appendix D. The TIAR considered

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traffic levels in the year 2007 with and without the proposed project. The project also considered the future construction of the temporary Paia bypass, a temporary one-way route planned along the southwest perimeter of Paia town. Preliminary plans indicate the bypass would intersect with Hana Highway just west of the Paia Town community parking lot. Two (2) alternatives are under consideration for the mauka intersection with Baldwin Avenue. The first alternative would utilize the driveway through the proposed commercial development, while the second intersection alternative would be located immediately south (mauka) of the existing Paia Main Post Office. The TIAR considered both mauka intersection alternatives.

The TIAR concluded that the proposed commercial development will have a minimal impact to traffic along Baldwin Avenue, regardless of the mauka alignment of the temporary Paia bypass.

The TIAR recommends two (2) measures to minimize potential adverse traffic impacts as a result of the proposed commercial development. First, separate lanes should be provided to facilitate right turns out of the commercial project. Second, the TIAR has recommended that a two-way left-turn lane be included along Baldwin Avenue (adjacent to the commercial development) to provide left turning traffic with a refuge area. This measure would increase the LOS to C for exiting traffic and would benefit traffic turning into and out of driveways along the east side of Baldwin Avenue. In light of the recommended mitigative measures, no adverse impacts to the area's roadways are anticipated as a result of the proposed project development. See Appendix "D".

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2. Water

Water consumption for the Paia Main Post Office is approximately 700 gallons per day (gpd), and is provided by an 8-inch line fronting the post office facility. Estimated daily consumption for the commercial development of Parcel 18 is estimated to be approximately 6,200 gpd, which would also be provided by the 8-inch line fronting the project site along Baldwin Avenue. See Appendix "E".

A&B Properties, Inc. was one of the four (4) participating members in the development of the Central Maui Joint Venture. As such, the applicant intends to utilize a portion of available credit in the development of the proposed project. New fire hydrants will also be installed in accordance with the Department of Water Supply's requirements for construction of commercial developments.

Development of the proposed commercial improvements is not anticipated to create an unreasonable strain on the region's water supply capacity.

3. Wastewater

The daily average wastewater flow generated by the Paia Main Post Office is approximately 300 gpd, which is serviced by the existing 8-inch sewerline along Baldwin Avenue. Refer to Appendix "E". Commercial development of Parcel 18 is anticipated to generate an additional wastewater flow of approximately 5,500 gpd, which would also be serviced by the 8-inch sewerline along Baldwin Avenue.

Current and future projected operational levels of the Paia

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wastewater system indicate that necessary capacity requirements exist to support the increased wastewater flows as a result of the proposed project development. As such, no unreasonable strains on wastewater systems are anticipated as a result of the existing Paia Main Post Office and the proposed commercial development.

4. **Drainage and Erosion Control**

The Paia Main Post Office is currently serviced by an existing onsite retention basin, requiring no additional drainage improvements. As a result of proposed commercial developments, estimated runoff from the proposed commercial development will increase by approximately 3.5 cubic feet per second (cfs) to a total of 11.6 cfs for a 10-year, one-hour storm. Refer to Appendix "B". Runoff from the proposed improvements and parking area will be retained onsite by a retention system designed in accordance with Department of Public Works and Waste Management standards.

5. **Electrical and Communication Services**

The development of the Paia Main Post Office has not resulted in adverse impacts to existing electrical and communication services. No adverse impacts to these systems are anticipated as a result of future development of Parcel 18.

# ***Chapter IV***

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***Relationship to Governmental  
Plans, Policies and Controls***

#### **IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS**

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

Pursuant to Chapter 205, Hawaii Revised Statutes, all lands in the State have been placed into one (1) of four (4) land use districts by the State Land Use Commission. These land use districts have been designated "Urban", "Rural", "Agricultural" and "Conservation". The project site is designated "Agricultural". See Figure 12. The proposed action involves reclassification to the "Urban" district and the establishment of commercial and public/quasi-public uses compatible with the "Urban" designation.

##### **B. LAND USE COMMISSION RULES, CHAPTER 15-15, HAWAII ADMINISTRATIVE RULES**

The proposed reclassification of the subject property is in conformance with the following standards of the Urban district set forth in Chapter 15-15-18, Hawaii Administrative Rules:

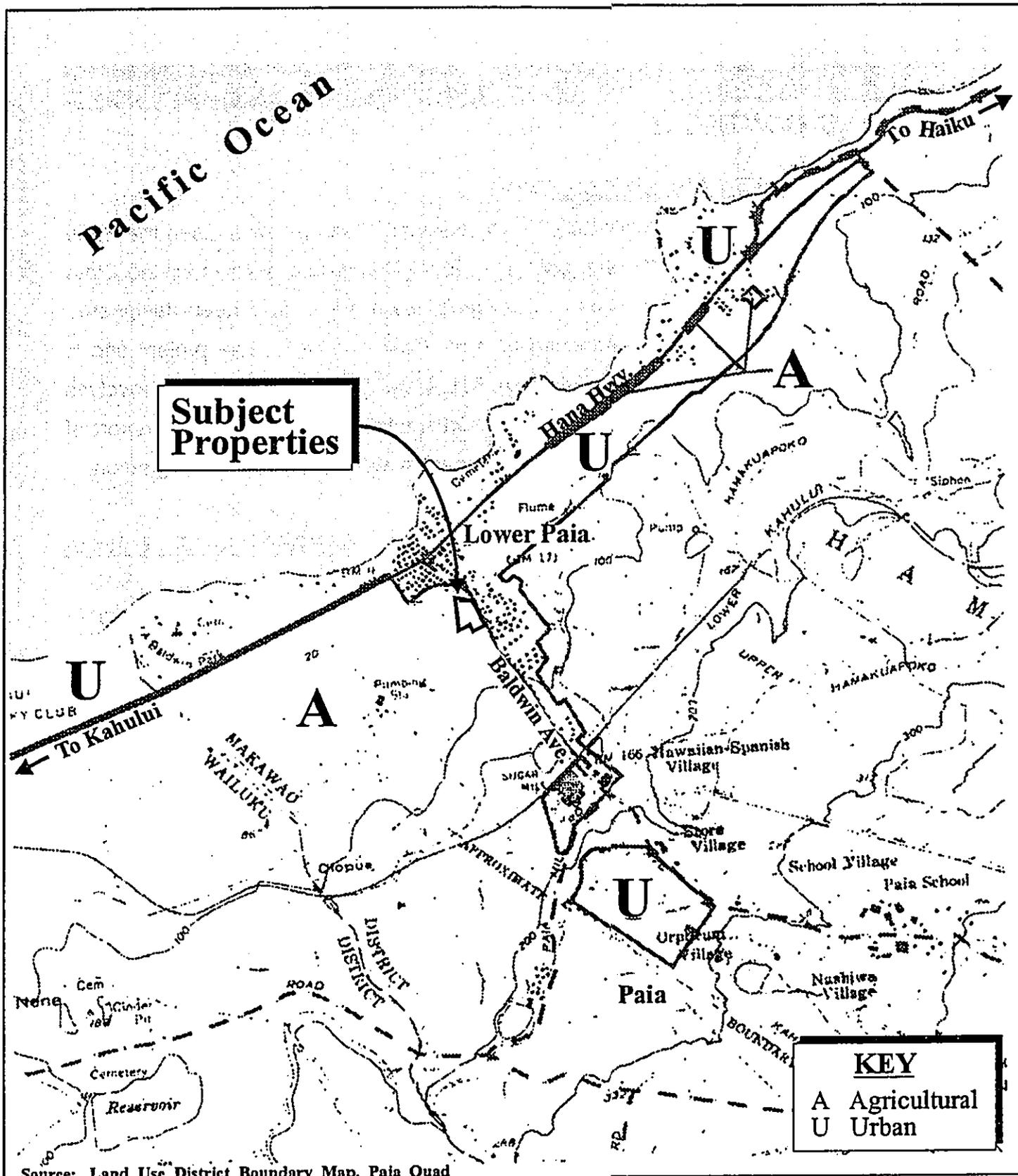
###### **Chapter 15-15-18**

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

**Comment:** The subject parcels are located within Paia Town. Existing developed portions of the town are located to the west and north of the subject properties. Parcel 61 has been developed as a post office by the USPS. Baldwin Avenue, a major collector road, fronts the subject property to the north, while Hana Highway, a State arterial highway, is located to the west of the project site.

- (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*



Source: Land Use District Boundary Map, Paia Quad

Figure 12 Entitlements Requests for Paia Main Post Office and Adjacent Country Town Business/Parking Area State Land Use District Boundaries



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.

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*trading and employment*

**Comment:** The subject parcels are located within the Lower Paia Town area, an established center for trading and employment within the County of Maui.

B. *Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection*

**Comment:** Basic infrastructural services such as transportation systems, water, wastewater systems and public utilities currently service Parcel 61 and are available for Parcel 18. Drainage improvements for the Paia Main Post Office complies with applicable County of Maui standards, as will the future development of Parcel 18. Schools and parks are available within close proximity to the project site. Fire and police protection services are readily available, as is solid waste disposal services.

C. *Sufficient reserve areas for foreseeable urban growth*

**Comment:** Parcel 61 has already been developed for post office use. The area encompassed by Parcel 18 is intended to satisfy future commercial and parking needs of the Paia region. The request is not anticipated to significantly affect reserve areas for urban growth.

(3) *It shall include lands with satisfactory topography, drainage, and reasonably free from the danger of any flood, tsunami, unstable soil condition, and other adverse environmental effects*

**Comment:** Both Parcels 18 and 61 are relatively flat, with a gently

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sloping terrain. Drainage improvements for the post office site have been constructed to address post-development increases in stormwater runoff. Similarly, drainage system designs for Parcel 18 will accommodate the incremental increase in flow generated by commercial and parking uses. The project area is located in areas of minimal flooding, and is located beyond the reaches of the coastal environment and dangerous wave action. Soils underlying the project are stable, and there are no identified environmental limitations constraining the subject property.

- (4) *Land contiguous with existing urban areas shall be given more consideration than non-contiguous land, and particularly when indicated for future urban use on state and county general plans*

**Comment:** The subject parcels are contiguous within the existing urban areas of Paia Town. Lands to the north and east of the subject properties are in business and residential use. Parcel 61, the Paia Main Post Office site, is designated Agricultural, Business and Public/Quasi-Public by the Paia-Haiku Community Plan. A community plan amendment request is being sought to establish a Business designation for the entire parcel. The Paia-Haiku Community Plan designates Parcel 18 for Business and Public/Quasi-Public uses. The future country town business and parking uses are consistent with these designations. The lands makai of the property and lands to the east are designated for business use as well.

- (5) *It shall include lands in appropriate locations for new urban concentrations and shall give consideration to areas of urban growth as shown on the state and county general plans*

**Comment:** Portions of Parcel 61 and portions of Parcel 18 include

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designations for Commercial and Public/Quasi-Public use by the Paia-Haiku Community Plan, representing appropriate locations for Urban district classification. Lands makai and to the east are designated for Urban use as well.

- (6) *It may include lands which do not conform to the standards in paragraphs (1) to (5):*
- A. *When surrounded by or adjacent to existing urban development; and*
  - B. *Only when those lands represent a minor portion of this district*

**Comment:** The subject properties conform to the standards included in paragraphs (1) through (5). They are adjacent to existing urban lands. The reclassification request represents a minor portion of lands surrounding the Paia Town, currently in the Agricultural District.

- (7) *It shall not include lands, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services*

**Comment:** The proposed reclassification does not constitute scattered or spot urban development. Parcel 18 and Parcel 61 are located within the limits of Paia Town and will not necessitate unreasonable investment in public infrastructure or support services.

- (8) *It may include lands with a general slope of twenty percent or more if the commission finds that those lands are desirable and suitable for urban purposes and that the design and construction controls, as adopted by any federal, state or county agency, are adequate to protect the public health, welfare and safety, and the public's interests in the aesthetic quality of the landscape*

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**Comment:** The area proposed for reclassification contains a slope significantly less than 20 percent.

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

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

**LAND USE**

**Objective:**

To preserve for present and future generations existing geographic, cultural and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the character and the various communities and regions of the County.

**Policy:**

Provide and maintain a range of land use districts sufficient to meet the social, physical, environmental and economic needs of the community.

**ECONOMIC ACTIVITY**

**Objective:**

To provide an economic climate which will encourage controlled expansion and diversification of the County's economic base.

**Policy:**

Maintain a diversified economic environment compatible with acceptable and consistent employment.

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**URBAN DESIGN**

**Objective:**

To encourage developments which reflect the character and the culture of Maui County's people.

**Policies:**

Establish urban design guidelines and standards which will reflect the unique traditional architectural values of each community plan area; and

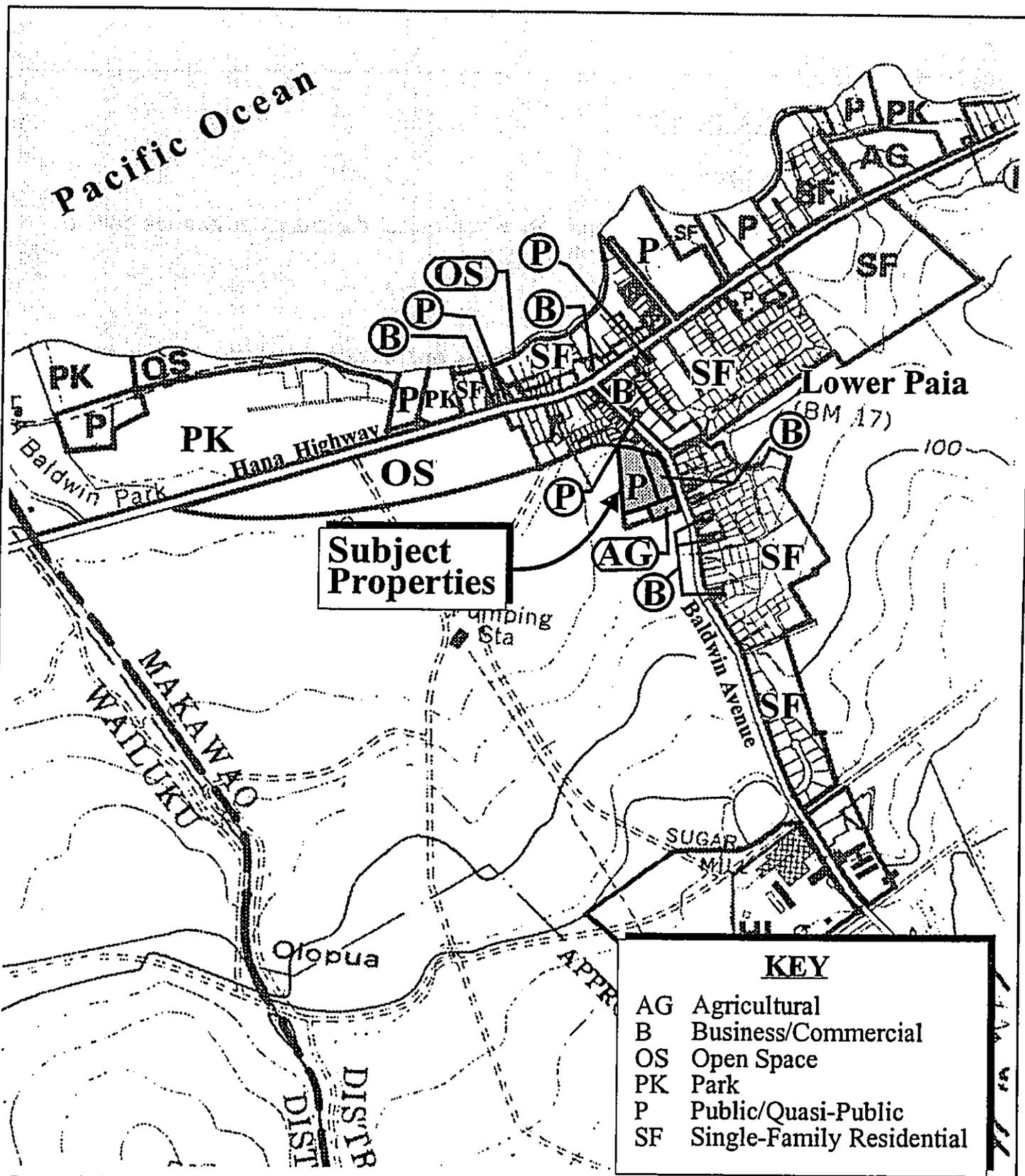
Encourage community design which establishes a cohesive identity.

**D. PAIA-HAIKU COMMUNITY PLAN**

The subject properties are located in the Paia-Haiku Community Plan region which is one (1) of nine (9) 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.

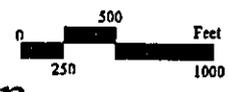
Land use guidelines are set forth in the Paia-Haiku Community Plan Land Use Map. The project site is designated "Business/Commercial", "Public/Quasi-Public" and "Agricultural" by the Community Plan. See Figure 13.

Parcel 61 contains three (3) separate Community Plan Designations. Refer to Figure 5. In accordance with the request to establish appropriate entitlements for the Paia Main Post Office, the applicant is requesting a re-designation from Agricultural and Public/Quasi-Public to Business for Area A and Area C, respectively, of Parcel 61. Area B of Parcel 61 is currently designated as Business.



Source: Pala-Haiku Community Plan

Figure 13 Entitlements Requests for Paia Main  
 Post Office and Adjacent Country Town  
 Business/Parking Area  
 Community Plan Land Use Map



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC.

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There are no community plan amendments proposed for Parcel 18. This parcel is intended to be used for country town business and parking.

**E. PAIA-HAIKU COUNTRY TOWN DESIGN GUIDELINES**

The Country Town Business District Ordinance establishes the need to document the unique urban design character of remote business districts throughout Maui County and preserve them as an important feature of these rural communities. The Paia-Haiku Design Guidelines address design issues set forth in the Country Town Business District Zoning Ordinance including site planning, parking lot design, architectural design, materials selection, building massing, drainage, roadway standards, color selection, landscape planting, signage, and lighting.

The proposed requests addresses the following policy recommendations of the Paia-Haiku Design Guidelines:

- Commercial development should be along Hana Highway and Baldwin Avenue encompassing the existing lots immediately adjacent to the roadways. Commercial development of the large business designated area in the cane field mauka of Hana Highway and Kahului side of Baldwin Avenue should be carefully considered. Development that is potentially harmful to existing established businesses along Hana Highway and Baldwin Avenue should be discouraged, such as shopping centers or other uses which would tend to create a second commercial node apart from the established business/commercial strips along the major roads.
- Creation of a public off-site parking area(s) in Paia to relieve the pressure to develop onsite parking for individual business parcels... The elimination of onsite parking requirements for business/commercial uses would encourage development that is sympathetic to existing buildings and would help to preserve existing small lot sizes which are critical in determining architectural character.

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**F. ZONING**

Parcel 61 has two (2) separate County zoning designations. As reflected in Figure 5, Area A is zoned Agricultural, while Area B and Area C are both zoned Interim. To establish appropriate County zoning designations for the Paia Main Post Office, the applicant is requesting a Change in Zoning from Agricultural to Country-Town Business for Area A, and a Change in Zoning from Interim to Country-Town Business for Area B and Area C.

Areas D and E of Parcel 18 are both zoned Interim. To facilitate the proposed development of Parcel 18 in accordance with existing Community Plan designations, the applicant is requesting a Change in Zoning from Interim to Country-Town Business for Area D, and a Change in Zoning from Interim to Public/Quasi-Public for Area E.

**G. COASTAL ZONE MANAGEMENT OBJECTIVES AND POLICIES**

The Hawaii Coastal Zone Management Program (HCZMP), as formalized in Chapter 205A, Hawaii Revised Statutes (HRS), establishes objectives and policies for the preservation, protection and restoration of natural resources of Hawaii's coastal zone. As set forth in Chapter 205A, HRS, this section addresses the proposed action's relationship to applicable coastal zone management considerations. It is noted that portions of the subject properties fall within the County's Special Management Area (SMA). When a specific development proposal for Parcel 18 is formulated and ready for implementation, an application for a SMA Use Permit will be filed with the Maui Planning Department, as required.

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(1) **Recreational Resources**

**Objective:**

Provide coastal recreational opportunities accessible to the public.

**Policies:**

- (A) Improve coordination and funding of coastal recreational planning and management; and
- (B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:
  - (i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
  - (ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand 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;
  - (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
  - (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
  - (v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;
  - (vi) 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;
  - (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and
  - (viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use

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commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of Section 46-6, HRS.

**Response:** Recreational resources have not been adversely impacted by the construction and operation of the Paia Main Post Office. Similarly, the entitlement requests and the future commercial and parking area improvements for Parcel 18 are not anticipated to adversely impact coastal or inland recreational resources.

(2) **Historic Resources**

**Objective:**

Protect, preserve and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

**Policies:**

- (A) Identify and analyze significant archeological resources;
- (B) Maximize information retention through preservation of remains and artifacts or salvage operations; and
- (C) Support state goals for protection, restoration, interpretation, and display of historic resources.

**Response:** Prior agricultural activities have significantly altered the underlying lands of both Parcel 61 and Parcel 18. However, in the event that significant archaeological materials are encountered, the office of SHPD will be notified accordingly in order to determine the appropriate mitigation measures.

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(3) **Scenic and Open Space Resources**

**Objective:**

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

**Policies:**

- (A) Identify valued scenic resources in the coastal zone management area;
- (B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms 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 that are not coastal dependent to locate in inland areas.

**Response:** Development of the Paia Main Post Office has not resulted in adverse impacts to scenic and open space resources. The proposed entitlements requests for Parcel 18 will not impact coastal scenic and open space resources. Furthermore, the future country town business and public/quasi-public uses in Parcel 18 will not adversely impact public views to and along the shoreline.

(4) **Coastal Ecosystems**

**Objective:**

Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

**Policies:**

- (A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of

- 
- (B) marine and coastal resources; Improve the technical basis for natural resource management;
  - (C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;
  - (D) 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
  - (E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

**Response:** Construction and operation of the Paia Main Post Office have not adversely impacted coastal ecosystems. Approval of requested entitlements for Parcel 18 are not anticipated to adversely impact coastal ecosystems. Future construction activities on Parcel 18 will be conducted in accordance with accepted and approved BMPs.

(5) **Economic Uses**

**Objective:**

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

**Policies:**

- (A) Concentrate coastal dependent development in appropriate areas;
- (B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as 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
- (C) Direct the location and expansion of coastal dependent developments to areas presently designated and used

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for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:

- (i) Use of presently designated locations is not feasible;
- (ii) Adverse environmental effects are minimized; and
- (iii) The development is important to the State's economy.

**Response:** In general, the addition of the new Paia Main Post Office facility has been beneficial to the local economy. No adverse impacts to the economy are anticipated as a result of approval of the requested entitlements for Parcel 18. The development of Parcel 18 at a future point in time will result in short-term economic benefits through the addition of construction-related employment. Long-term benefits will be realized through additional employment options and the provision of additional commercial space and parking which are consistent with Paia Town's country town character.

(6) **Coastal Hazards**

**Objective:**

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

**Policies:**

- (A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;
- (B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint pollution hazards;
- (C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
- (D) Prevent coastal flooding from inland projects.

**Response:** Approval of requested entitlements for both Parcel 61

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and Parcel 18 will not adversely affect coastal hazard considerations. During future construction activities, erosion control measures will be incorporated to minimize soil loss and erosion hazards. All drainage improvements will be in compliance with County standards. No adverse drainage impacts to downstream or adjacent properties are anticipated as a result of implementation of commercial country town and parking uses on Parcel 18.

(7) **Managing Development**

**Objective:**

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

**Policies:**

- (A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;
- (B) Facilitate timely processing of applications 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 public to facilitate public participation in the planning and review process.

**Response:** In compliance with the requirements of Chapter 343, Hawaii Revised Statutes, this environmental assessment has been prepared to facilitate public understanding and input to the project. Public participation opportunities will be provided through the entitlements review process, including Maui Planning Commission and County Council proceedings.

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(8) **Public Participation**

**Objective:**

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

**Policies:**

- (A) Promote public involvement in coastal zone management processes;
- (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 issues, developments, and government activities; and
- (C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

**Response:** As previously noted, public awareness of the project is being promoted through the environmental assessment and land use entitlements processes. The subject requests are not contrary to the objectives of public awareness, education and participation.

(9) **Beach Protection**

**Objective:**

Protect beaches for public use and recreation.

**Policies:**

- (A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and 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

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structures seaward of the shoreline.

**Response:** The subject parcels are located approximately 0.3 mile from the beach. Development of the post office site and the future development of Parcel 18 are not anticipated to affect beach utility and processes.

(10) **Marine Resources**

**Objective:**

Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

**Policies:**

- (A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;
- (B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;
- (C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;
- (D) 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 ocean and coastal resources; and
- (E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

**Response:** The Paia Main Post Office on Parcel 61 does not adversely affect marine and coastal resources. The use of Parcel 18 for country town business and public/quasi-public (parking) purposes is likewise not anticipated to adversely affect marine and coastal resources.

# ***Chapter V***

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***Summary of Adverse  
Environmental Effects  
Which Cannot Be Avoided***

## **V. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED**

The Paia Main Post Office on Parcel 61 has not resulted in significant adverse environmental effects.

Approval of requested entitlements for Parcel 18 is not anticipated to result in adverse environmental effects. The future development of commercial and parking improvements will result in unavoidable construction-related impacts, as described in Chapter III, Potential Impacts and Mitigation Measures.

Potential effects include noise generated impacts occurring from site preparation and construction activities. In addition, temporary impacts to air quality associated with dust generated from construction activities, as well as exhaust emissions discharged by construction equipment may result. However, these impacts will be mitigated through the use of appropriate BMPs, including use of silt fences to limit runoff, spraying to control fugitive dust, routine maintenance of emissions reducing systems and use of noise attenuating devices. There are no significant long-term adverse environmental effects anticipated with the use of Parcel 18 for country town business and parking uses.

# ***Chapter VI***

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***Alternatives to the  
Proposed Action***

## **VI. ALTERNATIVES TO THE PROPOSED ACTIONS**

The purpose of the proposed land use requests is to establish a country town business zoning designation for the Paia Main Post Office (Parcel 61) and to establish country town business zoning and public/quasi-public zoning for Parcel 18. These objectives have been formulated to provide land use designations which will result in a smooth integration of these parcels with the character and design ambiance of Paia Town. From a land use standpoint, therefore, no other use designations were considered for entitlements purposes.

With respect to design options which may be developed for Parcel 18, illustrative concepts have been prepared as reflected in Figure 6 and Figure 7. While the design concepts are not intended to represent a specific design proposal for implementation, it does convey the nature of improvements which are desired for Parcel 18. In formulating a project specific proposal for Parcel 18, consideration shall be given to the Paia-Haiku Design Guidelines, spatial requirements for parking, and market needs for additional country town business spaces.

# ***Chapter VII***

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***Irreversible and Irretrievable  
Commitment of Resources***

**VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

The development of Parcel 61 for post office use establishes a long-term commitment of the property for USPS use. This commitment provides a positive service to the community and is not considered adverse from a resource commitment standpoint. The future development of Parcel 18 will also involve the commitment of land for improvements, which is consistent with existing land use objectives of the Paia-Haiku Community Plan. In this context, the land proposed for country-town development and public/quasi-public use is not considered to be a negative impact relative to the necessary land resource commitment.

# **Chapter VIII**

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## ***Findings and Conclusions***

## **VIII. FINDINGS AND CONCLUSIONS**

The "Significance Criteria", Section 12 of the Administrative Rules, Title 11, Chapter 200, "Environmental Impact Statement Rules", were reviewed and analyzed to determine whether the proposed action will have significant impacts to the environment. The following analysis is provided:

1. **No Irrevocable Commitment to Loss or Destruction of any Natural or Cultural Resources Would Occur as a Result of the Proposed Project**

There are no anticipated adverse environmental impacts as a result of the requested entitlements and proposed commercial and parking area development of Parcel 18. There are no identified rare, threatened or endangered species in the vicinity of the subject properties.

Lands underlying Parcel 61 and Parcel 18 were previously utilized in sugar cane cultivation which resulted in ground alterations. During the construction and excavation of the Paia Main Post Office, no significant cultural materials were encountered. Adverse impacts related to the construction of Parcel 18 are not anticipated. However, should any evidence of human remains be encountered during project construction, work will stop immediately in the vicinity of the find and the State Historic Preservation Division will be consulted to establish an appropriate mitigation strategy.

2. **The Proposed Action Would Not Curtail the Range of Beneficial Uses of the Environment**

Development of the Paia Main Post Office, the requested entitlements for Parcel 18 and the commitment of land necessary for proposed commercial and parking developments are not anticipated to curtail the range and beneficial uses of the environment.

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3. **The Proposed Action Does Not Conflict with the State's Long-Term Environmental Policies or Goals or Guidelines as Expressed in Chapter 344, Hawaii Revised Statutes**

The State's Environmental Policy and Guidelines are set forth in Chapter 344, HRS, and were reviewed in connection with the proposed action. The proposed action is in consonance with the State's long-term environmental policies and goals of Chapter 344, HRS.

4. **The Economic or Social Welfare of the Community or State Would Not Be Substantially Affected**

The development of the Paia Main Post Office has not adversely impacted the economic or social welfare of the neighboring community. The proposed entitlements request for Parcel 18 will provide for additional parking and business establishments to meet the needs in the Paia area. In the long term, these uses are not expected to have adverse effects on economic or social welfare of the community.

5. **The Proposed Action Does Not Affect Public Health**

Prior development of Parcel 61 and the proposed entitlements and future development of Parcel 18 are not anticipated to impact public health. In addition, adverse impacts to public welfare are not anticipated as a result of the proposed requests.

6. **No Substantial Secondary Impacts, Such as Population Changes or Effects on Public Facilities are Anticipated**

There are no secondary impacts or effects on public facilities anticipated as a result of the entitlements requests. Upon formulation of a development proposal for Parcel 18, specific infrastructure design requirements relating to wastewater collection, water delivery and roadway improvements can be identified. Implementation of a specific

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development proposal for Parcel 18 will require coordination with appropriate agencies (e.g., Department of Water Supply, Department of Public Works and Waste Management) to ensure that infrastructure improvement requirements are addressed.

