

**HoKua Place**  
**Section 343-5e HRS Draft**  
**Environmental Impact Statement**  
**Volume II**



Prepared for:  
**Accepting Authority**  
**State of Hawai'i Land Use Commission**  
**&**  
**Petitioner**  
**HG Kaua'i Joint Venture LLC**

Prepared by:  
**Ho`okuleana LLC**  
*... to take responsibility ...*

---

1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567  
[www.Hookuleana.com](http://www.Hookuleana.com)  
[Info@Hookuleana.com](mailto:Info@Hookuleana.com)

**May 2015**

## Volume II

- Exhibit A - Kapa'a Housing Market Study
  - Exhibit B - Kapa'a Highlands II Sustainability Plan
  - Exhibit C - Kapa'a Highlands Agricultural Master Plan
  - Exhibit D - Department of Water, County of Kaua'i Managers Report 12-10
  - Exhibit E - Irrigation Supply for the Kapa'a Highlands Agricultural Subdivision Water Master Plan
  - Exhibit F - Preliminary Engineering Report Drainage Improvements Kapa'a Highlands Phase II
  - Exhibit G - Preliminary Engineering Report Wastewater Improvements Kapa'a Highlands Phase II
  - Exhibit H - Traffic Impact Assessment Report Kapa'a Highlands Subdivision Kapa'a, Kaua'i, Hawaii TMK: (4) 4-3-03:01
    - Comments from State of Hawaii Department of Transportation and Responses Relative to TIAR Submitted December 9, 2013
    - Review of Traffic Impact Assessment Report for Kapaa Highlands Subdivision Kauai, Kapaa, TMK: (4) 4-3-003:001 dated March 26, 2014
    - Traffic Consultant Response to HWY-PS 2.6887, Traffic Impact Assessment Report (December 9, 2013), Kapaa Highlands Subdivision, Kapaa, Kauai TMK: (4) 4-3-003:001 dated June 6, 2014
  - Exhibit I - Kapa'a Highlands Legal Description and Map
  - Exhibit J - Botanical Survey Kapa'a Highlands Phase II, TMK (4) 4-3-003:001 Kaua'i, Hawai'i April-May 2012
  - Exhibit K - Biological Surveys Conducted on the Kapa'a Highlands Phase II Project Site, TMK: (4) 4-3-003:001, Island of Kaua'i, Hawai'i
  - Exhibit L - An Archaeological Assessment with Subsurface Testing for the Proposed Kapa'a Highlands Phase II Project, Kapa'a Ahupua'a, Kawaihau District, Kaua'i TMK (4) 4-3-3: 1
  - Exhibit M - A Cultural Impact Assessment for the Proposed Kapa'a Highlands Phase II, Kapa'a Ahupua'a, Kawaihau District, Kaua'i
  - Exhibit N - Comment Letters, Scoping Letters & Letters of Support
  - Exhibit O - Kaua'i County Planning Commission Tentative Subdivision Approval for HoKua Farm Lots, June 19, 2014
- Comments and Responses to EIS Preparation Notice

# HoKua Place Draft EIS

## Exhibits

## Comments - Responses to EISPN

## Exhibit A

### Kapa'a Housing Market Study

## I. INTRODUCTION

The Data@Work is a market research firm that specializes in analyzing residential real estate markets for developers and lenders. We have been retained to perform a study analyzing the market for proposed master planned community on the island of Kauai, called Kapaa Highlands.

This study focuses on the historical and projected market conditions and trends in accessing the ability of the project to be successful in selling its residential properties at a price and at a velocity. The study entailed collecting, comparing and analyzing information that has a bearing on the numerous aspects of market demand for the proposed project, including but not limited to publicly available real property, economic and commercial data.

The author makes every effort to verify that all of the information in study and in particular the market description and analysis is accurate, but is aware that 100% accuracy is unlikely. Finally, the analysis and statements herein are based on independent research by the author.

## II. PROJECT DESCRIPTION & STUDY OUTLINE

### *Project*

Kapaa Highlands is a master planned project on the Island of Kauai targeting primary housing demand from local and in-migrant families, as well as offshore second home demand for view estate ownership. It sits above the historic town of Kapaa and below the foothills of the mountain chain that forms the island. It is equidistant from the two major resorts on the island (and at the center of the third, the Coconut Coast). Thus, it is at or close to the centers of employment and commercial activity.

As Kapaa is arguably at the center of the island, the target market for this development will be spread across a wide range of households, but mainly appealing to local families looking for reasonably priced housing that is well-located with regard to the centers of employment in the county, as well as to a good range of shopping, recreational and social facilities.

The development contains a portion of the Kapaa bypass road, a major arterial road adjacent to the property. As such, the property is accessible from three sides and is adjacent to already improved county roads. Furthermore, the property has no significant restraints relative to adequate water availability and wastewater. Finally, the Kapaa Middle School is located adjacent to the property and adds to the attractiveness of the site to the local population.

### KAPAA HIGHLANDS PRODUCT MIX AND SALES PROJECTION

Product	Units
House Lot Packages, On Large Lots (10,000 sf)	36
House Lot Packages, On Medium Lots (7,500 sf)	50
Multi-Family Dwelling Units (4 Plex, 8 DU/Ac)	500
Affordable Housing Dwelling Units (12 DU/Ac)	183

The units described above include condominiums (Multi-Family pads and Affordable Housing) and single-family homes (House Lot package).

[Note that some of the House/Lot package units may be sold as home sites, depending on future demand and market conditions].

The condominium units will be designed in a range of bedroom configurations that will best meet the demand for housing by providing designs that apply to different family types, including starter families, empty nesters, families with children, and households that qualify for affordably priced housing.

The design of the single family units will appeal to some of those in the aforementioned condominium demographic groupings, but will go further by addressing the needs of large families, families wanting to be close to the Middle School, trans-generational families needing adequate (read larger and more defined) living space, and professional families or those with multiple wage-earners.

The design of the condominiums could include stacked flats and townhomes, both of which have cost and livability advantages. They will be located in multi-unit buildings (four and six-plex, etc.) and laid out in a way that will be taking advantage of the site's benefits: including those of the ocean views, the cooling winds, the warming sunlight, etc. Their density would range from 8 to 12 units per acre.

The single-family units will be designed to take advantage of the area topography, as well as wind and sun direction and views. By having two different lot sizes allows for the land plan to address two demographics: the smaller lot size units would be most appropriate to starter families, and larger lot size units would be appropriate for larger families and multigenerational households.

It is worth being mindful that, generally speaking, the high cost of housing production in Hawaii, and Kauai in particular, often pushes housing prices beyond what local families, particularly workforce families, can afford. To counter that, often Kauai home purchasers include a number of income earners into the purchase, both family members and non-family members. It is this market demand segment that the larger lot size and house size units will address.

In keeping with the county's affordable housing requirement, the requisite number of units will be produced and priced according to the existing income guidelines when marketed. The current affordable requirement is 30%, and the fulfillment of that will be a benefit to the local families seeking better housing or a more convenient location.

Additionally, while the market homes will be priced to the market, and done so at the time of the start of construction, they will also be more affordably priced, relative to much of the new construction on the island. This is because the large size of the overall development (750+ units) is conducive to achieving construction economies of scale, both for infrastructure and vertical construction - which can be passed on to the consumer.

Further, these homes and condos will also be designed with the needs of local families in mind, as opposed to the offshore buyer market. This will thus 'lessen' the overall demand for them, resulting in a more moderate price point. This stands in contrast to many other new home construction projects and developments on the island and in the state, which seek to address the needs of the offshore buyer (and are priced accordingly higher).

Finally, it is important to note that this development will benefit those in the community who will not be purchasing here, but who nonetheless are in the market for affordable housing. This is because this, or any, provision of new housing acts to soften the pressures that push housing prices higher - national and local studies and data has shown that the supply of new housing into an existing market place results in a moderating trend in prices.

### Study Outline

In an effort to evaluate the proposed project, the study will begin by describing the area, the housing stock and the economy. It will take account of the economic factors and trends that affect housing relative to the county and to the proposed project. Thereafter, it will describe the housing market in general, and in particular to this project. In doing so, it will describe and analyze the factors and trends behind the general and specific supply and demand for housing. And it will summarize the findings and finish with some concluding remarks and expectations.

## III. OVERVIEW of COUNTY and MARKET

### Subject Property's Community

Kauai County is the fourth largest county in the state, as ranked by population and economic activity, behind the City & County of Honolulu (Oahu), Maui County and the Big Island of Hawaii.

The majority of the island's roughly 52,000 residents lives and works in the coastal areas leaving the interior of Kauai natural and pristine. Kauai's weather is near perfect year round with daytime temperatures ranging from the mid 70's to the mid 80's, slightly warmer in the summer. The northeast trade winds average about 15 mph for most of the year, and provide refreshing breezes. Rain showers usually fall in the evening and early morning hours, predominantly over the mountain ranges. The temperature of the ocean ranges from 68 to 80 degrees Fahrenheit.

It has one of the strongest brands in the global visitor industry, as well as arguably the most diversified visitor industry of any of the islands, combining large resort master planned communities, cruise ship visitations, time share developments and small-scale bed and breakfasts.

The breadth and depth of this economic base, like the rest of the state, rests on the county's economy's unique comparative advantage relative to the other visitor destinations world-wide: it has a very high quality of life, a function of a naturally beautiful setting, with a benign environment and near perfect climate. Indeed, the proof of its attractiveness can be found in the quality of the number of 'rich and famous' who have bought in Hawaii, starting with Lawrence Rockefeller in 1960 (followed by John Wayne, George Harrison, Peter Gruber, Charles Schwab, Michael Dell, Ben Stiller, Oprah Winfrey, Akio Morita, Michael Creighton, etc.)

Kauai has three major resort destinations:

- **Princeville**, a 45-minute drive from the Airport, is a resort that runs across a large plateau overlooking one of the largest deep-water bays in Hawaii. The view of the sunset, looking west, is extraordinarily beautiful.
- **Poipu**, also a 45-minute drive from the airport, sits above the south shore, with numerous bays and beaches safe for swimming. It has the largest concentration of hotels and golf courses on the island.
- **Coconut Coast**, a 20 minute drive from the airport, this area was the favored area of Hawaiian royalty and the original site of resort development on the island and, save for Waikiki, the state. It today hosts one of the largest percentage of accommodations, shops, recreation, restaurants and historical sites on the island.

The majority of the primary housing development is located within the Kapaa and Lihue urban zones, with secondary sources located areas in and around Poipu, Kilauea/Hanalei, and Hanapepe and Waimea. Second home development is located within and around the three major

resort communities, as well as in locations that are close to the coastline and/or in westward facing locales).

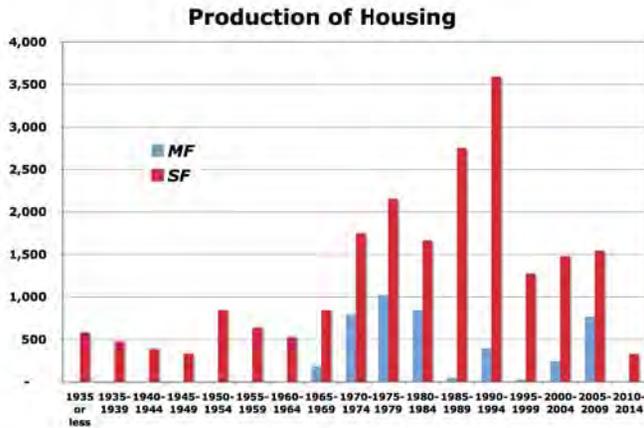
**Subject Property's Housing Stock**

Most of the primary housing inventory and on-going development is located within the Kapaa and Lihue urban zones. Primary housing is also concentrated, but to a lesser degree, in and around the communities of Poipu, Kilauea/Hanalei, and Hanapepe and Waimea.

Since the 1990s, Kauai's housing stock has grown faster than the population, as measured by the average annual growth rate for dwellings: it grew by 3.5% p.a. between 1990 and 2000, the highest in the State. The growth rate dropped to around 1.7% over the 2000-2010 period. Many of these new units have been targeted for the visitor or second home industry.

For instance, in 1990, the percentage of occupied housing units was about 92.5% of the county's total housing stock. By 2006, according to the Hawaii Housing Study, that dropped to 76.2 percent, the greatest rate of change among the four counties. Since 2006, however, there has been a reversal of that trend, with the percent of housing stock being build for primary homeownership has increased to 89.6%.

By way of context, housing development and construction was most active on Kauai during the time when the major resorts were developed in the 1970 and 1980s. Thereafter, primary housing production reached only half that level, save for periods of housing reconstruction that followed a major hurricane event.



In the years after the establishment of the resorts, there was a boom in condominium production, but many of these projects that were developed targeted the offshore buyer market. TMK records

show that over 70% of the condo units and 12% of the single-family homes are owned by out of state residents.

Census records have shown that a quarter of the County's housing stock did not house residents in 2000. Thus, while the Census categorizes these units as "vacant," they may be actually rented to vacationers, reserved by owners as a second home, or both. Demand in the housing market hence comes from residents, investors, and non-residents.

As a result, the average prices for housing units are skewed upwards and do not necessarily reflect residents' ability to pay for housing. Kauai housing stock is 78% owner occupied and 22% vacant, per their definition (it includes seasonal or recreational use, which itself constitutes 64% of all vacant units, with rental units constituting 20% of that total).

Indeed, housing inventory shows that about 3,000 of the 4,000 condominium units in the county, or 73%, are owned out-of-state. This would account for the high prices of condos in the county, the second highest in the state. Median resale price this May 2013 for a condo on Kauai is \$323,000.

**HOUSING CHARACTERISTICS OF THE MARKET**

Kauai County	Units
Occupied housing units	23,051
Owner-occupied housing units	13,968
Renter-occupied housing units	9,272
Vacant housing units	6,553
For rent	1,312
Rented, not occupied	61
For sale only	251
Sold, not occupied	51
For seasonal, recreational use	4,172
All other vacant units	706
Homeowner vacancy rate (percent)	1.8%
Rental vacancy rate (percent)	12.3%

Note that the homeowner vacancy rate is low but the rental vacancy rate is high. This is indicative of a community that has high priced houses – therefore the homeowner vacancy rates are low. Additionally, as it is a very desirable place to live, there are a lot of rental units for vacation rental – and therefore the rental vacancy rate is high.

**HOUSING CHARACTERISTICS OF THE MARKET, BY AREA**

	Waimea	Koloa	Lihue	Kawaihau	Hanalei	Total
Detached Home	2,270	4,843	4,706	5,212	2,013	19,044
Townhouse	57	128	142	36	113	484
Condominium	0	195	326	190	366	1,082
Duplex/multiplex	85	201	24	142	22	484
Apartment	328	139	564	202	185	1,428
Co-op	0	67	107	0	0	184
Other/Not	0	179	65	148	52	345
	2,739	5,752	5,935	5,930	2,751	23,051

Note that the area of the proposed development is Kawaihau, highlighted in blue, and that area has very few dwellings that are attached units (condo, townhouse, etc.).

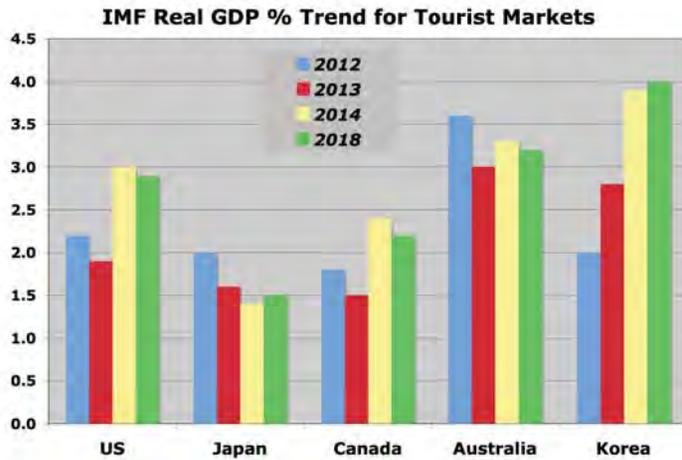
#### IV. THE ECONOMY

Simply put, residential for-sale and rental values move closely in synch with an area's economic growth, and economic growth is determined in the short run by the balance of trade between the area and it's major trading partners. And the mechanism by which this growth in values occurs is via rising incomes and higher job counts. We start by looking at the economic outlook for the state and the county. As the major industry is tourism, the county's significant visitor sources would be the US, Canada and Asia

As such, we look at the economic trends in all three sources.

##### GLOBAL ECONOMY:

The overall global economic forecast by the IMF earlier this year noted that the recovery had solidified, but the unemployment remained high. It said global financial risks have shrunk, including the chance of a fallback in economic activity (a double dip).

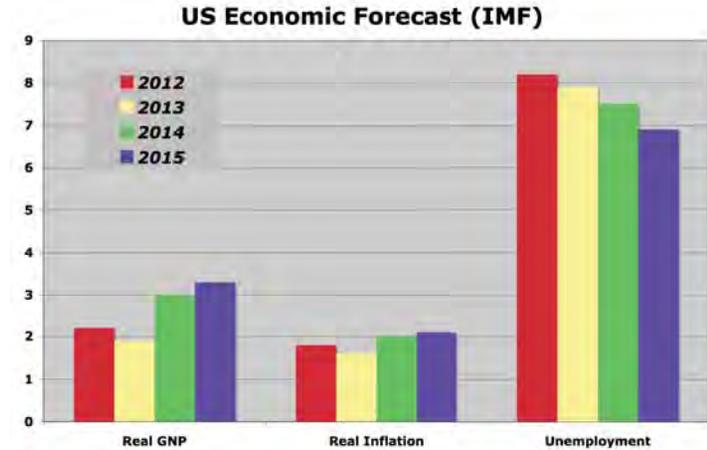


If the advanced economies continue to repair their public and financial balance sheets, and stimulate employment, and if emerging markets do not overheat their economies, global financial markets and property markets will stabilize and grow.

##### UNITES STATES:

The US economy is projected to grow by 3 percent in 2014, as firmer private final demand takes the burden to stimulate the economy off of federal fiscal policy. More and more, the risks to the economic outlook are abating: the recovery in housing prices and the slight growth in the job

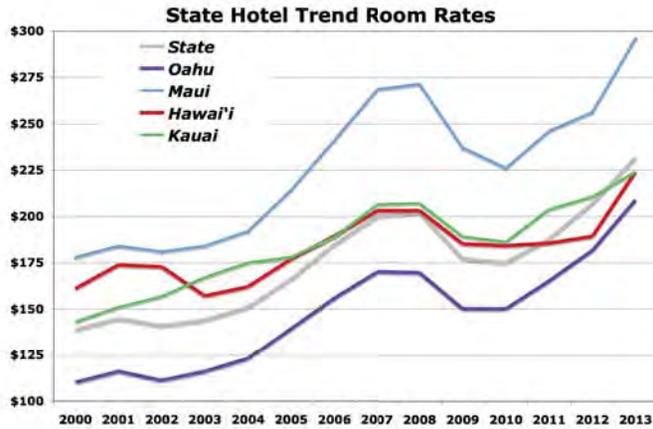
market are big positives looking ahead. Given the slack in the economy, inflation is expected to remain subdued, but with a rise in the interest rates in the cards.



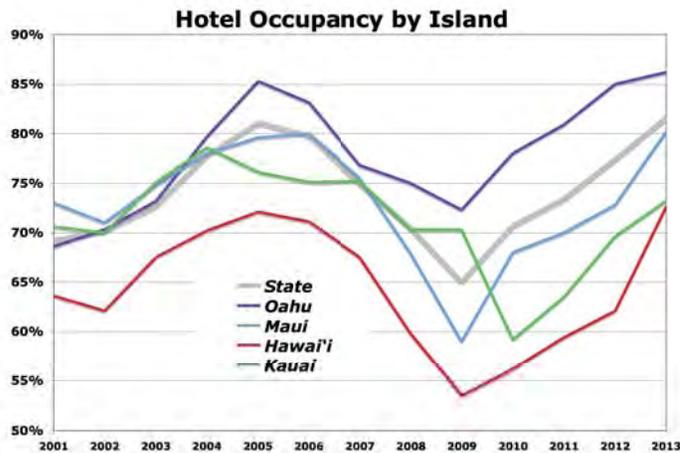
Looking ahead, the US economy will be on the rise. That, plus the perception of a growing economy, should be sufficient to grow the Hawaii state and the Oahu county economies. As an improved US economy is manifested in terms of higher visitor industry revenues, this commensurate growth in state economic activity will then put pressure on housing, via higher job counts (immigration) and incomes.

##### HAWAII STATE:

According to the state economic forecasters, Hawaii's economy continues to grow strongly in 2013 at an accelerating rate. The state has very low unemployment relative to the rest of the nation, thanks to a resurgent demand in the visitor industry, which is the major engine of economic growth in the county and the state (as seen below).



Historically, Hawaii's economy follows those of the Pacific Rim countries, which bodes well for the future.



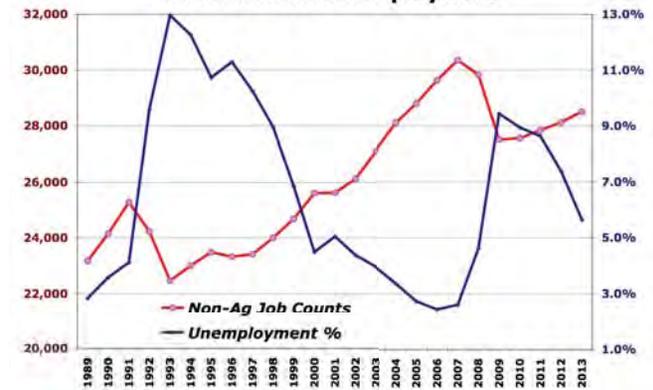
**Kauai Visitor Industry Trends**



**KAUAI:**

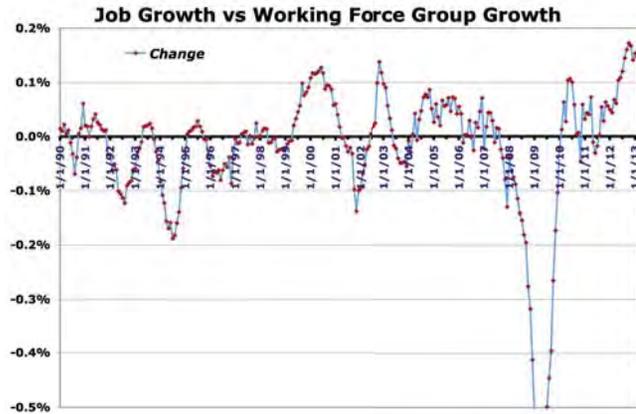
Kauai is enjoying economy growth again, thanks to a resurgent demand in the visitor industry, which is the major engine of economic growth in the county and the state (as seen in job counts rising and unemployment rates falling).

**Job Counts & Unemployment**

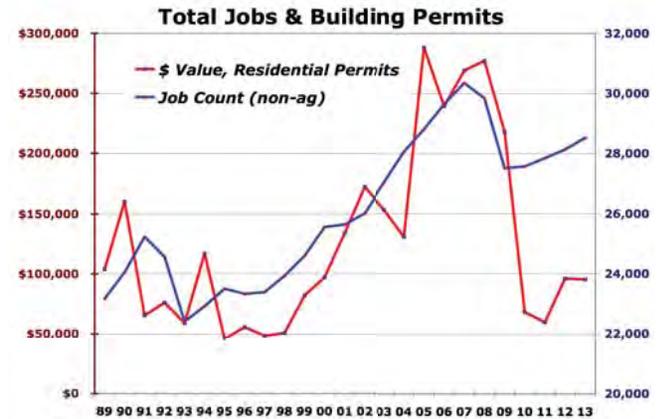
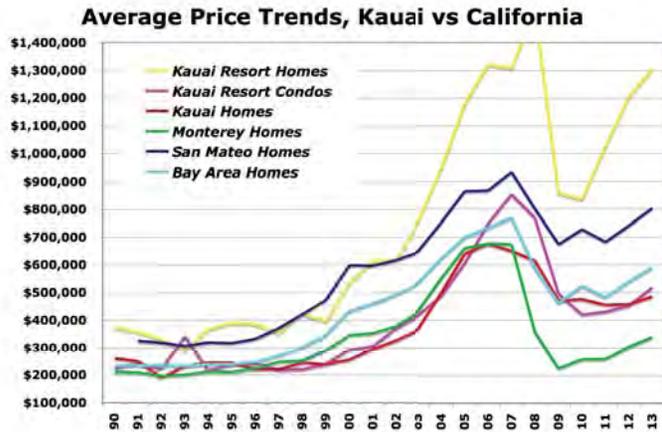


Going forward, Kauai will begin to experience tight labor conditions, with immigration occurring in order to meet rising job growth. Indeed, this is happening already, as seen next.

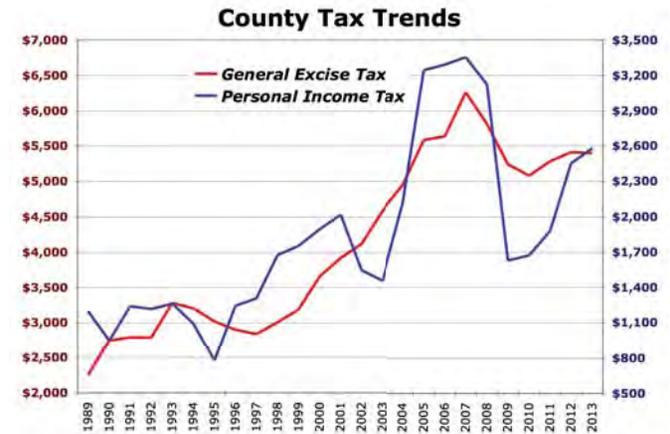
This chart shows that the recent growth in jobs is outpacing the natural growth in the workforce, i.e., population growth. Thus, in-migration will occur (which leads to increased housing demand).



Housing demand will also grow thanks to offshore demand. As seen, when California's residential markets improve, prices (demand) for second homes in Kauai also rises.



Finally, Kauai's economy and real estate market are closely tied, as an increase in one leads to an increase in the activity of the other (per the following chart). In sum, economic indicators look to growth for the island's residential market.



## V. HOUSING MARKET

**Overview:** Much like the state, Kauai’s residential real estate supply is inflexible and constrained, but to a greater degree – the cost constraints are even tighter (higher costs of transporting material inputs to a remote locale, plus of sourcing labor in a small community), and the political climate there is generally unfavorable to housing development, particularly at the high end and/or in areas that are highly visible (but decidedly less so, relative to affordable and senior housing, as well as work force housing, which this project is proposing).

At the same time, demand for residential real estate is both flexible and strong, particularly in good economic times and over the long run. It can be, and is currently, constrained to an uncharacteristic degree, thanks to havoc in the financial markets the last few years and the drastic fall off in economic activity globally and nationally.

The first condition, limited supply, arises due to Kauai having a very small landmass, coupled with inadequate infrastructure and challenging geographic conditions (atop the aforementioned political, social and legal impediments).

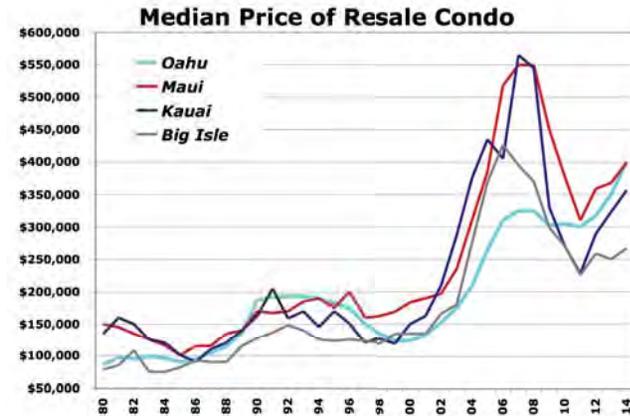
The second starts with the very high quality (defined a high quality of life, in terms of being a place that is environmentally safe, aesthetically pleasing, socially accommodating, politically stable, etc.). This is coupled by a deep and broad appreciation of that lifestyle by very large population accustomed to visiting the island (mainly West Coast and East Asia), which has one of the highest rankings in brand awareness and acceptance.