7. **No Substantial Degradation of Environmental Quality is Anticipated**

Approval of requested entitlements for Parcel 61 and Parcel 18 will not result in adverse degradation to the environment. Future construction on Parcel 18 will require the design and implementation of BMPs to mitigate construction activity impacts. In the long term, adverse impacts upon air quality and noise parameters are anticipated to be minimal. The requested entitlements and future development activities are not anticipated to significantly affect the open space and scenic character of the area.

8. **The Proposed Project Does Not Involve a Commitment to Larger Actions, Nor Would Cumulative Impacts Result in Considerable Effects on the Environment**

Development of the Paia Main Post Office and the requested entitlements for Parcel 18 do not entail a commitment to larger actions. Current infrastructural components exist which are capable of accommodating the future improvements proposed.

9. **No Rare, Threatened or Endangered Species or Their Habitats Would Be Adversely Affected by the Proposed Action**

There are no identified rare, threatened or endangered species located within the vicinity of the subject properties. Further, approval of requested entitlements for Parcel 18 and the eventual development of commercial and parking facilities will not adversely impact local habitats.

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10. **Air Quality, Water Quality or Ambient Noise Levels Would Not Be Detrimentially Affected by the Proposed Project**

Development of the Paia Main Post Office and the future use of Parcel 18 for country town business and parking uses will not adversely affect air, water or noise parameters.

11. **The Proposed Project Would Not Affect Environmentally Sensitive Areas, Such as Flood Plains, Tsunami Zones, Erosion-prone Areas, Geologically Hazardous Lands, Estuaries, Fresh Waters or Coastal Waters**

Parcel 61 and Parcel 18 are not located within the limits of environmentally sensitive areas. As such, construction of the Paia Main Post Office and the proposed entitlements and future use of Parcel 18 for business and parking uses will not adversely affect flood plains, tsunami zones, erosion-prone areas, hazardous lands, estuaries, fresh waters or coastal waters.

12. **The Proposed Action Would Not Substantially Affect Scenic Views and Viewplanes Identified in County Plans or Studies**

Parcel 18 and Parcel 61 are not part of an identified scenic view corridor or viewplane. As such, adverse impacts to coastal and scenic views have not resulted from the development of the Paia Main Post Office. Further, requested entitlements and future development of Parcel 18 are not anticipated to impact view corridors or viewplanes.

13. **The Proposed Action Would Not Require Substantial Energy Consumption**

Prior construction of the Paia Main Post Office, proposed entitlement actions of Parcel 18 and its future use as a commercial facility and parking lot are not anticipated to require substantial energy consumption.

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Based on the foregoing findings, it is concluded that the proposed action will not result in any significant impacts.

# ***Chapter IX***

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***List of Permits  
and Approvals***

## **IX. LIST OF PERMITS AND APPROVALS**

No additional permits are required for the Paia Main Post Office. However, prior to the development of Parcel 18 (including Area D and Area E), the following permits and approvals may be required.

### **State of Hawaii**

1. Community Noise Permit
2. NPDES Permit (to be determined in coordination with the State Department of Health)

### **County of Maui**

1. Special Management Area (SMA) Permit, including Urban Design and Review Board Approval
2. Grading, Grubbing Building, Electrical, Plumbing and Driveway Permits
3. Work-to-Perform within County Highways

# **Chapter X**

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***Agencies Consulted During  
the Preparation of the Draft  
Environmental Assessment;  
Letters Received and Responses  
to Substantive Comments***

**X. AGENCIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS**

The following agencies were consulted during the preparation of the Draft Environmental Assessment. Agency comments and responses to substantive comments are also included in this section.

1. Neal Fujiwara, Soil Conservationist  
Natural Resources Conservation Service  
U.S. Department of Agriculture  
210 Imi Kala Street, Suite 209  
Wailuku, Hawaii 96793-2100
2. William Lennan  
Department of the Army  
U.S. Army Engineer District, Hnl.  
Attn: Operations Division  
Bldg. T-1, Room 105  
Fort Shafter, Hawaii 96858-5440
3. Robert P. Smith  
Pacific Islands Manager  
U. S. Fish and Wildlife Service  
P.O. Box 50167  
Honolulu, Hawaii 96850
4. Gary Gill, Deputy Director  
State of Hawaii  
Department of Health  
P.O. Box 3378  
Honolulu, Hawaii 96801
5. Herbert Matsubayashi  
District Environmental Health Program Chief  
State of Hawaii  
Department of Health  
54 High Street  
Wailuku, Hawaii 96793
6. Gilbert Coloma-Agaran, Chairperson  
State of Hawaii  
Department of Land and Natural Resources  
P. O. Box 621  
Honolulu, Hawaii 96809
7. Don Hibbard  
State of Hawaii  
Department of Land and Natural Resources  
State Historic Preservation Division  
601 Kamokila Blvd., Room 555  
Kapolei, Hawaii 96707
8. Fred Cajigal, Maui District Engineer  
State of Hawaii  
Department of Transportation  
Highways Division  
650 Palapala Drive  
Kahului, Hawaii 96732
9. Colin Kippen, Deputy Administrator  
Office of Hawaiian Affairs  
711 Kapiolani Boulevard, Suite 500  
Honolulu, Hawaii 96813
10. Clayton Ishikawa, Chief  
County of Maui  
Department of Fire Control  
200 Dairy Road  
Kahului, Hawaii 96732
11. Alice Lee, Director  
Department of Housing and Human Concerns  
200 South High Street  
Wailuku, Hawaii 96793

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12. John Min, Director  
County of Maui  
**Department of Planning**  
250 South High Street  
Wailuku, Hawaii 96793
  13. Floyd Miyazono, Director  
County of Maui  
**Department of Parks and  
Recreation**  
1580 C. Kaahumanu Avenue  
Wailuku, Hawaii 96793
  14. Tom Phillips, Chief  
County of Maui  
**Police Department**  
55 Mahalani Street  
Wailuku, Hawaii 96793
  15. David Goode, Director  
County of Maui  
**Department of Public Works  
and Waste Management**  
200 South High Street  
Wailuku, Hawaii 96793
  16. David Craddick, Director  
County of Maui  
**Department of Water Supply**  
200 South High Street  
Wailuku, Hawaii 96793
  17. Paia Main Street Association  
P.O. Box 995  
Paia, Hawaii 96779-0995

MAY 10 2002

United States Department of Agriculture

 NRCS Natural Resources  
Conservation Service

 USDA

*Our People...Our Islands...In Harmony*  
210 Iml Kala Street, Suite #209, Wailuku, HI 96793-2100

May 8, 2002

Mr. Dean K. Frampton, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

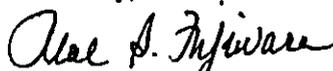
Dear Mr. Frampton,

SUBJECT: A&B Properties, Inc. Request for State Land Use District Boundary Amendments,  
Changes in Zoning, and Community Plan Amendments  
TMK: 2-5-005: por. 18 & 2-5-005: 061

It is pertinent to address the drainage changes, if any, when changing from sugarcane use to urban. Sugarcane companies have always controlled runoff and sedimentation to an extent possible from entering adjacent urban sectors. In this case, there are no main drainage outlets within the Paia Town area, unless the County has an underground drainage system, thus, it could have future affects.

Thank you for the opportunity to comment.

Sincerely,



Neal S. Fujiwara  
District Conservationist



October 9, 2002

Neal S. Fujiwara  
District Conservationist  
United States Department of Agriculture  
Natural Resources Conservation Service  
210 Imi Kala Street, Suite #209  
Wailuku HI 96793-2100

**SUBJECT: A&B Properties, Inc. Entitlements Request for District Boundary Amendment, Community Plan Amendment and Change in Zoning, Paia, Maui, TMK 2-5-05:18 (por.) and 2-5-05:61**

Dear Mr. Fujiwara:

Thank you very much for your comment letter dated May 8, 2002 regarding the subject project. In response to the comments provided, we would like to note the following.

Development of the Paia Main Post Office included construction of an onsite drainage basin. Runoff from the proposed country town business development and the parking lot area will also be accommodated by an onsite system constructed in accordance with standards prescribed by the County of Maui Department of Public Works and Waste Management.

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.

a&b/palapo/nrcstr.001



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

REPLY TO  
ATTENTION OF

May 31, 2002

Regulatory Branch

Mr. Dean Frampton, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Frampton:

This letter responds to your request for comments concerning the A&B Properties Inc. request for various land use entitlements in Paia, Maui, dated May 3, 2001. Based on the information you provided I have determined that there are no waters of the United States including wetlands at the project site and therefore a Department of the Army (DA) permit will not be required for this activity.

If you have any questions concerning this determination, please contact William Lennan of my staff at 438-6986 or FAX 438-4060, and reference File No. 200200340.

Sincerely,

A handwritten signature in black ink, appearing to read "George P. Young".

George P. Young, P.E.  
Chief, Regulatory Branch

BENJAMIN J. CAYETANO  
GOVERNOR



MAY 13 2002

BRUCE S. ANDERSON, Ph.D., M.P.H.  
DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.  
MAUI DISTRICT HEALTH OFFICER

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

May 9, 2002

Mr. Dean K. Frampton  
Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawai'i 96793

Dear Mr. Frampton:

Subject: **Changes in Zoning and Community Plan Amendments**  
**TMK: (2) 2-5-05:18 and 2-5-05:61, Paia, Maui**

Thank you for the opportunity to comment on the land use entitlement request. We have no comments to offer at this time.

Should you have any questions, please call me at 984-8230.

Sincerely,

A handwritten signature in black ink, appearing to read "H. Matsubayashi".

Herbert S. Matsubayashi  
District Environmental Health Program Chief



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

May 10, 2002

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

LD/NAV  
A&BMAUI250518.COM

L-2799  
Suspense Date: 5/23/02

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
XXX Na Ala Hele Trails  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Historic Preservation Division  
XXX Commission on Water Resource Management  
Land Division Branches:  
XXX Planning and Technical Services  
XXX Engineering Branch  
XXX Maui District Land Office

FROM: *J* Dierdre S. Mamiya, Administrator  
Land Division *Chadler*

SUBJECT: Pre-consultation- A&B Properties, Inc.'s Request for State  
Land Use District Boundary Amendments, Change in Zoning  
And Community Plan Amendments, Paia, Maui, Hawaii  
TMK: 2<sup>nd</sup>/ 2-5-05: Portion 018 and 2<sup>nd</sup>/ 2-5-05: 062

Please review the attached letter and exhibits covering the subject matter and submit your comments (if any) on Division letterhead (signed and dated) within the time requested above. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

( ) We have no comments.

( ) Comments attached.

Signed:

Date

RECEIVED  
LAND DIVISION

2002 MAY 22 A 11: 05



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

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

May 10, 2002

LD/NAV  
A&BMAUI250518.COM

L-2799  
Suspense Date: 5/23/02

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
XXX Na Ala Hele Trails  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Historic Preservation Division  
XXX Commission on Water Resource Management  
Land Division Branches:  
XXX Planning and Technical Services  
XXX Engineering Branch  
XXX Maui District Land Office

FROM: *J* Dierdre S. Mamiya, Administrator  
Land Division *Chadler*

SUBJECT: Pre-consultation- A&B Properties, Inc.'s Request for State  
Land Use District Boundary Amendments, Change in Zoning  
And Community Plan Amendments, Paia, Maui, Hawaii  
TMK: 2<sup>nd</sup>/ 2-5-05: Portion 018 and 2<sup>nd</sup>/ 2-5-05: 062

Please review the attached letter and exhibits covering the  
subject matter and submit your comments (if any) on Division  
letterhead (signed and dated) within the time requested above.  
Should you need more time to review the subject matter, please  
contact Nick Vaccaro at ext.: 7-0438.

If this office does not receive your comments on or before the  
suspense date, we will assume there are no comments.

( ) We have no comments.

(X) Comments attached.

Signed:

Date

02 MAY 13 PM 12:47 WATER & LAND

DEPARTMENT OF LAND AND NATURAL RESOURCES  
Land Division  
Engineering Branch

COMMENTS

For your information, the proposed project site, according to FEMA Community-Panel No. 150003 0185 C, is located in Zone C. This is an area of minimal flooding.

Signed: Andrew M. Monden  
ANDREW M. MONDEN, CHIEF ENGINEER

Date: 5/22/02



STATE OF HAWAII  
 DEPARTMENT OF LAND AND NATURAL RESOURCES  
 LAND DIVISION  
 P.O. BOX 821  
 HONOLULU, HAWAII 96809

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

May 10, 2002

LD/NAV  
 A&BMAUI250518.COM

Suspense Date: L-2799  
 5/23/02

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
 XXX Division of Forestry & Wildlife  
 XXX Na Ala Hele Trails  
 XXX Division of State Parks  
 XXX Division of Boating and Ocean Recreation  
 XXX Historic Preservation Division  
 XXX Commission on Water Resource Management  
 Land Division Branches:  
 XXX Planning and Technical Services  
 XXX Engineering Branch  
 XXX Maui District Land Office

2002 MAY 14 P. 4:22  
 L. [unclear]

FROM: *J. Dierdre S. Mamiya*, Administrator  
 Land Division *Charles*

SUBJECT: Pre-consultation- A&B Properties, Inc.'s Request for State  
 Land Use District Boundary Amendments, Change in Zoning  
 And Community Plan Amendments, Paia, Maui, Hawaii  
 TMK: 2<sup>nd</sup>/ 2-5-05: Portion 018 and 2<sup>nd</sup>/ 2-5-05: 062

Please review the attached letter and exhibits covering the subject matter and submit your comments (if any) on Division letterhead (signed and dated) within the time requested above. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: *[Signature]*

*DOFAW Administrator*

Date

*5/13/02*

RECEIVED  
LAND DIVISION



RECEIVED  
DIVISION OF  
LAND MANAGEMENT

2002 MAY 16 PM 12:48

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

2002 MAY 21 A 9:39

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

LAND DIVISION

P.O. BOX 821

HONOLULU, HAWAII 96809

May 10, 2002

LD/NAV  
A&BMAUI250518.COM

Suspense Date: L-2799  
5/23/02

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
XXX Na Ala Hele Trails  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Historic Preservation Division  
XXX Commission on Water Resource Management  
Land Division Branches:  
XXX Planning and Technical Services  
XXX Engineering Branch  
XXX Maui District Land Office

FROM: *J. Mamiya* Dierdre S. Mamiya, Administrator  
Land Division *Chalera*

SUBJECT: Pre-consultation- A&B Properties, Inc.'s Request for State  
Land Use District Boundary Amendments, Change in Zoning  
And Community Plan Amendments, Paia, Maui, Hawaii  
TMK: 2<sup>nd</sup>/ 2-5-05: Portion 018 and 2nd/ 2-5-05: 062

Please review the attached letter and exhibits covering the subject matter and submit your comments (if any) on Division letterhead (signed and dated) within the time requested above. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: *John K. Kyan*

Date May 20, 2002

May 13 3 47 PM '02



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

May 10, 2002

- ADMINISTRATOR
- ASST ADMIN
- ENV DR
- PLANNING
- REG ASST
- CLERICAL
- STAFF ASST
- INTERP BR
- POST/STAFF RIA
- PROPERTY & REC
- FIELD REPLY
- FILE
- FOLLOW UP
- INFO
- RUN COPIES
- RUSH DUE
- SEE ME
- FAX/SEND COPY TO

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

LD/NAV  
A&BMAUI250518.COM

Suspense Date: 5/23/02 L-2799

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
 XXX Division of Forestry & Wildlife  
 XXX Na Ala Hele Trails  
 XXX Division of State Parks  
 XXX Division of Boating and Ocean Recreation  
 XXX Historic Preservation Division  
 XXX Commission on Water Resource Management  
 Land Division Branches:  
 XXX Planning and Technical Services  
 XXX Engineering Branch  
 XXX Maui District Land Office

FROM: Jo Dierdre S. Mamiya, Administrator  
Land Division

*Charles*

SUBJECT: Pre-consultation- A&B Properties, Inc.'s Request for State Land Use District Boundary Amendments, Change in Zoning And Community Plan Amendments, Paia, Maui, Hawaii  
TMK: 2<sup>nd</sup>/ 2-5-05: Portion 018 and 2nd/ 2-5-05: 062

Please review the attached letter and exhibits covering the subject matter and submit your comments (if any) on Division letterhead (signed and dated) within the time requested above. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: *Dierdre Mamiya*

Date *5/15/02*

RECEIVED  
LAND DIVISION  
2002 MAY 16 A 9:50

MAY 22 2002

PHONE (808) 594-1888

FAX (808) 594-1865



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

HRD02-591

May 14, 2002

Mr. Dean K. Frampton  
Planner  
Munekiyo Hiraga, Inc.  
305 High Street – Suite 104  
Wailuku, Hawaii 96793

**SUBJECT: A&B PROPERTIES, INC.'S REQUEST FOR STATE LAND  
DISTRICT BOUNDARY AMENDMENTS, CHANGES IN  
ZONING, AND COMMUNITY PLAN AMENDMENTS, TMK:  
(2) 2-5-05:18 (POR.) ABD (2) 2-5-05:61, PAIA, MAUI**

Dear Mr. Frampton:

Thank you for the opportunity to review the above referenced request for State Land District Boundary and Community Plan amendments and changes in zoning for land located in Paia, Maui.

The Office of Hawaiian Affairs (OHA) has no comments at this point in time. If you have any questions, please contact Jerry B. Norris at 594-1847 or email him at [jerryn@oha.org](mailto:jerryn@oha.org).

Sincerely,

A handwritten signature in cursive script that reads "Jalna S. Keala".

Jalna S. Keala  
Acting Director, Hawaiian Rights Division

cc: OHA Board of Trustees  
Clyde W. Namu'o, OHA Administrator  
Thelma Shimaoka, Maui CAC

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



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

JUN 03 2002

BRUCE S. ANDERSON, Ph.D., M.P.H.  
DIRECTOR OF HEALTH

In reply, please refer to:  
File:

02-123/cpo

May 29, 2002

Mr. Dean K. Frampton, Planner  
Munekiyo & Hiraga, Inc.  
35 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Frampton:

Subject: Land Use Boundary Amendment (LUBA)  
(Including Zone Change Application and Community Plan Amendment)  
A&B Properties, Inc., Paia, Maui, Hawaii  
Tax Map Key: 2-5-005:18; 2-5-005:61

Thank you for the opportunity to review and comment on the subject proposal. The proposal was routed to the various branches of the Environmental Health Administration. We have the following comments.

Wastewater Branch (WWB)

The WWB have objections to the proposal, however, wastewater treatment and disposal are not addressed in the submittal. Therefore, we are not able to offer detailed comments on wastewater matters at this time.

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

If you have any questions, please contact the Wastewater Branch at (808) 586-4294.

Noise, Radiation and Indoor Air Quality (NRFAQ) Branch

All project activities shall comply with the Administrative Rules of the Department of Health, Chapter 11-46, on 'Community Noise Control', and chapter 11-39, on 'Conditioning and Ventilating'.

If you have any questions, please contact the NRFAQ at (808) 586-4701.

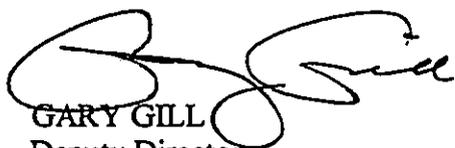
Mr. Dean K. Frampton, Planner  
May 29, 2002  
Page 2

Vector Control Branch (VCB)

The property may be harboring rodents, which will be dispersed to the surrounding areas when any buildings are demolished or the site is cleared. The applicant is required by Hawaii Administrative Rules, Chapter 11-26, 'Vector Control', to eradicate any rodents prior to demolition or site clearing activities and to notify the Department of Health by submitting Form VC-12 to the local Vector Control Branch when such action is taken. Rodent traps and/or rodenticides should be set out on the project site for at least a week or until the rodent activity ceases.

If you have any questions, please contact the Vector Control Branch at (808) 831-6767.

Sincerely,



GARY GILL  
Deputy Director  
Environmental Health Administration

c: WWB  
NRIAQ  
VCB



October 9, 2002

Gary Gill, Deputy Director  
State of Hawaii  
Department of Health  
P.O. Box 3378  
Honolulu Hawaii 96801

**SUBJECT: A&B Properties, Inc. Entitlements Request for District Boundary Amendment, Community Plan Amendment and Change in Zoning, Paia, Maui, TMK 2-5-05:18 (por.) and 2-5-05:61**

Dear Mr. Gill:

Thank you very much for your comment letter dated May 29, 2002 regarding the subject project. In response to the comments provided, we would like to note the following.

1. The draft environmental assessment (EA) will include discussion on wastewater treatment and disposal, which will be in conformance with the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems". The proposed development will connect to the existing County of Maui Wastewater System.
2. In an effort to reduce potential impacts to ambient noise levels, construction activities will comply with the Administrative Rules of the Department of Health (ARDOH), Chapter 11-46 on "Community Noise Control". Further, proposed improvements will be designed in conformance with ARDOH, Chapter 11-39, "Conditioning and Ventilating".
3. The applicant will comply with ARDOH, Chapter 11-26, "Vector Control" prior to site clearing activities.

Gary Gill, Deputy Director  
October 9, 2002  
Page 2

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

  
Dean K. Frampton, Planner

DKF:tn  
cc: Hideo Kawahara, A&B Properties, Inc.  
a&b/pa1ap/dohlr.001

MAY 31 2002



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809  
May 30, 2002

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

LD-NAV  
Ref.: A&BMAUI250518.RCM

L-2799/2911/2937/3037/3066

Munekiyo & Hiraga, Inc.  
Dean K. Frampton, Planner  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Frampton:

SUBJECT: Pre-Consultation for A&B Properties, Inc. - Request for  
State Land Use Boundary Amendments, Change in Zoning and  
Community Plan Amendments, Paia, Island of Maui, Hawaii  
TMK: 2<sup>nd</sup>/ 2-5-05: Portion 018 and 2<sup>nd</sup>/ 2-2-05: 062

Thank you for your letter (summary description and maps) dated May  
3, 2002, covering the subject matter.

The Department of Land and Natural Resources' (DLNR) Land Division  
distributed a copy of your letter and maps to the following DLNR  
Divisions for their review and comment:

Division of Aquatic Resources - Division of Forestry and  
Wildlife - Na Ala Hele Trails - Division of State Parks -  
Division of Boating and Ocean Recreation - Historic  
Preservation Division - Commission on Water Resource  
Management - Land Division Planning and Technical Services -  
Land Division Engineering Branch - Maui District Land Office

Attached herewith is a copy of the Commission on Water Resource  
Management and the Land Division Engineering Branch comment.

The Department of Land and Natural Resources has no other comments  
to offer at this time based on the attached responses. Should the Land  
Division receive additional comments, they will be forwarded to your  
office at that time.

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

Very truly yours,

A handwritten signature in cursive script, appearing to read "Dierdre S. Mamiya".

DIERDRE S. MAMIYA  
Administrator

c: Maui District Land Office

MAY 31 2002

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



GILBERT S. COLOMA-AGARAN  
CHAIRPERSON

BRUCE S. ANDERSON  
MEREDITH J. CHING  
CLAYTON W. DELA CRUZ  
BRIAN C. NISHIDA  
HERBERT M. RICHARDS, JR.

LINNEL T. NISHIOKA  
DEPUTY DIRECTOR

2002 MAY 22 A 11:04

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P.O. BOX 621  
HONOLULU, HAWAII 96809

May 20, 2002

TO: Ms. Dede Mamiya, Administrator  
Land Division

FROM: Linnel T. Nishioka, Deputy Director *Linnel T. Nishioka*  
Commission on Water Resource Management (CWRM)

SUBJECT: Pā'ia 4.8-ac Rezoning for Post Office, Business, & "Public" use

FILE NO.: A&BMAUI250518.COM

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

- We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.
- We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.
- The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.
- Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county's Building Department and the developer's acceptance of any resulting requirements related to erosion control.
- If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the instream flow standard for the affected stream(s).
- If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.
- OTHER:  
County guidelines can be used to estimate water requirements.

If there are any questions, please contact Charley Ice at 587-0251.



October 9, 2002

Linnel T. Nishioka, Deputy Director  
DLNR-CWRM  
State of Hawaii  
P.O. Box 621  
Honolulu Hawaii 96809

**SUBJECT: A&B Properties, Inc. Entitlements Request for District Boundary Amendment, Community Plan Amendment and Change in Zoning, Paia, Maui, TMK 2-5-05:18 (por.) and 2-5-05:61**

Dear Ms. Nishioka:

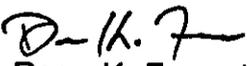
Thank you very much for your comment letter dated May 20, 2002 regarding the subject project. In response to the comments provided, we would like to note the following.

1. To the extent practicable, the applicant will utilize conservation measures and alternative non-potable water resources in the development and maintenance of the proposed project to conserve water resources. Further, the applicant will employ best management practices during project construction in an effort to minimize adverse impacts on groundwater resources in the vicinity of the project area.
2. Appropriate coordination with the County of Maui, Department of Water Supply will be undertaken to ensure that the project development parameters are included in the County's Water Use and Development Plan.

Linnel T. Nishioka, Deputy Director  
October 9, 2002  
Page 2

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

  
Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.

a&b/palapo/din/tr.001

MAY 16 2002



DEPARTMENT OF  
**HOUSING AND HUMAN CONCERNS**  
COUNTY OF MAUI

JAMES "KIMO" APANA  
Mayor

ALICE L. LEE  
Director

PRISCILLA P. MIKELL  
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165

May 8, 2002

Mr. Dean K. Frampton, Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Frampton:

**SUBJECT: A & B PROPERTIES, INC.'S REQUEST FOR STATE  
LAND USE DISTRICT BOUNDARY AMENDMENTS, CHANGES  
IN ZONING AND COMMUNITY PLAN AMENDMENTS,  
TMK (2) 2-5-05:18 (por) AND (2) 2-5-05:61,  
PAIA, MAUI**

We have reviewed your May 3, 2002 letter and have no comment to offer as the proposed change in zoning requests to Country Town Business and Public/Quasi Public do not permit the development of new multi-family or single family housing units.

Thank you for the opportunity to comment.

Very truly yours,

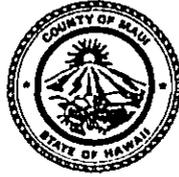
A handwritten signature in cursive script, appearing to read "Alice L. Lee".

ALICE L. LEE  
Director

ETO:hs

c: Housing Administrator

MAY 24 2002



**DEPARTMENT OF WATER SUPPLY**  
**COUNTY OF MAUI**  
P.O. BOX 1109  
WAILUKU, MAUI, HAWAII 96793-7109  
Telephone (808) 270-7816 • Fax (808) 270-7833

May 13, 2002

Mr. Dean K. Frampton  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

RE: A&B Properties, Inc.'s Request for State Land Use District Boundary Amendments,  
Changes in Zoning, and Community Plan Amendments, TMK: 2-5-05:018 por and 2-5-05:61

Dear Mr. Frampton:

This is in response to your letter of May 3, 2002.

The subject property is served by an 8-inch water line and four fire hydrants at 300 - 400 ft spacing. Future build-out of the subject properties will require system improvements, including possibly water line upgrade and storage.

Potential demand for the subject properties, if built-out, would be about 28,700 gpd, based on system standards for commercial use. The project area is served by the Central Maui System. The major source of water for this system is the Iao Aquifer. Rolling annual average groundwater withdrawals from the Iao Aquifer as of May 1, 2002 were 16.432 MGD. The regulatory sustainable yield of this aquifer is 20 MGD. If rolling annual average withdrawals exceed 20 MGD, the State Commission on Water Resource Management will designate Iao Aquifer. Four wells withdrawing from the Waihee aquifer is currently supplementing the Central Maui System. The Department is continuing to implement a plan to bring new sources on-line and to mitigate withdrawals. Nevertheless, the applicant should be made aware that the timing of this project may be affected with possible delays until new sources can be brought on-line. No guarantee of water is granted or implied as a result of these comments. Water availability will be reviewed at the time of application for meter or meter reservation.

Should you have any questions, please contact our Water Resources and Planning Division at 270-7199.

Sincerely,

A handwritten signature in black ink, appearing to read "David Craddick".

David Craddick  
Director  
emb

c: engineering division

*By Water All Things Find Life*



October 9, 2002

David Craddick, Director  
Department of Water Supply  
County of Maui  
P.O. Box 1109  
Wailuku Hi 96793-7109

**SUBJECT: A&B Properties, Inc. Entitlements Request for District Boundary Amendment, Community Plan Amendment and Change in Zoning, Paia, Maui, TMK 2-5-05:18 (por.) and 2-5-05:61**

Dear Mr. Craddick:

Thank you very much for your comment letter dated May 13, 2002 regarding the subject project. In response to the comments provided, we would like to note the following.

The applicant will coordinate with Department of Water Supply staff to determine the necessary system improvements for the proposed project. Further, the applicant acknowledges that water availability is not guaranteed. However, in developing the subject project, the applicant intends to utilize available credit from the Central Maui Source Joint Venture.

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

A handwritten signature in black ink, appearing to read "Dean K. Frampton", is written above the printed name.

Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.

a&b/palapo/dwaltr.001

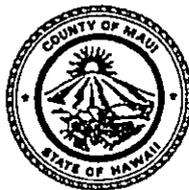
MAY 30 2002

FLOYD S. MIYAZONO  
Director

GLENN T. CORREA  
Deputy Director

(808) 270-7230  
Fax (808) 270-7934

JAMES "KIMO" APANA  
Mayor



**DEPARTMENT OF PARKS & RECREATION**

1580-C Kaahumanu Avenue, Wailuku, Hawaii 96793

May 23, 2002

Mr. Dean Frampton  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

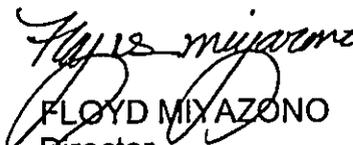
Dear Mr. Frampton:

Subject: **A&B Properties, Inc.'s Request for State Land Use District Boundary Amendments, Changes In Zoning, and Community Plan Amendments TMK 2-5-05: 18 (por.) and 61, Paia**

Our Department has reviewed the subject request and have no comments at this time.

Thank you for the opportunity to review and comment. Please feel free to contact me or Mr. Patrick Matsui, Chief of Planning and Development, at 270-7387 if there are any questions.

Sincerely,

  
FLOYD MIYAZONO  
Director

c: Patrick Matsui, Chief of Parks Planning & Development

*Quality Seamless Service – Now and for the Future*



JAMES "KIMO" APANA  
MAYOR

OUR REFERENCE  
tv  
YOUR REFERENCE

**POLICE DEPARTMENT**  
COUNTY OF MAUI

55 MAHALANI STREET  
WAILUKU, HAWAII 96793  
(808) 244-6400  
FAX (808) 244-6411

May 29, 2002



THOMAS M. PHILLIPS  
CHIEF OF POLICE

KEKUHAUPIO R. AKANA  
DEPUTY CHIEF OF POLICE

JUN 05 2002

Mr. Dean K. Frampton  
Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, HI 96793

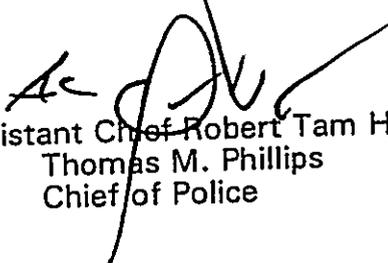
Dear Mr. Frampton:

SUBJECT: A & B Properties, Inc.'s Request for State Land Use District Boundary Amendments, Changes in Zoning, and Community Plan Amendments, TMK (2) 2-5-05:18 (por.) And (2) 2-5-05:61

Thank you for your letter of May 3, 2002, requesting comments on the above subject.

The assessment was reviewed and we have no additional comments or recommendations at this time. Thank you for giving us the opportunity to comment on this project. We are returning the summary which provided a general overview of the proposed action.

Very truly yours,

  
Assistant Chief Robert Tam Ho  
for: Thomas M. Phillips  
Chief of Police

Enclosure

c: John E. Min, Planning Department

TO : THOMAS PHILLIPS, CHIEF, MAUI POLICE DEPARTMENT  
VIA : CHANNELS  
FROM : RANDALL BURGESS, P.O.III, COMMUNITY POLICING  
SUBJECT : DISTRICT BOUNDARY AND COMMUNITY PLAN AMENDMENTS TO TMK (2)2-5-05:18 AND (2)2-5-05:61, PAIA, HAWAII

*Terry,  
Plz prepare letter.  
A-4  
5/23/02*

Sir, this To/From is being submitted in regards to police comments to A&B Properties, Inc. request for State Land Use District Boundary Amendments, Changes In Zoning, and Community Plan Amendments for (2) parcels located in Paia, Hi. and identified as TMK (2)2-5-05:18 and TMK (2)2-5-05:61.

Project review and area inspection reveals no police comments/recommendations at this time.

Respectfully submitted,

*Randall Burgess*

Randall BURGESS #1023  
051602 @ 1515 hours

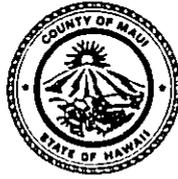
Noted. No other concerns at this time.

*B*  
Sgt. Barry AOKI-1041  
05/21/02 @ 1305 hours

*No concerns noted  
by Off. Bonnett.  
Answers per AOKI.*

*Capt. C  
Stor*

JAMES, "KIMO" APANA  
Mayor  
JOHN E. MIN  
Director  
CLAYTON I. YOSHIDA  
Deputy Director



JUN 26 2002

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

June 24, 2002

Mr. Dean Frampton  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Frampton:

RE: Pre-Consultation Comments for a Draft Environmental Assessment (DEA) for A&B Properties Community Plan Amendments, and Changes in Zoning, Paia, Maui, Hawaii, TMKs: 2-5-005:018 (por) and 2-5-005:061

Thank you for the opportunity to comment on these proposed entitlements. We offer the following comments that should be addressed:

1. While Figure 3 is not to scale, Area "E" is depicted as somewhat larger than what is shown on the County's Paia-Haiku Community Plan Land Use Map. The community plan map shows the western, makai corner of this Public-designated area at approximately where TMKs: 2-6-003:036 and 053 meet. Your map shows the same point further west at approximately where TMKs: 2-6-003:051 and 052 meet. This is approximately 75 feet wider than the community plan map. The mauka, western boundary appears to be even wider. An enlarged portion of this map is enclosed.

Either the figures should be graphically correct, or the intent to enlarge the Public designated area should be discussed in the DEA.

2. During the community plan revision, the intent in designating the Public area ("E") was to provide parking for the new business area on Baldwin Avenue ("D"). If there are other purposes for the Public area, it should be discussed in the DEA.

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793  
PLANNING DIVISION (808) 270-7735; ZONING DIVISION (808) 270-7253; FACSIMILE (808) 270-7634

*Quality Seamless Service - Now and for the Future*

Mr. Dean Frampton  
June 24, 2002  
Page 2

3. The DEA should analyze the potential entitlements cumulatively at their full potential build out, as well as individually. For instance, the traffic analysis should assume that the business area will build out to the maximum two-story potential. But the DEA should provide an analysis that also includes the Post Office and whatever is envisioned for the public area.

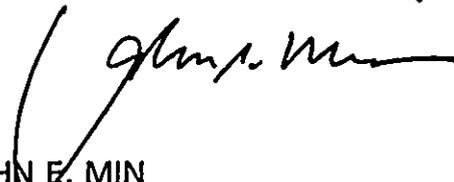
In particular, we note that the Post Office should not be left out of analysis. Regardless if it is already in operation, it generates traffic and places a demand on public utilities, and will continue

4. The DEA should discuss the demand on public services and utilities.

We also note that this area is partially within the Special Management Area, and appropriate permits will be required when construction is proposed.

Thank you for your cooperation. If additional clarification is required, please contact Mr. William R. Spence, Staff Planner, of this office at 270-7735.

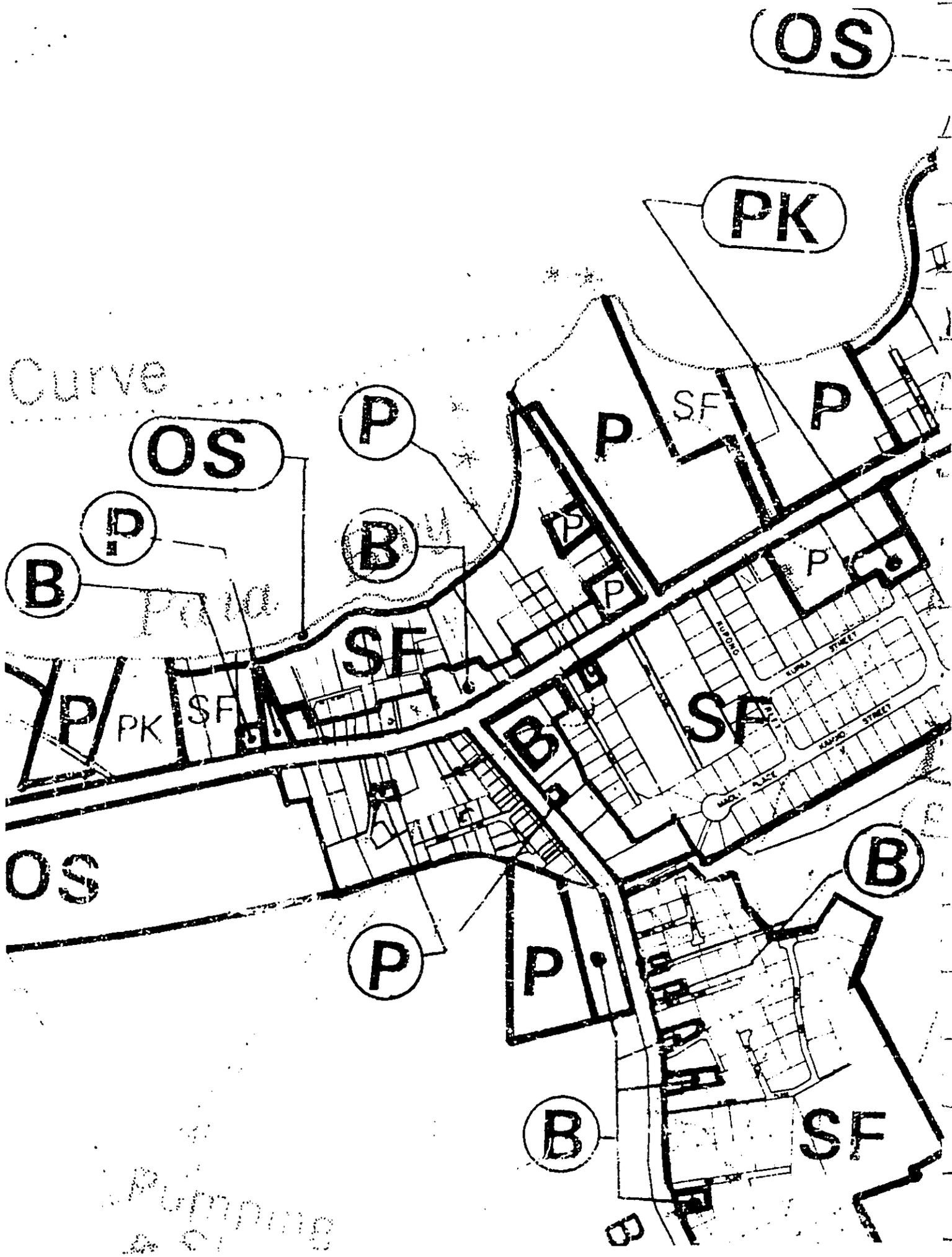
Very truly yours,



JOHN E. MIN  
Planning Director

JEM:WRS:smb  
Enclosure

c: Clayton I. Yoshida, AICP, Deputy Planning Director  
William R. Spence, Staff Planner  
Office of Environmental Quality Control  
General File  
K:\WP\_DOCS\PLANNING\LETTERS\ltr 2002\A&Bpaia-preconsult.wpd



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& Siting

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October 9, 2002

John Min, Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

**SUBJECT:** A&B Properties, Inc. Entitlements Request for District Boundary Amendment, Community Plan Amendment, Community Plan Amendment and Changes in Zoning, Paia, Maui, TMK 2-5-05:18 (por.) and 2-5-05:61

Dear Mr. Min:

Thank you very much for your comment letter dated June 24, 2002 regarding the subject project. In response to the comments provided we would like to note the following.

1. Area E incorporates a land area of approximately 3.691 acres, and is not larger than the 3.75 acres designated for Public/Quasi-Public Use by the 1995 Paia-Haiku Community Plan Land Use Map. The graphical depiction of Area E in Figure 3 is intended to address the land area parameter without compromising the intent of the land use map.
2. The draft environmental assessment (EA) will include discussion regarding potential public/quasi public land uses in Area E.
3. The draft EA will address the impacts of the existing Paia Post Office and the cumulative effect of the proposed entitlement requests, taking into account the project's maximum potential build-out.
4. The draft EA will include discussion on the project's anticipated demand on public services and utilities.
5. The applicant acknowledges that the project area is partially located within the Special Management Area(SMA). As such, appropriate SMA applications will be filed prior to any construction activities.

John Min, Director  
October 9, 2002  
Page 2

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,



Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.

a&b/paispo/planntr.001

# **Chapter XI**

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**Letters Received During the Draft  
Environmental Assessment Public  
Comment Period and Responses  
to Substantive Comments**

**XI. LETTERS RECEIVED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT PUBLIC COMMENT PERIOD AND RESPONSES TO SUBSTANTIVE COMMENTS**

Pursuant to the requirements of the environmental review process, letters received during the Draft Environmental Assessment public comment period, as well as responses to substantive comments, are included in this section.

04/0107

BENJAMIN J. CAYetano  
GOVERNOR



ANTHONY J.H. CHING  
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

02 NOV 20 P1:53

DEPT OF B...  
CO...  
NOV 20 2002

November 18, 2002

Mr. John E. Min, Planning Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Min:

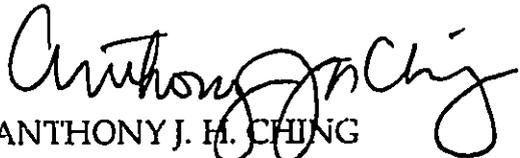
Subject: CIZ 2002/0014, DBA 2002/0005 & CPA 2002/0012  
Applicant: A and B Properties, Inc.  
TMK No. 2-5-005:061 & por. 18  
Project Name: Paia Main Post Office & Adjacent Country Town  
Business/Parking Area

We acknowledge receipt of your transmittal dated October 24, 2002 regarding the above subject project.

Given the location, scope, and nature of the proposed activity, the State Land Use Commission defers to the judgment of the County of Maui Planning Commission in this matter. We have no further comments to offer at this time.

Thank you for the opportunity to comment on the subject project. Please feel free to contact me at 587-3822 should you require clarification or any further assistance.

Sincerely,

  
ANTHONY J. H. CHING  
Executive Officer

BENJAMIN J. GATEIANG  
GOVERNOR



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

BRIAN K. MINAAI  
DIRECTOR

DEPUTY DIRECTORS  
GLENN M. OKIMOTO  
JADINE Y. URASAKI

IN REPLY REFER TO:

STP 8 0548  
02 NOV 27 P 1:17

November 21, 2002

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

Mr. John E. Min  
Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Min:

Subject: Paia Main Post Office & Adjacent Country Town Business/Parking Area  
Change in Zone (CIZ 2002/0014, District Boundary Amendment (DBA 2002/0005), &  
Community Plan Amendment (CPA 2002/0012)  
TMK: 2-5-005: 061 & por. 18

Thank you for your transmittal requesting our review of the subject proposal.

The subject proposal will not impact our State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "Brian K. Minaai".

BRIAN K. MINAAI  
Director of Transportation

NOV 25 2002

GENEVIEVE SALMONSON  
DIRECTOR

BENJAMIN J. CAYETANO  
GOVERNOR



**STATE OF HAWAII**  
**OFFICE OF ENVIRONMENT QUALITY CONTROL**

235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 586-4186

November 22, 2002

Mr. Hideo Harakawa  
A&B Properties, Inc.  
33 Lono Avenue, Suite 400  
Kahului, Hawaii'I 96732

Ms. Robin Loudermilk  
County of Maui, Department of Planning  
250 South High Street  
Wailuku, Hawaii'I 96793

Mr. Michael Munekiyo  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii'I 96793

Dear Messrs. Harakawa and Munekiyo, and Ms. Loudermilk:

The Office of Environmental Quality Control has reviewed the draft environmental assessment for the entitlements request for Paia Main Post Office and Adjacent Country Town Residential/Parking Area, Tax Map Key (2), 2-5-5, parcels 61 and a portion of parcel 18, in the judicial district of Makawao. We have reviewed the document and offer the following comments for your consideration.

1. **Use of xerophagic native Hawaiian plants in landscaping.** To the extent possible, please consider using native xerophagic Hawaiian plants in landscaping.
2. **Use of glassphalt aggregate in resurfacing paved areas.** To the extent possible, please consider using glass-asphalt aggregate in resurfacing paved areas.
3. **Sustainable building guidelines.** We recommend that you visit our website below, and incorporate appropriate sustainable building guidelines in the design of future projects.

Please see guidance documents for environmental assessment preparation at our Internet Website at <http://www.state.hi.us/health/oeqc/index.html>. Thank you for the opportunity to comment. If you have any questions, please contact Mr. Leslie Segundo, Environmental Health Specialist at (808) 586-4185 (voice) or at [lsegundo@mail.health.state.hi.us](mailto:lsegundo@mail.health.state.hi.us) (electronic mail).

Sincerely,

A handwritten signature in cursive script, appearing to read "Genevieve Salmonson".

GENEVIEVE SALMONSON  
Director



January 28, 2003

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

**SUBJECT: A&B Properties, Inc. Entitlements Request for Paia Main Post Office  
and Adjacent Country Town Business/Parking Area, Paia, Maui; TMK  
2-5-05:18(por.) and 2-5-05:61**

---

Dear Ms. Salmonson:

Thank you very much for your comment letter dated November 22, 2002 regarding the subject project. In response to the comments provided, we would like to note the following.

Upon the future development of Parcel 18, the applicant will utilize, to the greatest extent practicable, native Hawaiian plants for landscaping, glass-asphalt aggregate in resurfacing paved areas and sustainable building guidelines.

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

A handwritten signature in dark ink, appearing to read "D. K. Frampton", with a horizontal flourish extending to the right.

Dean K. Frampton, Planner

DKF:lfm

cc: Hideo Kawahara, A&B Properties  
Robyn Loudermilk, Department of Planning

a&b/paia/po/oeqctr.res



Mr. John E. Min  
Page 2  
December 4, 2002

Since the Property is located adjacent to the State Urban District, and the Paia Main Post Office is already on a portion of the Property, we have no objections to the proposed amendments.

Thank you for the opportunity to comment on this application. Should you have any questions, please call Lorene Maki at 587-2888.

Sincerely,



Mary Lou Kobayashi  
Planning Program Administrator

c: Anthony Ching, LUC

PHONE (808) 594-1888

FAX (808) 594-1865



**STATE OF HAWAII**  
**OFFICE OF HAWAIIAN AFFAIRS**  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

'02 DEC 17 P2:43  
HRD02-591  
DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

December 12, 2002

Ms. Robyn L. Loudermilk  
Staff Planner  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Maui, HI 96793

**SUBJECT: A&B PROPERTIES, INC.'S REQUEST FOR STATE LAND  
DISTRICT BOUNDARY AMENDMENTS, CHANGES IN  
ZONING, AND COMMUNITY PLAN AMENDMENTS, TMK:  
(2) 2-5-05:18 (FOR.) ABD (2) 2-5-05:61, PAIA, MAUI**

Dear Ms. Loudermilk:

Thank you for the opportunity to review the above referenced request for State Land District Boundary and Community Plan amendments and changes in zoning for land located in Paia, Maui.

The Office of Hawaiian Affairs (OHA) has no comments at this point in time. If you have any questions, please contact Jerry B. Norris at 594-1847 or email him at [jerryn@oha.org](mailto:jerryn@oha.org).

Sincerely,

A handwritten signature in black ink that reads "Ernest Kimoto".  
Ernest Kimoto  
Acting Director  
Hawaiian Rights Division

LINDA LINGLE  
GOVERNOR OF HAWAII



LORETTA J. FUDDY, A.C.S.W., M.P.H.  
ACTING DIRECTOR OF HEALTH

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

In reply, please refer to:  
File:

December 23, 2002

Mr. John Min  
Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawai'i 96793

Attention: Robyn Loudermilk

Dear Mr. Min:

Subject: **Paia Main Post Office & Adjacent Country Town  
Business/Parking Area  
TMK: (2) 2-5-005:061& por. 18  
CIZ 2002/0014, DBA 2002/0005 & CPA 2002/0012**

Thank you for the opportunity to comment on the land use applications for the Paia Post Office and Adjacent Country Town Business/Parking Area. The following comments are offered:

1. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.
2. HAR, Chapter 11-46, sets maximum allowable sound levels from stationary equipment such as compressors and HVAC equipment. The attenuation of noise from these sources may depend on the location and placement of these types of equipment. This should be taken into consideration during the planning, design, and construction of the building and installation of these types of equipment.
3. National Pollutant Discharge Elimination System (NPDES) permit coverage will be required. The Clean Water Branch of the Department of Health should be consulted regarding these permit requirements.

Mr. John Min  
December 23, 2002  
Page 2

4. Due to the nature and location of the project, there is a significant potential for fugitive dust emissions during site work preparations. It is recommended that a dust control management plan be developed. Implementation of adequate dust control measures during all phases of the project is warranted. Construction activities must comply with the provisions of HAR, Chapter 11-60.
5. The project site is subject to agricultural dust and cane smoke.
6. The property may be harboring rodents that will be dispersed to the surrounding areas when any buildings are demolished or the site is cleared. The applicant is required by HAR, Chapter 11-26, "Vector Control" to eradicate any rodents prior to demolition or site clearing activities and to notify the Department of Health by submitting Form VC-12 to the Maui Vector Control program when such action is taken. Rodent traps and/or rodenticides should be set out on the project site for at least a week or until the rodent activity ceases. The Maui Vector Control program phone number is 873-3560.

Should you have any questions, please call me at 984-8230.

Sincerely,



Herbert S. Matsubayashi  
District Environmental Health Program Chief



January 28, 2003

Herbert Matsubayashi, District Environmental  
Health Program Chief  
State of Hawaii  
Department of Health  
P.O. Box 3378  
Honolulu, Hawaii 96801

**SUBJECT: A&B Properties, Inc. Entitlements Request for District Boundary  
Amendment, Community Plan Amendment and Change in Zoning,  
Paia, Maui, TMK 2-5-05:18 (por.) and 2-5-05:61**

Dear Mr. Matsubayashi:

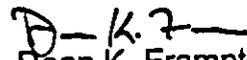
Thank you very much for your comment letter dated December 23, 2002 regarding the subject project. In response, we would like to note the following.

1. Upon the future development of TMK (2) 2-5-5:18 (Parcel 18), including Area D and Area E, the applicant will, if necessary, apply for a community noise permit .
2. In an effort to reduce potential impacts to ambient noise levels, future construction activities will comply with the Hawaii Administrative Rules (HAR) of the Department of Health, Chapter 11-46 on "Community Noise Control".
3. Upon the future development of Parcel 18, including Area D and Area E, the applicant will, as applicable, apply for a National Pollutant Discharge Elimination System (NPDES) general permit.
4. Prior to the development of Parcel 18, the applicant will, as applicable, prepare a dust control management plan, including adequate dust control measures in compliance with HAR, Chapter 11-60.
5. Prior to the development of Parcel 18, the applicant will take necessary measures to eliminate potential rodents in compliance with the requirements of HAR, Chapter 11-26, entitled "Vector Control".

Herbert Matsubayashi, District Environmental  
Health Program Chief  
January 28, 2003  
Page 2

Thank you for your interest in this important project . Should you have any questions or require additional information, please do not hesitate to call me at 244-9264.

Very truly yours,

  
Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.  
Robyn Loudermilk, Department of Planning

a&b/pa/apo/doh.res

LINDA LINGLE  
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.  
DIRECTOR OF HEALTH

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

In reply, please refer to:  
File:

02-307/epo

January 9, 2003

Mr. John E. Min, Planning Director  
County of Maui  
Department of Planning  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Min:

Subject: Draft Environmental Assessment (DEA)  
Paia Main Post Office & Adjacent Country Town Business/Parking Area  
A & B Properties, Inc. Wailuku, Maui  
Tax Map Key: 2-5-005:061 & por. 018

Thank you for the opportunity to review and comment on the subject proposal. The DEA was routed to the various branches of the Environmental Health Administration. We have the following comments:

Clean Water Branch (CWB)

1. The applicant should contact the Army Corps of Engineers to identify whether a federal permit (including a Department of Army permit) is required for this project. A Section 401 Water Quality Certification is required for "Any applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters...", pursuant to Section 401(a)(1) of the Federal Water Pollution Act (commonly known as the "Clean Water Act");
2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following discharges to waters of the State:
  - a. Discharge of storm water runoff associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi);
  - b. Discharge of storm water runoff associated with construction activities that involve the disturbance of five (5) acres or greater, including clearing, grading, and excavation;

Mr. John E. Min, Planning Director  
January 9, 2003  
Page 2

- c. Discharge of treated effluent from leaking underground storage tank remedial activities;
- d. Discharge of once-through cooling water at a rate of less than one million gallons per day;
- e. Discharge of hydro-testing water;
- f. Discharge of construction dewatering effluent;
- g. Discharge of treated effluent from petroleum bulk stations and terminals; and
- h. Discharge of treated effluent from well drilling activities.

Any person requesting coverage by a NPDES general permit for any of the above activities should file a Notice of Intent with the Department of Health, Clean Water Branch (CWB) at least thirty (30) days prior to commencement of any discharges to State waters;

- 3. If construction activities involve the disturbance of one acre or greater, including clearing, grading, and excavation, and will take place or extend after March 10, 2003, an NPDES general permit coverage is required for discharges of storm water runoff into State waters; and
- 4. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which wastewater is discharged from the project into State waters.

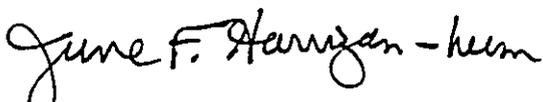
If you have any questions, please contact the Clean Water Branch at (808) 586-4309.

Noise, Radiation and Indoor Air Quality (NRIAQ) Branch

All project activities shall comply with the Administrative Rules of the Department of Health, Chapter 11-46, on "Community Noise Control."

If you have any questions, please contact the NRIAQ at (808) 586-4701.

Sincerely,



JUNE F. HARRIGAN-LUM, MANAGER  
Environmental Planning Office

c: CWB  
CAB  
WWB  
EPO



January 28, 2003

June F. Harrigan-Lum, Manager  
State of Hawaii  
Department of Health  
Environmental Planning Office  
P.O. Box 3378  
Honolulu, Hawaii 96801

**SUBJECT: A&B Properties, Inc. Entitlements Request for District Boundary Amendment, Community Plan Amendment and Change in Zoning, Paia, Maui, TMK 2-5-05:18 (por.) and 2-5-05:61**

Dear Ms. Harrigan-Lum:

Thank you very much for your comment letter dated January 9, 2003 regarding the subject project. In response, we would like to note the following.

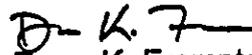
1. In a letter dated May 31, 2002, Mr. George Young, P.E., of the Department of the Army (DA), indicated there are no waters of the United States at the project site, and therefore a DA permit will not be required.
2. Upon the future development of the affected area of TMK (2) 2-5-5:18 (Parcel 18), including Area D and Area E, the applicant will, if necessary, apply for a National Pollutant Discharge Elimination System (NPDES) general permit. Further, should it be determined that a NPDES permit is required, the applicant will file the necessary Notice of Intent with the Clean Water Branch (CWB) at least thirty (30) days prior to commencement of any discharges into State waters.
3. Any future construction activities will comply with the Hawaii Administrative Rules, Department of Health, Chapter 11-46 on "Community Noise Control".

environment

Ms. June F. Harrigan-Lum, Manager  
January 28, 2003  
Page 2

Should you have any questions or require additional information, please do not hesitate to call me at 244-9264.

Very truly yours,

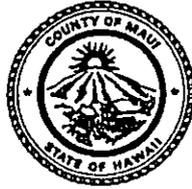
  
Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.  
Robyn Loudermilk, Department of Planning

a&b/palapo/dohapo.res

NOV 07 2002



**DEPARTMENT OF WATER SUPPLY**

**COUNTY OF MAUI**

P.O. BOX 1109

WAILUKU, MAUI, HAWAII 96793-6109

Telephone (808) 270-7816 • Fax (808) 270-7199

October 29, 2002

Ms. Robyn Loudermilk, Staff Planner  
County of Maui  
Planning Department  
250 South High Street  
Wailuku HI 96793

Project Name: Paia Main Post Office & Adjacent Country  
TMK : 2-5-05:061 & por. 018  
ID: CIZ 2002/0014, DBA 2002/0005 & CPA 2002/0012

Dear Ms. Loudermilk,

Thank you for the opportunity to provide comments to this application.

Parcel 16 is currently served by a 1-inch water meter. Average consumption for the facility is 1,200 gallons per day (gpd). Water use for future commercial build-out of parcel 18, including landscaping irrigation of parking area would be about 30,750 gpd, based on system standards. This project area is served by the Central Maui System. The sources of water for this system is the Iao and Waihee aquifers. Water availability will be reviewed at the time of application for meter or meter reservation. If source water allocation is available through the Central Maui Joint Venture Agreement, source will be deducted from the A&B Properties allocation. There is not adequate storage to provide for additional build-out of Paia town. Storage construction or participation may be required for future development of parcel 18. The applicant should contact our engineering division at 270-7835 to discuss storage requirements.

We recommend that the following water conservation measures be incorporated in project design where appropriate:  
**Eliminate Single-Pass Cooling:** Single-pass, water-cooled system should be eliminated per Maui County Code Subsection 14.21.20. Although prohibited by code, single-pass water cooling is still manufactured into some models of air-conditioners, freezers, and commercial refrigerators.

**Utilize Low-Flow Fixtures and Devices:** Maui County Code Subsection 16.20A.680 requires the use of low-flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice-makers and other units are also available.

**Maintain Fixtures to Prevent Leaks:** A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Refer to the attached handout, "The Costly Drip". The applicant should

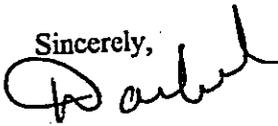
establish a regular maintenance program.

Use Climate-adapted Plants: The project is located in the "Maui County Planting Plan" - Plant Zone 3. We encourage the applicant to use native, climate-adapted plants in all landscaping. Native plants conserve water and protect the watershed from degradation due to invasive alien species. Please refer to the attached brochure: "Saving Water In The Yard - What and How to Plant In Your Area".

Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evapotranspiration rates at the site. As an alternative, provide the more automated, soil-moisture sensors on controllers.

Should you have any questions, please call the Water Resources and Planning Division at: 270-7199.

Sincerely,



David Craddick  
Director  
emb

C:\WPdocs\Permcorm\Paia Main Post Office & Adjacent Country.wpd

c: engineering division  
applicant w/attachments:

"The Costly Drip"  
"Saving Water in the Yard-What and How to Plant in your Area"  
A Checklist of Water Conservation Ideas For Commercial Buildings  
Ordinance 2108 - An Ordinance Amending Chapter 16.20 of the Maui County Code, Pertaining to the Plumbing Code

*By Water All Things Find Life*

ORDINANCE NO. 2108

BILL NO. 6 (1992)

Draft 1

A BILL FOR AN ORDINANCE AMENDING  
CHAPTER 16.20 OF THE MAUI COUNTY  
CODE, PERTAINING TO THE PLUMBING CODE

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. Title 16 of the Maui County Code is amended by adding a new section to Chapter 10 of the Uniform Plumbing Code to be designated and to read as follows:

"16.20.675 Section 1050 added. Chapter 10 of the Uniform Plumbing Code is amended by adding a new section, pertaining to low-flow water fixtures and devices, to be designated and to read as follows:

Sec. 1050 Low-flow water fixtures and devices. (a) This section establishes maximum rates of water flow or discharge for plumbing fixtures and devices in order to promote water conservation.