In combination, this results in a market that can dramatically volatile, up and down, in terms of sales and, to a lesser extent, prices. We note that in the past cycles, prices have been relatively ‘sticky’ downward, i.e., generally holding on to accumulated values. In this cycle, however, the price appreciation was so extensive and lasted so long, that the ensuing price depreciation during the down cycle has also been extensive.

Currently, Kauai’s residential markets are now at the beginning of the up-cycle. The question is, going forward, how long this will last. The rule of thumb for the residential market is that the upswing in the cycle, the up cycle, generally lasts about 6.5 years, and is about twice as long as the down cycles. In addition, the up cycle, through to peak, results a tripling of the number of closings.

For the condo market, the up cycles last about 7 years, almost more than twice as long as the down cycles. In addition, the movement trough to peak of closings can be 300% or 400%, while for prices, it can be 400% or higher (note that this condition is not just particular to Kauai, but to all the neighbor islands).

The following charts illustrate this, starting with price appreciation trends.



For the condo market on Kauai, the one that relates to this project, the up cycles last about 7 years, almost more than twice as long as the down cycles.



Next, we describe the balance between supply and the demand using sales and listings island-wide for condos, as well as the indicator showing the balance between the two, MRI or Months of Remaining Inventory.

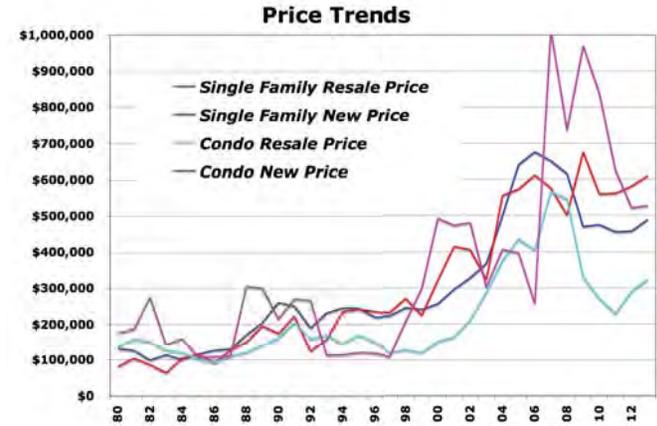
Right now, the MRI trend is declining, per the growth of sales and shrinkage of listings, indicative of a tight market. A normal reading is between 8 and 12 months, with the two balanced.



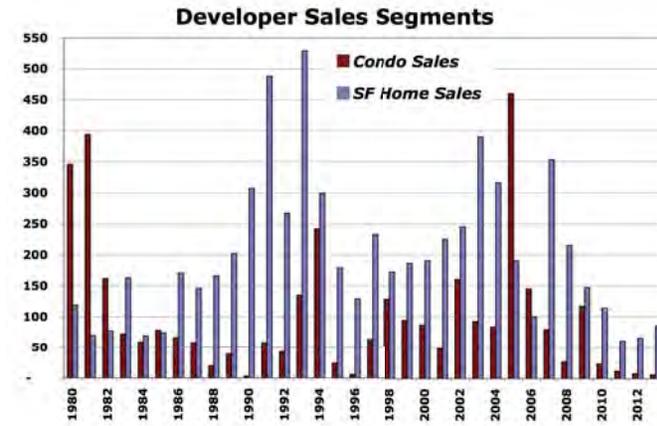
Looking ahead, we assume that the sales will continue to grow (as a function of low interest rates, plus the spread of the economic recovery in the areas where buyers of Kauai real estate reside (basically on Kauai, plus on the west coast of North America)).

In this case, the proper market response to tight supply is for sellers to raise their prices. As seen in other charts, this has already started two years ago, and continues this year as well.

The following chart shows the price trend over the last 32 years for the four basic housing products: single-family resales and developer (newly constructed) sales, plus condominium resales and developer sales. As seen, the price trend over the last four years has been down, with the recovery taking hold first with single-family product, followed by condos.

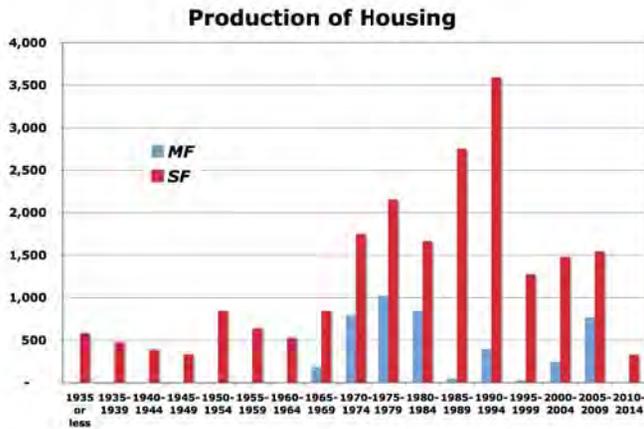


Next, we look at the market for developer sales. As seen in the next chart, the level of new housing production is at a historic low. This is a condition of scarcity and it leads to price movement to the upside.



When that happens, the general public will get a sense that there is a housing shortage, and pressure will be brought politically to increase the supply of affordable housing. In and of itself, that will help to alleviate the demand existing for affordable rental units. That said, it is likely that the demand for reasonably priced housing will vastly outpace the supply.

Another way of seeing this is the long-term production of housing chart. Not only has housing production been low of late, but this also says that the current stock of housing is old, and dated.



**VI. FUTURE KAUAI HOUSING SUPPLY**

**PERMITS**

The easiest way to look ahead to where the housing market is going in the short-term is by examining the activity in permits (where developers apply for permission, and pay their fees, for building residential units). A high level of activity indicates more supply is in the works, which means that more demand will be met, and the potential for prices adjusting downwards. With less supply in the works, prices will feel pressure upwards (and higher prices in the future, when demand recovers).

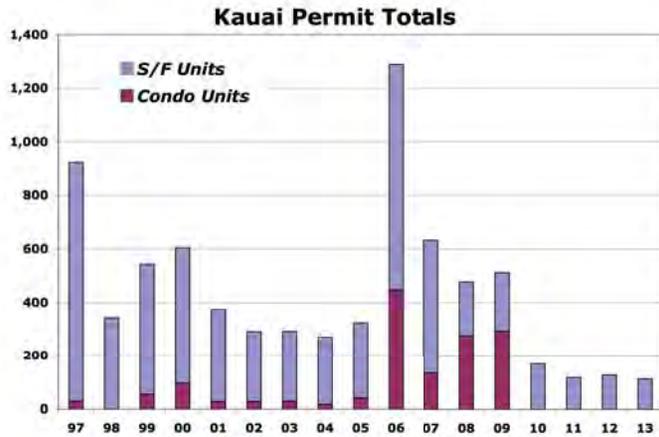
In addition, low levels of per unit value indicate that the units being built are for the lower end of the market (and vice versa). And, this has not been the case overtime on Kauai, indicating that most of the new housing has been targeted on the upper income end of the housing market.

An overview of the TOTAL RESIDENTIAL PERMITS AND VALUES Chart shows that the number of permitted units has sunk so low that it is at an all-time historical low. On the other hand, the value per permitted unit is at a record high.

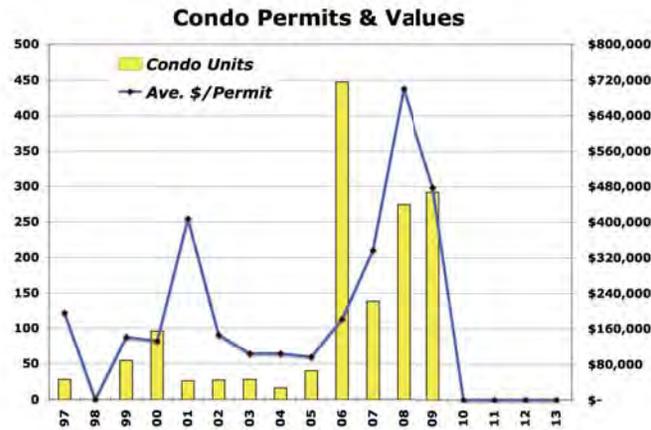


Note that the 2013 data is extrapolated, using actual data through April 2013.

The following chart shows the actual breakdown between condos and single-family homes.

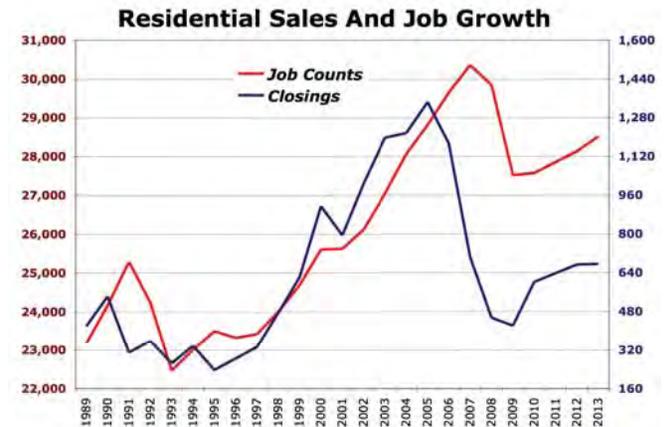


As seen, the number of permits is very low – caused mainly by the condo market.



## VII. HOUSING DEMAND

The prime determinant of housing demand is household formation, itself is a function of the economy and demographic and social trends. As noted above, in the short term, residential housing demand is driven by economics – specifically of job creation/income growth, as well as interest rate trends.



Incomes to buy homes, and they drive immigration, which is a prime source of housing demand (sometimes linked to population growth). This linkage is best illustrated in the RESIDENTIAL SALES & JOB GROWTH Chart.

Note how closely the two trends track one another, up until the 2004-2005 period, when high prices prevented many families from buying a house. This then shows how the lack of housing supply on an on-going basis drives prices higher, and thus lowers the sales of homes.

Further note, the gap that has opened up between the two trends starting in 2005. In previous recessions, a similar pattern occurred, with the sales of homes (blue line) picking up during the recovery. This was because a lot of families doubled up (multiple families living in one dwelling) during the recession. Thereafter, they took the economic gains they made in the recovery and invested it in housing. This will be happening in the next few years.

If the subject property were under construction, then this unmet housing demand would turn to this project as a source of housing supply.

### VIII. HOUSING DEMAND POTENTIAL & PROJECTION

**JOB GROWTH TO HOUSING DEMAND:** In the tables below, we describe DBEDT’s predictions for wage and salary job creation on Kauai for the next 10-15 years, and derive from that a general expectation for housing demand over the next five to ten years (in other words, we will translate it into housing demand). Note that the model\* used here ran from 2007, but was updated in 2009

**HOUSING DEMAND, FROM DBEDT’S 2035 JOB FORECAST FOR WAGE & SALARY JOBS**

	2007	2015	2020	2025
Total civilian wage and salary jobs	44,077	46,900	49,500	51,900
5 Year Growth		2,823	2,600	2,400
Annual Job Growth		565	520	480
Annual Housing Demand (1.75 Jobs: 1 Home)		332	306	282

\*([http://hawaii.gov/dbedt/info/economic/data\\_reports/2035LongRangeSeries/LRFreport\\_2035series\\_revised\\_Aug09.pdf](http://hawaii.gov/dbedt/info/economic/data_reports/2035LongRangeSeries/LRFreport_2035series_revised_Aug09.pdf))

As seen, we use the annual changes in job counts to derive housing demand on the premise that it will take an average of 1.75 new jobs to generate demand for one new house.

However, the job counts used in the charts and tables above are just the number of wage and salary jobholders, and do not encompass the self-employed or home worker. According to DBEDT’s projections, self-employed workers consist of about 20% of the total work force, but are growing to 25% in the next ten to twenty years. As such, we want to add this demand for housing into our projections.

The following transforms those projections into annual job growth projections, and then summarizes it in a complete DBEDT projection table.

**HOUSING DEMAND, FROM DBEDT’S 2035 JOB FORECAST, SELF-EMPLOYED**

	2007	2015	2020	2025
Annual Housing Demand (1.75 Jobs: 1 Home)		332	306	282
Self Employed Housing Demand (15% of total)		33	31	28
Total Annual Housing Demand		365	336	311

Finally, we want to take into consideration offshore demand, relative to housing demand. Studies have shown that this demand varies from a low of 15% on Oahu to a high of 60% on Maui. For Kauai and our purposes here, we use a very conservative factor of 20%. Thus, the total amount of housing demanded in the future should see an increase of another 20%. The following table shows this:

**HOUSING DEMAND, FROM DBEDT’S 2035 JOB FORECAST PLUS OFFSHORE DEMAND**

	2007	2015	2020	2025
Total Annual Housing Demand		365	336	311
Offshore Buyer Housing Demand (20% of total)		66	61	56
Total Annual Housing Demand		431	397	367

Note that the average number of residential permits taken out in the last five years for the county is 373 units p.a., but the average over the last 2 years (projecting 2011 using YTD numbers through September, is 125 units, p.a.



In sum, housing production in the past has not satisfied housing demand, as driven by job growth, leading to higher priced housing and overcrowding in existing housing.

Looking ahead, this will only continue, as the level of permitting this year has been below what is would house just the recent growth in potential homebuyers.



**IX. FORECAST**

As seen earlier, the cycle for both the economy and real estate is coming off of a dramatic fall-off in overall activity and in values. Going forward, we believe the markets will right themselves and the county will resume the normal pattern of multi-year periods of both economic growth and job and personal income expansion. In turn, this will lead to housing demand. As seen in the past, the housing market will begin to overheat, manifested by rising housing prices that outrun people's rising incomes. This will lead again to an affordable housing 'crisis' – where demand outstrips supply. A major part of this problem, one of the county's own making, is that there will be limited amounts of land suitable and zoned for housing.

Given this, we believe the development this project will contribute to the satisfaction of housing demand, that has been deep and persistent, from both off-shore and on-island. We also believe that the development will be successful, particularly so in light of the coming up cycle in the housing market. Finally, the historically low level of permitting activity indicates there will little or no competitive interference coming in the short run from other housing development on the island.

The following table describes the potential pricing at the retail level for each product type in the development (note that, in the eventuality that some or all of the house/lot package units are sold as simple home sites, the prices will be lower, as reflected in the final column below).

**KAPAA HIGHLANDS PRODUCT SALES PRICE PROJECTION**

Housing Produced	Total Units	Retail Price Per Unit	Home Site Only Prices
A House Lot Package, Large Lots (10,000 sf)	36	\$800,000-\$950,000	\$266,000-\$316,000
A House Lot Package, Medium Lots (7,500 sf)	50	\$650,000-\$700,000	\$216,000-\$233,000
Multi-Family Dwellings (4 Plex, 8 DU/Ac)	500	\$250,000-\$350,000	
Affordable Housing Dwellings (12 DU/Ac)	183	\$125,000-\$175,000	

Given that these prices, particularly the affordable ones, are below the historical trend for housing, we expect that sales will start up strongly. We expect them then to hold this momentum over the first three years, coinciding with the market's expansion. Thereafter, they will experience a gradual fall-off, coinciding with the downturn in the cycle. After that, the market will recover, as will sales of the final units.

**KAPAA HIGHLANDS PRODUCT CLOSING PROJECTION**

Product	2016	2017	2018	2019	2020	2021	2022	2023
Large Lot Homes	11	9	9	7				
Medium Lot Homes	15	15	14	6				
Multi-Family Units	90	100	90	70	50	30	30	40
Affordable Housing Units	40	40	40	35	28			

**Exhibit B**

**Kapa'a Highlands II Sustainability Plan**

## Kapa'a Highlands II Sustainability Plan

### Table of Contents

# Kapa'a Highlands II Sustainability Plan



Chapter	Page Number
1. Introduction	1
2. Sustainability Programs and Plans	10
3. Natural and Cultural Resources	17
4. Consistency with Regional Land Use Planning	18
5. Sustainable Design Features	20
6. Transportation	28
7. Economic Opportunities	30
8. Open Space and Parks	31
9. Water Management	32
10. Energy Management	35
11. Health and Active Lifestyles	37
12. Education	39
13. Housing	40
14. Social Sustainability	43

Prepared by:

**Ho'okuleana LLC**  
... to take responsibility ...

25 Kāne'ohe Bay Drive, Suite 212  
Kailua, Hawai'i 96734  
(808) 254-2223 (O'ahu)  
(808) 329-4447 (Big Island)  
[www.Hookuleana.com](http://www.Hookuleana.com)  
[Info@Hookuleana.com](mailto:Info@Hookuleana.com)

## Kapa'a Highlands II Sustainability Plan

### Kapa'a Highlands II Project Information

Kapa'a Highlands II is a proposed development of a mix of single-family and multi-family residential, market and affordable rate homes. This 163-acre Ocean View "Planned" community is positioned to be the pride of Kapa'a. The development seeks to fill the housing needs of Kapa'a within the Urban Center of the district. Situated in close proximity to schools and commercial areas, Kapa'a Highlands II is proposed to be a sustainable community that preserves the rural character of Kapa'a while meeting its growing housing needs.

Kapa'a Highlands II has received letters of support from the County Mayor, County Planning Department and County Housing Department. Letters of approval have been received from the County Department of Public Works regarding wastewater, State Department of Transportation and the County Water Department.

Project Name:	Kapa'a Highlands Phase II
Location:	Wailua, Kaua'i, Hawai'i
TMK:	(4) 4-3-003:001
Total Area:	163-acres
Existing Use:	Vacant, undeveloped, former sugarcane land
County Zoning:	Agriculture
General Plan Land Use Designation:	Urban Center
State Land Use:	Agricultural
Approvals Required:	LUC Boundary Amendment; County Class IV Zoning & Use Permits; County Council Approval for Zoning Change; Building Permits
Project Components:	Mix of single-family and multi-family residential. Approximately 69-acres subdivided into: <ul style="list-style-type: none"><li>• 86-single family (lots ranging from 5,000 to 8,000 SqFt.)<ul style="list-style-type: none"><li>◦ \$180,000.00 to \$250,000.00</li></ul></li><li>• 683-multi-family (lots from 1-5 acre parcels)<ul style="list-style-type: none"><li>◦ \$220,000.00 to \$450,000.00</li></ul></li><li>• Totals above include – 167-affordable units on site<ul style="list-style-type: none"><li>◦ \$189,000.00 to \$363,000.00</li></ul></li></ul> Open space encompassing 14.3-acres including: <ul style="list-style-type: none"><li>• 3.1-acre park adjacent to Kapa'a Middle School<ul style="list-style-type: none"><li>◦ Relocation of County Swimming Pool</li></ul></li><li>• Greenways surrounding development</li></ul> Commercial Areas totaling 1.4-acres <ul style="list-style-type: none"><li>• Stores, personal services</li><li>• Land for police/fire sub-stations</li></ul>

## Kapa'a Highlands II Sustainability Plan

### Project

#### Components:

#### Infrastructure Improvements:

##### Water:

- Contributions to repairs of Kapa'a Sewer Treatment Plant
- Water Master Plan approved by County Water Department
- Well on site to be dedicated to County Water Department

##### Transportation:

- Dedication of Kapa'a By-Pass Road to the State
- Complete multi-modal roadway running thru the property
- Bus stops located along roadway
- Bike/Walking path



Aerial Image Overlooking Kapa'a Highlands II Project Area

Kapa'a Highlands II Sustainability Plan



Kapa'a Highlands II Sustainability Plan

Kapa'a Highlands II Sustainability Plan

This Kapa'a Highlands II Sustainability Plan is a comprehensive set of goals, strategies and actions focused on improving environmental quality, economic strength and social benefit within the Kapa'a Highlands II project, as well as the broader community.

This Plan serves as a roadmap guiding Kapa'a Highlands II toward a more sustainable future, with implementation of actions through a comprehensive, inclusive stakeholder process.

Before discussing the global context of "sustainability," we explore the Hawaiian view of "āina" – core to the term "sustainability."

In a traditional Hawaiian context, nature and culture are one and the same; there is no division between the two. The wealth and limitations of the land and ocean resources gave birth to and shaped the Hawaiian worldview. In Hawaiian culture, natural and cultural resources are one and the same.

All forms of the natural environment, from the skies and mountain peaks, to the watered valleys and lava plains, and to the shoreline and ocean depths are believed to be embodiments of Hawaiian gods and deities. (Maly)

**‘Āina – That Which Sustains the People**

(Context, here, primarily provided from writings of Kepa Maly)

The *‘āina*, that which feeds, nourishes and sustains life (in English referred to as "land"), *wai* (water), *kai* (ocean), and *lewa* (sky) were the foundation of life and the source of the spiritual relationship between people and their environs. Hawaiian *mo‘olelo*, or traditions, express the attachment felt between the Hawaiian people and the earth around them.

In any discussion of Hawaiian land - *‘āina*, that which sustains the people - and its place in culture, it is also appropriate to briefly discuss traditional Hawaiian land terms, as the terms demonstrate an intimate knowledge of the environment about them. In the Hawaiian mind, all aspects of natural and cultural resources are interrelated. All are culturally significant.

Hawaiian culture revolves around the value of "aloha ‘āina" or love of the land. This love is not a passing sentiment, a summer fling or a fair weather affair. It is a deep-seated commitment to the wellbeing of the earth, which sustains us like a parent.

The Hawaiian concept of *malama ‘āina* (literally, caring for or living in harmony with the land,) demands conservation, sustainable use and enhancement of the local, regional and global environment. By simply taking care and respecting the land, it will sustain life. This straightforward relationship has been honored for thousands of years, since the Polynesians followed the stars to the shores of Hawaii.

The traditional land use in the Hawaiian Islands evolved from shifting cultivation into a stable form of agriculture around 1200 AD (Kirch, 2000). Stabilization required a new form of land use. It is widely believed ‘Umi a Līloa, the ruler of the Island of Hawai‘i, was the first ruler to create the ancient Hawaiian land division, according to a chiefly management system, nearly 600 years ago.

## Kapa'a Highlands II Sustainability Plan

This was the *ahupua'a* land use system, which consisted of vertical landscape segments from the mountains to the near-shore ocean environment, and into the ocean as deep as a person could stand in the water (Isabella Aiona Abbott).

For hundreds of years since, on the death of all *mō'ī* (kings or queens), the new monarch re-divided the land, giving control of it to his or her favorite chiefs. The common people never owned or ruled land.

In the term *ahupua'a*, the words *ahu* (stone altar or stone mound) and *pua'a* (pig) are combined. The *pua'a* was a carved wooden image of a pig head. These stone altars served as border markers and deposition places for offerings to the agricultural god *Lono* and a high chief (*ali'i nui*), who was the god's representative.

Each *ahupua'a* in turn was ruled by a lower chief, or *ali'i 'ai*. He in turn appointed a headman, or *konohiki*. The *konohiki* served as general manager responsible for the use of an *ahupua'a* as a resource system. He in turn was assisted by specialists, or *luna*. For example, the *luna wai* was responsible for the fresh water flow and irrigation system (Kamehameha Schools, 1994).

Manageable parcels of land would typically run *mauka* (upland) to *makai* (toward to ocean) and would be marked with stonewall alignments. Tenants cultivated smaller crops for family consumption, to supply the needs of chiefs and provide tributes.

*Kapu* (restrictions/prohibitions) were observed as a matter of resource and land management among other things. Access to resources was tied to residency and earned as a result of taking responsibility to steward the environment and supply the needs of *ali'i*. The social structure reinforced land management.

### Sustainability – United Nations Context

In 1983, the United Nations Secretary General invited Norwegian Prime Minister Gro Harlem Brundtland to chair a World Commission on Environment and Development. The Report of the Brundtland Commission, *Our Common Future*, was transmitted to the General Assembly as an Annex to *document A/42/427 - Development and International Co-operation: Environment, in 1987*

Chapter 2, "Towards Sustainable Development" of the Brundtland "Our Common Future" defines "sustainable development" as:

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

In its broadest sense, the strategy for sustainable development aims to promote harmony among human beings and between humanity and nature.

## Kapa'a Highlands II Sustainability Plan

### Sustainability in Hawai'i (Hawai'i 2050)

The following definition, vision and guiding principles are incorporated in the Hawai'i 2050.

#### Definition:

A Hawai'i that achieves the following:

- Respects the culture, character, beauty and history of our state's island communities
- Strikes a balance between economic, social and community, and environmental priorities
- Meets the needs of the present without compromising the ability of future generations to meet their own needs

#### Vision:

Living responsibly and within our own means is top-of-mind for all individuals and organizations. We learn about the virtues and values of a sustainable Hawai'i. As a result, our goals of economic prosperity, social and community well-being and environmental stewardship are in balance and achieved.

### Hawai'i 2050 Guiding Principles of Sustainability

- Balance economic, social, community and environmental priorities.
- Respect and live within the natural resources and limits of our islands.
- Achieve a diversified and dynamic economy.
- Honor the host culture.
- Make decisions based on meeting the present needs without compromising the needs of future generations.
- Principles of the ahupua'a system guide our resource management decisions.
- Everyone — individuals, families, communities, businesses and government — has a responsibility for achieving a sustainable Hawai'i.

Sustainability in Hawai'i means achieving a quality of life that achieves the following goals:

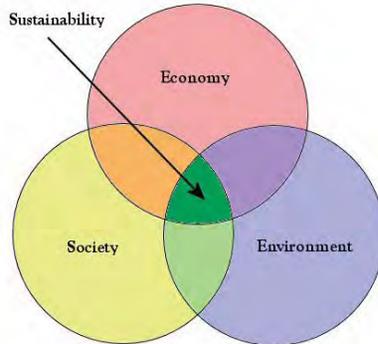
- It emphasizes respect for the culture, character, beauty and history of our state's island communities.
- It strikes a balance between economic prosperity, social and community well-being, and environmental stewardship.
- It meets the needs of the present community without compromising the ability of future generations to meet their own needs.

Typically, "sustainability" is depicted in a three-themed Venn diagram (noted below,) highlighting the economy, environment and society. The achievement of sustainable development requires integration of these components at all levels.

## Kapa'a Highlands II Sustainability Plan

With respect to Kapa'a Highlands II, sustainable development is achieved when it is:

- economically feasible in order to be successful as a development, while also providing for economic opportunities for future generations who reside, work or visit Kapa'a Highlands II
- protecting and preserving the environment, for today and tomorrow, serving as a model for others to follow
- addressing the needs of a wide variety of people, including their cultural values, as well as providing opportunities for people to interact, grow and learn together



Sustainability is not contradictory to growth, profit and development. Sustainability means that we plan to our limits; sustainable community development draws from and gives back to local strengths, resources and uniqueness. Local development can become more sustainable by having a better environmental, economic and social balance.

Ultimately, a goal is to meld Hawaiian traditional wisdom with modern sustainability concepts and take an integrated approach in the design and operation at Kapa'a Highlands II. This plan was created to highlight the actions of the Kapa'a Highlands II development in terms of sustainability.