(b) For the plumbing fixtures and devices covered in this section, manufacturers or their local distributors shall provide proof of compliance with the performance requirements established by the American National Standards Institute (ANSI) and such other proof as may be required by the director of public works. There shall be no charge for this registration process.

(c) Effective December 31, 1992, only plumbing fixtures and devices specified in this section shall be offered for sale or installed in the County of Maui, unless otherwise indicated in this section. All plumbing fixtures and devices which were installed before December 31, 1992, shall be allowed to be used, repaired or replaced after December 31, 1992.

(1) Faucets (kitchen): All kitchen and bar sink faucets shall be designed, manufactured, installed or equipped with a flow control device or aerator which will prevent a water flow rate in excess of two and two-tenths gallons per minute at sixty pounds per square inch of water pressure.

(2) Faucets (lavatory): All lavatory faucets shall be designed, manufactured, installed or equipped with a flow control device or aerator which will prevent a water flow rate in excess of two and two tenths gallons per minute at sixty pounds per square inch of water

pressure.

(3) Faucets (public rest rooms): In addition to the lavatory requirements set forth in paragraph (2), lavatory faucets located in rest rooms intended for use by the general public shall be of the metering or self-closing types.

(4) Hose bibbs: Water supply faucets or valves shall be provided with approved flow control devices which limit flow to a maximum three gallons per minute.

EXCEPTIONS: (A) Hose bibbs or valves not used for fixtures or equipment designated by the director of public works.

(B) Hose bibbs, faucets, or valves serving fixed demand, timing, or water level control appliances, and equipment or holding structures such as water closets, pools, automatic washers, and other similar equipment.

(5) Showerheads: Showerheads, except where provided for safety or emergency reasons, shall be designed, manufactured, or installed with a flow limitation device which will prevent a water flow rate in excess of two and one-half gallons per minute at eighty pounds per square inch of water pressure. The flow limitation device must be a permanent and integral part of the showerhead and must not be removable to allow flow rates in excess of two and one-half gallons per minute or must be mechanically retained requiring force in excess of eight pounds to remove.

(6) Urinals: Urinals shall be designed, manufactured, or installed so that the maximum flush will not exceed one gallon of water. Adjustable type flushometer valves may be used provided they are adjusted so the maximum flush will not exceed one and six tenths gallons of water.

(7) Water closets (toilets): Water closets shall be designed, manufactured, or installed so that the maximum flush will not exceed one and six tenths gallons of water.

(d) Beginning December 31, 1992, it is unlawful to sell or install any plumbing fixtures or devices not specified in this section, except as permitted under this section.

(e) The director of public works may exempt the use of low-flow water fixtures and devices if there is a finding that the use of such fixtures and devices would not be consistent with accepted engineering practices and would be detrimental to the public health, safety and welfare.

(f) Any person violating this section shall be fined \$250 for each violation and shall correct all instances of non-compliance for which a citation is issued. Violation of this section shall constitute a violation as defined in section 701-107 Hawaii Revised Statutes and shall be enforceable by employees of the department of public works. The foregoing fine may also be imposed in a civil, administrative proceeding pursuant to Rules and Regulations adopted by the department of public works in accordance with chapter 91 Hawaii Revised Statutes."

SECTION 2. New material is underscored. In printing this bill, the County Clerk need not include the underscoring.

SECTION 3. This ordinance shall take effect upon its approval.

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APPROVED AS TO FORM  
AND LEGALITY:

  
HOWARD M. FUKUSHIMA  
Deputy Corporation Counsel  
County of Maui  
c:\wp51\ords\flows4\pk

WE HEREBY CERTIFY that the foregoing BILL NO. 6 (19 92 ), Draft 1

1. Passed FINAL READING at the meeting of the Council of the County of Maui, State of Hawaii, held on the 1st day of May, 1992, by the following votes:

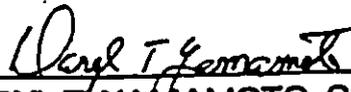
Howard S. KIHUNE Chair	Patrick S. KAWANO Vice-Chair	Vince G. BAGOYO, Jr.	Goro HOKAMA	Alice L. LEE	Ricardo MEDINA	Wayne K. NISHIKI	Joe S. TANAKA	Leinaala TERUYA DRUMMOND
Aye	Aye	Excused	Excused	Aye	Aye	Aye	Aye	Aye

2. Was transmitted to the Mayor of the County of Maui, State of Hawaii, on the 1st day of May, 1992.

DATED AT WAILUKU, MAUI, HAWAII, this 1st day of May, 1992.



HOWARD S. KIHUNE, CHAIR  
Council of the County of Maui



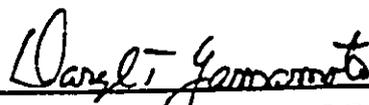
DARYL T. YAMAMOTO, COUNTY CLERK  
County of Maui

THE FOREGOING BILL IS HEREBY APPROVED THIS 5<sup>th</sup> DAY OF MAY, 1992.



LINDA CROCKETT LINGLE, MAYOR  
County of Maui

I HEREBY CERTIFY that upon approval of the foregoing BILL by the Mayor of the County of Maui, the said BILL was designated as ORDINANCE NO. 2108 of the County of Maui, State of Hawaii.



DARYL T. YAMAMOTO, COUNTY CLERK  
County of Maui

Passed First Reading on January 17, 1992.  
Effective date of Ordinance May 5, 1992.

I HEREBY CERTIFY that the foregoing is a true and correct copy of Ordinance No. 2108, the original of which is on file in the Office of the County Clerk, County of Maui, State of Hawaii.

Dated at Wailuku, Hawaii, on

County Clerk, County of Maui

## A Checklist of Water Conservation Ideas For

# Commercial Buildings

This checklist provides water conservation tips successfully implemented by industrial and commercial users. This list has been revised from the original copy first published and distributed by the Los Angeles Department of Water and Power.

### General suggestions

Increase employee awareness of water conservation.

Install signs encouraging water conservation in employee and customer restrooms.

When cleaning with water is necessary, use budgeted amounts.

Determine the quantity and purpose of water being used.

Read water meter weekly to monitor success of water conservation efforts.

Assign an employee to monitor water use and waste.

Seek employee suggestions on water conservation; put suggestion boxes in prominent areas.

Determine other methods of water conservation.

### Building maintenance

Check water supply for leaks.

Turn off any unnecessary flows.

Repair dripping faucets and showers and continuously running or leaking toilets.

Install faucet aerators where possible.

Reduce toilet water use by adjusting flush valves or installing dams and flapper mechanisms.

As appliances or fixtures wear out, replace them with water-saving models.

Shut off water supply to equipment rooms not in use.

Minimize the water used in cooling equipment in accordance with manufacturers recommendations. Shut off cooling units when not needed.

### Cafeteria area

Turn off continuous flow used to clean the drain trays.

Turn off dishwasher when not in use. Wash full loads only.

Use water from steam tables to wash down cooking area.

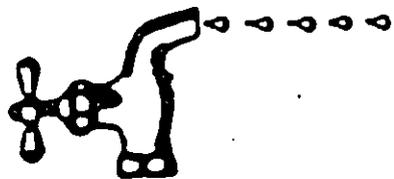
Do not use running water to melt ice or frozen foods.

Use water-conserving ice makers.

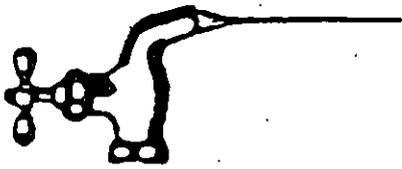
## "THE COSTLY DRIP"



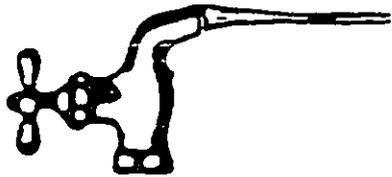
Slowly Dripping  
Spigot Wastes  
15 Gallons a day.



1/32" Leak Wastes  
25 Gallons a day.



1/16" Stream Wastes  
100 Gallons a Day.



1/8" Stream Wastes  
400 Gallons a day.



# Zone-specific Native and Polynesian plants for Maui County

# Zone 1

TYPE: F Fem G Grass Sh Shrub S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	<i>Sadleria cyatheoides</i>	'ama'u, ama'uma'u				
Gr - Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Wet
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia arecina</i>	io'ulu, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	<i>Pritchardia forbesiana</i>	io'ulu	15'			
P	<i>Pritchardia hillebrandii</i>	io'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Maniscus javanicus</i>	marsh cypress, ahua'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	<i>Cordyline fruticosa</i>	ti, ki	6'			
Sh	<i>Hedyotis</i> spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Charpentiera obovata</i>	kou	15'			
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Hibiscus furcellatus</i>	'akiohala, hau-hele	8'			
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
V	<i>Alyxia olivifolia</i>	male	Vine		sea to 6,000'	Medium to Wet

# Zone 2

## Zone-specific Native and Polynesian plants for Maui County

TYPE:	F Fern	G Grass	Gr Ground Cover	Sh Shrub	P Palm	S Sedge	Tr Tree	V Vine
Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.		
F	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet		
F	<i>Sadleria cyatheoides</i>	'ama'u, amatumau	1'	2'	sea to 3,000'	Dry to Medium		
G	<i>Eragrostis monicola</i>	kalamalo	1'	10'	sea to 3,000'	Dry to Medium		
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, 'uala	1'	1'	sea to 3,000'	Dry to Medium		
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'					
Gr	<i>Plumbago zeylanica</i>	'ilie	1'					
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium		
Gr - Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium		
Sh	<i>Argemone glauca var. decipiens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium		
Sh	<i>Artemisia mauiensis var. diffusa</i>	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium		
Sh	<i>Chenopodium oahuense</i>	'ahaheha, 'aweoweo	6'		sea to higher	Dry to Medium		
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium		
Sh	<i>Lipochaeta lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium		
Sh	<i>Osteomeles anthyllifolia</i>	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium		
Sh	<i>Sennea gaudichaudii</i>	kolomana	5'	5'	sea to 3,000'	Dry to Medium		
Sh	<i>Styphelia tameiameia</i>	pukiawe	6'	6'	1,000' to higher	Dry to Medium		
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium		
Sh - Tr	<i>Myoporum sandwicense</i>	nalo, false sandalwood	10'	10'	sea to higher	Dry to Medium		
Sh - Tr	<i>Nototrichum sandwicense</i>	Kulu'i	8'	8'	sea to 3,000'	Dry to Medium		
Sh - Tr	<i>Dodonaea viscosa</i>	'a'ali'i	6'	8'	sea to higher	Dry to Medium		
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium		
Tr	<i>Charpentiera obovata</i>	wilwilii	15'					
Tr	<i>Erythrina sandwicensis</i>		20'	20'	sea to 1,000'	Dry		
Tr	<i>Metrosideros polymorpha var. macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet		

# Zone 2

## Zone-specific Native and Polynesian plants for Maui County

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	<i>Nastegis sandwicensis</i>	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tr	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Santalum ellipticum</i>	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Sophora chrysophylla</i>	mamane	15'	15'	1,000' to 3,000'	Medium
V	<i>Alyxia oliviformis</i>	malle	Vine		sea to 6,000'	Medium to Wet

# Zone-specific Native and Polynesian plants for Maui County

Zone 3

TYPE: F Fern    G Grass    Gr Ground Cover    Sh Shrub    P Palm    S Sedge    Tr Tree    V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
G	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	<i>Eragrostis monticola</i>	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Eragrostis variabilis</i>	'emo-loa	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'u aki'aki fimbriatylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Boerhavia repens</i>	alana	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	<i>Chamaesyce celastroides</i> var. <i>laehiensis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Cressa truxillensis</i>	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Heliotropium anomalum</i> var. <i>argenteum</i>	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	<i>Lipochaeta integrifolia</i>	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	<i>Plumbago zeylanica</i>	'ilie'e	1'			
Gr	<i>Sesuvium portulacastrum</i>	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Wet
Gr - Sh	<i>Lycium sandwicense</i>	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia hillebrandii</i>	lo'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium

## Zone-specific Native and Polynesian plants for Maui County

# Zone 3

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	<i>Argemone glauca</i> var. <i>decipiens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Bidens mauiensis</i>	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	<i>Bidens menziesii</i> ssp. <i>menziesii</i>	ko'oko'olau	1'	3'		
Sh	<i>Bidens micrantha</i> ssp. <i>micrantha</i>	ko'oko'olau	1'	3'		
Sh	<i>Chenopodium oahuense</i>	'ahaheha, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Gossypium tomentosum</i>	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Hedyotis</i> spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	<i>Lipochaeta lavrarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthyllifolia</i>	'ulei, eiuehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Scaevola sericea</i>	naupaka, naupaka-kanakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Senna gaudichaudii</i>	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	<i>Solanum nelsonii</i>	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	<i>Styphelia tameiameia</i>	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	<i>Wikstroemia uva-ursi</i> <i>kauaiensis</i> <i>kauaiensis</i>	'akia, Moioikai osmanthus				
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	<i>Myoporum sandwicense</i>	nalo, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	<i>Nothofagus sandwicense</i>	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	<i>Dodonaea viscosa</i>	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Canthium odoratum</i>	Alahe'e, 'oh'e'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Diospyros sandwicensis</i>	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Erythrina sandwicensis</i>	wiliwili	20'	20'	sea to 1,000'	Dry
Tr	<i>Mezostichum macrophylla</i> var. <i>macrophylla</i>	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet

# Zone 3

## Zone-specific Native and Polynesian plants for Maui County

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	<i>Nesoluma polynesicum</i>	keahi	15'	15'	sea to 3,00'	Dry
Tr	<i>Nestegis sandwicensis</i>	o'opua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tr	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Reynoldsia sandwicensis</i>	'ohe makai	20'	20'	1,000' to 3,000'	Dry
Tr	<i>Santalum ellipticum</i>	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Thespesia populnea</i>	miho	30'	30'	sea to 3,000'	Dry to Wet

# Zone-specific Native and Polynesian plants for Maui County

## Zone 4

TYPE: F Fem G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	<i>Psilotum nudum</i>	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	<i>Sadleria cyatheoides</i>	'ama'u, ama'uma'u				
G	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	<i>Eragrostis monticola</i>	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Eragrostis variabilis</i>	'emo-iaa	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'u'aki'aki fimbriatylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Chamaesyce celastroides</i> var. <i>laehiensis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Ipomoea tuboides</i>	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o hifaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	<i>Lipochaeta integrifolia</i>	nehe	1'	5'	sea to 1,000'	Dry to Medium
Gr	<i>Peperomia leptostachya</i>	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	<i>Plumbago zeylanica</i>	'ilie'e	1'			
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta rockii</i>	nehe	2'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lipochaeta succulenta</i>	nehe	2'	5'	sea to 1,000'	Dry to Medium
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia arecina</i>	'o'u'u, hawane	40'	10'	1,000' to 3,000'	Dry to Wet
P	<i>Pritchardia forbesiana</i>	'o'u'u	15'			
P	<i>Pritchardia hillebrandii</i>	'o'u'u, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	<i>Argemone glauca</i> var. <i>decipiens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Artemisia australis</i>	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium

# Zone-specific Native and Polynesian plants for Maui County

## Zone 4

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	<i>Artemisia mauiensis</i> var. <i>diffusa</i>	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	<i>Bidens menziesii</i> ssp. <i>menziesii</i>	ko'oko'olau	1'	3'		
Sh	<i>Bidens micrantha</i> ssp. <i>micrantha</i>	ko'oko'olau	1'	3'		
Sh	<i>Cordylone fruticosa</i>	ti, ki	6'			
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Lipocheila lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthylioidifolia</i>	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Scaevola sericea</i>	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Solanum nelsonii</i>	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	<i>Styphelia tameiameia</i>	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	<i>Wikstroemia uva-ursi</i> <i>kauaiensis</i>	'akia, Molokai osmanthus				
Sh - Tr	<i>Broussonetia papyrifera</i>	wauke, paper mulberry	8'	6'	sea to 1,000'	Dry to Medium
Sh - Tr	<i>Myoporum sandwicense</i>	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	<i>Notolinchium sandwicense</i>	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh - Tr	<i>Dodonaea viscosa</i>	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	<i>Acacia koa</i>	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Canthium odoratum</i>	Alahe'e, 'oh'e'e, walahe'e	12'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Charpentiera obovata</i>		15'			
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Diospyros sandwicensis</i>	lama	12'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Hibiscus furcellatus</i>	'akihala, hau-hele	8'			
Tr	<i>Metrosideros polymorpha</i> var. <i>macrophylla</i>	ou'u, lehua	25'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet

# Zone 4

## Zone-specific Native and Polynesian plants for Maui County

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	<i>Nestegis sandwicensis</i>	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Pleomele auwahiensis</i>	halapepe	20'			
Tr	<i>Rauvolfia sandwicensis</i>	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	<i>Sanialium ellipticum</i>	coastal sandalwood, 'li-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	<i>Sophora chrysophylla</i>	mamane	15'	15'	1,000' to 3,000'	Medium
Tr	<i>Thespesia populnea</i>	nilo	30'	30'	sea to 3,000'	Dry to Wet
V	<i>Alyxia oliviformis</i>	malle	Vine		sea to 6,000'	Medium to Wet

# Zone 5

## Zone-specific Native and Polynesian plants for Maui County

TYPE: F Fern G Grass Gr Ground Cover Sh Shrub P Palm S Sedge Tr Tree V Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
G	<i>Colubrina asiatica</i>	'anapanapa	3'	10'	sea to 1,000'	Dry to Wet
G	<i>Eragrostis variabilis</i>	'emo-foa	1'	2'	sea to 3,000'	Dry to Medium
G	<i>Fimbristylis cymosa</i> ssp. <i>spathacea</i>	mau'u'aki'aki fimbriatylis	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Boerhavia repens</i>	alena	0.5'	4'	sea to 1,000'	Dry to Medium
Gr	<i>Chamaesyce celastroides</i> var. <i>laehensis</i>	'akoko	2'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Cressa truxillensis</i>	cressa	0.5'	1'	sea to 1,000'	Dry to Medium
Gr	<i>Heliotropium anomalum</i> var. <i>argenteum</i>	hinahina ku kahakai	1'	2'	sea to 1,000'	Dry to Medium
Gr	<i>Jacquemontia ovalifolia</i> ssp. <i>sandwicensis</i>	pa'u o hi'iaka	0.5'	6'	sea to 1,000'	Dry to Medium
Gr	<i>Lipochaeta integrifolia</i>	nehe	1'	5'	sea to 1,00'	Dry to Medium
Gr	<i>Sesuvium portulacastrum</i>	'akulikuli, sea-purslane	0.5'	2'	sea to 1,000'	Dry to Wet
Gr	<i>Sida fallax</i>	'ilima	0.5'	3'	sea to 1,000'	Dry to Medium
Gr	<i>Tephrosia purpurea</i> var. <i>purpurea</i>	'auhuhu	2'	2'	sea to 1,000'	Dry to Medium
Gr - Sh	<i>Hibiscus calyphyllus</i>	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	<i>Lycium sandwicense</i>	'ohelo-kai, 'ae'ae	2'	2'	sea to 1,000'	Dry to Medium
P	<i>Cocos nucifera</i>	coconut, niu	100'	30'	sea to 1,000'	Dry to Wet
P	<i>Pritchardia hillebrandii</i>	to'ulu, fan palm	25'	15'	sea to 1,000'	Dry to Wet
S	<i>Mariscus javanicus</i>	marsh cypress, 'ahu'awa	0.5'	0.5'	sea to 1,000'	Dry to Medium
Sh	<i>Argemone glauca</i> var. <i>decipiens</i>	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	<i>Artemisia australis</i>	'ahinahina	2'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Bidens hillebrandiana</i> ssp. <i>hillebrandiana</i>	ko'oko'olau	1'	2'	sea to 1,000'	Dry to Wet
Sh	<i>Bidens mauiensis</i>	ko'oko'olau	1'	3'	sea to 1,000'	Dry to Medium
Sh	<i>Chenopodium oahuense</i>	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	<i>Dianella sandwicensis</i>	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	<i>Gossypium tomentosum</i>	mao, Hawaiian cotton	5'	8'	sea to 1,000'	Dry to Medium

# Zone 5

## Zone-specific Native and Polynesian plants for Maui County

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Sh	<i>Hedyotis</i> spp.	au, pilo	3'	2'	1,000' to 3,000'	Dry to Wet
Sh	<i>Lipochaeta lavarum</i>	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	<i>Osteomeles anthylioidifolia</i>	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	<i>Scaevola sericea</i>	naupaka, naupaka-kahakai	6'	8'	sea to 1,000'	Dry to Medium
Sh	<i>Senna gaudichaudii</i>	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	<i>Solanum nelsonii</i>	'akia, beach solanum	3'	3'	sea to 1,00'	Dry to Medium
Sh	<i>Vitex rotundifolia</i>	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh	<i>Wikstroemia uva-ursi kauaiensis kauaiensis</i>	'akia, Molokai osmanthus				
Sh - Tr	<i>Myoporum sandwicense</i>	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh-Tr	<i>Dodonaea viscosa</i>	'a'ai'i	6'	8'	sea to higher	Dry to Medium
Tr	<i>Aleurites moluccana</i>	candlenut, kukui	50'	50'	sea to 3,000'	Medium to Wet
Tr	<i>Calophyllum inophyllum</i>	kamani, alexandrian laurel	60'	40'	sea to 3,000'	Medium to Wet
Tr	<i>Cordia subcordata</i>	kou	30'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Hibiscus furcellatus</i>	'aklohala, hau-hele	8'			
Tr	<i>Morinda citrifolia</i>	indian mulberry, noni	20'	15'	sea to 1,000'	Dry to Wet
Tr	<i>Pandanus tectorius</i>	hala, puhala (HALELIST)	35'	25'	sea to 1,000'	Dry to Wet
Tr	<i>Thespesia populnea</i>	milo	30'	30'	sea to 3,000'	Dry to Wet
V	<i>Ipomoea pes-caprae</i>	beach morning glory, pohuehue	1			

## DO NOT PLANT THESE PLANTS !!!

Common name	Scientific name	Plant family
black wattle	Acacia mearnsii	Mimosaceae
blackberry	Rubus argutus	Rosaceae
blue gum	Eucalyptus globulus	Myrtaceae
boconia	Bocconia frutescens	Papaveraceae
broad-leaved cordia	Cordia alliodora	Boraginaceae
broomsedge, yellow bluestem	Andropogon virginicus	Poaceae
buffelgrass	Cenchrus ciliaris	Poaceae
butterfly bush, smoke bush	Buddleia madagascariensis	Buddleiaceae
cats claw, Mysore thorn, wait-a-bit	Caesalpinia decapetala	Caesalpinaceae
common ironwood	Casuarina equisetifolia	Casuarinaceae
common velvet grass, Yorkshire fog	Holcus lanatus	Poaceae
fiddlewood	Citharexylum spinosum	Verbenaceae
fire tree, faya tree	Myrica faya	Myricaceae
glorybower	Clerodendrum laponicum	Verbenaceae
hairy cat's ear, gosmore	Hypochoeris radicata	Asteraceae
haole koa	Leucaena leucocephala	Fabaceae
ivy gourd, scarlet-fruited gourd	Coccinia grandis	Cucurbitaceae
juniper berry	Citharexylum caudatum	Verbenaceae
kahili flower	Grevillea banksii	Proteaceae
klou, popinac	Acacia farnesiana	Mimosaceae
logwood, bloodwood tree	Haematoxylon campechianum	Caesalpinaceae
loquat	Eriobotrya japonica	Rosaceae
meadow ricegrass	Ehrharta stipoides	Poaceae
melaleuca	Melaleuca quinquenervia	Myrtaceae
miconia, velvet leaf	Miconia calvensens	Melastomataceae
narrow-leaved carpetgrass	Axonopus fissifolius	Poaceae
oleaster	Elaeagnus umbellata	Elaeagnaceae
oriental mangrove	Bruguiera gymnorhiza	Rhizophoraceae
padang cassia	Cinnamomum burmannii	Lauraceae
palmglass	Sesuvium portulacastrum	Poaceae
pearl flower	Heterocentron subtripplinervium	Melastomataceae
quinine tree	Cinchona pubescens	Rubiaceae
salin leaf, caintillo	Chrysophyllum oliviforme	Sapotaceae
silkwood, Queensland maple	Flindersia brayleyana	Rutaceae
silky oak, silver oak	Grevillea robusta	Proteaceae
sirawberry quava	Psidium cattleianum	Myrtaceae
swamp oak, salmarsh, longleaf ironwood	Casuarina glauca	Casuarinaceae
sweet vernalgrass	Anthoxanthum odoratum	Poaceae
tree of heaven	Ailanthus altissima	Simaroubaceae
trumpet tree, quarumo	Cecropia obtusifolia	Cecropiaceae
white ginger	Hedychium coronarium	Zingiberaceae
white mono	Heliconia popayanensis	Liliaceae
yellow ginger	Hedychium flavescens	Zingiberaceae

**DO NOT PLANT THESE PLANTS !!!**

Common name	Scientific name	Plant family
	Jasminum fluminense	Oleaceae
	Arthrosteima ciliatum	Melastomataceae
	Dissolites rotundifolia	Melastomataceae
	Erigeron karvinskianus	Asteraceae
	Eucalyptus robusta	Myrtaceae
	Hedychium gardnerianum	Zingiberaceae
	Juncus planifolius	Juncaceae
	Lophostemon confertus	Myrtaceae
	Medinilla cumingii	Melastomataceae
	Medinilla magnifica	Melastomataceae
	Medinilla venosa	Melastomataceae
	Melastoma candidum	Melastomataceae
	Melinis minutiflora	Poaceae
	Olea europaea	Melastomataceae
	Oxyropa paniculata	Poaceae
	Panicum maximum	Poaceae
	Paspalum urvillei	Poaceae
	Passiflora edulis	Passifloraceae
	Phormium tenax	Agavaceae
	Pinus taeda	Pinaceae
	Prosopis pallida	Fabaceae
	Pterolepis glomerata	Melastomataceae
	Rhodomyrtus tomentosa	Myrtaceae
	Schefflera actinophylla	Araliaceae
	Syzygium jambos	Myrtaceae
	Acacia melanoxylon	Mimosaceae
Australian blackwood	Cyathea cooperi	Cyatheaceae
Australian tree fern	Sphaeropteris cooperi	Cyatheaceae
Australian tree fern	Bidens pilosa	Asteraceae
Beggar's tick, Spanish needle	Brachiaria mutica	Poaceae
California grass	Ficus microcarpa	Moraceae
Chinese banyon, Mayayan banyon	Asystasia gangetica	Acanthaceae
Chinese violet	Schinus terebinthifolius	Anacardiaceae
Christmasberry, Brazilian pepper	Acacia confusa	Mimosaceae
Formosan koa	Senecio mikanoides	Asteraceae
German ivy	Lonicera japonica	Caprifoliaceae
Japanese honeysuckle	Gleditsia hirta	Melastomataceae
Koster's curse	Lantana camara	Verbenaceae
Lantana	Furcraea foetida	Agavaceae
Mauritius hemp	Fraxinus uhdei	Oleaceae
Mexican ash, tropical ash	Humnemannia fumarifolia	Papaveraceae
Mexican tulip poppy	Angiopteris evecta	Marattiaceae
Mules foot, Madagascar tree fern	Corynocarpus laevigatus	Corynocarpaceae
New Zealand laurel, karakaranul	Leptospermum scoparium	Myrtaceae
New Zealand tea	Cordia jubata	Poaceae
Pampas grass	Castilleja elastica	Moraceae
Panama rubber tree, Mexican rubber tree	Ardisia elliptica	Myrsinaceae
Shoabutton ardisia	Passiflora mollissima	Passifloraceae
banana poka		

## Selection

As a general rule, it is best to select the largest and healthiest specimens. However, be sure to note that they are not pot-bound. Smaller, younger plants may result in a low rate of plant survival.<sup>1</sup> When selecting native species, consider the site they are to be planted in, and the space that you have to plant. For example: Mountain species such as koa and maile will not grow well in hot coastal areas exposed to strong ocean breezes. Lowland and coastal species such as wiliwili and Kou require abundant sunshine and porous soil. They will not grow well with frequent cloud cover, high rainfall and heavy soil.

Consider too, the size that the species will grow to be. It is not wise to plant trees that will grow too large.<sup>2</sup> Overplanting tends to be a big problem in the landscape due to the underestimation of a species' height, width or spread.

A large, dense canopied tree such as the kukui is a good shade tree for a lawn. However, its canopy size and density of shade will limit what can be planted in the surrounding area. Shade cast by a koa and ohia lehua is relatively light and will not inhibit growth beneath it.

Keep seasons in mind when you are selecting your plants. Not all plants look good year round, some plants such as ilima will look scraggly after they have flowered and formed seeds. Avoid planting large areas with only one native plant. Mixing plants which naturally grow together will ensure the garden will look good all year round.<sup>3</sup> Looking at natural habitats helps to show how plants grow naturally in the landscape.

When planting an area with a mixed-ecosystem, keep in mind the size and ecological requirements of each plant. Start with the hardiest and most easily grown species, but allow space for fragile ones in subsequent plantings.

## Acquiring natives

Plants in their wild habitat must be protected and maintained. It is best and easiest to get your plants from nurseries (see list), or friend's gardens. Obtain proper permits from landowners and make sure you follow a few common sense rules:

- ▶ collect sparingly from each plant or area.
- ▶ some plants are on the state or Federal Endangered Species list. Make sure you get permits (see app. A,B)

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<sup>1</sup> K. Nagata, P.6

<sup>2</sup> K. Nagata, P.9

<sup>3</sup> Nagata, P.9

## Soil

Once you have selected your site and the plants you wish to establish there, you must look at the soil conditions on the site. Proper soil is necessary for the successful growth of most native plants, which perform poorly in hard pan, clay or adobe soils. If natives are to be planted in these types of soil, it would be wise to dig planting holes several times the size of the rootball and backfill with 50-75% compost.<sup>4</sup> A large planting hole ensures the development of a strong root system. The plant will have a headstart before the roots penetrate the surrounding poor soil.<sup>5</sup>

It is recommended that native plants not be planted in ground that is more dense than potting soil. If there is no alternative, dig a hole in a mound of soil mixed with volcanic cinder which encourages maximum root development. Fill the hole with water, if the water tends to puddle or drain too slowly, dig a deeper hole until the water does not puddle longer than 1 or 2 minutes.<sup>6</sup> Well-drained soil is one of the most important things when planting natives as you will see in the next section.

## Irrigation

Most natives do very poorly in waterlogged conditions. Do not water if the soil is damp. Water when the soil is dry and the plants are wilting. Once established, a good soaking twice a week should suffice. Deep soaking encourages the development of stronger, and deeper root systems. This is better than frequent and shallow watering which encourage weaker, more shallow root systems.

The following is a watering schedule from Kenneth Nagata's Booklet, *How To Plant A Native Hawaiian Garden*:

### WATER REQUIREMENT

Heavy  
Moderate  
Light

### WATERING FREQUENCY

3x / week  
2x / week  
1x / week

Red clay soils hold more water for a longer period of time than sandy soils do. If your area is very sunny or near a beach, things will dry out faster. Even in the area of one garden, there are parts that will need more or less water. Soils can vary and amount of shade and wind differ. After plants are established (a month or two for most plants, up to a year for some trees), you can back off watering.

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<sup>4</sup> Nagata, p. 6

<sup>5</sup> Nagata, p. 8

<sup>6</sup> Nagata, p. 8

Automatic sprinkler systems are expensive to install and must be checked and adjusted regularly. Above-ground systems allow you to monitor how much water is being put out, but you lose a lot due to malfunctioning of sprinkler heads and wind. The most efficient way to save water and make sure your plants get enough water, is to hand-water. This way you are getting our precious water to the right places in the right amounts.<sup>7</sup>

## Fertilizer

An all-purpose fertilizer 10-10-10 is adequate for most species. They should be applied at planting time, 3 months later, and 6 months thereafter. Use half the dosage recommended for ornamentals and pay special attention to native ferns which are sensitive to strong fertilizers. Use of organic composts and aged animal manures is suggested instead of chemical fertilizers. In addition, use of cinders for providing trace minerals is strongly recommended.<sup>8</sup>

Natives are plants which were here hundreds of years before the polynesians inhabited the Hawaiian Islands. They were brought here by birds, or survived the harsh ocean conditions to float here. They are well-adapted to Hawaii's varying soil and environmental conditions. This is why they make prime specimens for a xeriscape garden. However, natives will not thrive on their own, especially under harsh conditions. On the other hand, like any other plant, if you over-water and over-fertilize them, they will die. Follow the instructions given to you by the nursery you buy the plant from, or from this booklet. Better yet, buy a book (suggested readings can be found in the bibliography in the back of this pamphlet), read it, and learn more about native plants. I guarantee that you will be pleased with the results.

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<sup>7</sup> Bornhorst, p. 19-20

<sup>8</sup> Nagata, p. 6

## Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thorough and helpful book is Heidi Bornhorst's book, *Growing Native Hawaiian Plants*. The easiest, and best way to obtain natives for the novice gardener is to get them from a reputable nursery (see appendix c). That way all you will have to do is know how to transplant (if necessary) and plant-out when you are ready. These are the two methods I have listed here.

### Transplanting

1. Use pots that are one size bigger than the potted plant is in
2. Get your potting medium ready

Good potting medium is a ½, ½ mixture of peat moss and perlite. If the plant is from a dry or coastal area, add chunks of cinder or extra perlite. If it is a wet forest species, add more peat moss or compost. Be aware that peat moss is very acidic and certain plants react severely to acidity.

If the plant is to eventually be planted into the ground, make a mix of equal parts peat moss, perlite, and soil from the area in which the plant is to be planted. Slow-release fertilizer can be mixed into the potting medium.

3. Once pots, potting medium, fertilizer and water are ready, you can begin re-potting. Keep the plant stem at the same depth it was in the original pot. Avoid putting the plant in too large a pot, as the plant may not be able to soak up all the water in the soil and the roots may drown and rot.

Mix potting medium and add slow-release fertilizer at this time. Pre-wet the medium to keep dust down and lessen shock to the plant. Put medium in bottom of pot. Measure for the correct depth in the new pot. Make sure there is from ½ to 2 inches from the top of the pot so the plant can get adequate water. Try to stand the plant upright and center the stem in the middle of the pot.

Water the plant thoroughly after transplanting. A vitamin B-1 transplanting solution can help to lessen the transplant shock. Keep the plant in the same type of environment as it was before, sun or shade. If roots were broken, trim off some of the leaves to compensate for the loss.<sup>9</sup>

### Planting out

1. Plant most native Hawaiian plants in a sunny location in soil that is well-drained.
2. Make the planting hole twice as wide as the root ball or present pot, and just as deep.

If the soil is clay-like, and drains slowly, mix in some coarse red or bland cinder, coarse perlite or

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<sup>9</sup> Bornhorst, p.20-21

coarse compost. Place some slow-release fertilizer at the bottom of the hole.

3. Carefully remove the plant from the container and place it in the hole.

The top of the soil should be at the same level as the top of the hole, if it is too high or too low, adjust the soil level so that the plant is at the right depth.

4. Water thoroughly after you transplant.

## Mulch

Most natives cannot compete with weeds, and therefore must be weeded around constantly in order to thrive. Mulch is a practical alternative, which discourages and prevents weeds from growing.

Hawaii's hot, humid climate leads to the breaking down of organic mulches. Thick organic mulches such as wood chips and leaves, may also be hiding places for pests.

Stone mulches are attractive, permanent and can help to improve soil quality. Red or black cinder, blue rock chips, smooth river rocks and coral chips are some natural choices.<sup>10</sup> Macadamia nut hulls are also easy to find and can make a nice mulch.<sup>11</sup>

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

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<sup>10</sup> Bornhorst, p. 24

<sup>11</sup> Nagata, p. 7

## PLACES TO SEE NATIVES ON:

The following places propagate native Hawaiian plants from seeds and/or cuttings. Their purpose is to protect and preserve these native plants. Please contact them before going to view the sites, they can provide valuable information and referral to other sources.

### Maui:

1. Hoolawa Farms, P.O. Box 731, Haiku, Hawaii, 96708 572-4835
2. The Hawaiian Collection, 1127 Manu St., Kula, Hawaii, 96790 878-1701
3. Kula Botanical Gardens, RR 4, Box 228, Kula, Hawaii, 96790 878-1715
4. Maui Botanical Gardens, Kanaloa Avenue across from stadium 243-7337
5. Kula Forest Reserve, access road at the end of Waipouli Rd.  
Call the Maui District Forester 984-8100
6. Wailea Point, Private Condominium residence, 4000 Wailea Alanui,  
public access points at Four Seasons Resort or Polo Beach 875-9557
7. Kahanu Gardens, National Tropical Botanical Garden,  
Alau Pl, Hana, Hawaii, 96713 248-8912
9. Kahului Library Courtyard, 20 School Street, Kahului, Hawaii 873-3097

## ZONES

The Maui County Planting Plan has compiled a system of 5 zones of plant growth for Maui County. The descriptions of zones and maps for these zones are as follows:

Zone 1:

Wet areas on the windward side of the island. More than 40 inches of rain per year. Higher than 3,000 feet.

Zone 2:

Cool, dry areas in higher elevations (above 1,000 feet). 20 to 40 inches of rain per year.

Zone 3:

Low, drier areas, warm to hot. Less than 20 inches of rain per year. Sea level to 1,000 feet.

Zone 4:

Lower elevations which are wetter due to proximity of mountains. 1,000 to 3,000 feet.

Zone 5:

Salt spray zones in coastal areas on the windward side.

These zones are to be used as a general guide to planting for Maui County. In addition to looking at the maps, read the descriptions of the zones and decide which zone best fits your area. Plants can be listed in more than one zone and can be planted in a variety of conditions. For best results, take notes on the rainfall, wind, sun and salt conditions of your site. Use the zones as a general guide for selection and read about the plants to decide which best fits your needs as far as care and or function.

## **PLACES TO BUY NATIVES ON:**

### **Maui:**

- 1. Hoolawa Farms** **575-5099**  
P O Box 731  
Haiku HI 96708  
The largest and best collection of natives  
in the state. They will deliver, but it's  
worth the drive to go and see!  
Will propagate upon request
  
- 2. Kula True Value Nursery** **878-2551**  
Many natives in stock  
Get most of their plants from Hoolawa Farms  
They take special requests
  
- 3. Kihei Garden and Landscape** **244-3804**
  
- 4. Kihana Nursery, Kihei** **879-1165**
  
- 5. The Hawaiian Collection** **878-1701**  
Specialize in Sandalwood propagation  
Will propagate special requests

MUNEKIYO HIRAGA, INC.

January 28, 2003

George Tengan, Director  
County of Maui  
Department of Water Supply  
P.O. Box 1109  
Wailuku, Hawaii 96793-7109

SUBJECT: A&B Properties, Inc. Entitlements Request for Paia Main Post Office  
and Adjacent Country Town Business/Parking Area, Paia, Maui; TMK  
2-5-05:18(por.) and 2-5-05:61

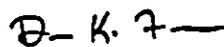
Dear Mr. Tengan:

Thank you very much for your comment letter dated October 29, 2002 regarding the subject project. In response to the comments provided, we would like to note the following.

The applicant will coordinate with Department of Water Supply staff to determine the necessary system improvements for the proposed project. Further, the applicant acknowledges that water availability is not guaranteed and will be determined at the time of application for water meter or meter reservation.

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,



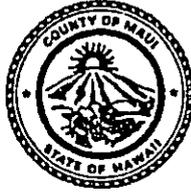
Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.  
Robyn Loudermilk, Department of Planning

a&b/paia/po/dws.res

JAMES "KIMO" APANA  
Mayor



FLOYD S. MIYAZONO  
Director

GLENN T. CORREA  
Deputy Director

**DEPARTMENT OF PARKS & RECREATION**  
1580-C Kaahumanu Avenue, Wailuku, Hawaii 96793

(808) 270-7230  
Fax (808) 270-7934

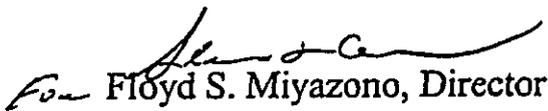
'02 NOV 22 P 2:18

DEPT OF PARKS & RECREATION  
COMMUNICATIONS SECTION  
RECEIVED

**MEMORANDUM**

**November 18, 2002**

**TO:** Robyn L. Loudermilk, Staff Planner

**FROM:**  Floyd S. Miyazono, Director

**SUBJECT:** Paia Main Post Office &  
Adjacent Country Town Business Parking Area

CIZ 2002/0014, DBA 2002/0005 & CPA 2002/0012  
TMK (2) 2-5-005:061 & por. 18

Thank you for the opportunity to review and comment on the Application for District Boundary Amendment, Community Plan Amendment, and Change in Zoning for the Paia Main Post Office & Adjacent Country Town Business Parking Area.

Upon review of the submitted documents the Department of Parks and Recreation has no comments to offer at this time.

Should you have any questions or need of additional information, please call me, or Patrick Matsui, Chief of Parks Planning & Development, at extension 7931.

c: Patrick Matsui, Chief of Parks Planning & Development

JAMES "KIMO" APANA  
Mayor

DAVID C. GOODE  
Director

MILTON M. ARAKAWA, A.I.C.P.  
Deputy Director

TEL. (808) 270-7745  
FAX (808) 270-7975



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

November 18, 2002

NOV 21 2002  
RALPH NAGAMINE, L.S., P.E.  
Land Use and Codes Administration

TRACY TAKAMINE, P.E.  
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.  
Engineering Division

JOHN D. HARDER  
Solid Waste Division

BRIAN HASHIRO, P.E.  
Highways Division

Mr. Mike Munekiyo  
Munekiyo & Hiraga, Inc.  
305 South High Street, Suite 104  
Wailuku, HI 96793

SUBJECT: PAIA POST OFFICE & ADJACENT COUNTRY TOWN BUSINESS AREA

Dear Mr. Munekiyo:

The applications for District Boundary Amendment, Community Plan Amendment and Change in Zoning; Entitlements Requests for Paia Main Post Office and Adjacent Country Town Business/Parking Area, is in conflict with the proposed Mini Paia By-Pass as proposed by State Dot, A&B, and County of Maui. Please explain.

If you have any questions, please call me or Joe Krueger at 270-7745.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lloyd Lee".

By LLOYD LEE  
Engineering Division Chief

LL/JK(ED02-1267)  
S. LLOYD LEE (to: Munekiyo-01)

xc: David Goode  
Chubby Vicens, A&B



January 28, 2003

Lloyd Lee, Engineering Division Chief  
Department of Public Works and  
Environmental Management  
200 South High Street  
Wailuku Hi 96793

**SUBJECT: A&B Properties, Inc. Entitlements Request for Paia Main Post Office  
and Adjacent Country Town Business/Parking Area, Paia, Maui; TMK  
2-5-05:18(por.) and 2-5-05:61**

Dear Mr. Lee:

Thank you very much for your comment letter dated November 18, 2002 regarding the subject project. In response to the comments provided, we would like to note the following.

A&B Properties, Inc. has recently met with staff from the Department's Engineering Division and the State Department of Transportation (DOT) to clarify the proposed alignment of the Paia mini-bypass. Based on prior discussions and conceptual plans to date, the temporary roadway will intersect Baldwin Avenue immediately north (makai) of the Paia Main Post Office.

We note that A&B's entitlements application is based on a conceptual site plan to define the basis for impact assessment. Specific development plans for implementation at the subject property will be prepared in the future and will be subject to Special Management Area permitting requirements. Accordingly, site design for future development proposals will need to be integrated with the mini-bypass road to ensure that access and circulation considerations are appropriately addressed.

Lloyd Lee, Engineering Division Chief  
January 28, 2003  
Page 2

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

  
Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.  
Robyn Loudermilk, Department of Planning

a&b/pa/apo/dgwe/meng.ies

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JAMES "KIMO" APANA  
Mayor

DAVID C. GOODE  
Director

MILTON M. ARAKAWA, A.I.C.P.  
Deputy Director

Telephone: (808) 270-7845  
Fax: (808) 270-7955



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

RALPH NAGAMINE, L.S., P.E.  
Land Use and Codes Administration

TRACY TAKAMINE, P.E.  
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

JOHN D. HARDER  
Solid Waste Division

November 25, 2002

MEMO TO: JOHN E. MIN, PLANNING DIRECTOR

FROM: *for* DAVID GOODE, DIRECTOR OF PUBLIC WORKS AND WASTE  
MANAGEMENT *Milton Arakawa*

SUBJECT: COMMUNITY PLAN AMENDMENT, CHANGE IN ZONING,  
DISTRICT BOUNDARY AMENDMENT  
PAIA POST OFFICE & ADJACENT COUNTRY/TOWN/BUSINESS  
(A&B PROPERTIES COMMERCIAL DEVELOPMENT)  
TMK: (2)2-5-005:018 (POR), 061  
CPA 2002/0012, CIZ 2002/0014, DBA 2002/0005

DEPT OF PUBLIC WORKS  
NOV 27 15:40

We reviewed the subject application and have the following comments:

1. Add construction waste recycling & disposal at C & D landfill.
2. Although wastewater system capacity is currently available as of November 12, 2002, the developer should be informed that wastewater capacity cannot be ensured until the issuance of the building permit.
3. The developer shall pay assessment fees of treatment plant expansion costs and fund any necessary off-site improvements to collection system and wastewater pump stations.
4. Wastewater contribution calculations are required before a building permit is issued. Plans should show the installation of a service manhole for the commercial development prior to connection to the County wastewater system. Indicate on the plans the ownership of each easement. The County will not accept sewer easement or lines that traverse private property.

*Quality Seamless Service – Now and for the Future*

Memo to John E. Min, Planning Director  
November 25, 2002  
Page 2

5. All kitchen facilities with the proposed project shall comply with pre-treatment requirements (including grease interceptors, sample boxes, screens, etc.).
6. Non-contact cooling water and condensate should not drain to the wastewater system.
7. A signed Hold-Harmless Agreement should be executed and will be required before Wastewater Reclamation Division will give recommendations for final subdivision approval.
8. The proposed development conflicts with the alignment of the proposed Paia mini-bypass road. This issue should be clarified by applicant.
9. Construction of this project shall comply with the provisions of Chapter 20.08, Maui County Code (MCC), the grading ordinance and the Maui County drainage rules; and shall provide erosion-, sediment- and dust-control measures during construction.
10. Roadway improvements may be required dependant upon the adjacent roadway width and frontage improvements per the provisions of MCC, Section 16.26.3304, "improvements to Public Streets".

If you have any questions regarding this letter, please call Milton Arakawa at Ext. 7845.

RMN:msc  
S:\LUCACZM\paia\postoffic-commdev.wpd



January 28, 2003

Gilbert Coloma-Agaran, Director  
Department of Public Works and  
Environmental Management  
200 South High Street  
Wailuku, Hawaii 96793

**SUBJECT: A&B Properties, Inc. Entitlements Request for Paia Main Post Office  
and Adjacent Country Town Business/Parking Area, Paia, Maui; TMK  
2-5-05:18(por.) and 2-5-05:61**

Dear Mr. Agaran:

Thank you very much for your comment letter dated November 25, 2002 regarding the subject project. In response to the comments provided, we would like to note the following.

- 1-6. With regards to comments Nos. 1-6, please note that no construction activities are proposed in connection with the subject entitlement requests;
7. Should it be necessary, the applicant will execute a Hold Harmless Agreement prior to final subdivision approval;
8. A&B Properties, Inc. has recently met with staff from the Department's Engineering Division and the State Department of Transportation (DOT) to clarify the proposed alignment of the Paia mini-bypass. Based on prior discussions and conceptual plans to date, the temporary roadway will intersect Baldwin Avenue immediately north (makai) of the Paia Main Post Office.

We note that A&B's entitlements application is based on a conceptual site plan to define the basis for impact assessment. Specific development plans for implementation at the subject property will be prepared in the future and will be subject to Special Management Area permitting requirements. Accordingly, site design for future development proposals will need to be integrated with the mini-bypass road to ensure that access and circulation considerations are appropriately addressed;

9. The future development of parcel 18 will be completed in accordance with the provisions of Chapter 20.08, Maui County Code (MCC), the grading

environment

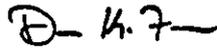
Gilbert Coloma-Agaran, Director  
January 28, 2003  
Page 2

ordinance and Maui County drainage rules, and will provide for erosion-, sediment- and dust-control measures during construction; and

10. Upon future development, necessary roadway improvements will be completed in accordance with the provisions of MCC, Section 16.26.3304, "Improvements to Public Streets".

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,



Dean K. Frampton, Planner

DKF:tn

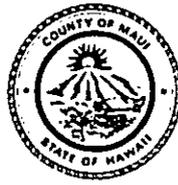
cc: Hideo Kawahara, A&B Properties, Inc.  
Robyn Loudermilk, Department of Planning

a&b/paiapo/dpwem.res

ALAN M. ARAKAWA  
Mayor

MICHAEL W. FOLEY  
Director

WAYNE A. BOTEILHO  
Deputy Director



JAN 28 2003

COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

January 27, 2003

Mr. Michael T. Munekiyo, AICP  
Munekiyo & Hiraga, Inc.  
305 S. High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Mr. Munekiyo:

RE: Entitlement Requests for Paia Main Post Office and Adjacent Country Town Business/Parking Area Draft Environmental Assessment Comments for Maui Tax Map Key Nos. 2-05-005:018 Por. and 061, Portion of Hamakuapoko, Makawao, Island of Maui, Hawaii (DBA 2002/0005) (CPA 2002/0012) (CIZ 2002/0014)

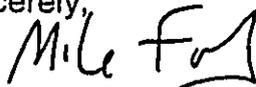
The Maui Planning Department (Department) has reviewed the above referenced document and has the following comments to offer:

1. The Department confirms that the State Land Use designation, Paia-Haiku Community Plan designations, and zoning designations for the proposed action are correct.
2. The Department also confirms that the proposed action is located in the Special Management Area as delineated by the County of Maui.
3. The Final Environmental Assessment should contain a separate section listing all required permits and approvals .
4. As the undeveloped portion of the project is located in the Special Management Area, all project proposals will require review by the Maui County Urban Design Review Board.
5. Finally, when plans for the Country Town Business/Parking area have been finalized, the Department may require that a supplemental environmental assessment be completed.

Mr. Michael T. Munekiyo, AICP  
January 27, 2003  
Page 2

Thank you for the opportunity to comments. Should further clarification be required, please contact Ms. Robyn L. Loudermilk, Staff Planner, at 270 - 7735.

Sincerely,



MICHAEL W. FOLEY  
Planning Director

MWF:RLL:lar

c: Wayne A. Boteilho, Deputy Planning Director  
Robyn L. Loudermilk, Staff Planner  
Project Folder  
General Folder

K:\WP\_DOCS\PLANNING\CIZ\2002\20020014CIZPaiaMainPostOfficeetal\deacomments.wpd



January 28, 2003

Mike Foley, Director  
County of Maui  
Department of Planning  
250 South High Street  
Wailuku Hi 96793

**SUBJECT: A&B Properties, Inc. Entitlements Request for Paia Main Post Office and Adjacent Country Town Business/Parking Area, Paia, Maui; TMK 2-5-05:18(por.) and 2-5-05:61**

Dear Mr. Foley:

Thank you very much for your comment letter dated January 27, 2003 regarding the subject project. In response to the comments provided we would like to note the following.

1. The Final Environmental Assessment has been revised to include a separate section pertaining to required permits and approvals;
2. The applicant acknowledges that any future development plans for the affected portion of Tax Map Key (2) 2-5-5:18 (Areas D and Areas E) will require a Special Management Area Use Permit, which includes project review and approval by the Urban Design and Review Board; and
3. The applicant acknowledges that the future development of Area D and Area E may require processing of a supplemental environmental assessment.

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.  
a&b/paiaop/planning.res

00107110  
PAIA



PAIA MAIN STREET  
ASSOCIATION

'02 DEC -4 P1:25

Ms. Robin Loudermilk  
County of Maui Department of Planning  
250 S. High Street  
Wailuku, HI. 96793

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

Dear Ms. Loudermilk,

Paia Main Street, on December 3<sup>rd</sup>, received one copy of: A&B Properties, Inc. Application for District Boundary and Community Ammendments and Zoning Entitlements request for land adjacent to Paia Post office. We are requesting to defer the December 18<sup>th</sup> deadline for review until mid January for the following reasons:

- Our Board does not meet again until January 7<sup>th</sup>.
- The document is large and complicated and we would like time for our professional volunteer consultants to review it as well as board discussions.
- Although A&B did a preliminary meeting with our Board, the impression was this project was way in the future. The Board members had many questions and concerns and requested another meeting with A&B, which has not occurred.
- This project would significantly impact the Historical town of Paia. The process should be well thought out. A town meeting with input prior to consideration of Community plan amendment or zoning changes would also be requested.
- We are requesting another copy of the Application for our records. This will speed up our review process.

Thank you for your consideration.  
Regards,

*Debra Schonewill*

Debra Schonewill  
Chairperson, Paia Main Street  
808-579-8870, fax 808-579-9794

PO BOX 995, PAIA, MAUI, HI 96779-0995



January 28, 2003

Debra Schonewill, Chairperson  
Paia Main Street Association  
P.O. Box 995  
Paia, Hawaii 96779-0995

**SUBJECT: A&B Properties, Inc. Entitlements Request for Paia Main Post Office and Adjacent Country Town Business/Parking Area, Paia, Maui; TMK 2-5-05:18(por.) and 2-5-05:61**

Dear Ms. Schonewill:

Thank you for providing comments dated December 4, 2002 to Staff Planner Robyn Loudermilk of the Maui Planning Department regarding the subject project. We also would like to thank you for allowing us the opportunity to discuss the project at the January 7, 2003 board meeting of the Paia Main Street Association (PMSA).

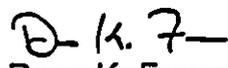
The following is a summary of A&B's presentation:

1. The proposed entitlement request does not include specific developmental plans for the commercial portion of TMK 2-5-05:18. The application is intended to establish zoning consistency with existing designations of the Paia-Haiku Community Plan;
2. Any future plans for development would be subject to the requirements of a Special Management Area Use Permit, including a comprehensive community review process; and
3. The applicant will be coordinating a public meeting with the Paia Community to further discuss the project.

Debra Schonewill, Chairperson  
January 28, 2003  
Page 2

As indicated at the board meeting, we will notify you upon the scheduling of the public meeting with the Paia community as we look forward to your continued involvement and participation in this project. Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

  
Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.  
Jocelyn Perreira, Tri-Isle Main Street Association  
Robyn Loudermilk, Department of Planning

a&b/paiapo/paiamain.ltr

NOV 25 2002

**EDWARD THIELK**

P.O. Box 792047, Paia, HI 96779  
(808) 579-9813

To Whom it May Concern:

The following letter constitutes my public comment regarding A&B's Environmental Impact Statement (E.I.S.) pursuant to their zoning application change for currently zoned agricultural parcel 18 located between the Paia Post Office and the recently constructed "Spee" development.

There are two environmental issues, that as a commercial and residential land owner, and business operator on Baldwin Ave., that I will comment on.

1. The proposed zoning changes impact upon Paia's existing retail environment.
2. The proposed zoning changes impact upon Baldwin Ave. traffic flow.

1. IMPACT ON EXISTING RETAIL

As a business operator almost 19 years in Paia, I have witnessed several "boom" and "bust" cycles, the latter leaving an excess of retail spaces that has lasted for years. Since A&B's E.I.S. does not state the square footage of the commercial development, it is not possible to speculate on its' impact. However, the area for which the zoning change is being requested is approximately 223,000 square feet of which about half would be allocated for parking according to current parking requirements. That leaves approximately 110,000 sq. feet of potential commercial space which is in my estimation more that the current total in Paia. Doubling the size or effectively creating a "new" Paia would devastate the current retail environment. A&B has in the E.I.S. shown parcel 18 divided into two sections ("D" & "E"), with "D" designated as retail commercial, while "E", the larger part of the parcel, has no designation. Their E.I.S. states that in the community plan "D" is designated retail commercial and "E" public/quasi public. Since they show only a "concept" drawing for "D", implying they have no concrete plans, it must be assumed that if given urban commercial zoning for the entire parcel, A&B will put the entire parcel into commercial retail use.

As stated, the E.I.S. only provides a "concept" drawing for section "D". As a "concept", I can only assume they have no commitment to it as a project guideline. Section "E", the larger portion of parcel 18, is left a mystery. The latter is an omission, the former a lack of clarity. Together they constitute a casual and negligent approach to the E.I.S.

## 2. TRAFFIC IMPACT

Currently, traffic on Baldwin Ave. is backed up from the light at the Hana Hwy. intersection to the Paia Laundromat from 2:00 p.m. to 5:00 p.m. daily. This is approximately 100 cars. During the winter months when the North Shore area is busier, the traffic backs up to the old cane mill, which is more than double in terms of congestion. In the past five years, I have seen the congestion worsen and each year the problem becomes more acute. The reason we have congestion on Baldwin is because the light at the intersection of Hana Highway has had to have its' waiting period lengthened to allow the traffic backed up from the Hana Hwy. to pass through Paia during peak hours. Currently the traffic on Hana Hwy. is congested from Paia to the Sprecklesville turn off from around 2:00 p.m. to 7:00 p.m. daily, and as winter approaches it will lengthen all the way to the light at the Haleakala Hwy., which is half way to Kahului. The traffic problems on Baldwin Ave. and the Hana Hwy. are well documented and worsening each year.

A&B has suggested using a road which begins just before the parking lot at the entrance to Paia as a temporary by-pass to exit onto Baldwin Ave. However, by the time a motorist reaches that by-pass, the time in traffic is already 20 minutes now, and 40 minutes in the winter. The by-pass needs to start much further back if it is to have any positive impact. Furthermore, most of the traffic is going to Haiku and the few cars using the proposed temporary by-pass to Baldwin Ave. will make little if any impact on the current gridlock. The probability that motorists will, out of frustration, be tempted to take the by-pass and then turn down Baldwin Ave. and re-enter the Hana Hwy. on their way to Haiku, causing further congestion on Baldwin Ave. Having a by-pass from one congested highway to another congested avenue will create more problems than it will solve.

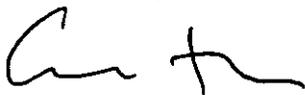
The only solution is a by-pass that crosses Baldwin and exits either above Hookipa or in Haiku. A degree in engineering is not required to observe this. It is painfully obvious on a daily basis. I strenuously disagree with the E.I.S. statement that Baldwin Ave. currently has light congestion and that the project's impact on traffic will be moderate. The first statement is false. The second is impossible to evaluate since

the E.I.S. only provides a "concept" drawing for about 40% of parcel 18. As stated above, it should be assumed that their concept doesn't equal a commitment and Section "E", the other 60% is a mystery. According to the E.I.S., A&B has no definite plans, which raises serious questions regarding the validity of the E.I.S. It is purporting to measure the project's impact on its' surroundings, without stating what the project is.

In closing, I wish to clarify that I am not anti-development. However, the retail environment in Paia has been deteriorating as a result of traffic congestion. Why aggravate the problem more? If the Paia by-pass to Haiku were complete and A&B's commercial retail was limited to Section "D" facing Baldwin Ave., provided they stayed within Paia guidelines and building sizes, it is my opinion that the development would have minimal impact on its' surrounding environment and would be a welcome addition to Paia.

However, A&B must be more forthcoming with their plans so a true assessment can be made of the impact to the area. When A&B produces a proposal that includes all of Parcel 18, the vital issue of environmental impact can be truly addressed. Also, the discussion of alternatives to this project is incomplete. The one page summary fails to discuss alternatives, making it a worthless document in this E.I.S.