In developing this plan, a variety of recognized programs and plans were reviewed, summarized and their recommendations were incorporated into this plan. These include:

- Smart Growth
- SmartCode
- Hawai'i 2050 Sustainability Plan
- OEQC Sustainable Building Design Guidelines
- Hawaii BuiltGreen Program
- US Green Building Council Leadership in Energy and Environmental Design (LEED)
- Energy Star Program
- Whole Building Design Guide (WBDG,) of the National Institute of Building Sciences
- EPA Low Impact Development
- One Planet Living

## Kapa'a Highlands II Sustainability Plan

Further discussion on these programs and plans follow in the next Chapter of this Kapa'a Highlands II Sustainability Plan. Following this are chapters addressing issue-specific sustainability concerns. These include:

- **Natural and Cultural Resources:** Protecting and preserving archaeological sites, trails and dryland forest, for present and future generations
- **Land Use:** Focuses on consistency with local land use planning, fulfilling the community's vision for development in the future
- **Design Features:** Incorporating design features to fit development into natural features, protecting the resources, while taking advantage of natural elements
- **Transportation:** Focuses on sustainable modes of transportation and an improved infrastructure including: multi-modal bicycle, pedestrian and vehicular infrastructure, complete streets, etc
- **Economic Opportunities:** Encourages a vibrant economy through diversity of employment and sustainable business opportunities
- **Open Space and Parks:** Encourages protection of urban open spaces by focusing on the urban landscaping, green spaces and mixed-use development and recreational opportunities
- **Water Management:** Focuses on reducing and conserving water use, as well as minimizing impacts to nearby ecosystems from source to stormwater systems
- **Energy Management:** Encourages energy conservation, energy efficiency and renewable energy
- **Health:** Encourages healthy lifestyles through places to walk and recreate, as well as provide state of the art medical facilities to address community needs
- **Education:** Encourages understanding and practice of sustainable lifestyles, as well as providing opportunities for life-long learning
- **Housing:** Responds to the market and demographic trends and community needs, providing a broad range of housing types and price points

Anticipated beneficial impacts from the Kapa'a Highlands II project include the following:

- Provision of 86 single family homes and 683 multi-family units
- Increased housing choices, including affordable housing
- Increase housing inventory to meet future demands
- Provision of 3.1-acre park with area for relocation of Kapa'a County swimming pool
- Planned growth in an area designated for urban growth by the General Plan of the County of Kaua'i
- Provision of a pedestrian and transit-friendly community

## Kapa'a Highlands II Sustainability Plan

Kapa'a Highlands II will be a sustainable community and will incorporate the following:

**Sustainability Programs and Plans:** Kapa'a Highlands will incorporate the core principles of the various sustainability programs and plans.

**Natural and Cultural Resources:** No archaeological sites are known to exist on the property. Should any archaeologically significant artifacts, bones, or other indicators be uncovered during construction, Kapa'a Highlands II is committed to strict compliance with State laws and rules.

**Land Use:** Kapa'a Highlands is consistent with local land use plans including the General Plan of the County of Kaua'i, the Kapa'a Town Development Plan and the Kapa'a-Wailua Basin Community Plan.

**Design Features:** Kapa'a Highlands II will include sustainable design features including strategies to reduce solar heat gain through roofs, walls and windows; using site planning and landscaping to improve natural ventilation; daylighting design; and energy efficient light fixtures.

**Transportation:** Kapa'a Highlands II will incorporate bus stops into its road system; multi-modal interconnected roads; and complete streets design.

**Economic Opportunities:** Kapa'a Highlands proposes two areas for commercial uses which will provide a variety of job opportunities; construction and construction-related employment will have direct beneficial impact on the local economy during construction.

**Open Space and Parks:** Kapa'a Highlands II proposes open space and open greenway areas encompassing 14.3-acres including a 3.1-acre park for the proposed relocation of the Kapa'a county swimming pool.

**Water Management:** Kapa'a Highlands II will install water efficient fixtures, appliances and high efficiency toilets to reduce indoor water use.

**Energy Management:** Kapa'a Highlands II will incorporate energy conservation and efficiency measures; solar energy for water heating; encourage photovoltaic systems and other renewable energy sources.

**Health:** Kapa'a Highlands II's layout and design will create an opportunity for both residents and the community to have a positive effect on their health through walkable and bikable transportation options.

**Education:** Kapa'a Highlands II will coordinate with the DOE to ensure that the facility assessment policy is addressed. In addition, a 3.1-acre park will be included in the plan and the Kapa'a county swimming pool will be relocated within the park.

**Housing:** Kapa'a Highlands II conforms to the Kaua'i County Affordable Housing Ordinance No. 860 and offers a variety of housing types that will address a portion of the housing needs of the island.

**Social:** Kapa'a Highlands II promotes social sustainability through socially-focused actions that will support quality of life, sense of place and community livability for all residents and the community.

## Kapa'a Highlands II Sustainability Plan

### Sustainability Programs and Plans



In developing this Kapa'a Highlands II Sustainability Plan, a variety of recognized sustainability programs and plans were reviewed, summarized and incorporated into this plan. In part, the recommendations from these programs and plans serve as guides to the sustainability actions noted in this Plan.

These include:

- Smart Growth
- SmartCode
- Hawai'i 2050 Sustainability Plan (Hawai'i 2050)
- OEQC Sustainable Building Design Guidelines
- Hawaii BuiltGreen Program
- US Green Building Council Leadership in Energy and Environmental Design (LEED)
- ENERGY STAR Program
- Whole Building Design Guide (WBDG,) of the National Institute of Building Sciences
- EPA Low Impact Development
- One Planet Living
- Complete Streets

In this chapter, these various programs and plans are summarized.

As you will see, there are several consistent principles and themes that run through the various programs and plans. While some are broad-based and include several of these, others are focused on single issues.

Following are some of the consistent messages found in these programs and plans:

- Soft touch on the land
- Respect and protection of natural and cultural resources
- Use of natural elements (shading, ventilation, lighting, etc)
- Diversity of land uses, housing types, prices
- Live, work, play, shop and learn
- Walking, bicycle and transit transportation focused
- Reuse and minimization of waste
- Renewable and efficient electric
- People and community focused

Kapa'a Highlands II will implement, to the extent feasible and practicable, measures to promote energy conservation, sustainable design, environmental stewardship and protection of the natural and cultural resources into the project. These actions are in part, based on the recommendations noted in the following sustainability programs and plans.

## Kapa'a Highlands II Sustainability Plan



### Smart Growth Network

In 1996, the U.S. Environmental Protection Agency joined with several non-profit and government organizations to form the Smart Growth Network. The Network was formed in response to increasing community concerns about the need for new ways to grow that boost the economy, protect the environment, and enhance community vitality.

Smart growth refers to the management of growth to make it possible “for communities to grow in ways that support economic development and jobs; create strong neighborhood with a range of housing, commercial, and transportation options; and achieve healthy communities that provide families with a clean environment.” (Smart Growth Network)

There are 10 accepted principles that define Smart Growth

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities and choices
4. Create walkable neighborhoods
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions



### SmartCode

The SmartCode is a form-based code that incorporates Smart Growth and New Urbanism principles. It is a unified development ordinance, addressing

development at all scales of design, from regional planning on down to the building signage.

The SmartCode is also a transect-based code. A “transect” is usually seen as a continuous cross-section of natural habitats for plants and animals, ranging from shorelines to wetlands to uplands. It is based on the rural-to-urban transect rather than separated-use zoning, thereby able to integrate a full range of environmental techniques.

The SmartCode is a model transect-based planning and zoning document based on environmental analysis. It addresses all scales of planning, from the region to the community to the block and building. The SmartCode is distributed by the nonprofit Center for Applied Transect Studies (CATS.)

Kapa'a Highlands II has incorporated the SmartCode principles and transects into its layout and design.

## Kapa'a Highlands II Sustainability Plan



### Hawai'i 2050 Sustainability Plan (Hawai'i 2050)

The Hawai'i State Plan, embodied in Chapter 226, Hawai'i Revised Statutes (HRS), serves as a guide for goals, objectives, policies, and priorities for the State.

The Hawaii State Planning Act (HRS 226) states that the State shall strive to improve the quality of life for Hawaii's present and future population through the pursuit of desirable courses of action in six major areas of statewide concern which merit priority attention: economic development, population growth and land resource

management, affordable housing, crime and criminal justice, quality education and principles of sustainability.

In 2005, the legislature authorized the creations of a task force to review the Hawaii state plan and the State's planning process and to prepare the Hawai'i 2050 Plan. The creation of the Hawaii 2050 sustainability plan raises questions about the long-term limits of growth in the State and highlights the need to begin planning and acting to assure Hawaii's future. Thus, the objectives of the Hawaii 2050 sustainability plan focuses on the revitalization of the State's long-term planning process to better guide the future development of Hawaii.

The Plan offers detailed strategic actions and indicators to serve as a guide towards meeting the Plan's sustainability goals. The Plan incorporates tangible targets and benchmarks. Priority actions for 2020, to be addressed immediately, include:

1. Increase affordable housing opportunities for households up to 140% of median income.
2. Strengthen public education.
3. Reduce reliance on fossil (carbon-based) fuels.
4. Increase recycling, reuse and waste reduction strategies.
5. Develop a more diverse and resilient economy.
6. Create a sustainability ethic.
7. Increase production and consumption of local foods and products, particularly agriculture.
8. Provide access to long-term care and elderly housing.
9. Preserve and perpetuate our Kanaka Maoli and island cultural values.

In 2011, the State established sustainability as a state priority by incorporating the Hawaii 2050 sustainability plan definitions, guiding principles and goals, into chapter 226, Hawaii Revised Statutes (the Hawaii state planning act).

"Sustainability" definition was added to the Planning Act as: "achieving the following:

- (1) Respect of the culture, character, beauty, and history of the State's island communities;
- (2) Striking a balance between economic, social, community, and environmental priorities; and
- (3) Meeting the needs of the present without compromising the ability of future generations to meet their own needs."

The Act also added “principles of sustainability” as one of the six major areas of statewide concern which merit priority attention, economic development, population growth and land resource management, affordable housing, crime and criminal justice, quality education and principles of sustainability.”

## Kapa'a Highlands II Sustainability Plan



### OEQC's Sustainable Building Design Guidelines

The Environmental Council, as part of a "Planner's Checklist," adopted Guidelines for Sustainable Building Design in Hawai'i (October 13, 1999.) These guidelines do not constitute rules or law. A sustainable building is built to minimize energy use, expense, waste and impact on the environment. It seeks to improve the region's sustainability by meeting the needs of Hawai'i's residents and visitors today without compromising the needs of future generations. Compared to conventional projects, a resource-efficient building project will:

1. Use less energy for operation and maintenance
2. Contain less *embodied* energy (i.e. locally produced building products often contain less *embodied* energy than imported products because they require less energy-consuming transportation.)
3. Protect the environment by preserving/conserving water and other natural resources and by minimizing impact on the site and ecosystems
4. Minimize health risks to those who construct, maintain and occupy the building
5. Minimize construction waste
6. Recycle and reuse generated construction wastes
7. Use resource-efficient building materials (e.g. materials with recycled content and low embodied energy, and materials that are recyclable, renewable, environmentally benign, non-toxic, low VOC (Volatile Organic Compound) emitting, durable, and that give high life cycle value for the cost.)
8. Provide the highest quality product practical at competitive (affordable) first and life cycle costs.

In the design and construction of Kapa'a Highlands II, Three Stooges, LLC will seek to implement feasible measures to conform to these general guidelines.



### Hawaii BuiltGreen Program

The Hawaii BuiltGreen Program is a statewide program to "incentivize" the designing and building of energy and resource efficient homes in Hawaii. Originally developed in 2000 by a public/private partnership between the State Dept. of Business, Economic

Development & Tourism (DBEDT), USDOE and five other partners. Now promoted by the State, BIA, Hawaii utility companies and other organizations.

Hawai'i BuiltGreen is a self-certification program administered by the Building Industry Association of Hawai'i, which is a professional trade organization affiliated with the National Association of Home Builders. This is a local initiative based on homegrown knowledge of professionals familiar with the unique conditions of Hawaii. The Hawaii BuiltGreen program focuses on design choices through:

- Protecting Site Features and Functions
- Energy Performance and Comfort
- Health and Indoor Air Quality
- Durability and Materials Conservation
- Environmentally-Friendly Home Operations

## Kapa'a Highlands II Sustainability Plan



### US Green Building Council

#### Leadership in Energy and Environmental Design (LEED)

The US Green Building Council's Leadership in Energy and Environmental Design (LEED) program is a voluntary green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, CO<sub>2</sub> emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Specific LEED programs include:

- Homes
- Neighborhood Development
- New Commercial Construction and Major Renovation projects
- Existing Building Operations and Maintenance
- Commercial Interiors projects

*LEED for Homes* is a voluntary rating system that promotes the design and construction of high performance "green" homes. A green home uses less energy, water and natural resources; creates less waste; and is healthier and more comfortable for the occupants.

*LEED for Neighborhood Development* is a collaboration between the U.S. Green Building Council, the Congress for the New Urbanism and the Natural Resources Defense Council. The LEED for Neighborhood Development Rating System integrates the principles of smart growth and green building into the first national standard for neighborhood design. LEED for Neighborhood Development recognizes development projects that successfully protect and enhance the overall health, natural environment and quality of life of our communities. The rating system encourages urban smart growth best practices, promoting the design of neighborhoods that reduce vehicle miles traveled and communities where jobs and services are accessible by foot or public transit.



### ENERGY STAR Program

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy.

In 1992, the US Environmental Protection Agency (EPA) introduced ENERGY STAR as a voluntary labeling program designed to identify and promote energy-efficient products to reduce greenhouse gas emissions. Computers and monitors were the first labeled products. Through 1995, EPA expanded the label to additional office equipment products and residential heating and cooling equipment. In 1996, EPA partnered with the US Department of Energy for particular product categories.

The ENERGY STAR label is now on major appliances, office equipment, lighting, home electronics, and more. EPA has also extended the label to cover new homes and commercial and industrial buildings.



National Institute of Building Sciences  
Whole Building Design Guide (WBDG)

The goal of 'Whole Building' Design is to create a successful high-performance building by applying an integrated design and team approach to the project during the planning and programming phases. The WBDG program is a collaborative effort among federal agencies, private sector companies, non-profit organizations and educational institutions. In buildings, to achieve a truly successful holistic project, these design objectives must be considered in concert with each other:

- Accessible: to address the specific needs of disabled people.
- Aesthetics: the physical appearance and image of building elements and spaces
- Cost-Effective: weighing options during concepts, design development and value engineering
- Functional/Operational: spatial needs and requirements, system performance durability and efficiency
- Historic Preservation: whereby building elements and strategies are classifiable into preservation, rehabilitation, restoration or reconstruction.
- Productive: physical and psychological comfort—including air distribution, lighting, workspaces, systems, and technology.
- Secure/Safe: physical protection of occupants and assets from man-made and natural hazards.
- Sustainable: Pertains to environmental performance of building elements and strategies.



**Land Use and Development Practices - Low Impact Development (LID)**

Land use practices can improve air quality, reduce stormwater runoff, increase energy efficiency and reduce greenhouse emissions to improve the quality of life for citizens. LID is a land development approach that allows land to be developed but in a manner that helps lessen potential environmental impacts. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product.

By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. LID has been characterized as a sustainable stormwater practice by the Water Environment Research Foundation and others.

In general, implementing integrated LID practices can result in enhanced environmental performance while at the same time reducing development costs when compared to traditional stormwater management approaches. LID techniques promote the use of natural systems, which can effectively remove nutrients, pathogens and metals from stormwater.

Conservation designs can be used to minimize the generation of runoff by preserving open space. Examples of Conservation Design include:

- Cluster development
- Open space preservation
- Reduced pavement widths (streets, sidewalks)
- Shared driveways



**One Planet Living**

One Planet Living is a vision of a sustainable world, in which people everywhere can enjoy a high quality of life within the productive capacity of the planet, with space left for wildlife and wilderness. Organizations around the world are using the one planet living approach to take measurable steps towards genuine sustainability. From zero carbon buildings to procurement policies that support the green economy, one planet living solutions are cost-effective, creative, inspirational and replicable.

- Zero Carbon - Making buildings more energy efficient and delivering all energy with renewable technologies
- Zero Waste - Reducing waste, reusing where possible, and ultimately sending zero waste to landfill
- Sustainable Transport - Encouraging low carbon modes of transport to reduce emissions, reducing the need to travel
- Sustainable Materials - Using sustainable and healthy products, such as those with low embodied energy, sourced locally, made from renewable or waste resources
- Local and Sustainable Food - Choosing low impact, local, seasonal and organic diets and reducing food waste
- Sustainable Water - Using water more efficiently in buildings and in the products we buy; tackling local flooding and water course pollution
- Land and Wildlife - Protecting and restoring existing biodiversity and natural habitats through appropriate land use and integration into the built environment
- Culture and Heritage - Reviving local identity and wisdom; supporting and participating in the arts
- Equity and Local Economy - Creating bioregional economies that support fair employment, inclusive communities and international fair trade
- Health and Happiness - Encouraging active, sociable, meaningful lives to promote good health and well being



**Complete Streets**

Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street. Complete Streets make it easy to cross the street, walk to shops and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.

By adopting a Complete Streets policy, communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability or mode of transportation. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians and bicyclists – making your town a better place to live.

## Kapa'a Highlands II Sustainability Plan

### Natural and Cultural Resources



The preservation of the natural and cultural resources is essential for a prosperous and sustainable future. Kapa'a Highlands II holds respect for the culture and the environment and will interlink natural features and cultural features as core components of the community. Archaeological and cultural sites will be protected and maintained with appropriate treatment and buffers from adjacent uses, as necessary.

No archaeological or cultural historic sites are known to exist on the property.

Brief discussions separately with historians of the subject area, Randy Wichman, Walter Smith and Albert Fukushima, concluded that the subject property has been in sugar cultivation since the 1800s until the early 1990s.

Albert Fukushima, who was employed by Lihue Plantation and worked in the subject area, said that no evidence of artifacts, bones, or other indicators of previous historic on-site activity were uncovered during the cultivation of sugar. Randy Wichman and Walter Smith concurred that the subject land was consistently cultivated for sugar for nearly a hundred years.

In 1995 SHPD stated for the "Site Selection EIS" for the adjacent Kapa'a Middle School that the site may not be Archaeological or Historically rich because of the consistent cultivation of sugar for nearly a hundred years.

In the late 1999, the State Historic Preservation Division (SHPD) issued a letter of "no significance" to the potential developer at that time.

There exists sparingly, evidence of inactive sugar irrigation ditches. Nearly all have lost their banks and flattened out. Currently, SHPD has requested that the applicant record the locations of the remaining remnants of the former irrigation ditches prior to the development stages. The Applicant is committed to conducting an Archaeological Inventory Survey at the time of design and development phase in order to properly record the remains of the plantation irrigation ditches.

Should any archaeologically significant artifacts, bones, or other indicators of previous historic on-site activity be uncovered during construction, the Applicant is committed to their treatment being conducted in strict compliance with the requirements of SHPD.

Additionally, whenever existing rock walls must be removed, the rocks from these walls will be set aside and reused in the construction of new screen, buffer and retaining walls built within Kapa'a Highlands II. Whenever feasible, rocks from Kapa'a Highlands II will be used for such walls (minimize importation of rock from offsite).

### Greenbelts

Greenbelts are undeveloped areas that surround the developed areas. Greenbelt is a strategic planning tool to prevent urban sprawl by keeping land permanently open. The purpose of the Greenbelt is to prevent urban sprawl, prevent neighboring towns from merging into one another, and to preserve the setting and the character of the area. Approximately 14.3-acres are proposed for open greenway areas.

## Kapa'a Highlands II Sustainability Plan

### Consistency with Regional Land Use Planning



Consistency with local land use planning documents is an essential element of sustainability. The local plans articulate and illustrate the community's vision. Without consistency with that vision, a development project cannot be sustainable.

Two primary planning documents address land use development in Kapa'a, the General Plan of the County of Kaua'i and the Kapa'a-Wailua Basin Community Plan.

Following are brief summaries of each.

### The General Plan of the County of Kaua'i (General Plan)

The General Plan of the County of Kauai ("General Plan") was adopted in 1971 and updated in November 2000. The General Plan is a statement of the County's vision for Kaua'i and establishes strategies for achieving that vision. Section 7-1.2 of the amended Chapter 7 of the Kauai County Code states:

*Pursuant to the provision of the Charter for the County of Kaua'i, the General Plan sets forth in graphics and text, policies to govern the future physical development of the county. The General Plan is intended to improve the physical environment of the County and the health, safety and general welfare of Kaua'i's people.*

*The General Plan states the County's vision for Kaua'i and establishes strategies for achieving that vision. The strategies are expressed in terms of policies and implementing actions. They may be augmented and changed as new strategies are developed.*

*The General Plan is a direction-setting policy document. It is not intended to be regulatory. It is intended to be a guide for future amendments to the lands regulations and to be considered in reviewing specific zoning amendment and development applications.*

*The vision, the maps and text policies, and the implementing actions are intended to guide the county actions and decisions. In addition, the maps and text policies are intended to guide the County in specific types of actions: making revisions to land use and land development Regulations; deciding on zoning changes; preparing and adopting Development Plans and Public Facility Plans; and preparing and adopting capital improvement plans.*

The General Plan contains six major themes, each with various policies for implementation. The major themes are as follows:

1. Caring for Land, Water and Culture
2. Developing Jobs and Businesses
3. Preserving Kaua'i's Rural Character
4. Enhancing Towns & Communities and Providing for Growth
5. Building Public Facilities and Services
6. Improving Housing, Parks and Schools

## Kapa'a Highlands II Sustainability Plan

In particular, the proposed reclassification of the Property responds and conforms to Theme No. 6. Market studies have shown that the population growth and correlating need and demand for housing is extremely high on Kaua'i.

The proposed reclassification, which will allow residents to purchase an affordable house and lot as well as allow other residents to purchase a lot to design and build their own homes, will present an opportunity to address the critical community need for residential housing. It should also be noted that the proposed development will assist in maintaining a viable economy as construction-related employment opportunities for residents would be generated.

### Kapa'a-Wailua Basin Community Plan

The Kapa'a-Wailua Basin community plan outlines the regional issues and opportunities that will be subjects for future community planning. A "Build-Out Analysis" of the Kapa'a-Wailua Basin was prepared in the General Plan Update. As of 1998, this area had an estimated 4,700 dwelling units, making it the largest residential community on Kauai.

Based on the General Plan Land Use Map designations, the analysis found that an additional 4,000 units could be developed if the General Plan-designated lands were fully zoned, subdivided and built out. About 2,400 more units could be built in Urban Residential areas, about 500 more in Rural Residential areas and approximately 1,100 more units in the Agricultural areas. This would increase the housing units and population of the area by 85%.

The "Build-Out Analysis" specifically included the subject property as an "expansion area". The new General Plan Land Use Map designates the subject property as Urban Center.

The Kapa'a Highlands II project conforms to and implements the policies of the Kaua'i General Plan by developing within the designated Urban District, contiguous to Kapa'a town and its neighboring residential community.

## Kapa'a Highlands II Sustainability Plan

### Sustainable Design Features



Thoughtful planning of site, neighborhood and improvements design, incorporating mixed-use land uses, walkable streets, encouraging walking, bicycling and public transportation, and respect for the natural and cultural features creates opportunities for more environmentally-responsible and sustainable development. These sustainable neighborhoods are beneficial to the community, the individual and the environment.

Several sustainability programs and plans (noted previously in Chapter 2) identify and address a wide variety of design features that may be incorporated into a development project to enhance its sustainability. These items design features include:

- **Site Planning**
  - Respect for the Land – Work with topography
  - Siting - Proximity to mass transit, shopping, employment centers, recreation, schools
  - Interconnectivity – Connection with neighbors, Multi-modal transportation (to be discussed in another section of this Plan)
  - Intensity of Layout – Village Center; Clustering into compact villages
  - Natural/Cultural Resources – Protection of natural and cultural resources (to be addressed in another section of this Plan)
  
- **Improvements Planning**
  - Alternatives – Provide a range of housing options at various price levels (to be discussed in another section of this Plan)
  - Orientation – Ventilation; Take advantage of natural air flow
  - Shading – Eave overhang; Vegetation
  - Landscaping – Native plants; Low irrigation
  - Energy Efficiency – (to be discussed in another section of this Plan)

The objectives of Kapa'a Highlands II are to create an attractive masterplanned residential community with a variety of housing opportunities and mixed uses, as well as recreational resources.

### Site Planning

As a mixed-use community, the objectives of Kapa'a Highlands II are to:

- Create a diverse, sustained community of mixed uses, including residential, retail and commercial spaces, recreational spaces, and open space.
- Cultivate intrinsic respect for the land and natural surroundings, develop an inherent Hawaiian sense of place and nourish a sustaining living environment.
- Provide housing for the working families of Hawai'i nearby areas of workforce demand, resultantly improving overall quality of life through the reduction of commuting and facilitation of everyday function.
- Openly embrace a diversity of people and activities through offering mixed uses and housing types.
- Contribute to the social fabric of the community by providing infrastructure and facilities, and by including recreational, and civic sites.
- Engender and incorporate intelligent, planned sustainability by design.
- Emphasize non-vehicular transit for mainstream community-wide travel.

## Kapa'a Highlands II Sustainability Plan

Kapa'a Highlands II is strategically located north of Kapa'a town. The Kapa'a By-Pass Road separates the Kapa'a town and the Kapa'a Highlands II development. Kapa'a Highlands II is on the north-west corner of the Kapa'a By-Pass Road and Olohena Road. Olohena Road runs along and adjacent to the east and north boundaries of the Property. The Kapa'a Middle School is located on the northern end of the Property fronted by Olohena Road. The area also has a long-standing and growing residential base.

This area will continue to be the focus of such development as the Island's population grows. This region is also the near commercial and industrial heart of Kaua'i, serving the needs of the visitor, residents and other industries of the western half of the Island.

Kapa'a Highlands II is a compact, mixed-use, master-planned community offering a wide range of housing types and affordability, and a variety of businesses and employment opportunities with supporting retail, commercial, infrastructure, recreational and open space uses.

The Project proposes to develop Phase II of Kapa'a Highlands into an approximately 97-acre single-family and multi-family residential subdivision. Approximately 69-acres will be subdivided into single family lots ranging from 5,000 to 8,000 square feet and multi-family lots from 1-acre to 5-acre parcels. A total of 683 multi-family units and 86 single family units are planned. Open space encompassing 14.3-acres will be developed and associated infrastructure (e.g., new roadways, utilities, drainage, wastewater). Affordable housing will be provided in accordance with County of Kaua'i requirements.

A 3.1-acre park is proposed adjacent to the existing Kapa'a Middle School. The park will have an area for the county's proposed relocation of the Kapa'a county swimming pool. A 0.4-acre parcel is proposed for commercial use. A country type store and small personal service types of use are anticipated. A remnant parcel of a one acre on the Makai side of the Kapa'a Bypass road is also proposed as commercial use or for sub-stations for the police and fire departments. Approximately 14.3-acres are proposed for open greenway areas.

The site is presently fallow, undeveloped, and predominantly vegetated with weeds. The undesirable dumping of old cars, appliances, rubbish associated with undeveloped lands continue to exist on the property. The proposed project will increase the productive use of the property and significantly upgrade the immediate vicinity.

The proposed development will have minimal impact in terms of agriculture. Although the Property was previously used as part of large scale agricultural activities, it is presently fallow, and undeveloped. With the closing of the sugar plantations on Kaua'i, close proximity to existing residential areas, and demand for affordable housing, large-scale agricultural operations were not deemed feasible.

Construction of the proposed development will involve grading, excavation and trenching of presently undeveloped areas within the project site. The project will require alteration of existing landforms to create more efficient land development areas. Appropriate engineering, design and construction measures will be undertaken to minimize potential erosion of soils during construction.

On-Site grading and infrastructure improvements and residential construction will result in an increase in dust, storm run-offs and noise. The prevailing trade wind pattern is from the north-east directions. Potential airborne matters will generally be carried in the south-west direction, away from the school and existing residential areas. However, on occasions, the westerly winds may carry the potential

## Kapa'a Highlands II Sustainability Plan

airborne matters towards the school and existing residential neighborhoods. Construction noise relating to infrastructure installations will be expected.