Sincerely,



Edward Thielk



January 28, 2003

Edward Thielk  
P.O. Box 792047  
Paia, Hawaii 96779

**SUBJECT: A&B Properties, Inc. Entitlements Request for Paia Main Post Office and Adjacent Country Town Business/Parking Area, Paia, Maui; TMK 2-5-05:18(por.) and 2-5-05:61**

Dear Mr. Thielk:

Thank you very much for providing written comments regarding the subject project which we received from the Planning Department on November 25, 2002.

In responding to your comments relating to retail capacity and traffic, we would like to note that the concept plan is proposed for purposes of establishing a basis for impact analysis. Potential retail/commercial development of the property will be limited to the approximately 1.43-acre portion of parcel 18 which fronts Baldwin Avenue. The actual scope of the proposed development will be defined at a later point in time, as there are no plans for property development at this time. Once the design parameters of specific buildings are formulated, then a separate application for a Special Management Area (SMA) Use Permit will be filed with a separate community meeting focusing on that plan. At this time, therefore, A&B's request is limited to obtaining zoning-community plan consistency to facilitate the processing of a SMA permit application.

In this regard, when a specific development proposal is ready, a community information meeting will be held to discuss the specifics of that proposed action and in particular, possible effects to the local retail environment.

With regard to traffic, A&B recognizes the need for additional mitigation to address existing congestion conditions through Paia. It is in this context that the interim bypass solution is being pursued. Based on A&B's ongoing discussions with the State Department of Transportation (DOT) and the County of Maui Department of Public Works and Environmental Management, this interim solution appears to offer temporary positive results for traffic mitigation. While longer term solutions, such as the permanent bypass, is a common goal which A&B shares with the community, the realization of this solution will require further discussion and engineering design concept evaluation with the State DOT.

Edward Thielk  
January 28, 2003  
Page 2

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,



Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties  
Robyn Loudermiik, Department of Planning

a&b/pa/apo/thielk.jtr

NOV 25 1962

To Whom it May Concern:

I was on the Citizen Advisory Committee for the Paia-Haiku region. At that time, about five to eight years ago, we addressed the new commercial expansion being discussed now for Paia. We voted, and some were in favor of some commercial expansion. However, this present plan being put forth now is a gross violation of the letter and spirit of our C.A.C. for the following reasons:

1. The expansion we had in mind was a narrow strip of store fronts running up Baldwin Ave. to the present Post Office, not the huge buildings that are in this present plan. Our idea was to keep things small, so as to fit in with the rest of Paia Town.

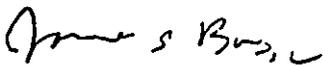
2. We also agreed in our C.A.C. that NO expansion would be done, until a "by-pass" road was put in. And we agreed, way back then, that the "by-pass" road was to leave Hana Highway around Sprecklesville and hit Baldwin Ave. around Paia Mill, and then eventually extend all the way to Haiku.

In the years that have passed since we laid out our plans, the problems in this area has multiplied beyond our imagination. The traffic backs up on Hana Highway to the golf course. It backs up on Baldwin Avenue to Paia Mill. How can anyone even think of more expansion in this area before this problem is addressed? The so called "by-pass" road that is in current discussion runs from the parking lot in lower Paia and hits Baldwin Ave. just about at the Post Office. Does anyone realize that we have one lane roads (Ulumau) feeding onto Baldwin Ave. and that it is becoming increasingly impossible and dangerous to exit onto Baldwin Ave.? We find ourselves sometimes having to back up onto Baldwin because another car is trying to get out. Will it take injury or death before these problems are looked at and addressed?

Paia has become in the past few years more and more crowded, cars, people. The frustration of the people is very real. I have been witness on many occasions of rage stemming from the traffic backups.

Please, we the people in Paia do not need this huge commercial expansion. We need relief of our problems from the lack of infrastructure.

Sincerely,



James A. Basco



January 28, 2003

James A. Basco  
78 Ulumau Place  
Paia Hi 96779

**SUBJECT:** A&B Properties, Inc. Entitlements Request for Paia Main Post Office and Adjacent Country Town Business/Parking Area, Paia, Maui; TMK 2-5-05:18(por.) and 2-5-05:61

Dear Mr. Basco:

Thank you very much for your written comments regarding the subject project which we received on November 25, 2002. In response to the comments provided, we would like to note the following.

1. Lands incorporated in the A&B entitlement application are consistent with the Paia-Haiku Community Plan, which designates approximately 1.5 acres for commercial use along Baldwin Avenue (between the Paia Main Post Office and the Spee Building).
2. There are no plans for the immediate development of the property in connection with A&B's entitlement application. The conceptual plans presented in the application were intended to demonstrate future development potential based on the zoning standards of the Country Town Business district. Any future plans for development would be subject to the requirements of a separate Special Management Area Use Permit Application.

As we recognize the need to inform the community of the purpose, scope and intent of the application, we will be arranging a community information meeting on the proposed action in the future. In this regard, we appreciate your calling to our attention the areas of particular concern which should be discussed.

James A. Basco  
January 28, 2003  
Page 2

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,

D-K-F-

Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.  
Robyn Loudermilk, Department of Planning

a&b/parapo/basco.ltr

PĀ'IA



MAIN STREET  
ASSOCIATION

Ms. Robin Loudermilk  
County of Maui Department of Planning  
250 S. High Street  
Wailuku, HI. 96793

'03 JAN 17 2:17 January 15, 2003

DEPARTMENT OF PLANNING  
COUNTY OF MAUI  
WAILUKU, HI. 96793

RE: A&B Properties, Inc. Application for District Boundary Amendment, Community Plan Amendment and Change in Zoning.

Dear Ms. Loudermilk,

The Board of Paia Main Street met on January 7, 2003 and by that time 4 board members had reviewed the bound document. In attendance, there were two A&B representatives and their consultant Dean Frampton available for questions and clarifications.

At this time, the Paia Main Street wishes to defer comments, until we get a better understanding of community input from the future community meetings promised to occur through this process.

At the same time we are beginning a 'Business Capacity Study' which will result in helpful facts in supporting our response. The size of potential buildings allowed by zoning is in need of careful study.

If you have any further questions please feel free to call.

Regards,

Debra Schonewill  
Chairperson, Paia Main Street  
808-579-8870, fax 808-579-9794

cc: Joclyn Perreira 242-2710 fax

  
MUNEKIYO HIRAGA, INC.

January 28, 2003

Debra Schonewill, Chairperson  
Paia Main Street Association  
P.O. Box 995  
Paia, Hawaii 96779-0995

**SUBJECT: A&B Properties, Inc. Entitlements Request for District Boundary Amendment, Community Plan Amendment and Changes in Zoning, Paia, Maui TMK 2-5-05:18 (por.) and 2-5-05:61**

Dear Ms. Schonewill:

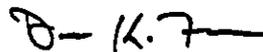
We are in receipt of your comment letter dated January 15, 2003, submitted to Staff Planner Robyn Loudermilk of the Maui Planning Department regarding the subject project.

We look forward to your continued participation throughout the processing of the subject entitlements request. Further, we look forward to reviewing the results of your proposed business capacity study for Paia.

Finally, we acknowledge your comment with regard to the size of the potential buildings included in the application document. However, we would like to reiterate that the entitlement application does not include specific plans for development. The description of buildings included in the application document is conceptual and represents a maximum build-out based on specific zoning standards to establish a basis for impact analysis. Actual development of the property will be based on project-specific plans to be formulated at a future point in time. Such plans will be presented to the community for review and input.

Should you have any questions or require additional information, please do not hesitate to call me at 244-2015.

Very truly yours,



Dean K. Frampton, Planner

DKF:tn

cc: Hideo Kawahara, A&B Properties, Inc.  
Jocelyn Perreira, Tri-Isle Main Street Association  
Robyn Loudermilk, Department of Planning

a&b/paiapo/paiamain.res

# ***References***

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### References

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# ***Appendices***

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# ***Appendix A***

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***Letter from State Historic  
Preservation Division  
Dated May 28, 2002***

JUN 03 2002

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



GILBERT S. COLOMA-AGARAN, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCES MANAGEMENT

DEPUTIES  
ERIC T. HIRANO  
LINNELL NISHIOKA

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS

HAWAII HISTORIC PRESERVATION  
DIVISION REVIEW

Log #: 29966  
Doc #: 0205CD39

Applicant/Agency: Dean K. Frampton  
Address: Munekiyo & Hiraga, Inc.  
305 high Street, Suite 104  
Wailuku, Hawaii 96793

SUBJECT: Chapter 6E-42 Historic Preservation Review Pertaining to the Information Request Pursuant to A & B Properties, Inc.'s Request for State land User District Boundary Amendments, Changes in Zoning, and Community Plan Amendments

Ahupua'a: Hamakuapoko  
District, Island: Makawao, Maui  
TMK: (2) 2-5-005:018 (por.) and 2-5-005:061

1. We believe there are no historic properties present, because:

- a) intensive cultivation has altered the land.
- b) residential development/urbanization has altered the land.
- c) previous grubbing/grading has altered the land.
- d) an acceptable archaeological assessment or inventory survey found no historic properties.
- e) other:

2. This project has already gone through the historic preservation review process, and mitigation has been completed \_\_\_\_.

Thus, we believe that "no historic properties will be affected" by this undertaking.

Staff: Cathleen A. Dagher  
Cathleen A. Dagher  
Assistant Maui/Lana'i Island Archaeologist  
(808) 692-8023

Date: 28 May 2002

# ***Appendix B***

---

***Preliminary Storm  
Drainage Report and  
Storm Water Runoff***

**PRELIMINARY STORM DRAINAGE REPORT**

**STORM WATER RUNOFF**

**EXISTING CONDITIONS**

**Purpose:**

Determine the onsite surface runoff volume generated by the existing conditions of the project site. The rational method will be used to determine the peak onsite surface runoff volume having a 10-year recurrence interval and a one hour rainfall of 2 inches.

I. Drainage Area = 5.25 acres

II. Runoff Coefficient, C:

**Open Areas**

Infiltration (high) = 0.00

Relief (flat) = 0.00

Vegetal Cover (high) = 0.00

Development Type (business) = 0.55

C = 0.55

Area = 5.25 acres

Coefficient, "C", = 0.55

III. Time of Concentration,  $t_c$ :

$t_c = 30$  min.

IV. Rainfall Intensity,  $i$ :

One Hour Rainfall, for  $t_m = 10$  years, = 2 inches

Therefore,  $i = 2.8$  in./hr.

V. Runoff,  $Q$ :

$Q = C i A$

$Q = 0.55 \times 2.8 \times 5.25$

$Q = 8.1$  cfs.

**STORM WATER RUNOFF**

**DEVELOPED CONDITIONS**

**Purpose:**

Determine the onsite surface runoff volume generated by the development of the project site. The rational method will be used to determine the peak onsite surface runoff volume having a 10-year recurrence interval and a one-hour rainfall of 2 inches.

I. Drainage Area = 5.25 acres

II. Runoff Coefficient, C:

a)	<u>Open Areas</u>		
	Infiltration (high)	=	0.00
	Relief (flat)	=	0.00
	Vegetal Cover (high)	=	0.00
	Development Type (business)=		<u>0.55</u>
	C	=	0.55
	Area	=	1.7 acres
b)	<u>Paved Areas</u>		
	Infiltration (negligible)	=	0.20
	Relief (flat)	=	0.00
	Vegetal Cover (none)	=	0.07
	Development Type (business)=		<u>0.55</u>
	C	=	0.82
	Area	=	2.65 acres
c)	<u>Roof Tops</u>		
	Infiltration (negligible)	=	0.20
	Relief (steep)	=	0.08
	Vegetal Cover (none)	=	0.07
	Development Type (business)=		<u>0.55</u>
	C	=	0.90
	Area	=	0.9 acres

$$\text{Determine Weighted Coefficient, "C":}$$
$$\frac{0.55 \times 1.7}{5.25} + \frac{0.82 \times 2.65}{5.25} + \frac{0.90 \times 0.9}{5.25}$$

Weighted Coefficient, "C", = 0.75

Time of Concentration,  $t_c$ :

$$t_c = 27 \text{ min.}$$

III. Rainfall Intensity, i:

One Hour Rainfall, for  $t_m = 10$  years, = 2 inches  
Therefore,  $i = 2.95$  in./hr.

IV. Runoff, Q:

$$\begin{aligned} Q &= C i A \\ Q &= 0.75 \times 2.95 \times 5.25 \\ Q &= 11.6 \text{ cfs.} \end{aligned}$$

**APPENDIX**  
**DESIGN CHARTS**

Table 1

GUIDE FOR THE DETERMINATION OF RUNOFF COEFFICIENTS FOR BUILT-UP AREAS\*

WATERSHED CHARACTERISTICS	EXTREME	HIGH	MODERATE	LOW
INFILTRATION	NEGLIGIBLE 0.20	SLOW 0.14	MEDIUM 0.07	HIGH 0.0
RELIEF	STEEP (> 25%) 0.08	HILLY (15-25%) 0.06	ROLLING (5-15%) 0.03	FLAT (0-5%) 0.0
VEGETAL COVER	NONE 0.07	POOR (< 10%) 0.05	GOOD (10-50%) 0.03	HIGH (50-90%) 0.0
DEVELOPMENT TYPE	INDUSTRIAL & BUSINESS 0.55	HOTEL - APARTMENT 0.45	RESIDENTIAL 0.40	AGRICULTURAL 0.15

\*NOTE: The design coefficient "c" must result from a total of the values for all four watershed characteristics of the site.

Table 2

RUNOFF COEFFICIENTS

Type of Drainage Area	Runoff Coefficient C
Parks, cemeteries	0.25
Playgrounds	0.35
Railroad yard areas	0.40
Unimproved areas	0.30
Streets:	
Asphaltic	0.95
Concrete	0.95
Brick	0.85
Driveway and walks	0.85
Roofs	0.95
Lawns:	
Sandy soil, flat, 2%	0.10
Sandy soil, avg., 2-7%	0.15
Sandy soil, steep, 7%	0.20
Heavy soil, flat, 2%	0.17
Heavy soil, avg., 2-7%	0.22
Heavy soil, steep, 7%	0.35

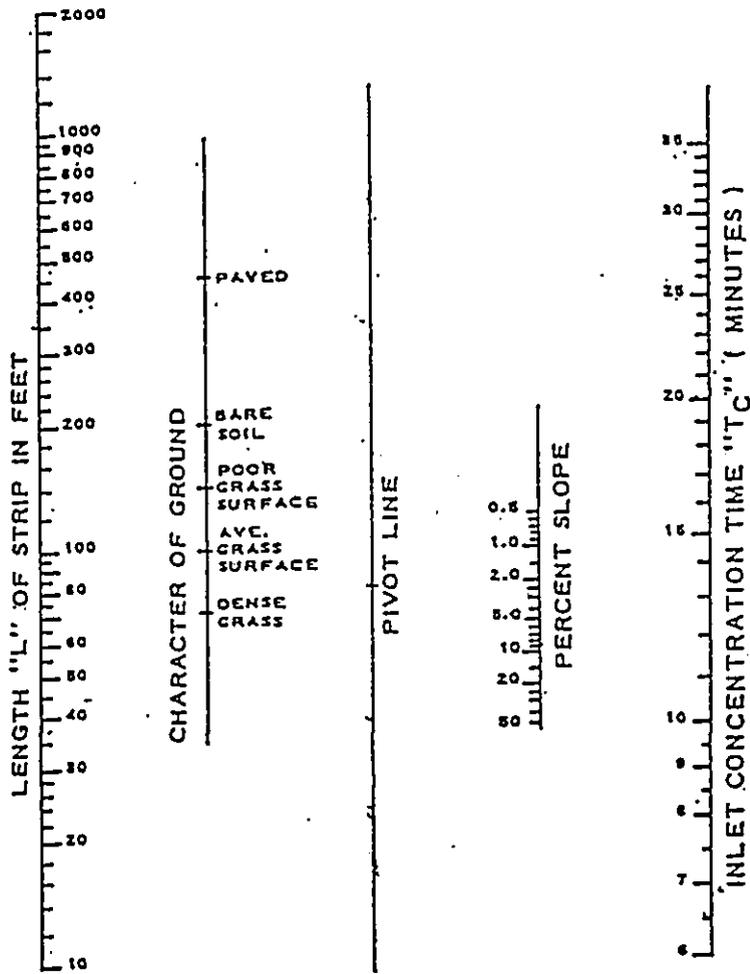
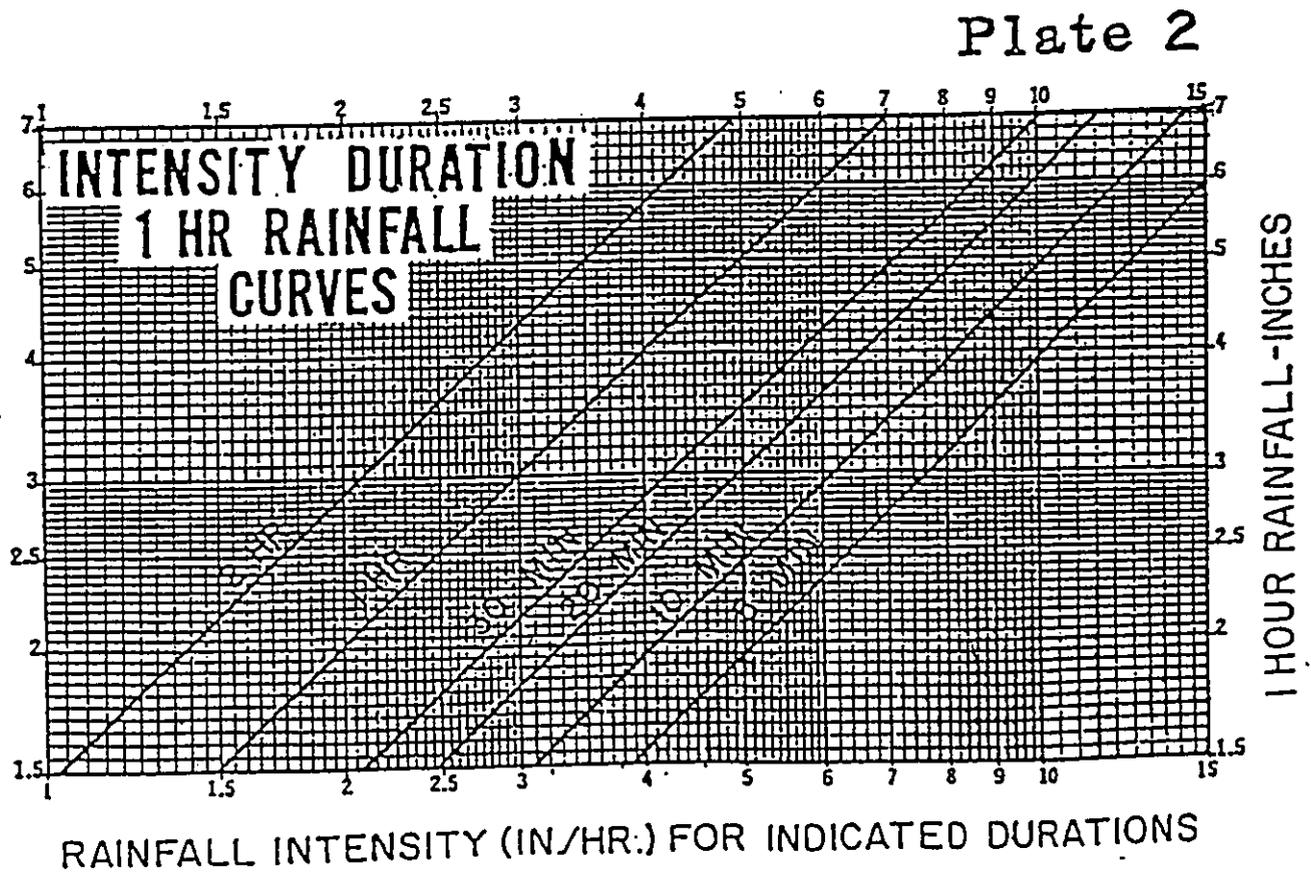
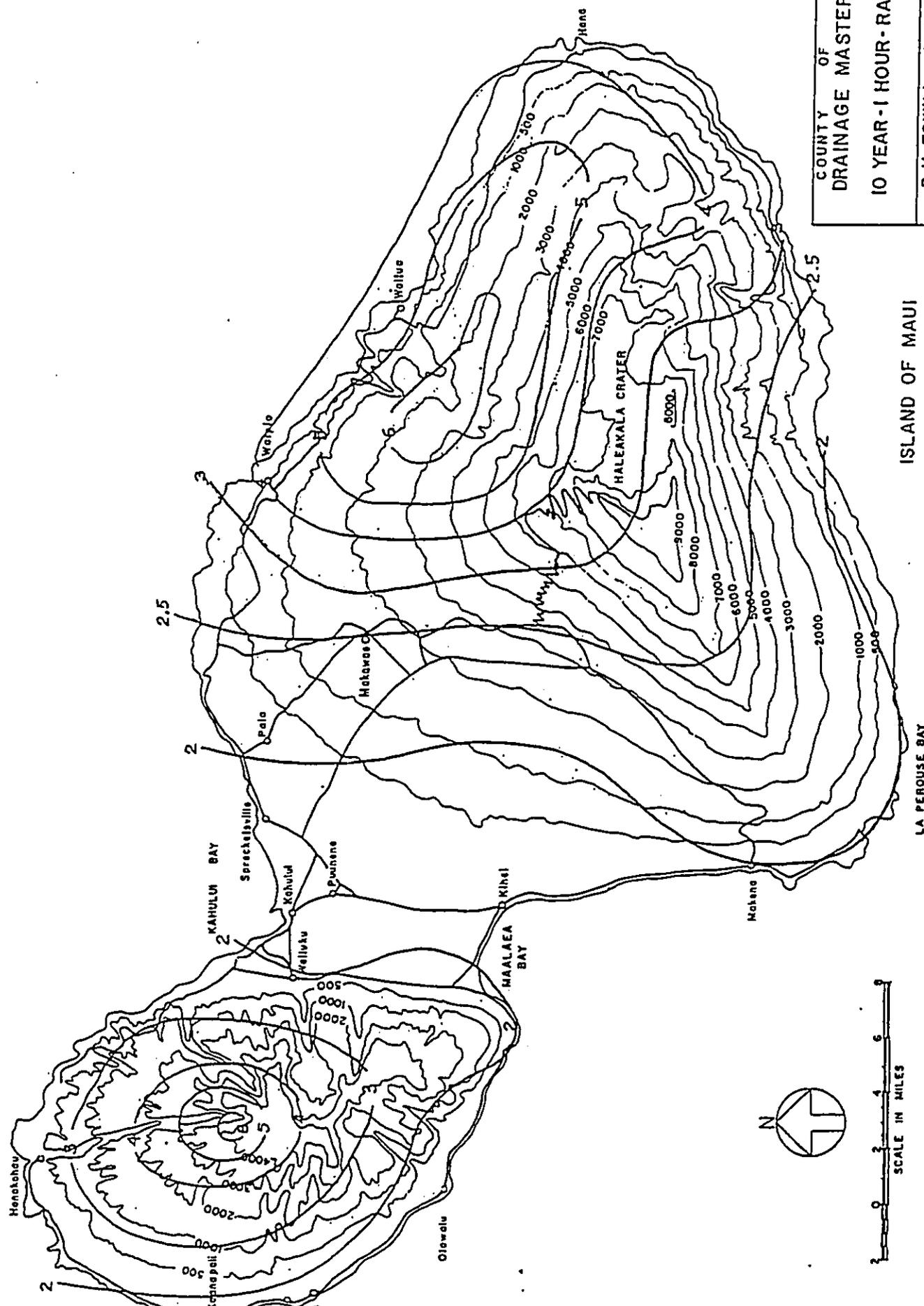


Plate 1  
Overland  
Flow  
Chart



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



COUNTY OF MAUI  
DRAINAGE MASTER PLAN  
10 YEAR - 1 HOUR - RAINFALL  
R. M. TOWILL CORPORATION  
CIVIL ENGINEERS - SURVEYORS

ISLAND OF MAUI

PLATE 4

# ***Appendix C***

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## ***Cultural Practices Assessment***

**A Native Hawaiian Traditional Cultural Practices  
Assessment of Paia**

**Commercial, Paia Post Office Island of Maui.  
(TMK: (2)2-5-05:18(Portion), an area of approximately  
5 acres which is presently in sugar cane.**

**FINAL**

**By**

**Charles Kauluwehi Maxwell Sr.,  
Hawaiian Cultural Specialist**

**Prepared for**

**A&B PROPERTIES INC.  
P.O. Box 156 Kahului Maui 96733**

**CKM CULTURAL RESOURCES  
July, 2002**

**A Native Hawaiian Traditional Cultural Practices Assessment  
Of Paia Commercial, Paia Post Office, Paia Maui.  
Island Of Maui  
(TMK: (2)2-5-05:18 – Approximately 5 Acres**



**Ko'oko'olau (Hawaiian tea plant) (Bidens mauiensis Asteraceae) Photo by G.D. Carr**

**By  
Kahu (Rev.) Charles Kauluwehi Maxwell Sr.  
Cultural Practitioner**

**Prepared for  
A&B Properties Inc., Subsidiary of Alexander & Baldwin Inc.  
PO Box 156, Kahului Hi, 96733-6656**

**CKM Cultural Resources  
July 2000**

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**b. The topographic change**

**c. The topographic details**

**II. Hawaiian Fauna (Lä'au Hawai'i)**

**a. Various/Native fauna**

**b. Sugar Cane**

**III. Lifestyle (Ke Ola Nei)**

**a. Paradigm of living**

**b. Today's generation**

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## **ABSTRACT**

**CKM Cultural Resources conducted a native Hawaiian traditional cultural practices assessment of the A Native Hawaiian Traditional Cultural Practices Assessment Of Paia Commercial, Paia Post Office, Paia Maui. Island Of Maui (TMK: (2)2-5-05:18(Portion)**

The Cultural assessment is for an area of approximately 5 acres and presently it is in sugar cane. Historical documentation is sparse for this exact area because of the long use of sugar cane planting. A major focus of this study was historical research, and limited interviews because of the fact that this area is small and most long time residence have moved away or passed on. Several interviews were conducted and the memory of the persons interviewed only remembers cane growing in this area. The types of usage on this area were highlighted in the Introduction of this report.

Briefly in ancient times the people that used this area did so for farming only, however the habitation studies which will be done by the Archeologist will most likely show that this is true. Until the Archeological report is complete, and the presence or lack of iwi (human remains) are found, no assumptions can be made

**NOTE: As much as possible, throughout this report, the spelling of Hawaiian vocabulary and place names had been standardized to present orthography.**

## INTRODUCTION

V

### History of Pā'ia, Maui

#### Sections:

- I. The District (Ahupua'a)
  - a. What 'ili (land sections) are contained in Pā'ia
  - b. The topographic change
  - c. Topographic details
- II. Hawaiian Fauna (Lā'au Hawai'i)
  - a. Various/Native fauna
  - b. Sugar Cane
- III. Lifestyle (Ke Ola Nei)
  - a. Paradigm of living
  - b. Today's generation

#### Section I. The District (Ahupua'a)

Pā'ia is a large land district or ahupua'a in the northern shores of Maui. The shoreline is named Kapukaulua, meaning the ulua (certain species of jack or crevalle fish) pit. It was named this because of the abundance of ulua during the certain fishing season.

The Pā'ia ahupua'a is bordered by three other ahupua'a, Wailuku, Ha'ikū, and Pu'u O Kali, respectively. From these three ahupua'a, Pā'ia's ahupua'a extends to more portions of the ocean than it's bordering ahupua'a.

In this particular ahupua'a there are many 'ili. The main east end border for this ahupua'a is Kū'au. Nearing the ocean front, Kū'au sets one line for the ahupua'a. Another point in the border system is Hāli'imaile, from here the border extends to Pukalani (traditionally Pu'ukalani) on the slopes of Maui's eastern mountain, Haleakalā. From Pukalani the border extends back down to the sea to where currently the Kahului airport resides. In the traditional ahupua'a system, this wahi (area) is known as Pā'ia.

These are the different 'ili contained within Pā'ia.  
Ho'okipa, Kū'au, Kāheka, Kailua, Hāli'imaile, Pukalani (traditionally Pu'ukalani),  
Keāhua, Spreckelsville, and Kapukaulua - shoreline.

The 'iili that encompasses the old sugar mill and the area around it (for at least a radius of 1.5 miles/2.3 kilometers) is a mix of two separate 'iili - Kāheka and Kailua<sup>1</sup>. This area has an elevation between 560 ft. to 1,269 ft. - Kailua's highest peak in the region.

In lieu of the U.S. Census, the change of land zoning for these tracts of lands may appear differently as compared to the Pā'ia- Kāheka and Kailua

traditional ahupua'a system. The topography of Pā'ia had changed when the areas were rezoned due to reapportionment. Therefore, this report has combined both traditional land uses of this area (i.e. traditional names) and the current topography that this area is currently zoned as.

The land in this area is dry, yet fertile. One 'ōlelo no'eau (Hawaiian proverb) says, "Ka makani hāpala lepo o Pā'ia." This literally means, "Dust smearing wind of Pā'ia." The land is also at a bit of an incline, as mentioned earlier. This incline, the slightly arid temperatures, and the dry plains, made the area perfect for growing 'uala (Ipomea batatas) or sweet potato.

## II. Hawaiian Fauna (Lā'au Hawai'i)

This area rarely made perfect lō'ī kalo (taro patches) because of the dry conditions. Therefore, sweet potato may have been a large source of carbohydrate sufficiency because of the lack of water in the area. Although the fact is recognized that Hawaiians would traditionally trade, swap, and share various foods, kalo or taro (*Colocasia esculenta*) was not commonly available, as if one were to have a lō'ī kalo in the immediate vicinity.

Another plant that may have grown in this area, to supplement the need of kalo, is 'ulu (*Artocarpus incisus*) or breadfruit. According to a book titled, "Native Planters In Old Hawai'i: Their life, lore, and environment," written by E.S. Handy et al. explicates, "...early voyagers noted extensive planting of breadfruit along the southern and leeward coast..." Although this statement singles out the Southern and leeward coasts, more of the dryer areas on the island, Pā'ia still made a perfect place for 'ulu to grow because of its dry dusty plains. 'Ulu also grew in many of the bordering districts that were near the Kāheka - Kailua area.

Hala (*Pandanus odoratissimus*) or Pandanus may have also been plants

that made a comfortable home in Pā'ia, more specifically Pā'ia- Kāheka and Kailua

the Kāheka and Kailua areas. Hala was known to grow vibrantly in the bordering ahupua'a mentioned earlier. This would be useful in the process to create needed objects in the home, farm, and family settings.

Pili (*Heterogon contortus*) grass was also quite common in these areas because of the climate conditions. Pili liked to grow in arid and dusty conditions. This grass was useful to Hawaiians in that the dried grass would be made into bunches and used to thatch the roofs of homes in the area.

One of the ground covers used to keep some of the dirt from blowing in the wind was Pā'ū o Hi'iaka (*Jacquemontia ovalifolia*). This was a ground covering vine with abundant tubular flowers that range in color from light blue, purple, to white. This plant did not need much water, which in turn would make Pā'ia perfect areas of growth for the Pā'ū o Hi'iaka.

While Hawaiians of the past used Pā'ū o Hi'iaka for curing keiki (children) of ea (thrush, a mouth disease), this plant is better known for the mo'olelo (story) that explains its name. Long ago, Pele, the volcano goddess, took her youngest sister, Hi'iaka, to the ocean. As Pele was out amongst the waves fishing, or some say surfing, the sun climbed higher and hotter in the sky. Meanwhile, Hi'iaka waited patiently on the shoreline for her sister. A plant near Hi'iaka, seeing that the keiki's tender young skin was being burned by the sun's merciless rays, took pity upon Hi'iaka and extended its viney branches to shield her. When Pele returned from the ocean, she discovered Hi'iaka covered, and protected, by the plant. In gratitude, Pele gave the plant its name, Pā'ū (skirt) O Hi'iaka (of Hi'iaka), my baby sister.

Another blossoming plant that may have resided in this area is the 'a'ali'i (*Dodonaea viscosa*) bush. This hard wood native shrub is indigenous to the islands. This plant also grows well in dryer climates. Ranging in heights of one to thirty feet, this shrub to tree is found growing at elevations up to 8,000 feet and wind-swept open country. In today's day and age, 'a'ali'i is being used to reforest the island of Kaho'olawe. This island's water plate is cracked in half from missile testing by the U.S. Another plant which grew profusely in this area was Ko'oko'olau (Hawaiian tea plant) or (*Bidens mauiensis* Asteraceae). It was used by the ancients and is still used today as tea and for medicinal purposes. A picture of this plant is being used as the cover of this report.

Pā'ia- Kāheka and Kailua government in the late 1960's and '70's. Kaho'olawe is not able to retain water because of the cracked water plate, yet the 'a'ali'i is doing

well in growing and flourishing on the island.

One plant that has proved itself worth the while is, Kō (Saccharum officinarum) or sugar cane. Kō is an extremely low maintenance plant that is easy to deal with when water is not as readily available. Alexander and Baldwin found this to be true and later built an empire with this cultural knowledge. The sugar cane, up until the late 1980's, put Hawai'i at the forefront of the sugar cane industry. Today, that industry struggles to survive among top competitors. However, this industry has left many marks (both good and bad) in the history of Hawai'i and the lives of many families, native and non-native.

### III. The Lifestyle (Ke Ola Nei)

Upon the introduction of the sugar cane industry there had been a shift in the treatment of land and other resources contained in these areas. Land divisions were plowed, unearthed, and made into fields to plant the profitable crop of sugar cane. No doubt, this industry employed generations of people. In a matter of years the planting and cropping system of plants in the area of Kāheka and Kailua went from culturally based farms to crops of mass production.

Land titles were lost to quid pro quo deals and nepotistic actions taken by officials who were friends with sugar cane tycoons. At the behest of all of this, was the traditional lifestyle of native Hawaiians, their native wildlife, and the native and indigenous fauna. A lifestyle of its own accelerated the lives of the natives of the area to quickly assimilate to a system unfamiliar to their own.

In the wake of this paradigm, native Hawaiians fared poorly, if they chose to live a cultural lifestyle in this ahupua'a of Pā'ia. As more continental Americans migrated to the islands in search of employment, either as military personnel or to fill vacancies in other industries, they brought with them a new way of life to Pā'ia- Kāheka and Kailua.

## VI

### INTERVIEW INFORMANTS

Based on the recommendations of present residents of Paia, several knowledgeable individuals were identified on (1) knowledgeable individuals with cultural expertise and knowledge of the project area and surrounding vicinity, and (2) identify cultural concerns and potential negative impacts relative to the project. An effort was made to identify *Kupuna* (elders) who either grew up in Paia close to the project area or lived in the area that could relate to the project area prior to the growing of the sugar cane.

5 people were identified as having potential knowledge of the project area, however when contacted, they related that 2 of the people grew up in Kū'au and stated that they only knew the area as having sugar cane growing at the project site and have no knowledge prior to the planting of the cane. The other person, who was born above the project site, did not want to be interviewed and indicated that his recollection was that cane was growing there since he was a "little boy".

It is only common sense to surmise that the planting of sugar cane in the project area probably started in the middle 1800's, and the average age of the *Kupuna* was 75 years old, thus the history of sugar in the project area was firmly established more than 60 years before any of these *kupuna* were born. Therefore it would be difficult to locate *kupuna* with first-hand cultural information of the project area since the integrity of the landscape had been compromised long before they were born.

The two interviews were done by formal taped interviews.

#### INTERVIEW OF: AARON KALANI BROWN 8/1/02 – 9:00AM.

Aaron Brown was interviewed in my vehicle on the project. He stated that he was born in Hilo on April 3, 1918. That he moved to Paia in 1930, when he was 11 years old and lived close to this project. His family rented a home for \$12 a month. He now lives on Hana Highway, in Lower Paia. He can recollect that across the project site was housing and people from all over Maui lived in Paia. They did not necessarily work for the Sugar Plantation. That he resents the calling of Paia as a "Plantation Town", because a lot of people back then and now does not work for the plantation especially now that Paia Mill has shut down.

As far as he can remember there was sugar cane growing at the project site and does not know of anyone living today that could recall the area prior to planting of the sugar cane. He further related that he can recall when "Upper Paia" and "Lower Paia" were large communities. Upper Paia had its own bakery, and all the different camps (Hawaiian Camp, Nashiwa Camp, Russian Camp, Paia School, the Orphanage, the Catholic Church and Japanese Church).

The ocean below Paia town was always accessible to the residents and everyone used the ocean for sustenance.

He has no recollection of cultural or historical sites in the project area.

He was not happy with the proposed project as he feels that it will open up the use of agricultural land for commercial purposes and would very detrimental and would add to the traffic congestion that is happening now.

INTERVIEW OF CHARLOTTE A. MAXWELL 8/20/02 - 12:45PM.

Charlotte A. Maxwell was interviewed at her home at 157 Alea Place, Pukalani. She related that she lived in Upper Paia, below the Gym and above what is now Doris Todd School. She is 64 years old born on Feb. 10, 1938. She lived there until she was about 5 or 6 years old and can remember that the proposed project was across residential housing, planted in sugar cane. Her grandfather and mother, in fact all her family worked for the Paia Mill. Also that there was hardly any traffic on the highway and to get from one place to the other they would use the bus service. There were different Camps located in Upper Paia and the Nashiwa Bakery where they would walk to early in the morning to buy pastries. Her favorite place was "Camp Store" where they sold all kinds of "goodies" like crack seed, pine nuts etc. Most of her aunts and uncles did not go to High School because they had to help support a large family of 11 children.

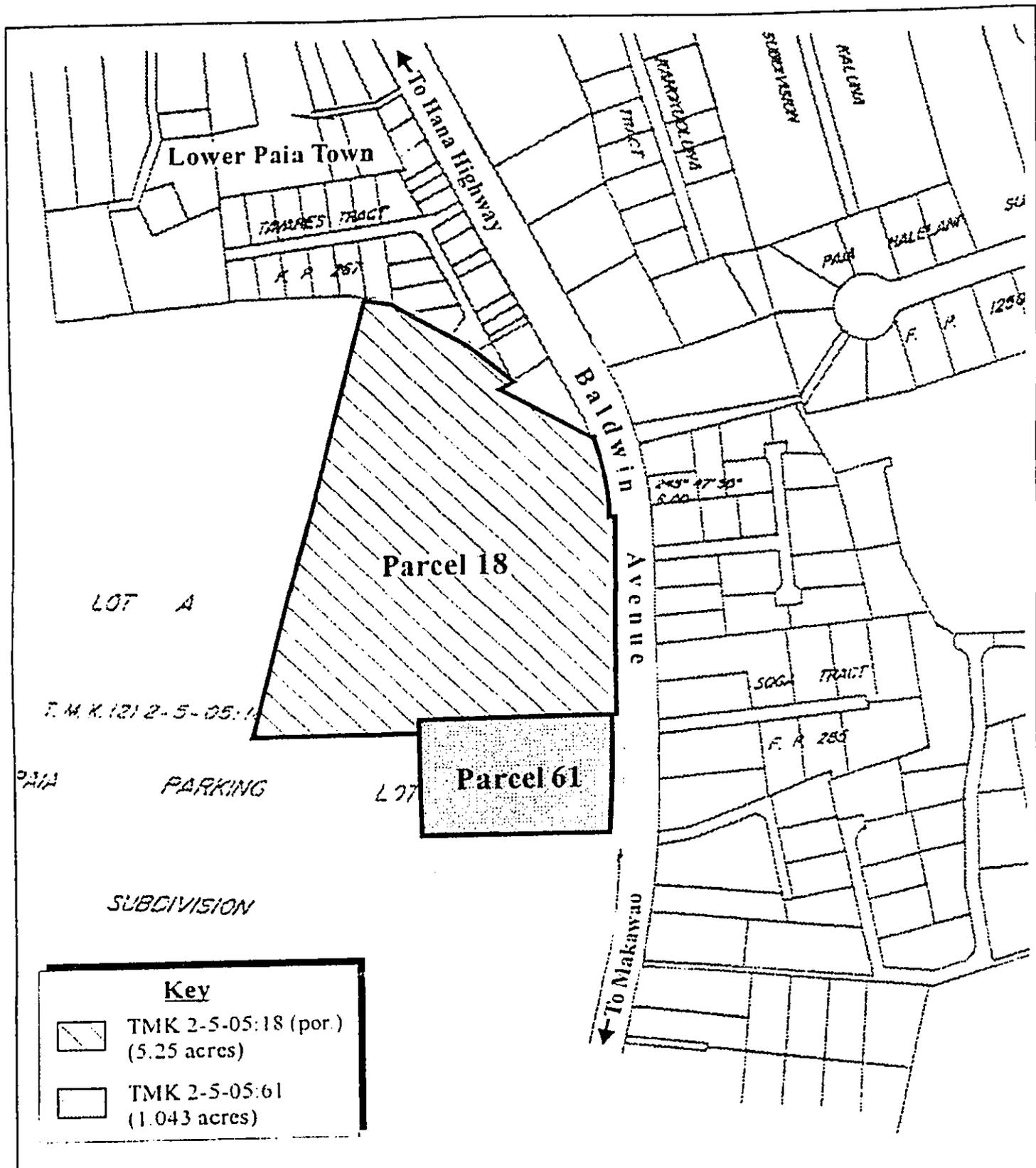
Almost all the people that lived in the camps worked either in the cane fields or at Paia Mill. Across the Mill there was the A&B Store. Although she moved away at an early age, she would visit her Uncle who lived across the Punawai, below the mill.

As far as she can remember the entire Paia area was heavily grown in sugar cane and if anything of Hawaiian cultural significance was present, it would have been impacted by planting of the sugar cane a long time ago.

## **ARCHEOLOGICAL ASSESSMENT OF SITE**

The archeological Assessment of the site cannot be completed until the sugar cane planted on the project is harvested. Because of this fact, the Cultural Assessment is being finalized and when the Archeological report is completed and should there be significant features, artifacts or human remains, it would be noted in the report from the archeologist.

Because of the long history of sugar cane planting, it would be highly improbable that anything on the surface would be found for a cultural analysis. However there have been incidents where human remains have been found in Olowalu under sugar cane fields.



Source: A&B Properties, Inc.

## Entitlements Requests for Paia Post Office and Adjacent Country Town Business/Parking Area

### Site Location Map



Prepared for: A&B Properties, Inc.

MUNEKIYO & HIRAGA, INC

## CONCLUSION

### Conclusion (Ua Pau)

Kāheka and Kailua were full of life with different plants and people to mālama (care) the 'āina (land). Today, many generations of families have resided near Kāheka and Kailua, because majority of this area is laden with sugar cane crops, the history beneath it is hidden.

Various species of native fauna inhabited the area, quite possibly some plants that grew there no long exist in Hawai'i. It is important to stress the sanctity of these areas, Kāheka and Kailua, respectively. Pā'ia is an extremely diverse ahupua'a, from Kū'au to Pukalani and back down to Sprecklesville, the ahupua'a covered vast lands and different landscapes. Today, majority of Pā'ia's land is now covered by sugar cane crops. Pā'ia, once home to traditional farmers and fishermen, now home to generations of others who come for the sport of windsurfing at Ho'okipa Park in Kū'au. And then there are others who have built homes and work in other parts of Maui and people that have chose to build retirement homes on the outskirts of Paia.

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# ***Appendix D***

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***Traffic Impact  
Analysis Report***

TRAFFIC IMPACT ANALYSIS REPORT FOR  
**PAIA COMMERCIAL AND POST OFFICE**  
TMK (2) 2-5-5:61 and TMK (2) 2-5-5:18 (por.)

IN PAIA, MAUI, HAWAII

# FINAL REPORT

Prepared For

**A&B PROPERTIES, INC.**

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October 9, 2002

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## **1. INTRODUCTION**

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Phillip Rowell and Associates has been retained by A&B Properties to prepare a traffic impact analysis for a proposed commercial center and zone change in Paia, Maui, Hawaii. The purpose of this study is to identify the traffic impacts of the proposed project as part of the application for a zone change. This introductory chapter discusses the location of the project, the proposed development, and the study methodology.

### **Project Location and Description**

The approximate location of the project is shown in Figure 1. The following is a summary of the proposed project:

1. The project is located along the west side of Baldwin Avenue in the Paia area of Maui. The site to be developed is immediately north of the existing main post office in Paia.
2. The proposed development will consist of approximately 44,000 square feet of retail floor area. It is anticipated that this commercial development will have traffic characteristics comparable to a community shopping center and will attract traffic from the Paia area and pass-by traffic along Baldwin Avenue rather than from a regional area.
3. The existing driveway to the post office parking lot will be retained.
4. Access to the commercial development will be via a driveway along the west side of Baldwin Avenue. This driveway may, or may not, be connected with the proposed Paia Bypass. Because this connection has not yet been determined, alternative access and egress scenarios have been analyzed.

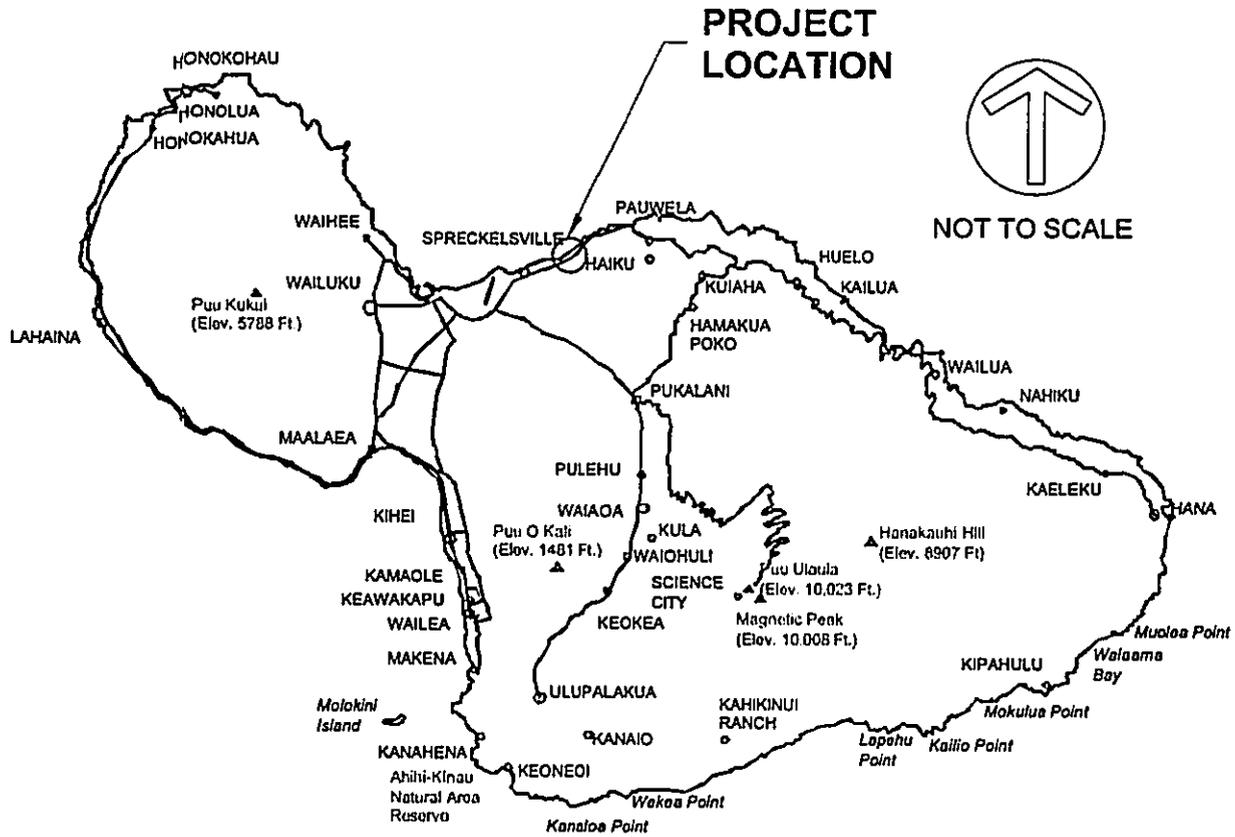


Figure 1  
PROJECT LOCATION MAP

Study Methodology and Order of Presentation

1. Analysis of Existing Traffic Conditions

Existing traffic volumes at the study intersections were determined from traffic counts. Intersection configurations and traffic control information were also collected in the field at the time of the traffic counts. Other data collected included speed limits and right-of-way controls.

Using the data collected, existing traffic operating conditions in the vicinity of the project were determined. The methodology for unsignalized intersections described in the 2000 *Highway Capacity Manual* (HCM)<sup>1</sup> was used to determine the level-of-service (LOS) at the study intersections.

<sup>1</sup> *Highway Capacity Manual*, Institute of Transportation Engineers, Washington, D.C., 2000

Existing traffic conditions, the LOS concept and the results of the LOS analysis for existing conditions are presented in Chapter 2.

**2. *Determination of Cumulative Traffic Projections***

The year 2007 was used as the design year. This does not necessarily represent the project completion date. It is a date for which cumulative traffic conditions are estimated. Cumulative traffic conditions are defined as future traffic conditions without the proposed project. A description of the process used to estimate 2007 cumulative traffic volumes and the resulting cumulative traffic projections is presented in Chapter 3.

**3. *Analysis of Project-Related Traffic Impacts***

The next step in the traffic analysis was to estimate the peak-hour traffic that would be generated by the proposed project. This was done using standard trip generation procedures outlined in the *Trip Generation Handbook*<sup>2</sup>. The procedure is described in Chapter 4.

These trips were distributed based on the available approach and departure routes and information discussed in traffic studies for other projects in the area. The project-related traffic was then superimposed on 2007 cumulative traffic volumes at the study intersections. The HCM methodology was used again to conduct a LOS analysis for cumulative plus project conditions. The results of this analysis were compared to 2007 cumulative conditions to determine the incremental impacts of this project. The analysis of the project-related impacts and the conclusions of the analyses are presented in Chapter 5.

---

<sup>2</sup> *Trip Generation Handbook*, Institute of Transportation Engineers, Washington, D.C., 1998

## **2. ANALYSIS OF EXISTING CONDITIONS**

---

This chapter presents the existing traffic conditions on the roadways adjacent to the proposed project. The level-of-service (LOS) concept and the results of the LOS analysis for existing conditions are also presented. The purpose of this analysis is to establish the base conditions for the determination of the impacts of the project which are described in a subsequent chapter.

### **Description of Existing Streets and Intersection Controls**

Access to and egress from the proposed project will be via a driveway along the west side of Baldwin Avenue. The exact location of this driveway has not been determined, but it will be located north of the existing post office parking lot.

Baldwin Avenue is a two-lane, two-way County road that connects Paia with Makawao. Adjacent to the study site, there is a shoulder that is used for parking along the east side. Along the west side, no parking was observed except adjacent to the post office where there is capacity for three to four vehicles to park. The AM and PM peak hourly volumes adjacent to the site are both approximately 550 vehicles per hour. This implies an Average Daily Traffic volume of approximately 5,500 vehicles per day.

### **Existing Peak Hour Traffic Volumes**

The existing morning and afternoon peak hour traffic volumes for the intersection of Baldwin Avenue at the Paia Post Office driveway are shown in Figure 2.

1. The peak hour volumes were determined from traffic counts of the study intersections. The morning traffic counts were performed on Friday, September 20, 2002 from 6:30 AM to 8:30 AM. The afternoon counts were performed on Thursday, September 19, 2002 from 3:00 PM to 6:00 PM.

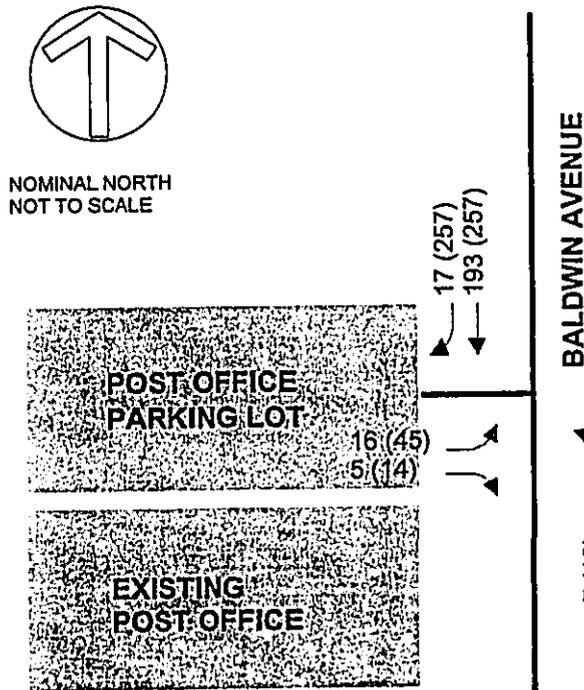


Figure 2

**EXISTING AM (PM) PEAK HOUR TRAFFIC VOLUMES**

2. The counts shown include motorcycles, buses and large vehicles. They do not include bicycles and mopeds.
3. The area in front of the Post Office is used as a school bus stop in the mornings. During the traffic surveys, three school buses stopped and a total of 25 students boarded these buses

**Level-of-Service Concept**

The LOS concept for unsignalized intersections is applicable to all the study intersections. However, the following discussion of the LOS concept includes signalized and unsignalized intersections in order to provide a thorough discussion of the concept.

**Signalized Intersections**

The operations method described in the 2000 Highway Capacity Manual (HCM) was used to analyze the operating efficiency of the signalized intersections. This method involves the calculation of a volume-to-capacity (V/C) ratio which is related to a LOS.

"LOS" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. LOS (LOS) is a qualitative measure of the effect of a number of factors which include space, speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. The characteristics of traffic operations for each LOS are summarized in Table 1. In general, LOS A represents free-flow conditions with no congestion. LOS F, on the other hand, represents severe congestion with stop-and-go conditions. LOS D is typically considered acceptable for peak hour conditions in urban areas.

Corresponding to each LOS shown in the table is a volume/capacity ratio. This is the ratio of either existing or projected traffic volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be accommodated by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), the type of traffic using the roadway (trucks, buses, etc.) and turning movements.

**Table 1 Level-of-Service Definitions for Signalized Intersections<sup>(1)</sup>**

Level of Service	Interpretation	Volume-to-Capacity Ratio <sup>(2)</sup>	Stopped Delay (Seconds)
A, B	Uncongested operations; all vehicles clear in a single cycle.	0.000-0.700	<20.0
C	Light congestion; occasional backups on critical approaches	0.701-0.800	20.1-35.0
D	Congestion on critical approaches but intersection functional. Vehicles must wait through more than one cycle during short periods. No long standing lines formed.	0.801-0.900	35.1-55.0
E	Severe congestion with some standing lines on critical approaches. Blockage of intersection may occur if signal does not provide protected turning movements.	0.901-1.000	55.1-80.0
F	Total breakdown with stop-and-go operation	>1.001	>80.0

Notes:

- (1) Source: *Highway Capacity Manual, 2000.*  
 (2) This is the ratio of the calculated critical volume to Level-of-Service E Capacity.

*Unsignalized Intersections*

Like signalized intersections, the operating conditions of intersections controlled by stop signs can be classified by a LOS from A to F. However, the method for determining LOS for unsignalized intersections is based on the use of gaps in traffic on the major street by vehicles crossing or turning through that stream. Specifically, the capacity of the controlled legs of an intersection is based on two factors: 1) the distribution of gaps in the major street traffic stream, and 2) driver judgement in selecting gaps through which to execute a desired maneuver. The criteria for LOS at an unsignalized intersection is therefore based on delay of each turning movement. Table 2 summarizes the definitions for LOS and the corresponding delay.

**Table 2 Level-of-Service Definitions for Unsignalized Intersections<sup>(1)</sup>**

Level-of-Service	Expected Delay to Minor Street Traffic	Delay (Seconds)
A	Little or no delay	<10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	See note (2) below	>50.1

Notes:

- (1) Source: *Highway Capacity Manual, 2000.*  
 (2) When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improvement of the intersection.

**Level-of-Service Analysis of Existing Conditions**

The results of the LOS analysis are summarized in Table 3. Shown are the control delays and levels-of-service of each controlled lane group. As shown, traffic along Baldwin Avenue operates a Level-of-Service A during both peak periods. Traffic exiting the Post Office parking lot operates at Level-of-Service B during both periods. The delays observed in the field during the surveys was noticeably less than the delays calculated and shown in the table. This implies that the actual Level-of-Service may be slightly higher than the calculations indicate.

**Table 3 Existing Levels-of-Service for Unsignalized Intersections**

Intersection and Movement	AM Peak Hour		PM Peak Hour	
	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay	LOS
<b>Baldwin Avenue at Post Office Driveway</b>				
Northbound Left & Thru	7.7	A	8.0	A
Eastbound Left & Right	12.2	B	13.5	B

**NOTES:**

(1) Delay is in seconds per vehicle.

(2) denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

### **3. PROJECTED CUMULATIVE TRAFFIC CONDITIONS**

The purpose of this chapter is to discuss the assumptions and data used to estimate 2007 cumulative traffic conditions. Cumulative traffic conditions are defined as future traffic volumes without the proposed project.

Future traffic growth consists of two components. The first is ambient cumulative growth that is a result of regional growth and cannot be attributed to a specific project. The second component is estimated traffic that will be generated by other development projects in the vicinity of the proposed project.

#### **Cumulative Traffic Growth**

The *Maui Long Range Transportation Study* estimated that peak hour traffic volumes would increase an average of 1.6 % per year between 1990 and 2020. Therefore, the peak hour traffic volumes along Baldwin Avenue were increased by 1.6 % per year for 2002 to 2007.

#### **Related Projects**

The second component in estimating cumulative traffic volumes is traffic resulting from other proposed projects in the vicinity. Related projects are defined as those projects that are under construction, have been approved for construction or likely to be developed before the design year of the study project and would significantly impact traffic in the study area. Related projects may be development projects or roadway improvements. No related development projects that would directly impact traffic along Baldwin Avenue adjacent to the project were identified.

### **Roadway Improvement Projects**

The only roadway improvement project identified is the proposed Paia Bypass. This by pass will intersect Hana Highway west of the intersection of Hana Highway at Baldwin Avenue. The exact location of this intersection has not been determined but it will be west of the existing public parking lot along the south side of Hana Highway. The bypass will be one-way from Hana Highway to Baldwin Avenue.

The bypass is planned to be along the west side of the proposed commercial development. The location of the intersection of the bypass with Baldwin Avenue also has not been determined. There are two possible locations for this intersection. The first is to use the proposed driveway through the proposed commercial development. This means that traffic from westbound Hana Highway could access the commercial development via the bypass. However, it would add traffic to the driveway in addition to traffic generated by the project.

The second location for the proposed intersection is south of the existing Post Office.

### **2007 Cumulative Traffic Projections**

2007 cumulative traffic projections were calculated by expanding existing traffic volumes by the appropriate growth rates and then superimposing traffic generated by related projects. Because the exact alignment of the bypass and the location of the intersection of the bypass with Baldwin Avenue have not been determined, cumulative traffic projections were developed for three scenarios as follows:

- Scenario A Existing Roadway Conditions (No Paia Bypass)
- Scenario B Bypass Uses the Driveway for the Proposed Commercial Development
- Scenario C Bypass Intersection Baldwin Avenue South of Existing Post Office

The resulting 2007 cumulative peak hour traffic volumes for Scenarios A, B and C are shown in Figures 3, 4 and 5, respectively.