In the short term, during construction, measures will be taken to minimize impacts such as increased dust, noise and traffic. Construction activities shall comply with the provisions of Hawaii Administrative Rules, S-11-60.11.33 on Fugitive Dust. Dust preventive measures will include;

- Planning of construction phases to minimize the amount of dust generating materials and activities, centralizing on-site vehicular traffic routes and locating of potential dust-generating equipment in areas of the least impact.
- Provide adequate water source at the site prior to start of construction.
- Landscape and provide rapid covering of bare areas developed during construction.
- Minimize dust from shoulders and access roads.
- Provide dust control measures during weekends, after hours, and prior to daily construction.
- Control dust from debris being hauled away from the site.

A national Pollutant Discharge Elimination System (NPDES) general permit will be acquired prior to construction to minimize storm run-offs during construction.

Mitigation measures will be instituted following site-specific assessments, incorporating structural and non-structural BMPs such as minimizing soil exposure and implementing erosion control measures such as silt fences and sediment basins. Following construction, erosion is anticipated to decrease since the soils will have been graded, built over, paved over or landscaped. Landscaping in turn will provide erosion control. Mass grading of the development areas will be in compliance with the County of Kaua'i's grading ordinance requirements and will require NPDES permit from the State DOH for storm water construction activities, including BMPs to minimize off-site impacts.

The Property is encompassed by the Kapa'a By-Pass Road to the south and Olohena Road to the east and the north side. The by-pass road is owned by the Applicant and the Applicant intends to dedicate said road to the Department of Transportation (DOT) for continued public use.

There is a round-about located at the south east corner of Olohena Road and the Kapa'a By-Pass Road. Kuhio Highway is accessible from the Property by driving south on Olohena and Kukui Street approximately 0.5 mile. The project will have a complete multi-modal roadway from the Kapa'a By-Pass Road running north through the Property to Olohena Road. A couple of bus stops will be located along the roadway. A bike/walking path is proposed from the south of the property to the Kapa'a Middle School located on the North portion of the Property.

### Improvements Planning

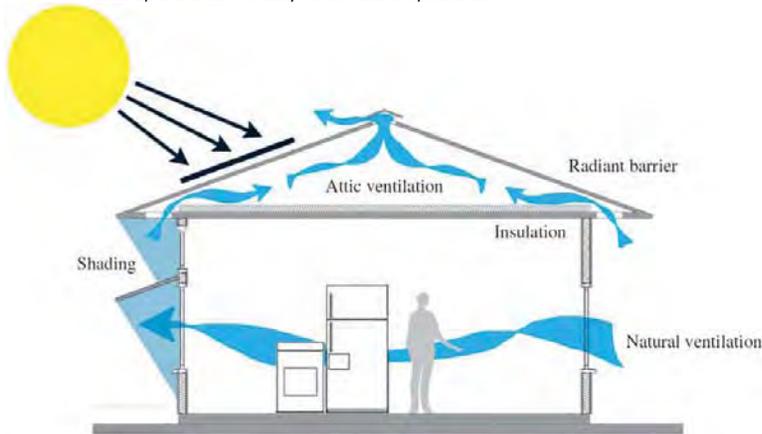
There are three major sources of unwanted heat in homes: direct solar impacts on a building and through windows and skylights; heat transfer and infiltration, of exterior high temperatures, through the materials and elements of the structure; and the internal heat produced by appliances, equipment and inhabitants.

## Kapa'a Highlands II Sustainability Plan

The DBEDT Field Guide for Energy Performance, Comfort and Value in Hawaii Homes provides a number of recommended ways to incorporate effective design options to address home temperatures. These items to be considered in the development of Kapa'a Highlands II are summarized and illustrated below:

### Design for Comfort and Value

- A. Control Heat Gain: Use strategies to reduce solar heat gain through roofs, walls and windows.
  1. Orient and arrange building to control heat gain
  2. Landscape and design outdoor surfaces to reduce air temperatures and glare; minimize paving area and use grassed and planted areas to provide lowered site temperatures, shade and evaporative cooling
  3. Shade roofs, walls and windows with:
    - a. Architectural elements such as eaves, awnings and carports, and
    - b. Window treatments such as blinds and shutters
  4. Use insulation and/or radiant heat barriers in roofs and walls exposed to the sun
  5. Use high performance windows (Low-e, spectrally selective, or tinted glazing) to keep solar heat out of interior spaces while admitting daylight
  6. Use light colored roofing and wall finishes
  7. Shade or insulate materials with high thermal mass, such as concrete floors, to avoid heat build-up and uncomfortably hot surface temperatures



- B. Use Natural Ventilation: Provide ample fresh air ventilation for living spaces and areas where hot air and humidity accumulate, such as attics, high ceiling spaces, kitchens, bathrooms and laundry areas.
  1. Orient buildings to maximize the cooling potential of prevailing winds and minimize morning and afternoon heat gain
  2. Design floor plans and opening placement and type to provide effective cross ventilation with good air circulation throughout room areas and at body level
  3. Provide generous screened openings well protected from the rain

## Kapa'a Highlands II Sustainability Plan

4. Use architectural design elements such as vents and casement windows to improve interior air circulation
5. Enhance natural ventilation with fans as needed:
  - a. Use ceiling and whole house fans to provide comfort on warm, humid or still days
  - b. Use solar powered attic vent fans when appropriate and economically feasible



Shaded areas stay cooler

Consistent with the principles and recommendations noted in the DBEDT publication *Hawai'i Homeowner's Guide to Energy, Comfort & Value*, to the extent feasible and practical, Kapa'a Highlands II will incorporate the following:

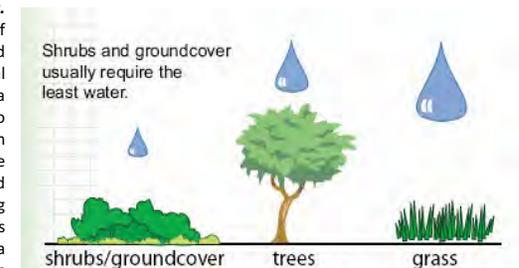
### Site Planning and Landscaping

Orientation of homes is important. Try to minimize the area of east- and west-facing walls and windows because they are difficult to shade from the sun.

Landscaping and the design of outdoor surfaces can reduce air temperatures and glare. Landscaping minimizes paving area provides lowered site temperatures, shade and evaporative cooling.

### Low impact landscaping.

Selection and distribution of plants must be carefully planned when designing a functional landscape. Aesthetics are a primary concern, but it is also important to consider long-term maintenance goals to reduce inputs of labor, water, and chemicals. Properly preparing soils and selecting species adapted to the microclimates of a site greatly increases the success of plant establishment and growth, thereby stabilizing soils and allowing for biological uptake of pollutants. Dense, healthy plant growth offers such benefits as pest resistance (reducing the need for pesticides) and improved soil infiltration from root growth. Low impact landscaping can thus reduce impervious surfaces, improve infiltration potential and improve the aesthetic quality of the site.



Protect and retain existing landscaping and natural features. Select plants that have low water and pesticide needs, and generate minimum plant trimmings. Use compost and mulches. This will save water and time.

**Examples of Low Impact Landscaping**

- Planting native, drought tolerant plants
- Converting turf areas to shrubs and trees
- Reforestation
- Encouraging longer grass length
- Planting wildflower meadows rather than turf along medians and in open space

**Control Heat Gain**

By using strategies to reduce solar heat gain through roofs, walls and windows, a house can stay cool. Roofs, walls, windows and outdoor flooring can be shaded with architectural elements such as eaves, awnings and carports, and shutters.

**Walls**

Unshaded walls can get very hot and make your home uncomfortable. The best “cool wall” strategy is shading with overhanging eaves, lanais, or landscaping. If complete shade isn’t feasible, use insulation or radiant barriers in the exposed walls. Use a white exterior finish to improve cool wall performance.

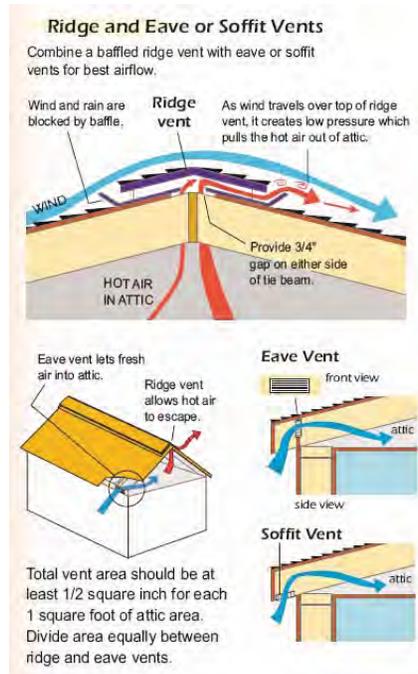
**Windows**

The use of high performance windows (Low-e, spectrally selective, or tinted glazing) helps keep solar heat out of interior spaces while admitting daylight. Overhangs, awning and trees can keep the sun from striking windows directly.

**Roofs and Roofing Material**

A cool roof is essential for a comfortable home. Insulation keeps roofs and homes cool by blocking heat on the roof thus, the attic, the ceiling and the rest of the house stay cool and comfortable. Installing a white roof will keep a home cooler.

Ventilation is another tool for keeping homes cool. For houses with attics good ventilation is recommended. Ridge and Eave or Soffit Vents work as well. If a ridge vent is not feasible, use a solar powered vent fan in combination with eave or soffit vents, to push warm air out of the house and attic.



**Solar Water Heating**

Minimizing the energy required for water heating is the most important energy saving step for a Hawaii home. Conventional water heating is a big expense and accounts for about 40% of the utility bill in a Hawaii house.

Hawaii was the first state in the nation to require solar water heaters in new home construction. Act 204 SLH 2008, requires all building permits for single-family homes issued after Jan. 1, 2010, to include solar water heaters. Exceptions are allowed where homes have poor sunlight; if it is cost-prohibitive after 15 years; when the dwelling has a substitute renewable energy source; or if there is an approved tankless water heater and another appliance, both powered by gas.

Additionally insulating hot water supply lines and pipes with at least 1/2" foam or 1" fiberglass insulation and setting heater thermostats adjustable for 120°F or less, can add additional energy savings to a homeowner.

**Photovoltaic systems**

Alternative energy sources such as photovoltaics and fuel cells that are now available in new products and applications will be available as a house feature option. Renewable energy sources provide a great symbol of emerging technologies for the future.

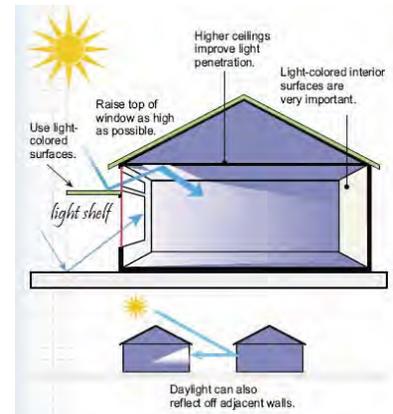
**Lighting**

**Energy Efficient Light Design**

Energy efficient light design features help minimize electric lighting energy demand and heat gain. An efficient lighting system uses fluorescent lamps as the primary light source and may selectively use incandescent (also halogen, a type of incandescent) for accent lighting and for applications where the light is usually off (like exterior lights on motion sensor controls). Modern fluorescent lighting can provide excellent color rendering and be free of flicker and hum. Additionally, start up is nearly instantaneous with electronic instant-start and rapid-start ballasts. Fluorescent lamps last 10 to 20 times longer than incandescents, saving energy all the while, so the lifetime cost is much lower and fluorescent lights do not emit as much heat as incandescents.

Providing controls such as timers, dimmers, sensors and separate fan/light controls to limit power use to the times and levels needed, also helps reduce lighting power consumption.

The use of solar powered landscape lighting when economically feasible is another energy saving design feature which can be used for both residential homes as well as business and civic buildings and spaces.



**Daylighting**

Daylighting is the use of natural sunlight to light interior spaces. Using controlled, filtered and indirect daylighting to light interior spaces reduces electric lighting loads. The effectiveness of daylighting can be increased with generous wall openings, open floor plans and light colored interior finishes.

Windows are usually a home's main source of daylight. Blocking direct sunlight and bouncing light on to the ceiling helps facilitate daylighting. Minimizing areas of east- or west-facing windows and using blue or green glass help.

Skylights (traditional, vented, tubular) can provide significant daylighting opportunities.

Light-colored interior finishes are critical for good light distribution thus, white ceiling is recommended.

Rooms with higher ceilings and narrow floor plans are easier to daylight. Consider several smaller skylights instead of one larger skylight for better light distribution.

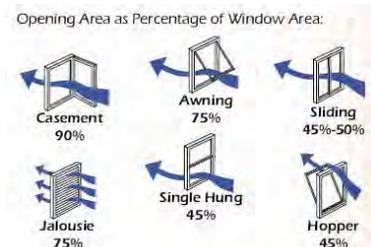
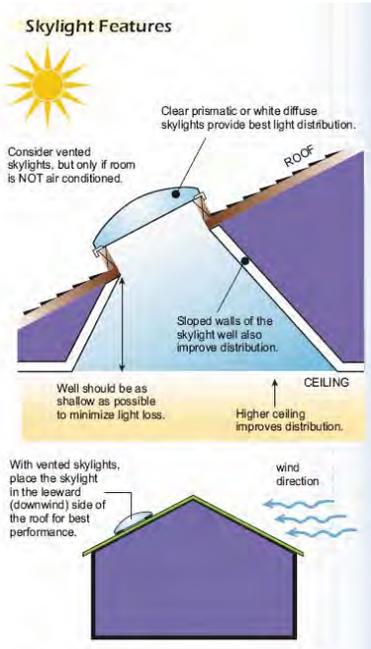
**Natural Ventilation**

Kapa'a Highlands II will optimize air-flow by designing homes that capture cooling breezes to keep homes comfortable. Utilizing natural ventilation also helps reduce health hazards such as mold and mildew.

Buildings should be oriented to maximize the cooling potential of prevailing winds and minimize morning and afternoon heat gain. Floor plan design will include effective cross ventilation with good air circulation throughout room areas and at body level.

Providing generous screened openings and using architectural design elements such as vents and casement windows will improve interior air circulation.

Ceiling fans are a great way to enhance natural ventilation. Use ceiling and whole house fans to provide comfort on warm, humid or still days.



**Transportation**



The Property is encompassed by the Kapa'a By-Pass Road to the south and Olohena Road to the east and the north side. The by-pass road is owned by the Kapa'a Highlands II which is working with the Department of Transportation (DOT) and has been allowing for the continuous public use of the road. The by-pass road is in the process of being dedicated to DOT. The agreement of transfer will include that all mitigating measures will be the shared responsibility of DOT and Kapa'a Highlands II.

There is a round-about located at the south east corner of Olohena Road and the Kapa'a By-Pass Road. Kuhio Highway is accessible from the Property by driving south on Olohena and Kūku'i Street approximately 0.5-mile. The project will have a main roadway from the Kapa'a By-Pass Road running north through the Property to Olohena Road. The roadway will follow the county's resolution for complete roads and as such will be a multi-modal roadway. A couple of bus stops will be located along the roadway. A bike/walking path from the round-about south east of the property will follow the bypass road, connect to the main road and continue to the Kapa'a Middle School located on the North portion of the Property. Kapa'a Highlands II is continuing to work with the DOT on potential traffic issues.

Transportation, housing, land use and infrastructure need to be integrated and incorporated into Kaua'i's long-term transportation policies as the population continues to grow in the years ahead. The Kaua'i General Plan, includes the following policies:

**Bus Transit.**

- Continue to operate The Kaua'i Bus; seek to increase ridership and expand service, subject to the availability of funds.
- Improve bus stops to increase safety and convenience of service.
  - Improvements to pullover areas along roadways in order to create safe and accessible bus stops.
  - Designated areas at housing projects (particularly those with elderly and disabled residents) that provide safe and accessible paratransit stops.

**Bikeways.**

- Support funding to develop Kaua'i's bikeway system to provide for alternative means of transportation, recreation, and visitor activities (economic development).

**Regional Highways and Roads.**

- Use General Plan policies concerning rural character, preservation of historic and scenic resources, and scenic roadway corridors as part of the criteria for long-range highway planning and design. The goal of efficient movement of through traffic should be weighed against community goals and policies relating to community character, livability, and natural beauty.
- Consider transportation alternatives to increasing the size and capacity of roadways. Alternatives include increased utilization of public transit.
- Planning for the Kapa'a By-Pass should incorporate connector roads between the By-Pass and the coastal highway and between the By-Pass and roads serving the valley.
- The State and the County should jointly undertake a study of the existing roadway network and the future transportation needs within the Kapa'a-Wailua homesteads area.

## Kapa'a Highlands II Sustainability Plan

- Reserve corridors for future roadways as shown on the General Plan Land Use Map. The corridors are conceptual only and are subject to environmental assessment and evaluation of alternative alignments.

Kapa'a Highlands II is committed to Multi-modal, Interconnected and Concurrent Transportation for its residents and community.

### Multi-modal Interconnected Roads and Streets

The proposed main complete, multi-modal roadway through the development will include bus stops, sidewalks and a bike and walking path connecting from Kapa'a Middle School down through the development to the round-about, facilitating green travel to and from Kapa'a's town core.

Kapa'a Highlands II incorporates multiple road interconnections with neighbors.

Kapa'a Highlands II will incorporate a system of interconnected roads that will provide residents alternative transportation routes within the project. The internal circulation pattern will provide safe and convenient choices for drivers, bicyclists and pedestrians.

Additional sustainable connectivity concepts including bikeways and walkways to and from the planned County pool, neighborhood commercial areas, the middle school and Kapa'a's town core are planned.

### Complete Streets

Through recent legislation, the State of Hawaii Department of Transportation (HDOT) and county transportation departments are required to ensure the accommodation of all users of the road, regardless of their age, ability, or preferred mode of transportation. In addition, the concept of "Complete Streets" is prioritized where:

"(T)ransportation facilities ... are planned, designed, operated and maintained to provide safe access and mobility for all users, including bicyclists, pedestrians, transit riders, freight and motorists".

In addition to providing vehicle access, roadway networks are a vital part of the livability of our communities. Complete streets will provide an ease of use and access to destinations by providing an appropriate path of travel for all users, and enhance the ability to move people and goods throughout the state and its counties.

Additionally, complete streets principles will help contribute to a clean and secure energy future for Hawaii by offering flexibility and better accommodation for safe transit, walking, bicycling and alternate fuel vehicles that together, will decrease demand for imported oil.

Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and public transportation users of all ages and abilities are able to safely move along and across a complete street.

Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from transit stations.

## Kapa'a Highlands II Sustainability Plan

### Economic Opportunities



Kapa'a Highlands II provides significant, on-going economic and fiscal benefits for residents of Kaua'i, as well as for the County and State governments.

Development of facilities would generate employment and consequent income and taxes. In addition, by providing the opportunity for new residents to the Island of Kaua'i and generating additional real estate sales activity, the Project is expected to support long-term impacts, including additional consumer expenditures, employment opportunities, personal income and government revenue enhancement.

On a short-term basis, the proposed development will have a direct beneficial impact on the local economy during construction through construction and construction-related employment. It should also be noted that the proposed development will assist in maintaining a viable economy as construction-related employment opportunities for residents would be generated.

Over the long term, the residential homeowners will require various services related to home maintenance and improvement that will further support the local economy.

### On-Site Employment Generators

Kapa'a Highlands II proposes two areas for commercial uses that, ultimately, will serve to promote and provide a variety of job opportunities. A 0.4-acre parcel is proposed for commercial uses such as a country store and small personal service type uses are anticipated. A 1-acre site on the Makai side of the Kapa'a Bypass Road is also proposed for commercial development or for use as sub-stations for the police and/or fire department.

Open Space and Parks



Kapa'a Highlands II holds respect for the environment by interlinking natural features and open space as core components of the community.

There are several parks within Kapa'a town, including a beach park. A County-owned 1.9-acre park is located within walking distance from the Property, just south east of the corner of Olohena Road and the by-pass road round-about. The park consists of a baseball field, football field, basketball courts, restroom facilities, picnic tables and a barbecue area.

Open space and open greenway areas encompassing 14.3-acres will be developed within the project. A 3.1-acre park is proposed within the project for outdoor recreation. Land for the proposed relocation of the Kapa'a county swimming pool will be available within the 3.1-acre park. The provision of a 3.1-acre park with a county swimming pool within the proposed development will provide residents with an opportunity for leisure recreational activities.

Kapa'a Highlands II conforms with HRS § 205-a-2(B) (3) (A) which states that CZM's objective is to "protect, preserve and, where desirable, restore or improve the quality of coastal scenic and open space resources."

The policies to achieve this objective are as follows:

1. Identify valued scenic resources in the coastal zone management area;
2. 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;
3. Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and
4. Encourage those developments which are not coastal dependent to locate in inland area.

No scenic, historic, cultural spaces exist or will be created on the subject site and the site is well away from the shoreline. There are no natural wildlife, forest, marine, or unique ecological preserves on or near the subject site. Thus, open space and recreation will not be adversely affected. Park and beaches of Kapa'a are within walking distances from the project.

The proposed project will not adversely impact scenic or open space resources. The proposed project will not involve significant alteration of the existing topographic character of the site and will not affect public views to and along the shoreline.

Water Management



As an overarching philosophy in all source alternatives, Kapa'a Highlands II is committed to water conservation strategies to reduce consumption, conserve resources and minimize water use. The goal is to reduce the total water use through a combination of water saving equipment and strategies.

A number of measures may be implemented to facilitate conservation, including water restrictions during drier periods, public education and more efficient landscaping practices. Consumption could be significantly reduced through end-user conservation.

Efficient fixtures and appliances will reduce indoor water use. The water distribution system will be maintained to prevent water loss and homeowners and businesses will be encouraged to maintain fixtures to prevent leaks. Landscaping will emphasize climate-adapted native and other appropriate plants suitable for coastal locations. Best management practices will be designed and implemented to minimize infiltration and runoff from daily operations.

WaterSense



WaterSense, a partnership program by the U.S. Environmental Protection Agency, seeks to protect the future of our nation's water supply by offering people a simple way to use less water with water-efficient products, new homes, and services. WaterSense brings together a variety of stakeholders to:

- Promote the value of water efficiency.
- Provide consumers with easy ways to save water, as both a label for products and an information resource to help people use water more efficiently.
- Encourage innovation in manufacturing.
- Decrease water use and reduce strain on water resources and infrastructure.

The program seeks to help consumers make smart water choices that save money and maintain high environmental standards without compromising performance. Products and services that have earned the WaterSense label have been certified to be at least 20 percent more efficient without sacrificing performance.

If one in every 10 homes in the United States were to install WaterSense labeled faucets or faucet accessories in their bathrooms, it could save 6 billion gallons of water per year, and more than \$50 million in the energy costs to supply, heat, and treat that water!

Water Efficient Fixtures

Water is a finite resource—even though about 70 percent of the Earth's surface is covered by water, less than 1 percent is available for human use. Each American uses an average of 100 gallons of water a day at home. We can all use 30 percent less water by installing water-efficient fixtures and appliances. The average household spends as much as \$500 per year on their water and sewer bill and can save about \$170 per year by installing water-efficient fixtures and appliances.

## Kapa'a Highlands II Sustainability Plan

Water-efficient fixtures reduce water and sewer costs, reduce demand on water supplies and treatment facilities, and reduce heating energy consumption and associated greenhouse gas emissions.

**High efficiency toilets:** (HETs) reduce flush volumes by no less than 20% compared to conventional ultra-low flow (ULFT) toilets. Dual-flush HETs allow users to choose one of two flushes: liquids or solids. In actual operation, dual-flush HETs average about 1.2 to 1.4 gpf. Pressure-assist HETs use a pressurized tank that creates for a more forceful flush with less water.



**Faucets:** Water flow is reduced by **Flow limiters** which are built into the faucet or are installed as after-market fittings. Aerators or laminar flow devices are types of flow limiters.

- Aeration injects air into the stream of water, displacing much of the water content.
- Laminar flow uses multiple small diameter parallel streams of water that are not aerated.

**Flow control valves** can limit water flow down to 1.5 to 0.5 gpm per side (hot and cold).

**Showerheads:** Federal law since 1994 mandates that all showerheads sold in the United States use 2.5 gpm or less. Despite this, some showerheads actually use much more than 2.5 gpm, and shower towers that include multiple showerheads or jets can total 12.5 gpm or more. A better option is a good quality low-flow showerhead designed to use 2.0 gpm or less while providing a satisfying shower.

### Groundwater

A Water Master Plan has been approved, in concept, by the County Department of Water (DOW). Kapa'a Highlands II has a proven well site that will be dedicated to the DOW to feed the Department of Water's storage tanks and existing water system. Kapa'a Highlands II is committed to working with the DOW on pertinent water issues during the design and development phase.

The proposed water system will be subject to regulation as a public water system and will meet conditions of the State Department of Health, including HAR Chapter 11-20, 11-21 and 11-25.

Kapa'a Highlands, Phase II consists of approximate 97-acres on the eastern half of the 163.123-acres of Kapa'a Highlands. The proposed development is not anticipated to have significant adverse impacts on ground water because no active water systems are on the 97-acres. The irrigation facility for this former sugar land is no longer available.

A stream exists on Kapa'a Highlands I, flowing from north to south along the western border of the 163.123-acres of Kapa'a Highlands II. Kapa'a Highlands II is committed to keeping the flow of the stream consistent to prevent any potential health and mosquito problems associated with streams when not flowing naturally.

## Kapa'a Highlands II Sustainability Plan

### Storm and Surface Water Runoff

A Preliminary Drainage Report has been prepared. A detailed Drainage and Erosion Mitigation Plan will be prepared and submitted to the County Engineer for approval during the design and development stages. The Applicant will be providing major drainage improvements in connection with development of the property. Multiple detention ponds are proposed for the property. Additionally, a series of catch basins, drainage, pipes and culverts will be utilized to direct runoff to major drainage areas on the property.

The project's proposed drainage system will be designed to minimize impacts to near shore coastal waters. Water quality treatment and detention basins will be built to prevent runoff and sedimentation from impacting groundwater resources. Prior to the occupancy of any residential or commercial unit within the project, Kapa'a Highlands II shall implement and maintain storm and surface-water runoff BMPs, subject to any applicable review and approval of the State DOH, designed to prevent violations of State water quality standards as a result of storm-water discharges originating from the project. These BMPs will be documented in a declaration of covenants, conditions and restrictions that will be recorded against the property and will run with the land.

Potential water quality impacts during construction of the project will be mitigated by adherence to State and County water quality regulations governing grading, excavation and stockpiling. The County's grading ordinance includes provisions related to reducing and minimizing the discharge of pollutants associated with soil disturbing activities in grading, grubbing and stockpiling.

Construction BMPs will be utilized in compliance with County ordinances pertaining to grading, grubbing, stockpiling, soil erosion and sedimentation during construction. BMPs will also be implemented for long term development and operation of activities occurring on the site as part of pollution prevention measures.

BMPs include storm water runoff and non-storm water sources control measures and practices that will be implemented to minimize the discharge of erosion and other pollutants from entering into the receiving State waters. The erosion control plan for the proposed project include temporary and permanent control measures BMPs that will be implemented in accordance with Chapter 10 of the Hawai'i County Code.

Post construction BMPs to prevent erosion and storm water runoff after construction is completed includes the installation of drain inlets and shallow drywells within the project site, and landscaping and grassing of disturbed areas.

Prior to occupancy, Kapa'a Highlands II will implement and maintain storm and surface water runoff BMPs, subject to any applicable review and approval of the DOH. Those BMPs will be designed to prevent violations of State water quality standards as a result of stormwater discharges originating from the Project.

### Wastewater

Kapa'a Highlands II The project will be contributing to the deferred maintenance and repair of the Kapa'a Waste Water Treatment plant. The project will not be a detriment to the capacity of the Plant.

**Kapa'a Highlands II Sustainability Plan**

**Energy Management**



Pursuant to Chapter 344 (State Environmental Policy) and Chapter 226 (Hawai'i State Planning Act), HRS, all Kapa'a Highlands II activities, buildings and grounds will be designed with a significant emphasis on energy conservation and efficiency. Efficient design practices and technologies will be the cornerstone of Kapa'a Highlands II's design phase. Buildings within Kapa'a Highlands II will further comply with the County of Kaua'i Energy Conservation Code (Kaua'i County Ordinance 890). Furthermore, solar water heaters will be utilized as made requisite under Section 196-6.5, HRS. Kapa'a Highlands II will confer with KIUC in regards to suggestions and proposals for customized demand-oriented management programs offering rebates for the installation of alternative energy efficient technologies and measures

	Kaua'i	Oahu	State
Medium Income (2009)	\$55,723	\$67,019	\$63,741
Electricity Price (May 2011)	44.27 cents/kWh	30.1 cents/kWh	-

Kapa'a Highlands II is committed to renewable energy and energy efficiently as ways to reduce environmental harm and self sufficiency. Kapa'a Highlands II will continue to improve programs and create new programs as the development is initiated.

Residents of the State of Hawaii pay the highest electricity rates in the US. The average American paid 10.5 cents/kWh in 2010. In the state of Hawaii, O'ahu currently has the lowest residential electricity rates, while Lana'i has the highest. Residential rates on Kaua'i average between 40-45 cents/kWh. Hawaii relies on imported oil for approximately 76% of its total electricity production. The price variation across the state is largely a result of difference in power plant efficiencies, power purchasing agreement and other infrastructure.

The Kaua'i Island Utility Cooperative ("KIUC") is the sole electric utility on Kaua'i. KIUC began serving the people of Kauai on November 1, 2002, when it purchased Kauai Electric from Connecticut-based Citizens Communications. KIUC is America's newest electric cooperative, but it's by no means the only one. It is one of approximately 900 electric cooperatives serving electric consumers in 47 states. Like all cooperatives, KIUC operates as a not-for-profit organization that is owned and controlled by the people it serves. KIUC serves over 23,300 customers with 92% of KIUC's electricity coming from the burning of imported fossil fuels.

In 2009 the State Legislature codified the need for energy efficiency by enacting the statewide energy efficiency portfolio standard with a target of reducing energy consumption by 30% of forecasted energy consumption by 2030 (4,300 GWh) and beginning the process for separating efficiency from the existing renewable portfolio standard.

**Energy efficiency in homes and buildings**

- Hawai'i Revised Statutes section 46-19.6 requires all county agencies to place a "priority on processing of permit applications for construction projects incorporating energy and environmental design building standards."

**Kapa'a Highlands II Sustainability Plan**

To reduce net energy consumption and demand, Kapa'a Highlands II will consider the implementation of elements of the United States Environmental Protection Agency (EPA) Energy Star Program; including efficient insulation, high performance windows, compact construction, efficient ventilation systems, and energy efficient lighting elements and appliances.

Kapa'a Highlands II will furthermore seek to harness energy conservations and technologies to facilitate the possibility of net energy metering in building design to empower residents and tenants to reduce their electricity costs and provide energy back to the grid.

Energy conservation and efficiency measures will be implemented and emphasized where applicable in the design of Kapa'a Highlands II. Energy-efficiency technologies to be considered include:

- Solar energy for water heating
- Photovoltaic systems, fuel cells, biofuels and other renewable energy sources
- Optimal utilization of daytime sunlight
- High efficiency light fixtures
- Roof and wall insulation, radiant barriers and energy efficient windows
- Optimized air-flow
- Installation of heat resistant roofing
- Intelligent Landscaping to provide for shading, dust control, and heat-mitigation
- Portable solar lighting (i.e. parking lots)

A photovoltaic system that can generate up to 1.18 MW of electricity is situated in Phase I of the Kapa'a Highlands project. Its operator entered into an agreement to sell to Kaua'i Island Utility Cooperative electricity generated from the solar farm for 20 years. "Creating more renewable energy alternatives is one of the most critical challenges we face," Kauai Mayor Bernard Carvalho said at a dedication ceremony for the solar farm.

The project spreads over five acres of a 165-acre property, and has 5,376 solar panels mounted on posts and piers. The panels average about 12-feet off the ground.



**Health and Active Lifestyles**



Through the layout and design of Kapa'a Highlands II, there is an overall opportunity for a positive effect on the health of its residents. Communities that make it easy and safe to walk and ride bikes are opening the door to a wide range of health benefits for their residents. They are reducing barriers to being physically active and helping individuals integrate physical activity into their daily lives.

Active living is a way of life that integrates physical activity into daily routines. For individuals, the goal is to get a total of at least 30 minutes of activity each day by, for example, walking, bicycling, playing in the park, working in the yard, taking the stairs, or using recreation facilities. For communities, the goal is to provide opportunities for people of all ages and abilities to engage in routine physical activity and to create places and policies that encourage better physical health.

The burden of physical inactivity:

The Problem:

- 25% of adults are sedentary
- 60% of adults not active enough

The Outcome:

- Obesity, cardiovascular disease, cancer, diabetes, depression
- Physical inactivity is a primary factor in over 250,000 deaths annually.
- Medical costs associated with physical inactivity and its consequences may exceed \$76 billion annually. (hawaii.gov/health/healthy-lifestyles)

Walkable and bikable communities increase active living. Active living can improve health by:

- Reducing the risk of dying prematurely.
- Reducing the risk of dying from heart disease.
- Reducing the risk of developing diabetes, colon cancer and high blood pressure.
- Reducing feelings of depression and anxiety.
- Helping control weight.
- Helping build and maintain healthy bones, muscles and joints.
- Promoting psychological well being. (Michigan Department of Community Health)

Growing body of evidence:

- San Diego study: 70 minutes more physical activity/week among residents in walkable neighborhood; 35% vs. 60% overweight (Saelens, Sallis, et. al. 2003)
- 6 lb weight difference in sprawling vs. compact counties
- King County study: 5% increase in neighborhood's "walkability index" correlated with 32% increase in active transportation; 0.23 point reduction in BMI (Frank, Sallis, et. al. 2006) (hawaii.gov/health/healthy-lifestyles)

Community Design Policies Work! The Task Force on Community Preventive Services concluded that:

- Community-scale policies & design are effective
  - Zoning for compact, mixed-use development
  - Transit-oriented development
  - Policies related to street design & connectivity

- Street-scale policies & design are effective:

- Traffic calming
- Street lighting
- Improving street crossings

(hawaii.gov/health/healthy-lifestyles)



## Kapa'a Highlands II Sustainability Plan

### Education



Schools servicing the project include Kapa'a Elementary, Kapa'a Middle School and Kapa'a High School.

Kapa'a Middle School borders the project site to the north. Kapa'a Elementary School and Kapaa High School share a campus which is approximately 2-miles from the project site.

Kapa'a Elementary School serves grades K-5 and is one of the largest elementary schools in the state. It shares a campus with Kapaa High School. Kapa'a Elementary School's capacity is 1,373 students, and the 2009/2010 school year enrollment was 827 students (Department of Education, 2010a).

Kapa'a Middle School, with facilities for 1,059 students, was opened in 1997 and has an enrollment of 652 students (Department of Education, 2010b).

Kapa'a High School currently has a student body numbering 1,033 with a capacity of 1,445 (Department of Education, 2010c).

The proposed project will generate increased demand on student enrollment within the region. Kapa'a Highlands II will coordinate with the DOE to ensure that the DOE's facility assessment policy provisions are appropriately addressed.

Additionally, a 3.1-acre park is proposed adjacent to the existing Kapa'a Middle School. The park will have an area for the county's proposed relocation of the Kapa'a county swimming pool. Kapa'a Highlands II also plans to develop a bike/walking path from the south of the property to the Kapa'a Middle School to facilitate biking and walking around the development.

## Kapa'a Highlands II Sustainability Plan

### Housing



Kapa'a Highlands II is a well located master planned project on the Island of Kaua'i targeting primary housing demand from local and in-migrant families, as well as offshore second home demand for view estate ownership. Located in the middle of the island, the project is close to the centers of employment and resort activity, plus the airport, beaches, shopping, recreation, etc. It sits above the historic town of Kapaa and below the foothills of the mountain chain that forms the island.

The proposed development, Kapa'a Highlands Phase II, will utilize 163-acres of land for single-family and multi-family residential and commercial purposes. Development of the Property will address a portion of the significant demand for affordable housing in the County of Kaua'i, without significantly affecting reserve areas for foreseeable urban growth.

Kapa'a Highlands II will respond to varying spectrums of demand for housing within Kaua'i by providing a wide range of housing opportunities inclusive of affordable housing alternatives. Kapa'a Highlands II will seek to create and sustain a mixed-income community allowing for unparalleled social diversity.

Affordable housing demands exhibited a significant upward trend over the last several years. Recent market studies have indicated a current shortage of single-family housing in the East Kaua'i area. The forecast is that demand for housing will continue to increase, especially in the area of affordable housing. The proposed development will assist in alleviating some of the current supply-and-demand pressures on Kaua'i's current housing market by providing a variety of additional housing products and opportunities for long-term local residents.

The Kawaihau Planning District has substantial capacity for additional residential development, as described in Section 6.2.3.1 (Build-Out Analysis) of the Kaua'i General Plan. "Lands previously designated for urban use but as yet mostly undeveloped include an area located near Kapaa, south of Oloheua Road. This area was previously designated for Urban Mixed Use and is shown as Urban Center on the new GP Land Use Map. Owned partly by the State and partly by Amfac/JMB (or its successor), this "expansion area" for Kapa'a has already accommodated the Kapa'a Middle School."

In a 2010 letter to the applicant, the Planning Director wrote "We are writing in general support of Three Stooges LLC's petition to amend 97-acres in Kapaa to the Urban district. The proposed amendment is in conformance with the County of Kaua'i's General Plan and will provide 231 units of affordable housing. Affordable housing remains an acute need on Kaua'i, even with a falling real estate market and as such the County is generally supportive of any petition that proposes additional affordable housing, particularly when contiguous to developed urban areas, infrastructure and consistent with our General Plan."

### Current Housing Stock

The housing stock on Kaua'i is primarily single family, 69%, with attached housing only at 31%. Around 40% of all single-family homes are built on lots sized less than 10,000 sf. The condominium stock is 64% fee-simple and 34% leasehold. It is also only 10% owner occupied, with the balance of the units investor-owned, either in a rental pool, or part of a hotel operation. About 30% of the condo units were built since 1990, with most of the rest around 25 years or more in age. 38% of the condominium units are one bedrooms, with two bedrooms at 45%.

**Kapa'a Highlands II Sustainability Plan**

**Housing Mix**

The target market for this development is relatively broad, as Kapa'a is arguably at the center of the island, with strong retail and recreational facilities, and easy commute to two out of the three major resort areas on the island. The demand for affordable housing is also significant. The proposed development will not only address a critical community need, it will also provide residents with a unique opportunity to purchase a lot and construct a home that best fits their needs on the proposed development's market-priced lots.

**Kapa'a Highlands II – Market Housing Mix (2010 dollars)**

Type	Average Sales Price	Lot Size	Total Units
Single-Family Lots	\$180,000 to \$250,000	5,000 to 8,000 Sq. Ft.	86-lots
Multi-Family Units	\$220,000 to \$450,000	1 to -acre Parcels	683-units

**Kapa'a Highlands II – Affordable Housing Mix (2010 dollars)**

Type	Average Sales Price	Lot Size	Total Units
Single-Family	\$189,000 to \$363,000	1,100 to 1,200 Sq. Ft. living area	13-lots
Multi-Family Units	\$189,000 to \$363,000	750 to 1,200 Sq. Ft. living area	154-units

**Affordable Housing**

An affordable housing element of the project is proposed and will conform to Kaua'i County Ordinance No. 860, Kaua'i's new housing policy wherein developers contribute up to thirty percent (30%) of the total residential units for affordable housing.

The Kaua'i housing policy provides incentives to developers who provide the required affordable units on-site and for providing single family affordable units. Kapa'a Highlands will be providing all of its affordable units on site and will include affordable single family units. This will reduce the number of affordable units required from approximately 205 units (30%) to approximately 167 units (21.7%), assuming a mix of 13 single family units and 154 multi-family units. The number of affordable units required will fluctuate depending on how many affordable single family units are provided. The proposed development will provide much needed affordable housing in the East Kaua'i region.

**Kapa'a Highlands II Sustainability Plan**

Under the proposed development's preliminary marketing concept, the affordable units are anticipated to be sold in the range of \$189,000.00 to \$363,000.00, which will be affordable to families earning from 80% up to 140% of the County's annual median income.

**Anticipated Buyer Markets**

The proposed products respond to the market opportunities identified above as follows:

**Entry-level markets** – Those units designated as affordable units, as well as many of the multifamily market units are conceived to appeal to entry-level markets, typified by the rapidly increasing 25- to 34-year-old Echo Boom cohort.

**Move-up markets** – Kapa'a Highlands II's single-family lot products could appeal to move-up markets and growing families.

- The first level move-up market, typified by persons aged 35 to 44, is projected to grow particularly rapidly in the 2020 to 2030 period as the Echo Boomers mature.
- A more affluent move-up market could also be attracted to the views, convenient location and lifestyle offerings at Kapa'a Highlands II.

Based on the Project location, development concept and the comparison projects surveyed, some 75% of Kapa'a Highlands II residents are anticipated to be long-term Island residents. However, some product types could also appeal to second home buyers, relocating retirees or others that may come from off-Island

There has been strong demand historically for these products offerings at these price ranges, and the future should be no different. The location is very desirable, particularly for local buyers, but also for offshore second homeowners who want to feel a part of a 'normal' (but new or upgraded) neighborhood (to say nothing of wanting to take advantage of the views).

Despite current economic conditions, there is capacity amongst prospective buyers, thanks to a strong build up in their own home equity. Coupled with a desire to secure a central location for their home, there should be a goodly number of lots purchased when they come to market (particularly if there is advanced notification).

## Kapa'a Highlands II Sustainability Plan

### Social Sustainability



A community is composed of people, as well as places where they live; it is as much a social environment as a physical development. Thus, communities must not only be environmentally sustainable, they must also be socially sustainable.

A socially sustainable development supports more equitable distribution of resources, supports diversity within the community, meets the basic needs of residents and invests in social and human capital, thereby sustaining the quality of life and community livability for all residents into the future.

Socially sustainable development includes the following:

- recognizes, respects and values cultural and social diversity;
- preserve and maintains a high quality of life for all of its residents;
- meets basic needs of food, shelter, education, work, income and safe living and working;
- is equitable, ensuring that the benefits of development are distributed fairly across society;
- promotes education, creativity and the development of human potential;
- preserves our cultural and biological heritage, thus strengthening our sense of connectedness to our history and environment;
- is democratic, promoting citizen participation and involvement;
- promotes the context of "Live Aloha," with people living together harmoniously and in mutual support and respect for each other

We saved the concept of Social Sustainability for the end of the analysis, to serve as a summary of the many socially-focused actions suggested in prior sections of this Sustainability Plan. Following are just a few of the issues previously mentioned:

- Affordable housing will be incorporated within the development, allowing for a diversity and mix of housing types and options
- Complete streets with walkways and bike lanes, allowing for slow movement through the neighborhoods for easy social interaction
- Space for the relocated County swimming pool
- Allocation for commercial spaces, affording project residents the opportunity to work near where they live
- Proximity to the Middle School affords multi-generational interaction and learning
- Cooperation with the State by making land available for the Kapa'a Bypass Road, helping regional residents
- Project layout and design will create an opportunity for both residents and the community to have a positive effect on their health through walkable and bikable transportation options.
- Consistency with long range planning documents, implementing the community's vision for the future

## Exhibit C

### Kapa'a Highlands Agricultural Master Plan

# Kapaa Highlands Agricultural Master Plan

June 1, 2007



Agricon Hawaii LLC  
P.O. Box 95  
Kamuela, HI 96743

## Kapaa Highlands Agricultural Master Plan June 1, 2007

### Table of Contents

Summary.....	1
Description.....	1
Environmental Suitability.....	2
Crop Suitability.....	2
Livestock.....	3
HRS 205 Compliance.....	4
Conclusion.....	5
Exhibit "A" Subdivision Map.....	6
Exhibit "B" Soils Map.....	8
Exhibit "C" Soils Inventory Report.....	10
Exhibit "D" LSB Map 100.....	24
Exhibit "E" LSB Map 107.....	26
Exhibit "F" Economics For Goats.....	28

**Kapaa Highlands Agricultural Plan  
June 1, 2007**

**A. SUMMARY**

Livestock (goats) can be raised successfully at Kapaa Highlands. Climate conditions will allow for normal pasture rotation the year around. The ratio of livestock to fenced pasture should be 3 animal units (AU) to 1 acre or better.

The climate and soils at Kapaa Highlands are not ideal for the growing of most commercially viable crops due to the poor soil, strong trade winds, and the salt spray from the ocean.

Goats are sold for their meat value and the local markets on all of the islands are excellent. The intended markets for goats raised on the property are the local Kauai market and the Honolulu market.

The Economics for Goats included in this report provides a picture of expected revenue and classifications of operating expenses associated with a livestock (goat) operation ("Project").

The Association of Condominium Owners of the Kapaa Highlands Condominium ("Association") may choose to operate the Project on behalf of participating owners. Alternatively, the Association may choose to enter into a contractual relationship with a livestock contractor pursuant to a license agreement in which the livestock contractor will pay an annual rent per acre to graze the property, plus a percentage of gross profits.

Livestock grazing is a permissible use within the agricultural districts as outlined under Hawaii Revised Statutes (HRS) Chapter 205, Section 205-4.5.

**B. DESCRIPTION**

The Kapaa Highlands Subdivision is located in Kapaa, above the Kapaa Bypass Road and adjacent to Kapaa Middle School. The property is further identified by Kauai Tax Map Key No. (4) 4-3-03:01. The total land area is 163.125 acres and the combined grazing area is approximately 101.573 acres.

Almost all of the property is located in the State Land Use Commission Agricultural District and within the Agriculture District of the Comprehensive Zoning Ordinance of the County of Kauai (CZO). As such, owners of subdivision lots will be required to comply with the requirements of HRS Chapter 205 and the CZO. Individual lot owners, through the Association, will be required either to provide a portion of their lot for the grazing of livestock as outlined in this Agricultural Master Plan, or to obtain an amendment to this Agricultural Master Plan to conduct alternative agricultural activities. The Kapaa Highlands is shown on the map attached hereto as Exhibit "A".

**Kapaa Highlands Agricultural Plan  
June 1, 2007**

**C. ENVIRONMENTAL SUITABILITY**

1. **Climate**

The property is exposed to the northeast trade winds and, due to the proximity of the property to the ocean the trade winds will carry some salt spray to the property. This is problematic for most commercial crops, but should have no impact on livestock and minimal impact on salt resistant grasses. Annual rainfall is generally between 40 and 50 inches.

2. **Soil**

The soils are generally well-drained, dark reddish-brown silty clay and silty clay loam. The soil depth is generally between 10 and 15 inches.

The property was previously planted to sugar cane and due to the nature of sugar cane cultivation, these soils can be expected to be low in organic matter and have a low pH (very acid).

A Soils Map for the property is attached hereto as Exhibit "B", and a Soils Inventory (containing technical descriptions of soil types) is attached hereto as Exhibit "C".

The Land Study Bureau Land Classification for this property is B, C, D and E lands, as shown on the Detailed Land Classification Maps attached hereto as Exhibits "D" and "E".

3. **Drainage**

All the soils on the property are well drained indicating that, if good conservation practices are used, they should not erode.

**D. CROP SUITABILITY**

Due to the generally poor soils and harsh climate, the commercial crops most suited to the area are sugar and pineapple. Both of these industries are declining in Hawaii. Pineapple is no longer grown on Kauai and there is only one sugar mill that remains in operation. With appropriate irrigation and management, both tropical orchard crops (including trees) and some vegetable crops could be grown on the property, although with some difficulty and risk given the physical conditions at the property.

**E. LIVESTOCK**

1. **Association Project**

The Association may choose to operate the Project on behalf of all participating owners. In such case, the Association would be responsible for the rotation, care and marketing of the animals. The participating owners would be responsible for providing fixed assets (fences, gates, and water systems) on the owners' lots. The participating owners would be required to pay their proportionate share of all operational costs to the Association, and would be entitled to their proportionate share of all profits generated by the Project.

2. **Contractor Operation**

As an alternative, the Association could hire an independent contractor ("Contractor") to operate the Project. In such a case, the Contractor would own the goats and be responsible for the rotation, care, and marketing of the animals. The Association, through the participating owners, would be responsible for the fixed assets. These assets would include the fences, gates, and water systems. The Contractor would pay the Association a fixed rent per acre of pasture plus a percentage of gross profits, and would be responsible for normal maintenance of the fixed assets associated with the livestock operation.

3. **Individual Goat Operators**

The Owner may elect to engage in individual goat raising operations within the Owner's Agricultural Area of the Owner's Lot ("Owner's Operation"). In such case, the following shall apply:

- a. The Owner shall be solely responsible for the costs of the Owner's Operation.
- b. The Owner shall raise a minimum of three (3) goats for each acre within the Owner's Agricultural Area.
- c. The Owner shall submit reports to, and as required by, the Association providing pertinent information concerning the Owner's Operation and in such detail as to comply with and satisfy the reporting requirement contained in the Agricultural Subdivision Agreement and the County Subdivision Approval.

4. **Goat Husbandry**

It is recommended that a breeding herd with a ratio of 1 buck to 50 does be maintained. Does will produce an average 1.5 kids per year. Kids can be weaned at approximately 5 to 6 months and should be separated from the breeding herd at this point. The gestation period for a doe is approximately 5 months.

The carrying capacity of the pasture at Kapaa Highlands is approximately 3 to 4 animal units (AU) to the acre. The breeding herd that consists of bucks and does is considered to be one AU per animal. Kids are ¼ AU per animal. Therefore, assuming all of the owners became participants in the Project, there would be 101.573 acre of pasture available to carry 355 AU at 3.5 AU per acre. Attached hereto as Exhibit "F" is a spreadsheet entitled "Economics for Goats" which contains detailed assumptions regarding carrying capacity.

The breeding herd should be given good pasture and be kept on a strict health program so that its production of kids is at its optimum. The herd should be wormed every 30 to 60 days and provided with a mineral supplement. The water requirement for goats is between 2 and 3 gallons per day per AU. This will be dependent upon climatic conditions. Supplemental feeding is generally not required unless rainfall diminishes over several months to a point where the grass growth is insufficient to maintain the herd. At this point, the contractor has the option of providing supplemental feed or moving some or all of the goats to another location.

Goats are marketed at between 6 and 9 months of age at a weight of between 60 and 80 pounds. The estimate market price per goat ranges from \$140 and \$180. The primary market is the Kauai Island market that commands a higher price. The secondary market is Honolulu. The freight to Honolulu is paid by the buyer. Goats are generally sold to individuals who slaughter them for their meat. The market in Hawaii for goats is very stable.

The Economics for Goats spreadsheet contains details on the economics of the livestock (goat) operation.

**F. HRS 205 COMPLIANCE**

Hawaii Revised Statutes Chapter 205 establishes classifications of lands and requirements for land use. Section 205-4.5 defines permissible uses within the agricultural districts. This section also defines the soil classification rating that applies to the Chapter.

**Kapaa Highlands Agricultural Plan  
June 1, 2007**

Section 205-4.5 uses the Land Study Bureau's (LSB) soil classification productivity rating system to determine which lands are to be governed by the Chapter. The LSB ratings for Kapaa Highlands are B, C, D and E. Land classification ratings A and B are restricted to the permitted uses as outlined in the section. The cultivation of crops and the raising of livestock are permitted uses. Uses on C, D and E lands also include crop cultivation and the raising of livestock.

**G. CONCLUSION**

The climate and soils at Kapaa Highlands are not ideal for the growing of most commercially viable crops due to the poor soil, strong trade winds, and the salt spray from the ocean. Thus a livestock operation provides an economically viable agricultural use for the property.

Either the Association operation of a livestock project, or a contractual relationship between the Association and a livestock Contractor, would allow the agricultural component of the property to be managed as one unit. Individual lot owners would also have the option of compliance with alternate methods of livestock grazing or with the cultivation of agricultural crops, provided they obtained the approval of the Planning Commission of the County of Kauai, Subdivision Committee, for an amendment to this Agricultural Master Plan for such alternative agricultural activities.

Livestock grazing is a permissible use within the agricultural districts as outlined under IIRS Chapter 205, Section 205-4.5.

**Exhibit "A"  
Subdivision Map**

**Exhibit "B"**  
**Soils Map**



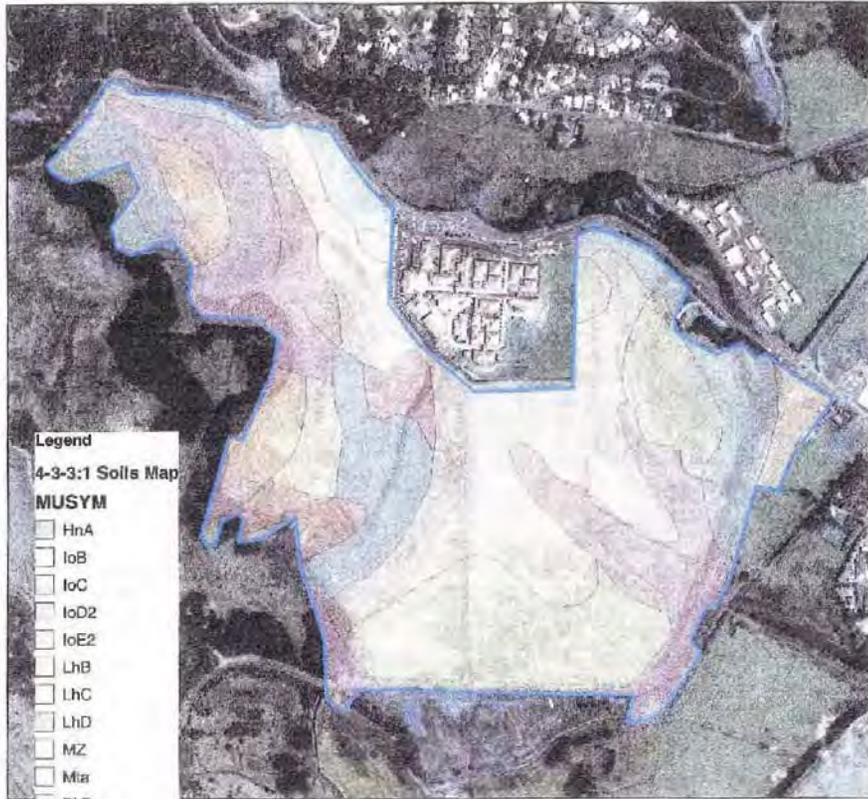
TMK 4-3-3:1 Soils Map

Date: 2/28/2007

District: EAST KAUAI SOIL AND WATER CONSERVATION DISTRICT

Field Office: LIHUE SERVICE CENTER  
Agency: NRCS

State and County: HI, KAUAI



Legend

4-3-3:1 Soils Map

MUSYM

- HnA
- loB
- loC
- loD2
- loE2
- LhB
- LhC
- LhD
- MZ
- Mia
- PkB
- PnB
- rRR

tmk\_a\_hi007



Image: highres1-1\_s\_hi007.atc



**Kapaa Highlands Agricultural Master Plan  
June 1, 2007**

**Exhibit "C"  
Soils Inventory Report**

# Soils Inventory Report

TMK (4) 4-3-3:1

Map Unit Symbol	Acres	Percent
HnA	1.4	1%
loB	44.5	27%
loC	16.2	10%
loD2	10.7	7%
loE2	24.7	15%
LhB	8.4	5%
LhC	0.8	0%
LhD	4	2%
Mta	3.2	2%
MZ	0.3	0%
PkB	0.9	1%
PaB	31.9	20%
rRR	15	9%
Total:	162	

## Hanalei Series

This series consists of somewhat poorly drained to poorly drained soils on bottom lands on the islands of Kauai and Oahu. These soils developed in alluvium derived from basic igneous rock. They are level to gently sloping. Elevations range from nearly sea level to 300 feet. The annual rainfall amounts to 20 to 120 inches. The mean annual soil temperature is 74° F. Hanalei soils are geographically associated with Haleiwa, Hihimanu, Mokuleia, and Pearl Harbor soils.