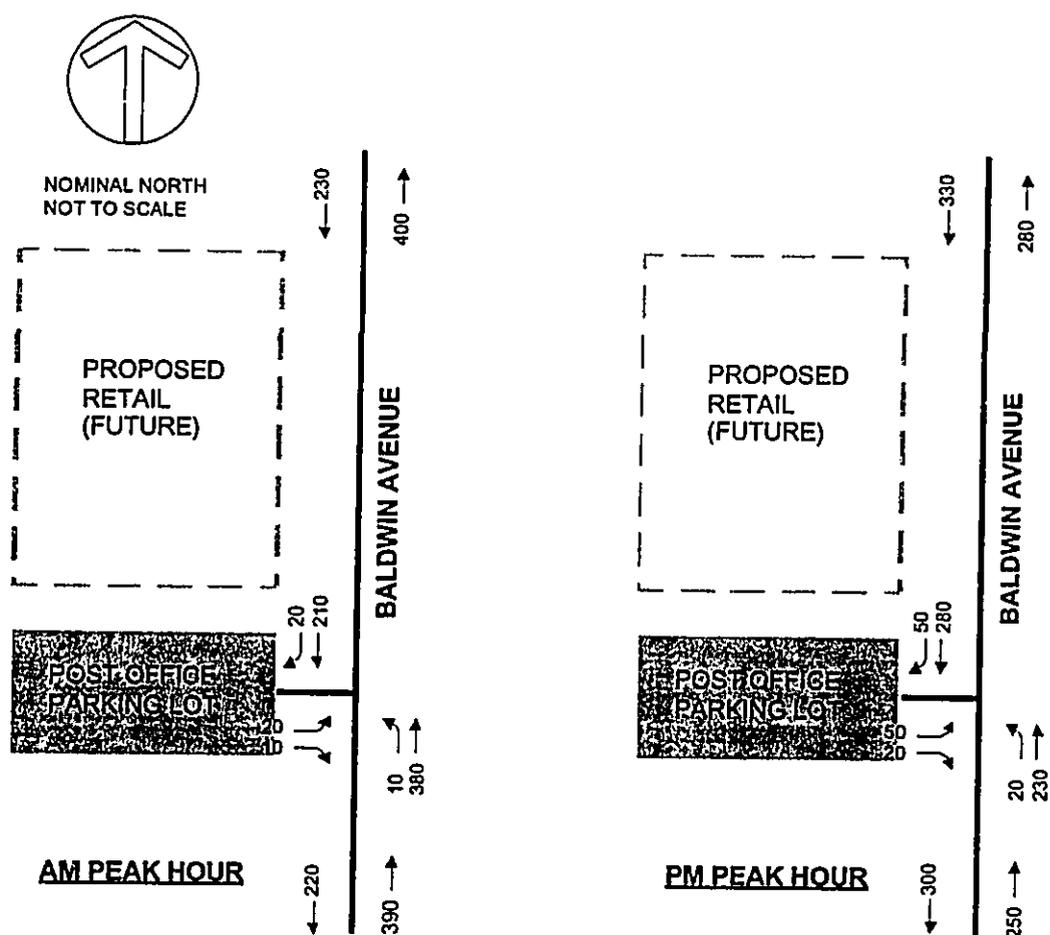


Figure 3

2007 CUMULATIVE PEAK HOUR TRAFFIC VOLUMES FOR SCENARIO A

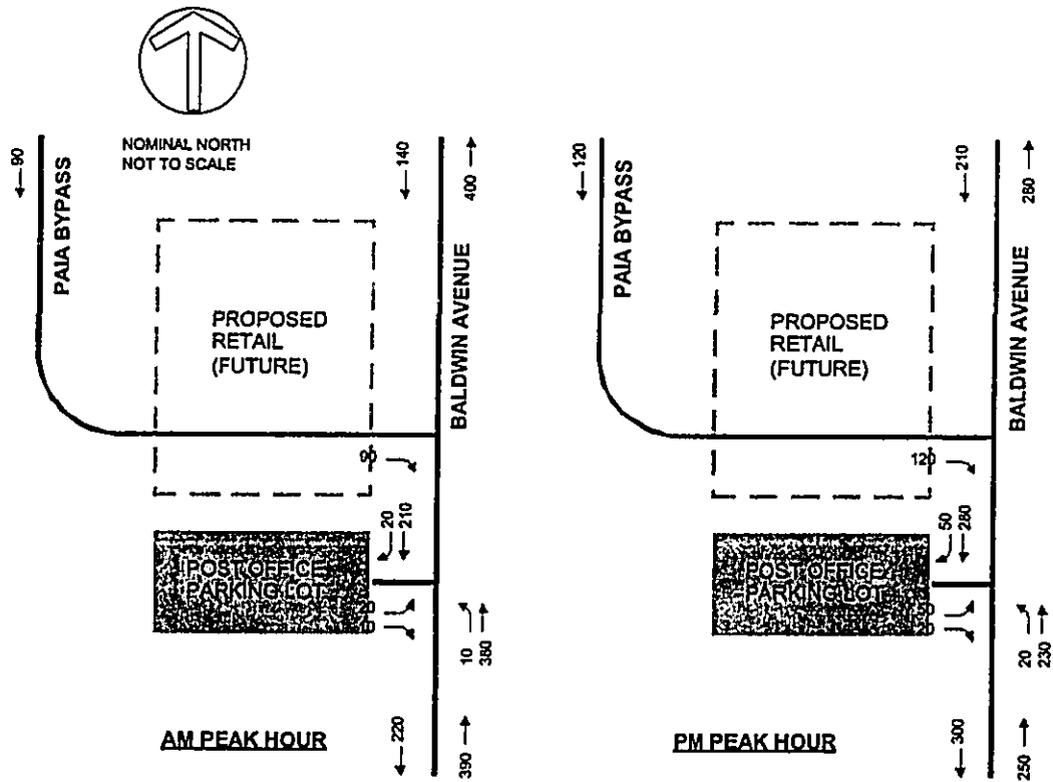


Figure 4  
2007 CUMULATIVE PEAK HOUR TRAFFIC VOLUMES FOR SCENARIO B

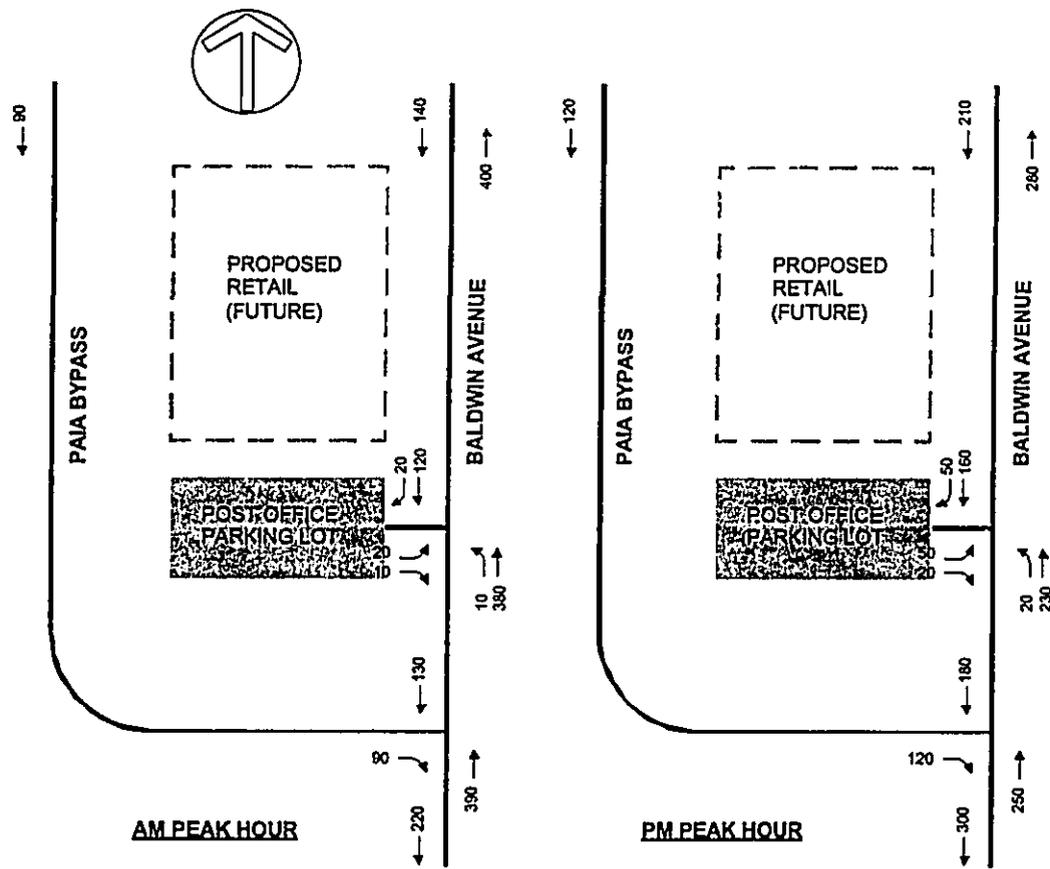


Figure 5  
2007 CUMULATIVE PEAK HOUR TRAFFIC VOLUMES FOR SCENARIO C

## **4. PROJECT-RELATED TRAFFIC CONDITIONS**

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This chapter discusses the methodology used to quantify and assess the traffic-related impacts of the proposed project. Generally, the process involves the following steps:

1. Estimation of weekday peak-hour trips that would be generated by the proposed project,
2. Distribution and assignment of these trips on the approach and departure routes, and
3. Calculation of the levels-of-service at affected intersections and driveways subsequent to implementation of the project.

This chapter presents the generation, distribution and assignment of project generated traffic and the cumulative plus project traffic projections. The result of the LOS analysis of cumulative plus project conditions is presented in the following chapter.

### **Project Trip Generation**

Future traffic volumes generated by a project are typically estimated using the procedures described in the *Trip Generation Handbook*.<sup>3</sup> This method uses trip generation rates or equations to estimate the number of trips that a proposed project will generate during the morning and afternoon peak hours.

It was assumed that the commercial development would have traffic characteristics comparable to a community shopping center. Thus, trip generation equations developed for shopping centers were used

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<sup>3</sup> Institute of Transportation Engineers, *Trip Generation Handbook*, Washington, D.C., 1998, p. 7-12

since the proposed project corresponds to the definition of shopping center as defined by the Institute of Transportation Engineers:

*A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's composition is related to its market area in terms of size, location, and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands.*<sup>4</sup>

Trips associated with the commercial development will consist of pass-by trips and non-pass-by trips. Pass-by trips are defined as follows:

*Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on a adjacent street or roadway that offers direct access to the generator.*<sup>5</sup>

Pass-by trips are estimated using the equation provided on page 43 of the *Trip Generation Handbook*:

$$\ln(T) = -0.291 \ln(X) + 5.001$$

where T = Average Pass-By Percentage, and

X = 1,000 Square Feet Gross Leasable Area

Using this equation and an estimated floor area of 43,865 square feet, 52% of the afternoon trips into and out of the shopping center will be pass-by trips. There are no equations for estimating the percentage of pass-by trips during the morning peak hour.

The calculation of the trips generated by the commercial development is shown in Table 4.

**Table 4 Trip Generation Calculation for Commercial Development**

Period	Equation	Percent	Trips	Pass-By Trips		New Trips
				Percent	Trips	
AM Peak Hour	Total	$\ln(T)=0.596\ln(A)+2.329$	98	0.0%	0	98
	Inbound		61%			60
	Outbound		39%			38
PM Peak Hour	Total	$\ln(T)=0.660\ln(A)+3.403$	365	52.0%	190	175
	Inbound		48%		95	80
	Outbound		52%	190	95	95

The trips shown are the peak hourly trips generated by the project, which typically coincide with the peak hour of the adjacent street. As shown, the project will generate 98 trips during the morning peak hour, 60

<sup>4</sup> Institute of Transportation Engineers, *Trip Generation*, 1997, Washington, D.C., p. 1334.

<sup>5</sup> *Trip Generation Handbook*, p. 27

inbound and 38 outbound. During the afternoon peak hour, this project will generate 175 inbound and 190 outbound trips for a total of 365 trips.

#### **Trip Distribution and Assignments**

Trips were assigned based on the approach and departure patterns calculated for existing traffic counts and the future Paia Bypass. Separate trip distribution patterns were calculated for the morning and afternoon peak periods.

Pass by trips were assigned to the traffic movements at the driveway to the commercial development. It was assumed that 25% of the pass-by trips would be from Baldwin Avenue and the remaining 75% would be from Hana Highway.

The project trips were then assigned to the study intersections. The project trip assignments for Scenarios A, B and C are shown in Figure 6.

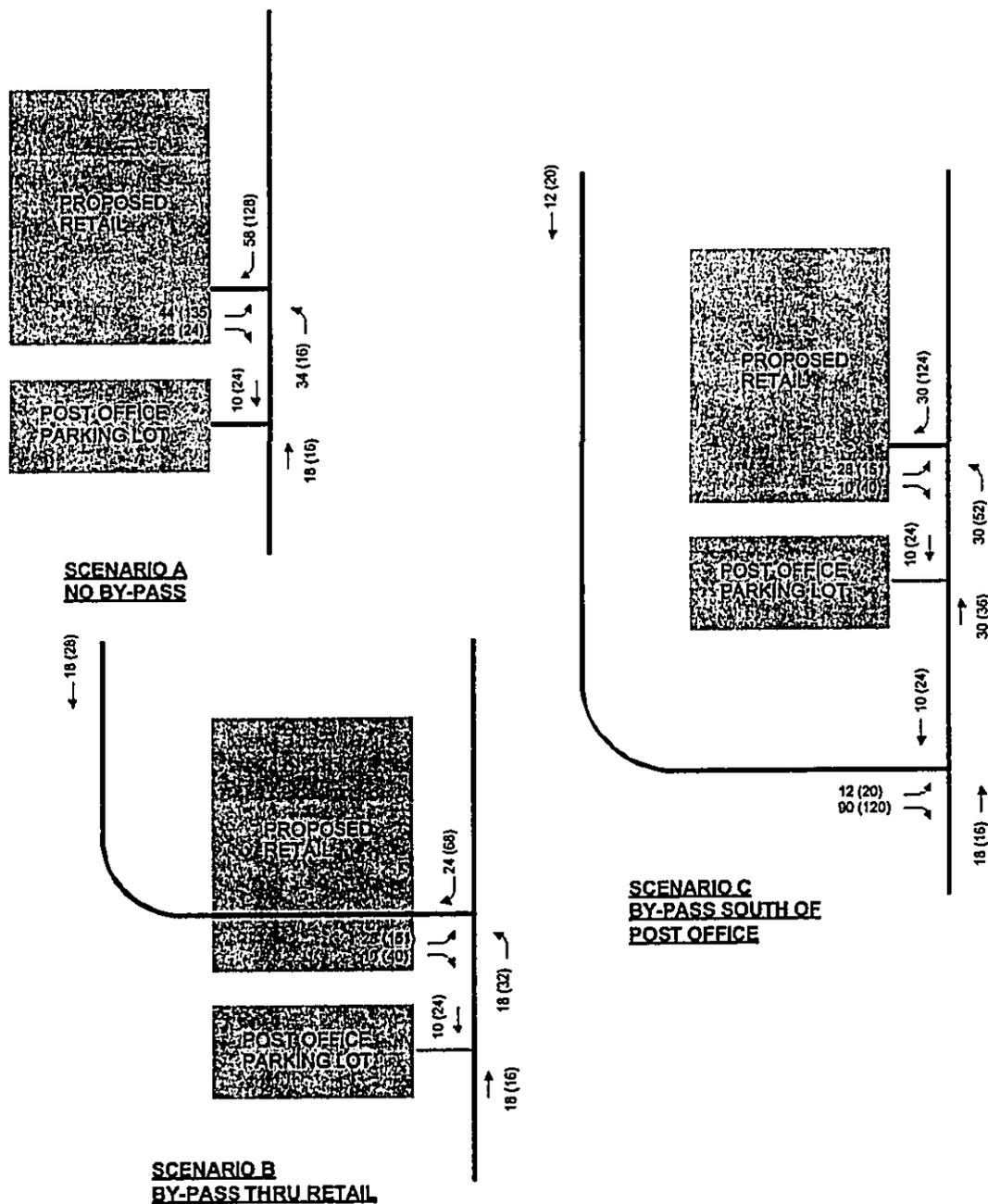


Figure 6  
AM (PM) PROJECT TRIP ASSIGNMENTS  
SCENARIOS A, B AND C

**2007 Cumulative Plus Project Projections**

Cumulative plus project traffic conditions are defined as 2007 cumulative traffic conditions plus project related traffic. The incremental difference between cumulative and cumulative plus project is the traffic impact of the project under study.

2007 cumulative plus project traffic projections were estimated by superimposing the peak hourly traffic generated by the proposed project on the 2007 cumulative peak hour traffic volumes presented in Chapter 3. The traffic projections for 2007 cumulative plus project conditions are shown on Figures 7, 8 and 9.

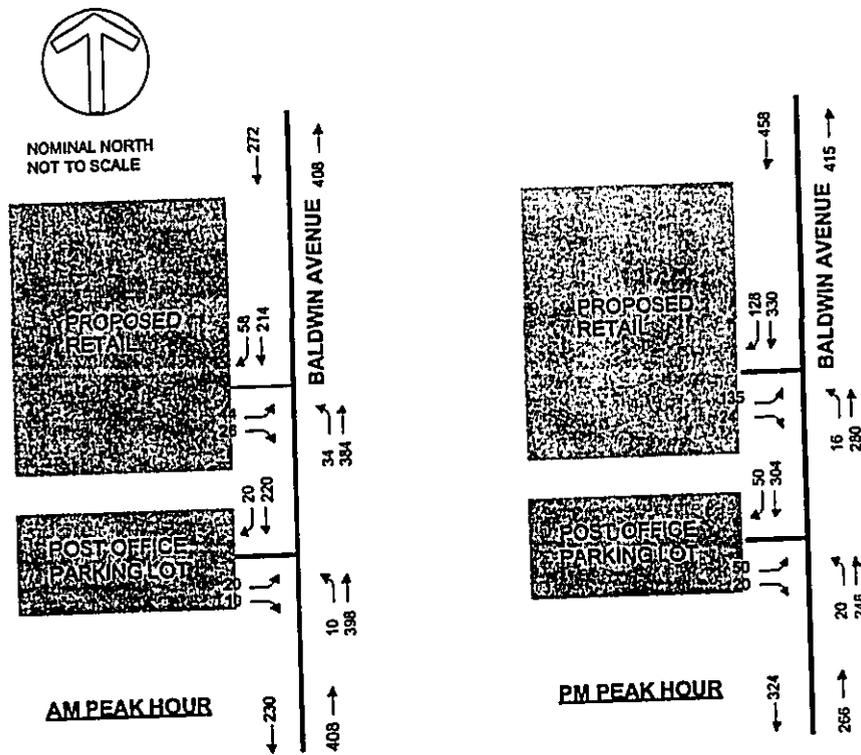


Figure 7

**2007 CUMULATIVE PLUS PROJECT PEAK HOUR PROJECTIONS FOR SCENARIO A**

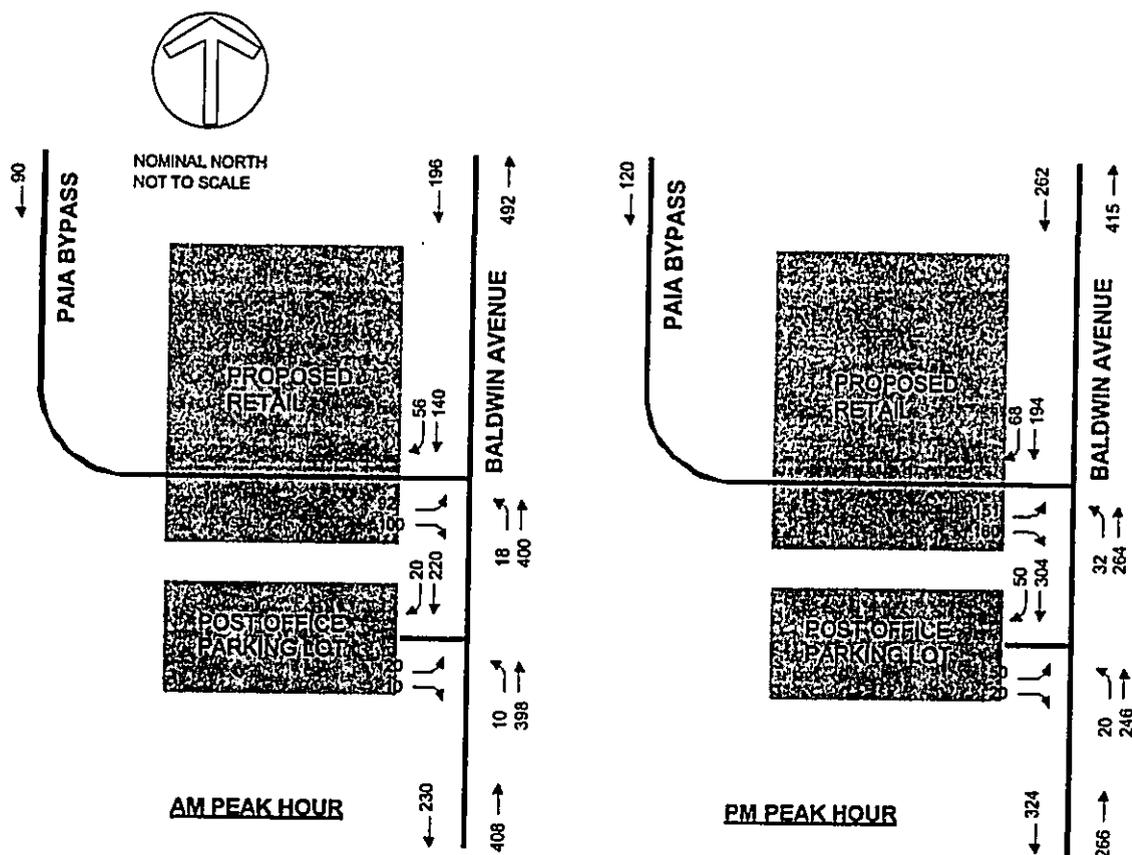


Figure 8  
2007 CUMULATIVE PLUS PROJECT PEAK HOUR PROJECTIONS FOR SCENARIO B

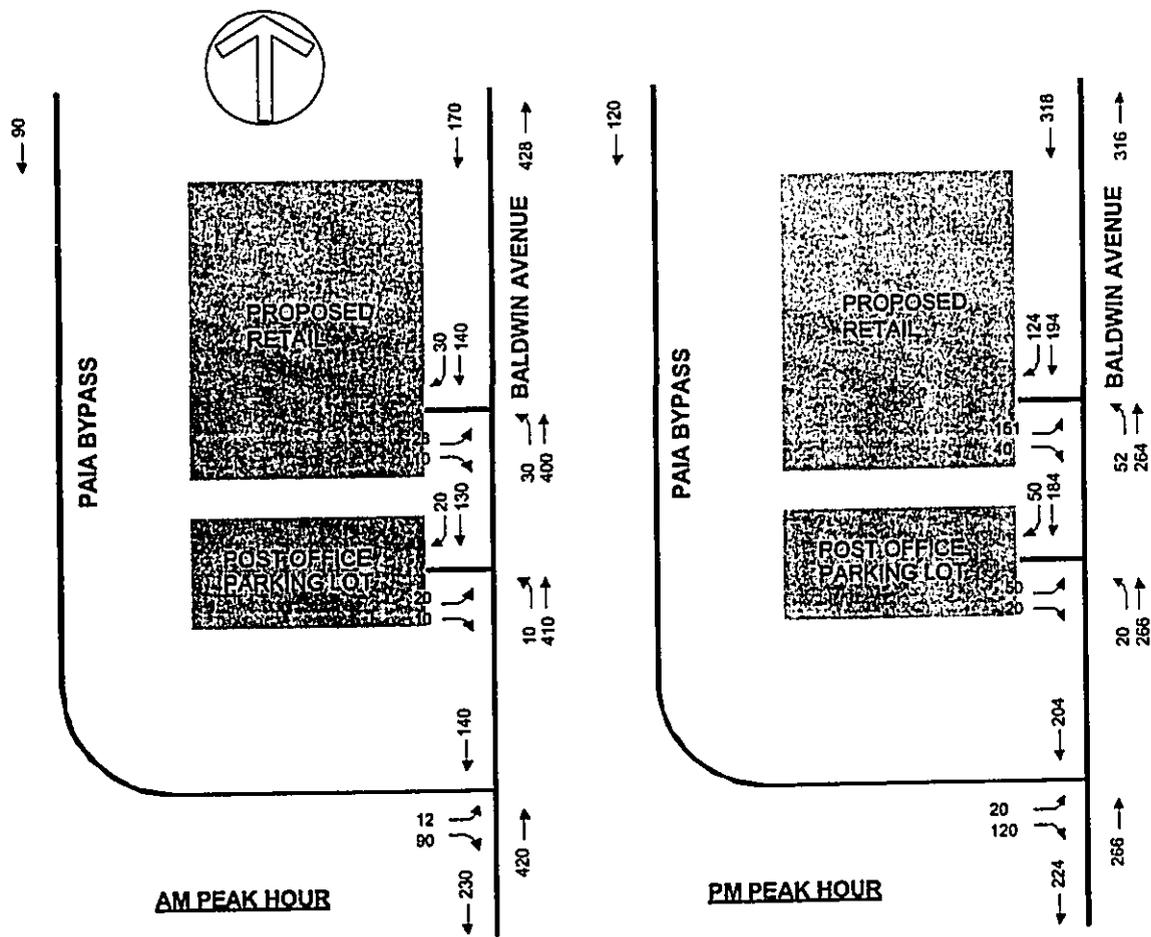


Figure 9

2007 CUMULATIVE PLUS PROJECT PEAK HOUR PROJECTIONS FOR SCENARIO C

## **5. CONCLUSIONS AND RECOMMENDATIONS**

The purpose of this chapter is to summarize the results of the LOS analysis, which quantifies the traffic impacts of the project. In addition, any mitigation measures necessary and feasible are identified and other access, egress and circulation issues are discussed.

### **Project Related Traffic Impacts**

The LOS analysis was performed for cumulative and cumulative plus project conditions. The incremental difference between the two conditions is the impact of the project. The assumptions used for the LOS analysis are:

1. All intersections are STOP sign controlled.
2. All traffic movements are allowed at the project driveway into and out of the project.
3. The project driveway is one-lane inbound and one-lane outbound.
4. For Scenario B, the bypass uses the driveway to the commercial development. Therefore, the roadway link between the bypass and Baldwin Avenue is two-way for this scenario.
5. For Scenario C, the Paia Bypass is one-way southbound from Hana Highway to Baldwin Avenue.

The results for each scenario is discussed separately.

**Scenario A**

The results of the Level-of-Service analysis of Scenario A is summarized in Table 5. This scenario does not include the proposed Paia Bypass. Traffic from the proposed commercial development will operate at Level-of-Service C during the morning peak hour and Level-of-Service D during the afternoon peak hour. Traffic along Baldwin Avenue will operate at Level-of-Service A during both peak periods.

A Level-of-Service analysis for separate lanes exiting the commercial development was performed. It was determined that even with a two lane exit, the Level-of-Service would remain D.

**Table 5 2007 Levels-of-Service - Scenario A**

Intersection and Movement	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay	LOS	Delay	LOS	Delay	LOS
<b>Baldwin Avenue at Post Office Driveway</b>								
Northbound Left & Thru	7.8	A	7.8	A	8.1	A	8.0	A
Eastbound Left & Right	12.6	B	12.9	B	14.7	B	10.4	B
<b>Baldwin Avenue at Commercial Driveway</b>								
Northbound Left & Thru			8.2	A			8.5	A
Eastbound Left & Right			15.4	C			26.1	D

**NOTES:**

(1) Delay is in seconds per vehicle.

(2) VIC denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

**Scenario B**

For Scenario B, the Paia Bypass use the driveway for the commercial development. Thus traffic using this intersection consist of traffic from the bypass plus traffic generated by the commercial development. The results of the Level-of-Service analysis for this scenario is summarized in Table 6. The results are consistent with the results for Scenario A

**Table 6 2007 Levels-of-Service - Scenario B**

Intersection and Movement	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay	LOS	Delay	LOS	Delay	LOS
<b>Baldwin Avenue at Post Office Driveway</b>								
Northbound Left & Thru	7.8	A	7.8	A	8.1	A	8.2	A
Eastbound Left & Right	12.6	B	12.9	B	14.7	B	15.4	B
<b>Baldwin Avenue at Commercial Driveway</b>								
Northbound Left & Thru	7.5	A	7.7	A	7.7	A	7.9	A
Eastbound Left & Right	11.1	B	24.0	B	10.6	B	25.3	D

NOTES:  
(1) Delay is in seconds per vehicle.  
(2) V/C denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

**Scenario C**

The results of the Level-of-Service analysis for Scenario C is summarized in Table 7. The results are the same as the previous scenarios. Traffic exiting the proposed commercial development will operate at Level-of-Service D.

**Table 7 2007 Levels-of-Service - Scenario C**

Intersection and Movement	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	Delay <sup>1</sup>	LOS <sup>2</sup>	Delay	LOS	Delay	LOS	Delay	LOS
<b>Baldwin Avenue at Post Office Driveway</b>								
Northbound Left & Thru	7.6	A	7.6	A	7.8	A	7.8	A
Eastbound Left & Right	11.5	B	11.8	B	12.8	B	13.7	B
<b>Baldwin Avenue at Commercial Driveway</b>								
Northbound Left & Thru			7.7	A			8.2	A
Eastbound Left & Right			10.6	B			25.2	D
<b>Baldwin Avenue at Paia By Pass</b>								
Northbound Left & Thru	7.5	A	7.5	A	7.6	A	7.6	A
Eastbound Left & Right	11.0	B	11.1	B	10.3	B	10.5	B

NOTES:  
(1) Delay is in seconds per vehicle.  
(2) V/C denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

**Conclusions and Recommendations**

1. Regardless of the alignment of the Paia Bypass, the proposed commercial development has minimal impact to traffic levels-of-service along Baldwin Avenue. Traffic movements into the commercial development and the post office will operate at Level-of-Service A without and with the project.
2. Traffic exiting the commercial development will operate at Level-of-Service D for all three scenarios. An additional exiting lane will not improve the Level-of-Service above D. However, it is recommended that separate lanes be provided to facilitate right turns out of the project.
3. As previously noted, traffic along Baldwin Avenue will operate at Level-of-Service A. However, it is recommended that a two-way left turn lane be provided along Baldwin Avenue adjacent to the project. This two-way left turn lane would be used by left turning traffic from the project as a refuge. The Level-of-Service would improve to C. The two-way left turn lane could also be used by traffic turning into and out of driveways along the east side of Baldwin Avenue.

# **Appendix E**

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**Preliminary  
Engineering Report**