These soils are used for taro, pasture, sugarcane, and vegetables. The natural vegetation consists of paragrass, sensitiveplant, honohono, Java plum, and guava.

### Hanalei silty clay, 0 to 2 percent slopes (HnA).

This soil is on stream bottoms and flood plains. Included in the areas mapped on Kauai along the Waimea River and in Waipaoiki Valley are small areas where the surface layer is 8 to 10 inches of reddish-brown silty clay. Included in the areas mapped on Oahu were small areas of very deep, well-drained alluvial soils and small areas of very poorly drained to poorly drained clay soils that are strongly mottled and are underlain by peat, muck, or massive marine clay.

In a representative profile the surface layer, about 10 inches thick, is dark-gray and very dark gray silty clay that has dark-brown and reddish mottles. The subsurface layer is very dark gray and dark-gray silty clay about 3 inches thick. The subsoil, about 13 inches thick, is mottled, dark gray and dark grayish-brown silty clay loam that has angular blocky structure. The substratum is stratified alluvium. The soil is strongly acid to very strongly acid in the surface layer and neutral in the subsoil.

Permeability is moderate. Runoff is very slow, and the erosion hazard is no more than slight. The available moisture capacity is about 2.1 inches per foot of soil. Roots penetrate to the water table. Flooding is a hazard.

Representative profile: Island of Kauai, lat. 22°12'37.8" N. and long. 159°28'47" W.

A0-0 to 6 inches, dark-gray (10YR 4/1) silty clay; common distinct mottles of dark brown (7.5YR 4/1), red (2.5YR 5/6), and dark reddish brown (5YR 3/4); weak, coarse and medium, granular structure; very hard, friable, sticky and plastic; abundant fine and medium roots; many fine and medium pores; very strongly acid; abrupt, wavy boundary. 4 to 6 inches thick.

A1g-6 to 10 inches, very dark gray (10YR 3/1) silty clay; many distinct mottles of dark reddish brown (5YR 3/4), yellowish red (5YR 4/6), dark brown (7.5YR 4/4), and dark grayish brown (10YR 4/2); weak, coarse, prismatic structure; very hard, firm, sticky and plastic; abundant fine and medium roots; common fine and medium pores; strongly acid; gradual, smooth boundary. 3 to 5 inches thick.

A3g-10 to 13 inches, mbed, very dark gray (10YR 3/1) and dark gray (10YR 4/1) silty clay; many distinct mottles of yellowish red (5YR 4/6) and dark reddish brown (2.5YR 3/4); weak, coarse, prismatic structure; very hard, firm, sticky and plastic; common medium and fine roots; many fine and medium pores; slightly acid; gradual, smooth boundary. 2 to 4 inches thick.

B21g-13 to 18 inches, mixed, dark-gray (10YR 4/1) and dark grayish-brown (10YR 4/2) silty clay loam; many distinct mottles of strong brown and dark red (2.5YR 3/6); massive, but a few pockets have weak, medium, angular blocky structure; hard, firm, sticky and plastic; low medium and fine roots; many fine and medium pores; neutral; gradual, smooth boundary. 4 to 7 inches thick.

B22g-18 to 26 inches, dark grayish-brown (10YR 4/2) silty clay loam; many distinct mottles of dark red (2.5YR 3/6) and strong brown (7.5YR 5/6); weak, coarse, prismatic structure breaking to weak, fine and medium, angular blocky, slightly hard, firm, sticky and plastic; low medium and fine roots; many fine and medium pores; neutral; gradual, smooth boundary. 7 to 9 inches thick.

C-26 to 36 inches, dark grayish-brown (10YR 4/2) silty clay loam; common distinct mottles of strong brown (7.5YR 5/6), dark red (2.5YR 3/6), and red (2.5YR 4/6); massive, slightly hard, friable, sticky and plastic; few medium roots; many, fine and medium, tubular pores; slightly acid; water stands above this layer.

The A horizon ranges from 10YR to 2.5Y in hue, from 3 to 4 in value, and from 1 to 2 in chroma. Mottles range from a few faint ones to many distinct ones. The B horizon ranges from 10YR to 2.5Y in hue, from 2 to 4 in value, and from 1 to 2 in chroma. Mottles in the B and C horizons range from few to many. The depth to the seasonal high water table ranges from 2 to 5 feet. The C horizon is stratified. It ranges from silty clay to sand in texture.

This soil is used for taro, pasture, and sugarcane. (Capability classification: 1Iw, irrigated or nonirrigated; sugarcane group 3; pasture group 7; woodland group 4)

#### Hanalei silty clay, 2 to 6 percent slopes (HnB).

On this soil, runoff is slow and the erosion hazard is slight. This soil is used for sugarcane, taro, and pasture. (Capability classification 1Iw, irrigated or nonirrigated; sugarcane group 3; pasture group 7; woodland group 4)

#### Hanalei stony silty clay, 2 to 6 percent slopes (HoB).

This soil has a profile like that of Hanalei silty clay, 0 to 2 percent slopes, except that it is stony. Runoff is slow, and the erosion hazard is slight. Stones hinder machine cultivation.

This soil is used for sugarcane and pasture. (Capability classification 1Iw, irrigated or nonirrigated; sugarcane group 3; pasture group 7; woodland group 4)

#### Hanalei silty clay, deep water table, 0 to 6 percent slopes (HrB).

This soil has a profile like that of Hanalei silty clay, 0 to 2 percent slopes, except that it has fewer mottles and the water table is at a depth of more than 3 feet. Included in mapping were small areas of stony soils.

This soil is used for sugarcane, taro, pasture, and vegetables. (Capability classification 1Iw, irrigated or nonirrigated; sugarcane group 3; pasture group 7; woodland group 4)

#### Hanalei silty clay loam, 0 to 2 percent slopes (HmA).

This soil has a profile like that of Hanalei silty clay, 0 to 2 percent slopes, except for the texture of the surface layer. Also, this soil is underlain by sand at a depth of 30 to 50 inches. Included in mapping was an area on the Hanalei River bottom that is less than 30 inches deep over sand.

This soil is used for taro, pasture, and sugarcane. (Capability classification 1Iw, irrigated or nonirrigated; sugarcane group 3; pasture group 7; woodland group 4)

#### Hanalei peaty silty clay loam, 0 to 2 percent slopes (HpA).

This soil has a profile like that of Hanalei silty clay, 0 to 2 percent slopes, except for the texture of the surface layer. Also, the water table is at the surface.

This soil is used for pasture. (Capability classification 1Vw, irrigated or nonirrigated; sugarcane group 3; pasture group 7; woodland group 4)

## Ioleau Series

This series consists of well-drained soils on uplands on the island of Kauai. These soils developed in material weathered from basic igneous rock, probably mixed with volcanic ash. They are gently sloping to steep. Elevations range from 100 to 750 feet. The annual rainfall amounts to 40 to 70 inches. The mean annual soil temperature is 72° F. Ioleau soils are geographically associated with Lihue and Puhi soils.

These soils are used for irrigated sugarcane, pasture, pineapple, irrigated orchards, irrigated truck crops, wildlife habitat, and woodland. The natural vegetation consists of lantana, koa haole, guava, and associated shrubs and grasses.

#### Ioleau silty clay loam, 6 to 12 percent slopes (IoC).

This soil is on ridgetops in the uplands.

In a representative profile the surface layer is dark brown and yellowish-red silty clay loam 15 inches thick. The subsoil, 40 to 60 inches thick, is dark brown and dark reddish-brown silty clay that has subangular blocky structure and is very compact in place. The substratum is soft, weathered rock. The soil is very strongly acid to extremely acid throughout.

Permeability is slow. Runoff is medium, and the erosion hazard is moderate. The available water capacity is about 1.4 inches per foot of soil. Roots penetrate to a depth of 15 to 25 inches or to the plow depth.

Representative profile: Island of Kauai, lat. 22°07'32.9" N. and long. 157°13'03" W.

Ap1-0 to 8 inches, dark brown (7.5YR 3/4) silty clay loam, brown (7.5YR 4/4) when dry, cloddy, breaking to moderate, fine and very fine, subangular blocky structure; hard, firm, sticky and plastic; abundant medium and fine roots and plentiful very fine roots; very strongly acid; abrupt, wavy boundary. 6 to 8 inches thick.

Ao2-6 to 15 inches, medium of yellowish-red (5YR 4/6) silty clay loam, strong brown (7.5YR 5/6) when dry, massive; slightly hard, friable, sticky and plastic; and yellowish-red (5YR 4/8) silty clay, reddish brown (5YR 4/4) when dry; strong, very fine, subangular blocky structure; hard, firm, sticky and plastic; few medium roots and plentiful fine and very fine roots; common fine pores; very strongly acid; abrupt, wavy boundary. 7 to 10 inches thick.

B21-15 to 27 inches, dark reddish-brown (5YR 3/4) silty clay, reddish brown (5YR 4/4) when dry; strong, fine and very fine, subangular blocky structure; very hard, firm, sticky and plastic; very few fine and very fine roots; common very fine pores, very compact in place; many moderately thick clay films on ped faces; very strongly acid; clear, wavy boundary. 5 to 12 inches thick.

B22-27 to 35 inches, dark brown (7.5YR 3/2) silty clay, yellowish red (5YR 3/8) in pores, dark brown (7.5YR 4/4) when dry; silty, fine and very fine, subangular blocky structure; very hard, firm, sticky and plastic; very few fine and very fine roots; few medium pores and many very fine pores; compact in place; many moderately thick clay films on ped faces and in pores; few pebbles; very strongly acid; clear, wavy boundary. 9 to 11 inches thick.

B23-38 to 57 inches, dark brown (7.5YR 3/3) light silty clay, dark brown (7.5YR 4/4) in pores, dark brown (7.5YR 4/4) when dry; strong, fine and very fine, subangular blocky structure; slightly hard, firm, slightly sticky and slightly plastic; few root in; fine, and very fine roots; many very fine pores; patchy, moderately thick clay films on ped faces; continuous in pores; few pebbles; extremely acid; clear, wavy boundary. 15 to 22 inches thick.

B24-57 to 81 inches, dark reddish-brown (5YR 3/4) silty clay loam, reddish brown (5YR 4/4) when dry; moderate, fine and very fine, subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; no roots; many very fine pores patchy, moderately thick clay films on ped faces; continuous in pores; extremely acid.

The A horizon ranges from 5YR to 10YR in hue. In places the texture of the A horizon is clay loam. The B horizon ranges from 2.5YR to 7.5YR in hue, from 3 to 4 in value, and from 2 to 6 in chroma. The depth to the very compact B21 ranges from 15 to 25 inches.

This soil is used for sugarcane, pasture, pineapple, orchards, and truck crops. (Capability classification 1Ie, irrigated or nonirrigated; sugarcane group 1; pineapple group 6; pasture group 6; woodland group 6)

**Ioleau silty clay loam, 2 to 6 percent slopes (IoB).**

This soil has a profile like that of Ioleau silty clay loam, 6 to 12 percent slopes, except that it is 10 to 20 inches deeper to the compact layer. Runoff is slow, and the erosion hazard is slight. Roots penetrate to a depth of 25 to 40 inches.

This soil is used for sugarcane, pasture, pineapple, orchards, and truck crops. (Capability classification IIe, irrigated or nonirrigated; sugarcane group 1; pineapple group 5; pasture group 6; woodland group 6)

**Ioleau silty clay loam, 12 to 20 percent slopes, eroded (IoD2).**

This soil is similar to Ioleau silty clay loam, 6 to 12 percent slopes, except that it is moderately steep and part of the surface layer has been removed by erosion. Runoff is rapid, and the erosion hazard is moderate to severe.

This soil is used for sugarcane, pineapple, and pasture. (Capability classification IVe, irrigated or nonirrigated; sugarcane group 1; pineapple group 6; pasture group 6; woodland group 6)

**Ioleau silty clay loam, 20 to 35 percent slopes, eroded (IoE2).**

This soil is similar to Ioleau silty clay loam, 6 to 12 percent slopes, except that it is steep and most of the surface layer has been removed by erosion. Runoff is rapid, and the erosion hazard is severe.

This soil is used for pasture, woodland, sugarcane, pineapple, and water supply. (Capability classification VIe, nonirrigated; pasture group 6; woodland group 6)

**Lihue Series**

This series consists of well-drained soils on uplands on the island of Kauai. These soils developed in material weathered from basic igneous rock. They are gently sloping to steep. Elevations range from nearly sea level to 800 feet. The annual rainfall amounts to 40 to 60 inches. The mean annual soil temperature is 73° F. Lihue soils are geographically associated with Ioleau and Puhii soils.

These soils are used for irrigated sugarcane, pineapple, pasture, truck crops, orchards, wildlife habitat, woodland, and homesites. The natural vegetation consists of lantana, guava, koa haole, jooe, kikuyugrass, molassesgrass, guineagrass, bermudagrass, and Java plum.

**Lihue silty clay, 0 to 8 percent slopes (LhB).**

This soil is on the tops of broad interfluvies in the uplands. Included in mapping were small areas of a soil that has a very dark grayish-brown surface layer and a mottled subsoil.

In a representative profile the surface layer is dusky-red silty clay about 12 inches thick. The subsoil, more than 48 inches thick, is dark-red and dark reddish-brown, compact silty clay that has subangular blocky structure. The substratum is soft, weathered rock. The surface layer is strongly acid. The subsoil is slightly acid to neutral.

Permeability is moderately rapid. Runoff is slow, and the erosion hazard is no more than slight. The available water capacity is about 1.5 inches per foot of soil. In places roots penetrate to a depth of 5 feet or more.

Representative profile: Island of Kauai, lat. 21°59'06.7" N and long. 159°21'50" W.

Ap1-0 to 6 inches, dusky-red (2.5YR 3/2) silty clay, yellowish red (5YR 4/6) when dry; cloddy breaking to weak, fine and medium, subangular blocky structure; very hard, firm, sticky and plastic; abundant roots; common very fine and fine pores; many black concretions; strong effervescence with hydrogen peroxide; strongly acid; abrupt, smooth boundary, 4 to 8 inches thick.

Ap2-6 to 12 inches, dusky-red (2.5YR 3/2) silty clay, yellowish red (5YR 4/6) when dry; massive; very hard, friable, sticky and plastic; many roots; many very fine and fine pores; many, very fine, black concretions; strong effervescence with hydrogen peroxide; strongly acid; abrupt, smooth boundary, 4 to 8 inches thick.

B21-2 to 24 inches, dark reddish-brown (2.5YR 3/4) silty clay, red (2.5YR 4/5) when dry; moderate, medium to very fine, subangular blocky structure; hard, friable, sticky and plastic; abundant roots; many very fine and fine pores; many, fine, black concretions; moderate effervescence with hydrogen peroxide; nearly continuous glaze on ped surfaces, glaze looks like clay films; slightly acid; clear, broken boundary, 7 to 10 inches thick.

B22-21 to 27 inches, dark reddish-brown (2.5YR 3/4) silty clay, red (2.5YR 4/5) when dry; strong, very fine, subangular blocky structure; very hard, friable, sticky and plastic; many roots; many very fine and fine pores; nearly continuous glaze on ped faces; common, black concretions; weak effervescence with hydrogen peroxide; low, fine, black, manganese dioxide stains on ped faces; neutral; clear, smooth boundary, 5 to 6 inches thick.

B23-27 to 48 inches, dark reddish-brown (2.5YR 3/4) silty clay, red (2.5YR 4/5) when dry; strong, very fine, subangular and angular blocky structure; hard, firm, sticky and plastic; few roots; many very fine and fine pores; continuous glaze on ped faces, glaze looks like thick clay films; superimposed on the glaze is dark-red (10R 3/5) material that looks like pseudosand and under magnification, large, black coatings on primary structural units; neutral; gradual, smooth boundary, 15 to 30 inches thick.

B24-48 to 60 inches, dark-red (2.5YR 3/6) silty clay, red (2.5YR 4/5) when dry; strong, very fine, subangular and angular blocky structure; hard, firm, slightly sticky and plastic; no roots; many very fine and fine pores; thin, patchy coatings that look like clay films; many distinct pressure cutans; ped surfaces have superimposed on them stringy, dark-red (10R 3/5) pseudosand or frost-like coatings; this condition is more prevalent than in the B23 horizon; neutral.

The A horizon ranges from 10R to 5YR in hue, from 2 to 3 in chroma, and from 2 to 3 in value. The B horizon ranges from 10R to 2.5YR in hue and from 4 to 5 in chroma.

This soil is used for sugarcane, pineapple, pasture, truck crops, orchards, wildlife habitat, and homesites. (Capability classification IIe, irrigated or nonirrigated; sugarcane group 1; pineapple group 5; pasture group 5; woodland group 5)

**Lihue silty clay, 8 to 15 percent slopes (LhC).**

On this soil, runoff is slow and the erosion hazard is slight. This soil is used for sugarcane, pineapple, pasture, truck crops, orchards, wildlife habitat, and homesites. (Capability classification IIe, irrigated or nonirrigated; sugarcane group 1; pineapple group 6; pasture group 5; woodland group 5)

**Lihue silty clay, 15 to 25 percent slopes (LhD).**

On this soil, runoff is medium and the erosion hazard is moderate. This soil is used for sugarcane, pineapple, pasture, wildlife habitat, and woodland. (Capability classification IVe, irrigated or nonirrigated; sugarcane group 1; pineapple group 6; pasture group 5; woodland group 5)

**Lihue silty clay, 25 to 40 percent slopes, eroded (LhE2).**

This soil is similar to Lihue silty clay, 0 to 8 percent slopes, except that the surface layer is thin. Runoff is rapid, and the erosion hazard is severe.

This soil is used for pasture, woodland, and wildlife habitat. Small areas are used for pineapple and sugarcane. (Capability classification VIe, nonirrigated; pasture group 5; woodland group 5)

**Lihue gravelly silty clay, 0 to 8 percent slopes (LIB).**

This soil is similar to Lihue silty clay, 0 to 8 percent slopes, except that it contains ironstone-gibbsite pebbles and has brighter colors in the B horizon. Included in mapping in the Eleele area and north of the town of Hanamaulu were small areas of soils that have a dark yellowish-brown, friable subsoil.

This soil is used for sugarcane, pasture, and homesites. (Capability classification IIe, irrigated or nonirrigated; sugarcane group 1; pineapple group 5; pasture group 5; woodland group 5)

**Lihue gravelly silty clay, 8 to 15 percent slopes (LIC).**

On this soil, runoff is slow and the erosion hazard is slight. Included in mapping were areas where the slope is as much as 25 percent.

This soil is used for sugarcane, pasture, wildlife habitat, and homesites. (Capability classification IIe, irrigated or nonirrigated; sugarcane group 1; pineapple group 6; pasture group 5; woodland group 5)

**Marsh**

Marsh (MZ) consists of wet, periodically flooded areas covered dominantly with grasses and bulrushes or other herbaceous plants. It occurs as small, low-lying areas along the coastal plains. Water stands on the surface, but marsh vegetation thrives. The water is fresh or brackish, depending on proximity to the ocean. Included in mapping were small areas of mangrove swamp and small areas of open water. (Capability classification VIIIw, nonirrigated)

## Mokuleia Series

This series consists of well-drained soils along the coastal plains on the islands of Oahu and Kauai. These soils formed in recent alluvium deposited over coral sand. They are shallow and nearly level. Elevations range from nearly sea level to 100 feet. The annual rainfall amounts to 15 to 40 inches on Oahu and 50 to 100 inches on Kauai. The mean annual soil temperature is 74° F. Mokuleia soils are geographically associated with Hanalei, Jaucas, and Keaau soils.

In this survey area a poorly drained variant of the Mokuleia series was mapped. This soil, Mokuleia clay loam, poorly drained variant, is described in alphabetical order, along with other mapping units of this series.

These soils are used for sugarcane, truck crops, and pasture. The natural vegetation consists of kiawe, klu, koa haole, and bermudagrass in the drier areas and napiergrass, guava, and joe in the wetter areas.

### Mokuleia clay loam (Mt).

This soil occurs as small areas on the coastal plains. It is nearly level. Included in mapping were small areas of Jaucas soils; small areas of very deep, well-drained soils in drainageways; and small areas of poorly drained clay soils underlain by reef limestone.

In a representative profile the surface layer is very dark grayish-brown clay loam about 16 inches thick. The next layer, 34 to more than 48 inches thick, is dark-brown and light-gray, single-grain sand and loamy sand. The surface layer is neutral in reaction, and the underlying material is moderately alkaline.

Permeability is moderate in the surface layer and rapid in the subsoil. Runoff is very slow, and the erosion hazard is no more than slight. The available water capacity is about 1.9 inches per foot in the surface layer and about 1.0 inches per foot in the subsoil. In places roots penetrate to a depth of 5 feet or more.

Representative profile: Island of Oahu, lat. 21°34'49" N. and long. 158°10'09" W.

Ap-0 to 16 inches, very dark grayish-brown (10YR 3/2) Clay loam, dark grayish brown (10YR 4/2) when dry; moderate, very fine and fine, granular and subangular blocky structure; hard, firm, sticky and plastic; plentiful fine roots; many, very fine and fine, interstitial pores; few, fine and very fine, tubular pores; common wormholes and worm casts; horizon consists of about 25 percent coral sand; slight effervescence with hydrogen peroxide; violent effervescence with hydrochloric acid; neutral; abrupt, wavy boundary. 10 to 16 inches thick.

1Bt1-16 to 22 inches, dark-brown (10YR 4/3) loamy sand, brown (10YR 5/3) when dry; massive; soft, slightly hard, nonsticky and nonplastic; plentiful fine roots; porous; few pieces of reef limestone; horizon consists of about 80 percent coral sand; violent effervescence with hydrochloric acid; moderately alkaline; abrupt, smooth boundary. 6 to 20 inches thick.

1Bt2-22 to 50 inches, light-gray (10YR 7/2), moist and dry, coral sand; single grain; loose when moist or dry, nonsticky and nonplastic; few fine roots; porous; few pieces of coral; violent effervescence with hydrochloric acid; moderately alkaline.

The depth to coral sand ranges from 12 to 30 inches. The A horizon ranges from 10YR to 5YR in hue and from 1 to 3 in value when moist and 3 to 5 when dry. It ranges from 1 to 3 in chroma when moist and 1 to 3 when dry. The 1Bt1 horizon ranges from 10YR to 7.5YR in hue, from 3 to 6 in value when moist and 4 to 7 when dry, and from 1 to 3 in chroma.

This soil is used for sugarcane, truck crops, and pasture. Capability classification IIs if irrigated, VIs if nonirrigated; sugarcane group 1; pasture group 3)

### Mokuleia clay (Mtb).

This soil has a profile like that of Mokuleia clay loam, except for the texture of the surface layer. It is nearly level. Permeability is slow in the surface layer. Workability is difficult because of the slicky, plastic clay.

This soil is used for sugarcane and pasture. (Capability classification IIs if irrigated, VIs if nonirrigated; sugarcane group 1; pasture group 3)

### Mokuleia fine sandy loam (Mr).

This soil occurs on the eastern and northern coastal plains of Kauai. It is nearly level. This soil has a profile like that of Mokuleia clay loam, except for the texture of the surface layer.

Permeability is moderately rapid in the surface layer and rapid in the subsoil. Runoff is very slow, and the erosion hazard is slight. The available water capacity is about 1 inch per foot in the surface layer and 0.7 inch per foot in the subsoil. Included in mapping were small areas where the slope is as much as 8 percent.

This soil is used for pasture. (Capability classification IIs if irrigated, IVs if nonirrigated; sugarcane group 1; pasture group 3)

### Mokuleia loam (Ms).

This soil has a profile like that of Mokuleia clay loam, except that the surface layer is loam and in most places is about 8 inches thick. It is nearly level.

This soil is used for sugarcane, truck crops, and pasture. (Capability classification IIs if irrigated, VIs if nonirrigated; sugarcane group 1; pasture group 3)

### Mokuleia clay loam, poorly drained variant (Mta).

This soil occurs on Kauai. It is nearly level. The soil is poorly drained, and in this way, it differs from other soils of the Mokuleia series. The surface layer is dark brown to black and is mottled.

This soil is used for sugarcane, taro, and pasture. (Capability classification IIIw, irrigated or nonirrigated; sugarcane group 3; pasture group 3)

## Pohakupu Series

This series consists of well-drained soils on terraces and alluvial fans on the islands of Oahu and Kauai. These soils formed in old alluvium derived from basic igneous material. They are nearly level to moderately sloping. Elevations range from 50 to 250 feet. The annual rainfall amounts to 40 to 60 inches. The mean annual soil temperature is 73° F. Pohakupu soils are geographically associated with Alae'oa, Papa'a, and Lihue soils.

These soils are used for sugarcane, pineapple, truck crops, pasture, and homesites. The natural vegetation consists of guava, Christmas berry, Japanese tea, Koa haole, and kikuyugrass.

### Pohakupu silty clay loam, 0 to 8 percent slopes (PKB).

This soil has smooth slopes and occurs on terraces and alluvial fans. The slopes are mainly 3 to 8 percent. Included in mapping were small areas of Alae'oa and Waielua soils and small areas where the slope is as much as 15 percent. Also included on Kauai were small areas where the texture is silty clay and small areas that have a hue of 2.5YR in the subsoil.

In a representative profile the surface layer is dark reddish-brown silty clay loam about 13 inches thick. The subsoil, 40 to more than 60 inches thick, is dark reddish-brown and dark-brown silty clay loam that has angular and subangular blocky structure. The substratum is strongly weathered gravel. The soil is slightly acid to medium acid.

Permeability is moderately rapid. Runoff is slow, and the erosion hazard is slight. The available water capacity is about 1.5 inches per foot of soil. In places roots penetrate to a depth of 5 feet or more.

Representative profile: Island of Oahu, lat. 21°22'53" N, and long. 157°45'16" W.

A<sub>p</sub>-0 to 13 inches, dark reddish-brown (5YR 3/3) silty clay loam, reddish brown (5YR 4/3) when dry; strong, very fine, subangular blocky structure; hard, friable, sticky and plastic; abundant roots; many very fine and fine pores; common worm holes and worm casts; moderate effervescence with hydrogen peroxide; slightly acid; abrupt, smooth boundary. 8 to 13 inches thick.

B<sub>21</sub>-13 to 21 inches, dark reddish-brown (5YR 3/3) silty clay loam, reddish brown (5YR 4/4) when dry; moderate, very fine, subangular blocky structure; hard, friable, slightly sticky and plastic; abundant roots; many, very fine and fine, tubular pores; common, patchy pressure cutans; slight effervescence with hydrogen peroxide; slightly acid; abrupt, smooth boundary. 4 to 9 inches thick.

B<sub>22</sub>-21 to 39 inches, dark-brown (7.5YR 3/4) silty clay loam, brown (7.5YR 4/4) when dry; strong, very fine, blocky and subangular blocky structure; hard, friable, sticky and plastic; plentiful roots; many, very fine and fine, tubular pores; continuous pressure cutans on soil surfaces; few highly weathered pebbles; many black stains in pores and on pads; stains show strong effervescence with hydrogen peroxide; slightly acid; clear, irregular boundary. 4 to 17 inches thick.

B<sub>23</sub>-39 to 59 inches, dark-brown (7.5YR 3/4) silty clay loam, brown (7.5YR 4/4) when dry; strong, very fine, angular and subangular blocky structure; hard, friable, sticky and plastic; few roots; many, very fine and fine, tubular pores; strong, continuous pressure cutans; few highly weathered pebbles; common black stains that effervesce with hydrogen peroxide; slightly acid; clear, irregular boundary. 12 to 20 inches thick.

B<sub>3</sub>-59 to 76 inches, dark-brown (7.5YR 3/4) silty clay loam, brown (7.5YR 4/4) when dry; strong, very fine, angular and subangular blocky structure; hard, friable, slightly sticky and plastic; few roots; many, very fine and fine tubular pores; nearly continuous pressure cutans; few highly weathered pebbles; few, fine, black stains that effervesce with hydrogen peroxide; slightly acid.

Effervescence with hydrogen peroxide ranges from slight to moderate in the upper part of the profile and from slight to none below. The structure in the B horizon ranges from moderate to strong. In places a few boulder cores occur within the lower part of the profile. The A horizon ranges from 2 to 3 in chroma and value when moist. The B horizon ranges from 7.5YR to 5YR in hue and from 3 to 4 in chroma and value when moist.

This soil is used for pasture, truck crops, and homesites on Oahu and for sugarcane and pineapple on Kauai. (Capability classification IIe if irrigated, IIIe if nonirrigated; sugarcane group 1; pasture group 6; woodland group 5)

### Pohakupu silty clay loam, 8 to 15 percent slopes (PkC).

On this soil, runoff is slow to medium and the erosion hazard is slight to moderate. Workability is slightly difficult because of the slope.

Included in mapping were small areas where the surface layer and part of the subsoil have been removed. Also included, near the drainageways, were areas where the slope ranges from 15 to 25 percent.

This soil is used for pasture. (Capability classification IIIe, nonirrigated; sugarcane group 1, pasture group 6; woodland group 5)

## Puhi Series

This series consists of well-drained soils on uplands on the island of Kauai. These soils developed in material derived from basic igneous rock. They are nearly level to steep. Elevations range from 175 to 500 feet. The annual rainfall amounts to 60 to 80 inches. The mean annual soil temperature is 73° F. Puhi soils are geographically associated with Lihue and Kapaa soils.

These soils are used for sugarcane, pineapple, truck crops, orchards, pasture, woodland, wildlife habitat, water supply, and homesites. The natural vegetation consists of guava, Java plum, pangolagrass, kikuyugrass, elephantopus, joe, yellow fogtail, and rhodomlytus.

### Puhi silty clay loam, 0 to 3 percent slopes (PnA).

This soil is on broad interfluvies on the uplands.

In a representative profile the surface layer is brown silty clay loam about 12 inches thick. The subsoil, about 48 inches thick, is reddish-brown and dark reddish-brown silty clay loam and silty clay that has subangular blocky structure. The substratum is silty clay. The surface layer is very strongly acid. The subsoil is slightly acid to medium acid.

Permeability is moderately rapid. Runoff is very slow, and there is no erosion hazard. The available water capacity is about 1.3 inches per foot of soil. In places, roots penetrate to a depth of 5 feet or more.

Representative profile: Island of Kauai, lat. 22°01'14" N. and long. 159°23'8.1" W.

A<sub>0</sub>-0 to 12 inches, brown (10YR 4/3) silty clay loam, brown (10YR 4/3) when rubbed, yellowish brown (10YR 5/4) when dry; moderate, very fine, subangular blocky structure; hard, friable, slightly sticky and slightly plastic; abundant roots; many, very fine and fine, tubular pores and common interstitial pores; many gritty particles that are hard to break down; delayed fluorescence with hydrogen peroxide; very strongly acid; abrupt, wavy boundary. 11 to 14 inches thick.

B<sub>21</sub>-12 to 21 inches, reddish-brown (5YR 4/4) silty clay loam, yellowish red (5YR 4/6) when dry; weak, very fine and fine, subangular blocky structure; hard, friable, slightly sticky and slightly plastic; plentiful fine and very fine roots; many very fine pores and common fine pores; nearly continuous, shiny glaze on ped; patchy coatings that look like clay films on some peds; medium acid; gradual, smooth boundary. 7 to 11 inches thick.

B<sub>22</sub>-21 to 33 inches, dark reddish-brown (5YR 3/4) silty clay loam, yellowish red (5YR 4/6) when dry; common black specks; moderate, very fine and fine, sub angular blocky structure; hard, friable, slightly sticky and slightly plastic; plentiful fine and very fine roots; many very fine pores and common fine pores; nearly continuous, shiny glaze on peds; patchy coatings that look like clay films on some peds; shingly coatings of stronger chroma; slightly acid; gradual, smooth boundary. 10 to 14 inches thick.

B<sub>23</sub>-33 to 41 inches, dark reddish-brown (2.5YR 3/4) silty clay loam, yellowish red (5YR 4/6) when dry; moderate, very fine, subangular blocky structure; hard, friable, slightly sticky and plastic; few very fine roots; many very fine pores and common medium pores; continuous, shiny glaze on peds; patchy coatings that look like clay films on peds; many shiny particles; many, very fine, black specks; medium acid; gradual, smooth boundary. 8 to 9 inches thick.

B<sub>24</sub>-41 to 93 inches, dark reddish-brown (5YR 3/3) silty clay, yellowish red (5YR 4/6) when dry; strong, very fine and fine, subangular blocky structure; hard, firm, sticky and plastic; few very fine roots; many very fine and fine pores and common medium pores; continuous, shiny glaze on peds; many, very fine, black specks and shiny particles; medium acid.

The A horizon ranges from 7.5YR to 10YR in hue, from 2 to 4 in value, and from 2 to 4 in chroma. The B horizon ranges from 2.5YR to 7.5YR in hue, from 3 to 4 in value, and from 3 to 4 in chroma.

This soil is used for sugarcane, pineapple, orchards, truck crops, pasture, and homesites. (Capability classification IIs, irrigated or nonirrigated; sugarcane group 1; pineapple group 4; pasture group 8; woodland group 7)

### Puhi silty clay loam, 3 to 8 percent slopes (PnB).

On this soil, runoff is slow and the erosion hazard is slight. This soil is used for sugarcane,

pineapple, orchards, pasture, truck crops, and homesites. (Capability classification IIs, irrigated or nonirrigated; sugarcane group 1; pineapple group 5; pasture group 8; woodland group 7)

### Puhi silty clay loam, 8 to 15 percent slopes (PnC).

On this soil, runoff is slow and the erosion hazard is slight. This soil is used for sugarcane, pineapple, pasture, and orchards. (Capability classification IIs, irrigated or nonirrigated; sugarcane group 1; pineapple group 6; pasture group 8; woodland group 7)

### Puhi silty clay loam, 15 to 25 percent slopes (PnD).

On this soil, runoff is medium and the erosion hazard is moderate. Included in mapping were small, eroded areas.

This soil is used for sugarcane, pineapple, orchards, pasture, woodland, wildlife habitat, and water supply. (Capability classification IVe, irrigated or nonirrigated; sugarcane group 1; pineapple group 6; pasture group 8; woodland group 7)

### Puhi silty clay loam, 25 to 40 percent slopes (PnE).

On this soil, runoff is rapid and the erosion hazard is severe.

This soil is used for pasture, woodland, wildlife habitat, and water supply. (Capability classification VIe, nonirrigated; pasture group 8; woodland group 7)

### Rough Broken Land

Rough broken land (rRR) consists of very steep land broken by numerous intermittent drainage channels. In most places it is not stony. It occurs in gulches and on mountainsides on all the islands except Oahu. The slope is 40 to 70 percent. Elevations range from nearly sea level to about 8,000 feet. The local relief is generally between 25 and 500 feet. Runoff is rapid, and geologic erosion is active. The annual rainfall amounts to 25 to more than 200 inches.

These soils are variable. They are 20 to more than 80 inches deep over soft, weathered rock. In most places some weathered rock fragments are mixed with the soil material. Small areas of rock outcrop, stones, and soil slips are common. Included in mapping were areas of colluvium and alluvium along gulch bottoms.

This land type is used primarily for watershed and wildlife habitat. In places it is used also for pasture and woodland. The dominant natural vegetation in the drier areas consists of guava, lantana, Natal redtop, bermudagrass, koa haole, and molassesgrass. Ohia, kukui, koa, and ferns are dominant in the wetter areas. Puakeawe, aalii, and sweet vernalgrass are common at the higher elevations. (Capability classification VIIe, nonirrigated)

**Exhibit "D"**

**LSB Map 100**



Land Classification Map  
 First issued 1967

**LAND CLASSIFICATION SYMBOLS:**  
 Master Productivity Rating  
 Land Type Number and Name  
 Number only if privileged. See sections of text where Land Types are defined and listed by selected uses.



USGS Grid Reference  
 Approximate Scale (1 inch = Ground Distance 6 miles)  
 Data Sources: U.S. Dept. of Agriculture, A.S.C.S.  
 LAND STUDY BUREAU - UNIVERSITY OF HAWAII

**Kapaa Highlands Agricultural Master Plan  
 June 1, 2007**

**Exhibit "E"**

**LSB Map 107**

DETAILED LAND CLASSIFICATION-ISLAND OF HAWAII

Map No.

EKP-1CC-90



Land Classification data  
from 1952

**LAND CLASSIFICATION SYMBOLS:**

Master Property Rights  
Land Type, Number and letter, if assigned,  
number 100, if assigned. (See sections of  
text where Land Types are defined and listed  
in selected uses.)



North

**U.S.G. Grid References:**

Approximate Scale (1:100,000) - Ground Elevation

Source: Photographs - U.S. Dept. of Agriculture, & S.S.S.

LAND STUDY BUREAU UNIVERSITY OF HAWAII

Kapaa Highlands Agricultural Master Plan  
June 1, 2007

**Exhibit "F"**  
**Economics For Goats**

EXHIBIT "E"

Kapaa Highlands Agricultural Master Plan  
June 1, 2007

**Economics for Goats**

01-Jun-07

<u>General Assumptions</u>	<u>Ratio</u>	<u>Units</u>
Acreage		102
Animal units per acre		3.5
Total animal units (AU)		357
Breeding herd :		206
Bucks (1)	3%	6
Does (30)	97%	200
Kids per doe per year	1.5	300
Total animal units (AU)		356

Note: Bucks & Does = 1 AU each, Kids = 1/2 AU each.

<u>Annual Revenue from Goat Sales:</u>	<u>Ratio</u>	<u>Units</u>	<u>Unit Price</u>	<u>Annual Revenue</u>
Local Kauai Sales	75%	225	\$ 180	\$ 35,968
Honolulu Sales (FOB Linue)	25%	75	\$ 140	\$ 10,481
Totals		300		\$ 46,458

<u>Expense:</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Fixed Cost</u>	<u>Annual Cost</u>
<b>Labor:</b>				
Part-time labor (hours)	520	\$ 15.00	\$	7,800
<b>Feed:</b>				
Barley-Corn (per head)	206	\$ 2.90	\$	597
<b>Minerals:</b>				
Mineral block (per head)	206	\$ 12.00	\$	2,472
<b>Veterinary Supplies:</b>				
Worming (per head)	206	\$ 1.20	\$	247
<b>Water:</b>				
Annual requirement (3 gallons per head per day)	206	\$ 2.03	\$	417
<b>Repair &amp; Maintenance:</b>				
Repair fences, gates, water system			\$ 1,200	\$ 1,200
Vehicle - Repair, Maintenance and Fuel			\$ 2,000	\$ 2,000
<b>Hauling Goats (per head):</b>	206	\$ 0.70		\$ 144
Total Direct Costs				\$ 14,878
<b>Overhead:</b>				
Lease Rent (unit cost per acre per year)		\$ 35.00		\$ 3,570
Administration			\$ 500	\$ 500
Management			\$ 5,000	\$ 5,000
Other			\$ 250	\$ 250
Total Overhead				\$ 9,320
<b>Net Operating Profit (Loss)</b>				\$ 22,260

**Exhibit D**

**Department of Water, Kaua'i County  
Manger's Report 12-10**

MANAGER'S REPORT 12-10:

July 21, 2011

**Re: Kapaa Highland Request**

RECOMMENDATION:

Your concurrence is requested to allow the staff to enter into an agreement in accordance with Part III Section XII of the rules with Kapaa Highland subject to county attorney concurrence. This exchange should be on a dollar for dollar basis not gallon for gallon.

BACKGROUND:

The developer is proposing the following exchange: the developer will give the DOW undeveloped water and in return, the DOW will provide the developer with storage for the developer's project; both will be built to department standards.

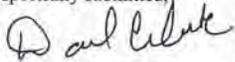
The project has a large portion of land that shows in the community plan to be affordable housing though not currently zoned as such. I have checked with the county housing department and the Mayor's office and both want to see the affordable housing go forward. This concurrence is verbal.

The planned storage for planned water exchange will allow this project to move forward when other developments have been stopped due to inadequate storage. There appears to be an overall county benefit and the implementation would be subject to finally getting the storage and source completed.

Our storage project is scheduled to be completed in 3-4 years. The source development could be sooner. The issue with this proposal is wells in different locations have different yields and DOW storage is only subject to available funds.

The developer has drilled a well and tested it. The well is too crooked to be used as a normal source of water and have to be redrilled in another location. The next one may not provide the same yield. It is low enough risk that this is being recommended.

Respectfully submitted,



David R. Craddick, P.E.  
Manager and Chief Engineer



*Water has no substitute.....Conserve it*

August 22, 2011

Mr. Gregg Allen  
161 Wailua Road  
Kapaa, HI 96746

Dear Mr. Allen:

Subject: Water Master Plan for the Kapa'a Highlands Project on TMK: 4-3-03:001

At the Department of Water, Water Board July 28<sup>th</sup> 2011 meeting, via Managers Report 12-10, in response to your letters of April 22, 2011 and May 11, 2011, accepted the proposed exchange of source for storage on a dollar for dollar basis. This acceptance is based on your commitment to proceed with zoning changes in your development to match the county zoning. That zoning change requires affordable housing in certain portions of your proposed development.

This acceptance is based on building permits and County water meter service not being issued if the source and storage requirements have not been completed as of the date of requested building permit approval. We ask that you submit a proposed draft of an agreement to memorialize this action. We would expect that this agreement runs with the land.

If you have any questions, please contact Mr. Gregg Fujikawa at (808) 245-5416.

Sincerely,



David R. Craddick, P.E.  
Manager and Chief Engineer

GF/WE:bdm  
Bill/Gregg Allen Response Letter/July Board Mtg.

**Exhibit E**  
**Irrigation Supply For the Kapa'a Highlands Agricultural**  
**Subdivision**  
**Water Master Plan**



No. of pages: 8  
Email: gallen@harbormail.net

Original  will  will not  
be mailed to you.

October 27, 2006  
06-281 (05-41)

**MEMORANDUM**

**TO:** Greg Allen  
**FROM:** Tom Nance  
**SUBJECT:** Irrigation Supply for the Kapa'a Highlands Agricultural Subdivision

**Introduction**

This memo report assesses the feasibility of developing an onsite well (or wells) to provide the necessary irrigation supply for the Kapa'a Highlands Agricultural Subdivision. The total area of the project is 163 acres. Wagner Engineering Services, Inc. has determined that up to 113 acres of the site is suitable for agricultural use (Figure 1). The Kauai Department of Water (DOW) standards require an average supply for irrigation for 2500 GPD/acre. For 113 acres, this translates to a year-round average of 0.283 MGD. Applying a maximum seasonal use factor of 1.5 results in a required summertime supply capability of 0.424 MGD (equivalent to 295 GPM operating continuously).

**Results of an Onsite Exploratory Borehole**

To investigate the possibility of providing the irrigation supply with an onsite well or wells, an exploratory borehole was drilled and pump tested. The location of this exploratory borehole is shown on Figures 1 and 2. Ground elevation at the well site is 25 feet. It was drilled to a depth of 260 feet or 235 feet below sea level. During the course of drilling, two separate aquifers were encountered. The upper aquifer has a static water level of about 19 feet above sea level (MSL) and it extends to a depth of about 80 feet (ie. to 55 feet below sea level). It has very limited yield (less than 30 GPM) as it is essentially a collection of water in the soil mantle perched on poorly permeable Koloa lavas beneath it.

The strata between 80- and 210-foot depth are poorly permeable and function as an aquiclude separating the upper and lower aquifers. The lower aquifer, which starts at 210-foot depth and extends below the 260-foot depth of the exploratory borehole, has a static water level about 13 feet (MSL). This lower aquifer is quite productive.

A pump test was run at my direction to define the potential yield and quality of water from the lower aquifer. Using a combination of casing and grout, water from the upper aquifer was sealed off for this test. Results of the 12-hour test conducted on October 19, 2006 are presented on Figures 3, 4, and 5. A series of flowrate steps were run initially to define hydraulic performance (Figure 3). Using a curve

fitting technique, these results define expectable drawdown for a range of pumping rates (Figure 4). For example, at 500 GPM, the drawdown would be 7.5 feet.

The remainder of the 12-hour test was run at 550 GPM to see if any salinity change would occur. These results are shown on Figure 5 and Table 1. The salinity (as measured by conductivity) actually decreased for the first two hours and stabilized after that. Chlorides of just 53 MG/L demonstrate that the water is quite fresh and obviously suitable for irrigation use.

**Conclusions and Recommendations Regarding the Irrigation Supply**

1. Results of the exploratory borehole demonstrate that an adequate irrigation supply for the Agricultural Subdivision can be developed from a single onsite well located in the near proximity of the exploratory borehole.
2. The finished dimensions of the production well should be based on the following:
  - a. A 17-inch borehole should be drilled to 300-foot depth.
  - b. 220 feet of 8-inch solid casing and 80 feet of 8-inch perforated casing should be installed in the borehole.
  - c. The annular space from 220 feet to the ground surface should be sealed with cement grout.
  - d. Final pump testing at rates up to 550 GPM should be conducted to confirm the well's yield.
3. A companion report by ITC Water Management describes the delivery components of the irrigation system based on the following:
  - a. A 7.5 horsepower, 450 GPM submersible pump and motor should be installed in the well at a depth of 30 to 40 feet.
  - b. The well pump should deliver water to an adjacent storage tank of at least 30,000 gallons in size. Well pump cycles would be controlled by a level switch in the tank.
  - c. An on-demand pump station of up to 600 GPM capacity should be installed next to the tank to draw water from the tank and deliver it to users in the agricultural subdivision.

Attachments

**Specific Conductance and Chlorides of Samples  
 Collected During the 12-Hour Pump Test on October 19, 2006**

Sample Time	Pumping Rate ( GPM )	Specific Conductance ( $\mu\text{S/cm @ } 25^\circ \text{ C. } $ )	Chlorides ( MG/L )
10:05	317	468	55
10:30	317	449	54
11:00	438	440	54
11:30	529	436	53
12:00	528	432	53
13:00	527	430	53
14:00	527	429	53
15:00	527	429	53
16:00	528	429	53
17:00	529	428	53
18:00	531	429	53
19:00	532	430	53
20:00	533	431	53
21:00	533	431	53
22:00	533	431	53

- Notes:
1. Specific conductance measured in the TNWRE office using a HACH Sension5 meter calibrated with a 12.88 mS/cm standard.
  2. Chlorides determined by mercuric nitrate titration in the TNWRE office. Samples were diluted 10 fold.

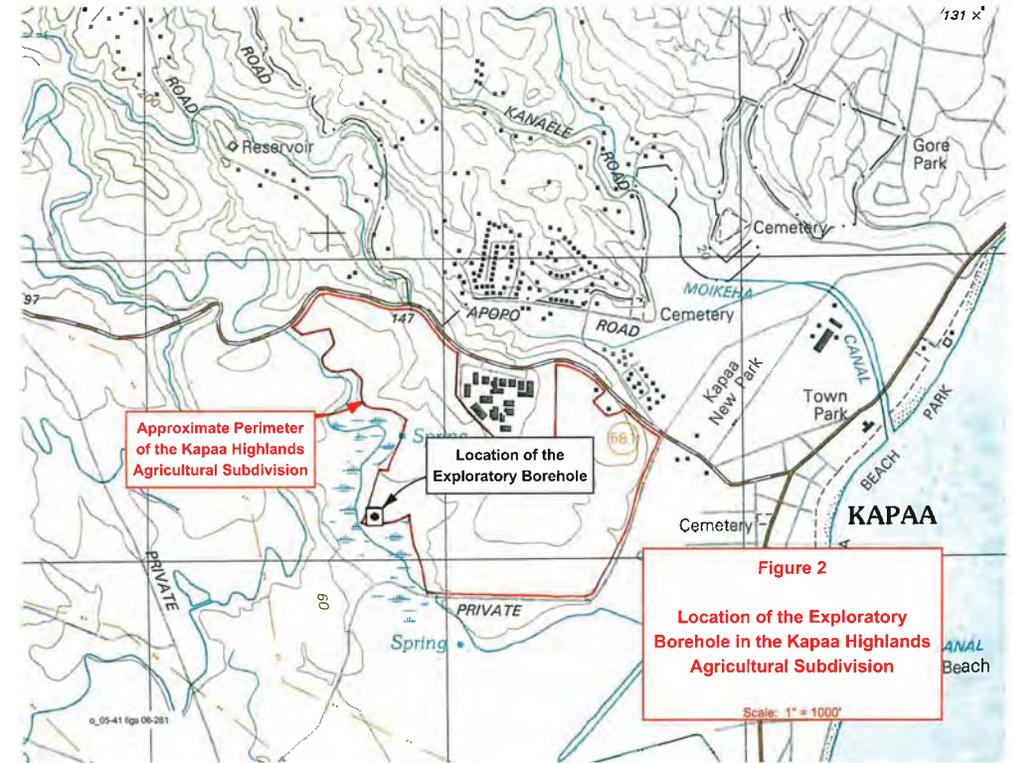
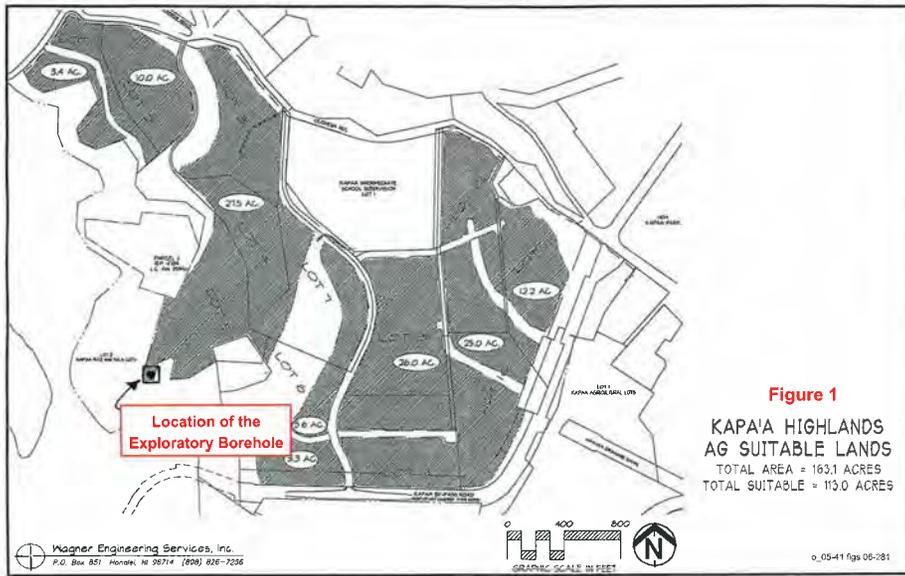


Figure 3. Pumping Rate and Water Level During the 12-Hour Test

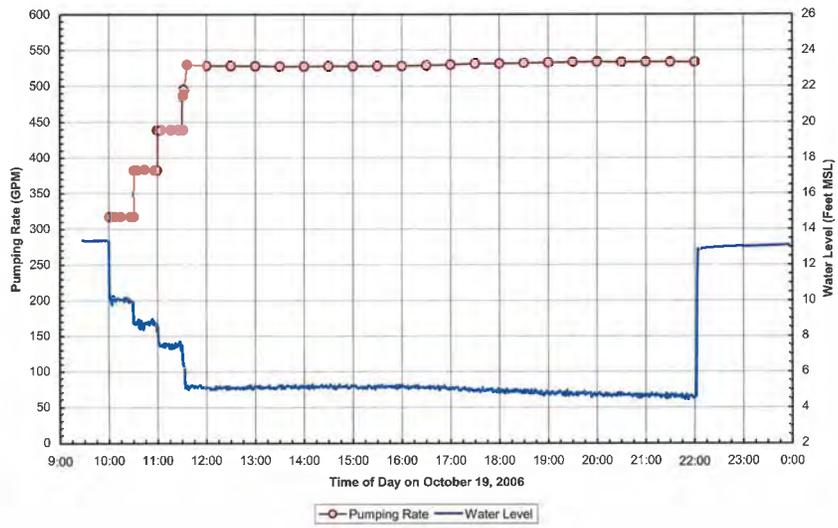


Figure 4. Hydraulic Performance of the Well Based on Step Test Data

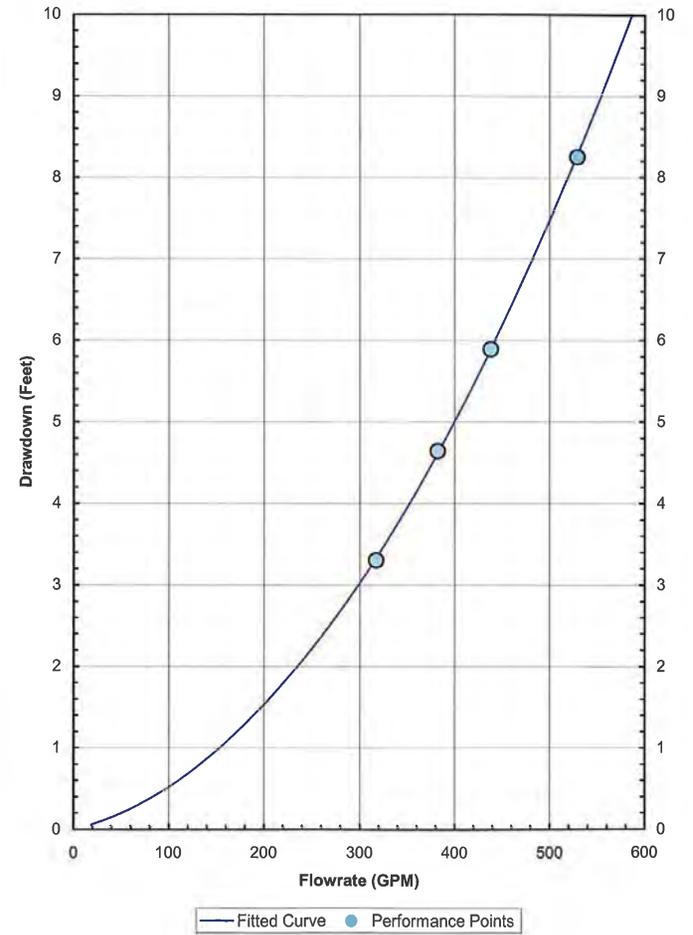


Figure 5. Pumped Water Conductivity through the 12-Hour Test

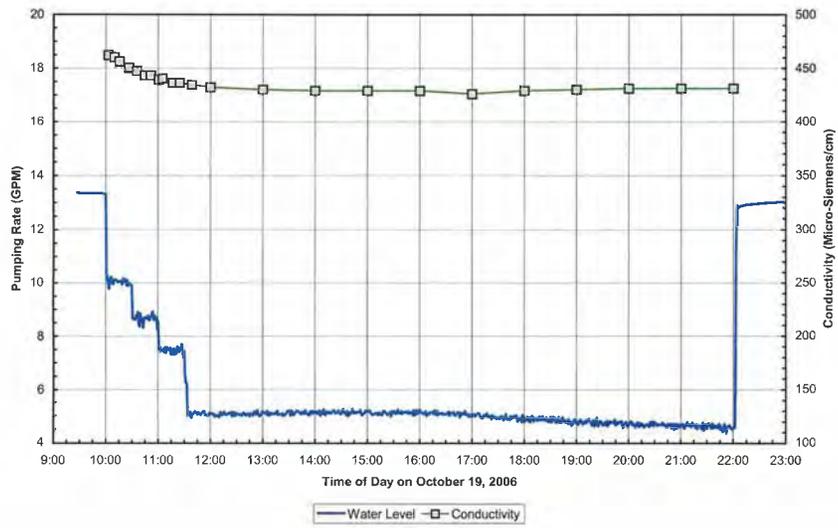


Exhibit E - Part 2

Private Water System

**BELLES GRAHAM PROUDFOOT  
WILSON & CHUN, LLP**  
ATTORNEYS AT LAW

MICHAEL J. BELLES  
MARK W.J. GRAHAM, III  
DONALD H. WILSON  
JONATHAN J. CHUN  
Federal I.D. No. 95-033360

WATUMULL PLAZA  
4334 RICE STREET, SUITE 202  
LIHUE, KAUAI, HAWAII 96766-1388

TELEPHONE NO: (808) 245-4705  
FACSIMILE NO: (808) 245-3277  
E-MAIL: [mail@kauai-law.com](mailto:mail@kauai-law.com)

OF COUNSEL  
DAVID W. PROUDFOOT  
COUNSEL  
LORNA A. NISHIMITSU

October 2, 2012

Mr. David R. Craddick  
Manager & Chief Engineer  
Department of Water  
County of Kauai  
P. O. Box 1706  
Lihue, Kauai, Hawaii 96766

VIA EMAIL & HAND DELIVERY

Re: **Kapaa Highlands Subdivision (S-99-45)  
(fna Kōlana Kai/Kauai Highlands)  
Subdivision Of Parcel 1 Being A Portion Of  
Grant 5266 To Rufus P. Spalding into Lots 1 To 18, Inclusive  
Kapaa and Waipouli, Kauai, Hawaii  
Kauai Tax Map Key No. (4) 4-3-003:001 (por.)  
Owner: Allen Family LLC; Molooa Bay Ventures, LLC; and  
The Three Stooges LLC**

Dear Mr. Craddick:

I am writing to you on behalf of the above-identified applicants ("Applicants") in the Kapaa Highlands Subdivision matter ("Subdivision"). In lieu of obtaining water for the Subdivision from the public water system operated by the Department of Water ("Department"), the Applicants have decided to construct an on-site private water system ("PWS").

The PWS is described in an enclosed Memorandum dated September 12, 2012 prepared by Tom Nance of Tom Nance Water Resource Engineering ("Nance Report"). The essential design specifications are described below.

A. Private Water System.

1. The Applicants will construct a well ("Well") and two storage tanks ("Tanks") on-site.
2. The Well will be located along the south boundary of Lot 5, as shown in Figure 3 of the Nance Report.

Mr. David R. Craddick  
Manager & Chief Engineer  
Department of Water  
October 2, 2012  
Page 2

3. The Storage Tanks will be located on the north boundary of Lot 3, as shown in Figure 3 of the Nance Report.

4. The Well design is shown on Figure 2 of the Nance Report. The Well will be twelve (12) inches in diameter and operated by two identical 100 gallons per minute ("GPM") pumps, each driven by 7.5 horsepower motors. The first pump will supply the needs of the Subdivision, which is 97,310 gallons per day ("GPD") maximum day use, and the second will serve as a standby pump.

5. Based on the water needs for 50 farm dwelling units, the total maximum day demand is 93,750 GPD. The two 50,000 gallon Tanks will be adequately sized to provide necessary storage plus fire flowrate protection. The Tanks will be lined with bolted steel with reinforced concrete base and passive cathodic protection (zinc anode rods).

6. The pipelines ("Pipelines") for the PWS will be sized to provide: fire flowrate with coincident maximum day demand and a minimum residual pressure of 20 psi (velocities not exceeding 10 fps); and peak flowrate with minimum residual pressure of 40 psi (maximum velocity in Pipelines of 6 fps). NSF-approved, high density polyethylene (HDPE), pipes will be used for the PWS. The Pipeline system is shown on Figure 3 of the Nance Report.

7. Pursuant to the Agricultural Master Plan submitted in this matter, the agricultural activities in the Subdivision will be limited to a goat raising operation ("Goat Project"). The Goat Project will require minimal water (at the most, 3,560 GPD), which will be supplied by the PWS.

8. The on-site Tank elevations will not provide adequate gravity pressure to meet the Department's delivery pressure requirements. Providing the necessary pressure would be done with parallel domestic and fire flowrate pumping systems with a generator to provide back power. These pump systems would provide up to 70 GPM for peak domestic use and 500 GPM for the fire flowrate condition. Both pumping systems would be sized to produce a total dynamic head of 110 feet, in effect creating a single, 270-foot service pressure zone across the entire project site.

B. Modification Of Requirements.

The Applicants are requesting the Department and/or the Board of Water Supply ("Water Board") to grant a modification from the Department's Water System Standards for the PWS as follows:

Mr. David R. Craddick  
Manager & Chief Engineer  
Department of Water  
October 2, 2012  
Page 3

1. DOW Rule Part 3, Section XII, provides as follows:

**"SECTION XII – MODIFICATION OF REQUIREMENTS**

When conditions pertaining to any subdivision are such that the public may be properly served with water and with fire protection without full and strict compliance with these rules and regulations, or where the subdivision site or layout is such that the public interest will be adequately protected, such modification thereof as is reasonably necessary or expedient, and not contrary to law or the intent and purposes of these rules and regulations, may be made by the Department."

2. As part of the Subdivision in this case, the Applicants propose to have water for potable, fire, and agricultural uses for the Subdivision supplied by the PWS.

3. The PWS does not comply strictly with all of the Department's Water System Standards ("DOW Standards") which typically apply to the DOW's public water systems. These differences are set forth in the enclosed Comparison Of Kapaa Highlands PWS With DOW Water System Standards.

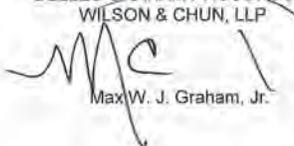
4. The Applicants are requesting the Department and/or the Water Board to find that the PWS will properly serve the water and fire protection needs of the Subdivision without full and strict compliance with the DOW Standards; that, given the fact that the Subdivision will be served by the PWS, the public interest will be adequately protected by the PWS; that the differences between the PWS and the DOW Standards are, under all of the circumstances of this case, reasonably necessary and expedient, and that such differences are not contrary to the law or the intent or purposes of the DOW Rules.

Based on the above, the Applicants are requesting the Department and/or the Water Board to approve the proposed PWS for the Subdivision, together with the requested modifications. In the event this matter needs to be referred to the Water Board, then I am requesting that it be placed on the next available agenda of the Water Board. For these purposes, I have enclosed a Supporting Information For The Board Of Water Supply, County of Kauai in compliance with the Department's requirements for persons wishing to testify at Water Board Meetings.

Mr. David R. Craddick  
Manager & Chief Engineer  
Department of Water  
October 2, 2012  
Page 4

Thank you very much for your consideration of this request.

Sincerely yours,

BELLES GRAHAM PROUDFOOT  
WILSON & CHUN, LLP  
  
Max W. J. Graham, Jr.

MWJG:jgm

Enclosures

cc: Mr. Greg Allen, Jr., w/encls. (via email only)  
Andrea A. Suzuki, Esq., w/encls. (via email only)  
Mr. William Eddy, DOW, w/encls. (via email only)  
Mr. Gregg Fujikawa, DOW, w/encls. (via email only)  
Mr. Dale A. Cua, Staff Planner, w/encls. (via email only)



No. of pages: 7  
 Email: gallen@harboormail.net  
 mwg@kawaii-law.com  
 greg@tnwre.com

Original  will  will not be mailed to you.

September 10, 2012  
 12-177 | 09-12

**MEMORANDUM**

**To:** Greg Allen  
**From:** Tom Nance  
**Subject:** Sizing and Layout of a Private Water System to Supply the Kapaa Highlands Project

**Introduction**

This memo and its attachments present the sizing and layout of major infrastructure elements of a private water system that would be developed to supply the Kapaa Highlands project. The basis of the water system sizing assumes the project would be developed in two phases. Phase 1 would consist of 16 residential units on five lots in an agricultural subdivision. Phase 2 would consist of an urban residential development comprised of 86 SF residential units, 683 MF residential units, and parks (3.1 ac.), church (0.8 ac.), commercial (0.4 ac.), roads (9.4 ac.), and unirrigated open space (14.3 ac.). In the event that land use entitlements are not obtained for the residential development, Phase 2 would consist of 34 residential units on seven lots in an agricultural subdivision.

**Required Water Supply**

Due to the size of the residential lots in the agricultural subdivision, which vary from 1.47 to 6.67 acres in size for the Phase 1 development, an allocation of 2000 GPD as the average demand per residential lot is recommended, a rate which is four times greater than the Kauai Department of Water (DOW) design standard for single family residential units. For the residential subdivision in Phase 2, use of DOW's design criteria is recommended. Based on these recommendations, Tables 1 and 2 are tabulations of the average and maximum day demands for the private water system. Maximum day demand is defined as 1.5 times the average demand, also in accord with DOW design standards.

**Required Water System Capacities**

**Well Supply.** DOW's design criterion for well pumping capacity is to provide the maximum day demand in a 24-hour pumping day with the largest well pump out of service. For Phase 1, this requirement amounts to 48,000 GPD, equivalent to 33 GPM. With the addition of the Phase 2 residential development, this requirement becomes 496,275 MGD, equivalent to 345 GPM. If Phase 2 was limited to the agricultural subdivision, the ultimate well supply requirement would be 150,000 GPD or 104 GPM.

A test well, identified as State No. 0419-05, was drilled and pump tested in October 2006. Over its 260-foot drilled depth, two aquifers were encountered. The upper aquifer can not provide a sufficient source of supply and it is also potentially subject to contamination due to its shallow depth. The lower and confined aquifer was reached at a depth of about 215 feet or 190 feet below sea level. Its piezometric head was about 13 feet above sea level or about 10 feet below ground. Pump testing showed that a properly designed well to exclusively tap this lower aquifer could develop up to 500 GPM of low salinity (chlorides of 55 MG/L), potable quality water. At its depth and overlying confining layers, it is not subject to contamination.

The low ground elevation (about 20 feet), high piezometric head (about 13 feet above sea level), and modest drawdown (3 feet or less at 350 GPM) provide the opportunity to develop one well configured with a pump sump that would enable two pumps to draw from the same well, thereby providing the necessary standby pumping capacity for a stand-alone system with a single well. The recommendation herein is to drill a new 12-inch well to 300-foot depth, complete it with a pump sump as shown on Figure 1, and outfit it with two, 25 horsepower, 350 GPM submersible pumps. Either of the 350 GPM pumps would provide the ultimate maximum demand requirement with the other providing full back-up capacity.

**Reservoir Storage.** With regard to the reservoir storage volume, DOW's two design criteria are appropriate for the private water system: (1) provide the maximum day demand with no credit for well inflow; and (2) provide the fire flowrate with coincident maximum day demand for the duration of the fire with the largest well pump out of service and the reservoir 3/4 full at the start of the fire. For the Phase 1 fire flowrate, DOW's standards require only 250 GPM for one hour. A stricter criterion of 500 GPM for two hours is used herein. Application of the two sizing criteria results in the required storage volumes tabulated below. In all cases, the maximum day sizing criterion governs.

**Summary of Computed Required Reservoir Storage Volumes\***

Design Criteria	Phase 1 Ag Subd.	Phase 2 Residential	Phased 2 Ag Subd.
(1) Maximum Day Demand (Gallons) .....	48,000	496,275	150,000
(2) Fire Flowrate			
▪ Fire Flowrate (GPM) .....	500	2000	500
▪ Fire Duration (Hours) .....	2	2	2
▪ Coincident Max. Demand (GPM) .....	33	345	104
▪ Well Inflow Credit (GPM) .....	350	350	350
▪ Required Storage Volume (Gallons) .....	29,280	319,200	40,640

\*Phase 2 storage volumes include the Phase 1 requirement.

Based on the foregoing calculations, the recommended reservoir storage is as follows:

- For Phase 1, a 50,000-gallon storage tank would be installed.
- For the Phase 2 residential project, a second tank of 500,000-gallon capacity would be installed.
- In the event that Phase 2 consists of the 34 SF residential units in an agricultural subdivision, the second tank would be 100,000 gallons.
- All storage tanks would be lined and bolted steel with a concrete floor and passive cathodic protection.
- The tanks would be located at the project's highest elevation which is adjacent to residential Lot 7 in Phase 1. The Phase 1 and Phase 2 tanks would have identical floor and spillway elevations of 142 and 160 feet, respectively.
- Except at the project's lowest elevations, pumped delivery from the storage tanks will be necessary to provide adequate delivery pressures and fire flowrates. These pumping requirements are described in the section following.

Pumped Delivery for the Distribution System. DOW's design criteria for required delivery pressures are appropriate for this private water system. These are: (1) to provide a minimum of 40 psi residual pressure during the peak flowrate condition, with peak flowrate defined as three times the average demand; and (2) to provide a minimum 20 psi residual pressure at the critical hydrant during fire flowrate at that hydrant and coincident maximum day demand throughout the system.

The onsite storage reservoir elevations will not provide adequate gravity pressure to meet either of these criteria. In each development phase, this will require parallel domestic and fire flowrate pumping systems with a generator to provide back up power. For Phase 1, the pump systems would provide up to 70 GPM for peak domestic use and a 500 GPM fire pump. For the Phase 2 residential development, the domestic pumping capacity would be increased to 700 GPM and the fire pump to 2000 GPM. All pumping systems would be sized to produce a total dynamic head of 110 feet, in effect creating a single, 270-foot service pressure zone across the entire project site.

#### Water System Layout

Figure 2 illustrates all of the water system components described above with the assumption that Phase 2 would consist of the 769-unit residential development. By development phase, these would consist of:

- Phase 1**
  - 12-inch, 300-foot deep well, pump sump, and two 350 GPM pumps in the pump sump located at the makai end of the Phase 1 development area.
  - A dedicated 8-inch transmission pipeline from the well pumps to the storage reservoir.
  - A 50,000-gallon storage tank.
  - Parallel domestic and fire flowrate pump systems at the storage tank with backup generator power.
  - A distribution pipeline loop consisting of 12-inch for the section that will also serve Phase 2 and 8-inch for the remainder of the loop.
- Phase 2**
  - No change or additions to the well, well pumps, or transmission pipeline.
  - Second storage tank of 500,000-gallon capacity.
  - Substantial capacity increases for the parallel domestic and fire pumping systems and generator backup power.
  - Distribution pipelines of 12-, 8-, and 6-inch size.

cc: Max Graham [Email Only]  
greg@tnwre.com

Attachments

Table 1  
Average and Maximum Day Demands for the  
Phase 1 Agricultural Subdivision and Phase 2 Residential Development

Development Phase	Land Use	Design Criterion (GPD / Unit)	Average Demand (GPD)	Maximum Demand (GPD)
1	16 SF Residential	2,000	32,000	48,000
2	86 SF Residential	500	43,000	64,500
	683 MF Residential	350	239,050	358,575
	3.1 Ac. Parks	4,000	12,400	18,600
	0.8 Ac. Church	4,000	3,200	4,800
	0.4 Ac. Commercial	3,000	1,200	1,800
Total for Phase 2			298,850	448,275
Total for Both Phases			330,850	496,275

Table 2  
Average and Maximum Day Demands for Development of  
Phases 1 and 2 as Agricultural Subdivisions

Development Phase	Land Use	Design Criterion (GPD / Unit)	Average Demand (GPD)	Maximum Demand (GPD)
1	16 SF Residential	2,000	32,000	48,000
2	34 SF Residential	2,000	68,000	102,000
Total for Both Phases			100,000	150,000

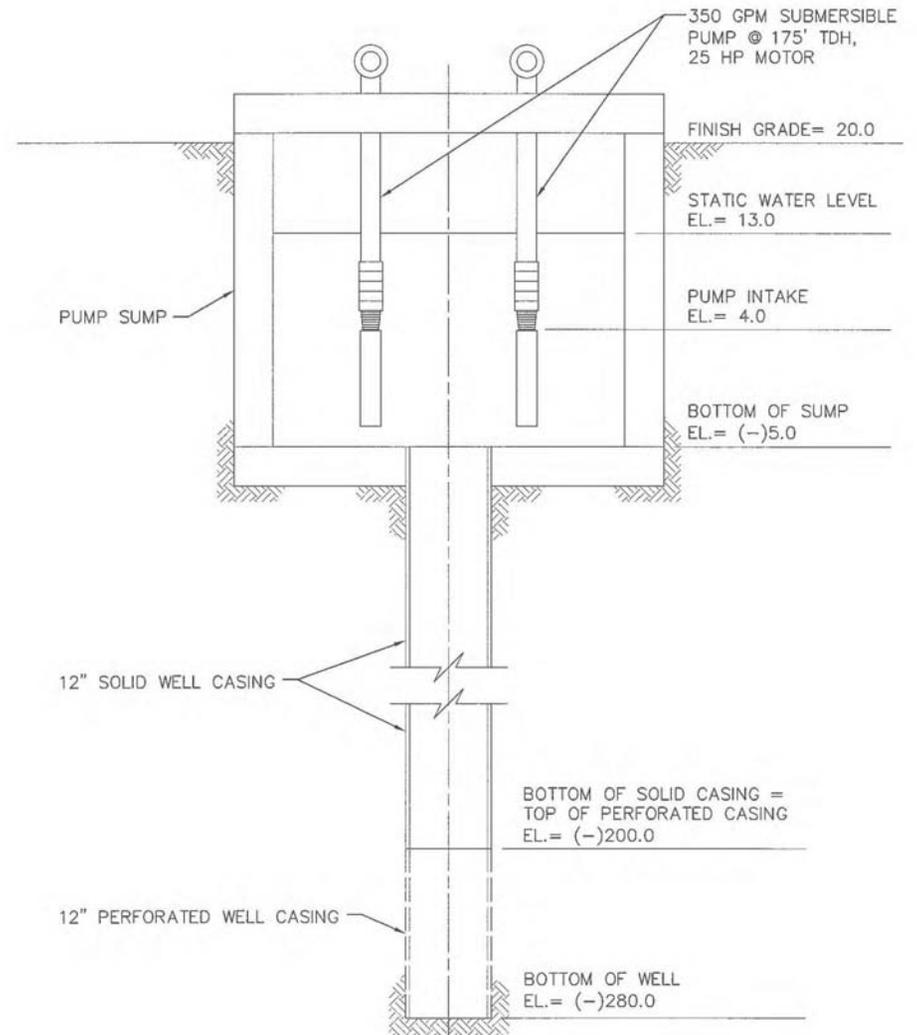


FIGURE 1  
RECOMMENDED WELL DEVELOPMENT AND PUMP INSTALLATION  
FOR THE KAPAA HIGHLANDS PROJECT  
NOT TO SCALE



Tom Nance Water  
Resource Engineering

No. of pages: 2  
Email: allen@harbormail.net  
mwg@kauai-law.com  
greg@tnwre.com

Original  will  will not  
be mailed to you.

September 12, 2012  
12-183 | 09-12

## MEMORANDUM

To: Greg Allen  
From: Tom Nance  
Subject: Basis of Design of the Private Water System for the Kapaa Highlands Agricultural Subdivision

### Introduction

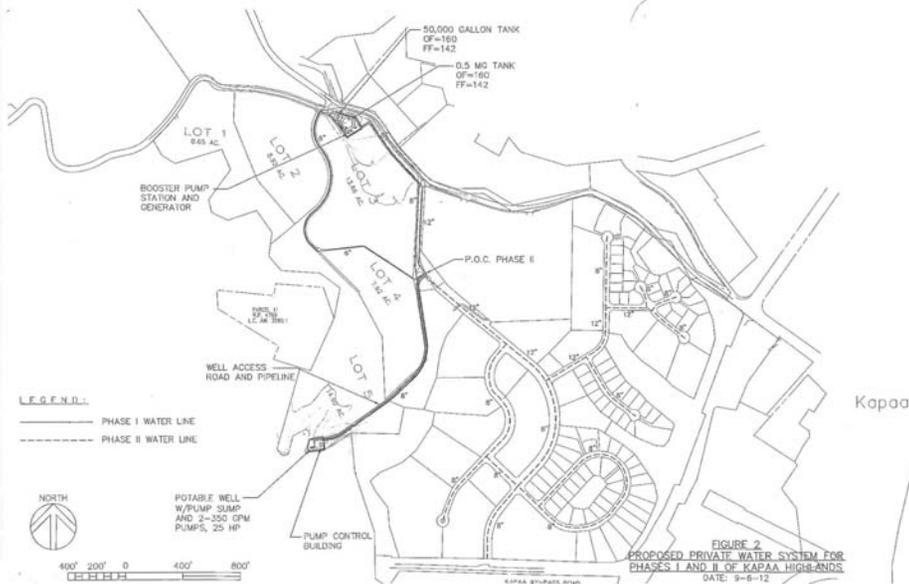
This memo and its attachments describe the basis of design for a private water system to serve the 12-lot Kapaa Highlands Agricultural Subdivision. Figure 1 depicts the 12-agricultural lots and the 50-half acre homesites that ultimately would be developed on the 12 lots. The water system would consist of: one 12-inch, 300-foot deep well outfitted with two 100 GPM pumps, one of which would provide back-up capacity; two side-by-side and identical 50,000-gallon storage reservoirs located next to Homesite 7, the highest elevation on the property; two parallel pumping systems to provide pressure and flowrates for peak and fire flowrate conditions; and 8- and 6-inch distribution pipelines.

As described herein, there are differences between the standards used for the private system's design and the standards of the Kauai Department of Water (DOW). These differences are noted and discussed as appropriate in the sections following.

### Required Water Supply

The agricultural use in the subdivision will be for raising goats for which no specific water allocation is made. An average demand of 1250 GPD for each of the 50-half acre homesites is recommended, a use rate which is 2.5 times DOW's standard for single family residential units. The higher use rate is an appropriate allowance due to the larger than typical size of the homesites.

For the 50 homesites, the total average demand is 62,500 GPD. In conformance with DOW's standards, maximum day use is defined as 1.5 times the average demand. For the 50 homesites, the total maximum day demand is 93,750 GPD.



**Required Well Supply**

Well Configuration. A test well, identified as State No. 0419-05, was drilled and pump tested at the makai end of the project site in October 2006. Over its 260-foot drilled depth, two aquifers were encountered. The upper aquifer can not provide a sufficient source of supply and it is also potentially subject to contamination due to its shallow depth. The lower and confined aquifer was reached at a depth of about 215 feet or 190 feet below sea level. Its piezometric head was about 13 feet above sea level or about 10 feet below ground. Pump testing showed that a properly designed well to exclusively tap this lower aquifer could develop up to 500 GPM of low salinity (chlorides of 55 MG/L), potable quality water. At its depth and due to the presence of the overlying and poorly permeable confining layers, this lower aquifer is not subject to contamination.

The low ground elevation (about 20 feet), high piezometric head (about 13 feet above sea level), and modest drawdown provide the opportunity to develop one well configured with a pump sump that would enable two pumps to draw from the same well, thereby providing the necessary standby pumping capacity for a stand-alone system with a single well. The recommendation herein is to drill a new 12-inch well to 300-foot depth and complete it with a pump sump and two pumps as shown on Figure 2. This will enable one pump to provide the required supply and the other pump to provide full back up capacity.

Required Well Pumping Capacity. DOW's design criteria of having the well pumping capacity capable of delivering the maximum day use in a 24-hour pumping day with the largest well pump out of service is adopted for the private water system. The project's 93,750 GPD maximum day use translates to a required well pump capacity of 65 GPM. The proposal herein is to install two identical 100 GPM pumps, each driven by 7.5 horsepower motors. Either pump would provide the required capacity with the other as standby.

**Reservoir Storage**

DOW's two reservoir storage sizing criteria are appropriate for the private water system. The first, to provide the maximum day use with no credit for well inflow, translates to a required storage volume of 93,750 gallons. The second is to provide the fire flowrate plus the coincident maximum day demand for the duration of the fire with the reservoir 3/4 full at the start of the fire. There is credit for well inflow with the largest well pump considered to be out of service.

For an agricultural subdivision, DOW standards require a fire flowrate of 250 GPM for one hour. A stricter standard of 500 GPM for two hours is adopted for the private water system. With one of the two 100 GPM well pumps on, this higher fire flowrate and longer duration translates to reservoir storage of 74,417 gallons (calculation below). The first criterion governs.

$$\frac{4}{3} (120 \text{ min}) \left( 500 + \frac{93,750}{1,440} - 100 \right) = 74,417 \text{ gallons}$$

Proposed reservoir storage consists of two, side-by-side and identical 50,000-gallon tanks with 142- and 160-foot floor and spillway elevations, respectively. The storage tanks would be lined and bolted steel with reinforced concrete base and passive cathodic protection consisting of zinc anode rods suspended in the water. DOW's standards require storage tanks to be constructed of reinforced concrete. However, lined and bolted steel tanks have a successful operating history in Hawaii. With two side-by-side tanks, one can be taken offline when necessary for maintenance with no interruption of service to customers.

**Pumping Systems for Peak and Fire Flowrate Design Conditions**

DOW's design criteria for required delivery pressures are appropriate for this private water system. These are: (1) to provide a minimum of 40 psi residual pressure during the peak flowrate condition, with peak flowrate defined as three times the average demand; and (2) to provide a minimum 20 psi residual pressure at the critical hydrant during fire flowrate at that hydrant and coincident maximum day demand throughout the system.

The onsite storage reservoir elevations will not provide adequate gravity pressure to meet either of these delivery pressure requirements. Providing the necessary pressure would be done with parallel domestic and fire flowrate pumping systems with a generator to provide back up power. These pump systems would provide up to 70 GPM for peak domestic use and 500 GPM for the fire flowrate condition. Both pumping systems would be sized to produce a total dynamic head of 110 feet, in effect creating a single, 270-foot service pressure zone across the entire project site.

**Distribution Pipelines**

The design criteria used for pipeline sizing for the private system are equivalent to DOW's standards. Pipelines shall be sized to provide: (1) fire flowrate with coincident maximum day demand and a minimum residual pressure of 20 psi at the critical hydrant with velocities not exceeding 10 fps; and (2) peak flowrate with a minimum residual pressure of 40 psi and a maximum velocity in pipelines of 6 fps.

DOW's standards require pipelines to be of ductile iron or PVC, the latter conforming to ASTM C-900. However, NSF-approved, high density polyethylene (HDPE) pipes will be used for the private water system. SDR (pressure ratings) of the HDPE pipe will be selected so as not to exceed 80 percent of the recommended working pressure rating. Hazen-Williams "C" values of 130 will be used for all

September 12, 2012  
12-183 | 09-12

HDPE pipes. This is less (ie. more conservative) than manufacturer's suggested values of 140 to 150 but greater than DOW's standards for ductile iron and PVC pipes.

**Water System Layout**

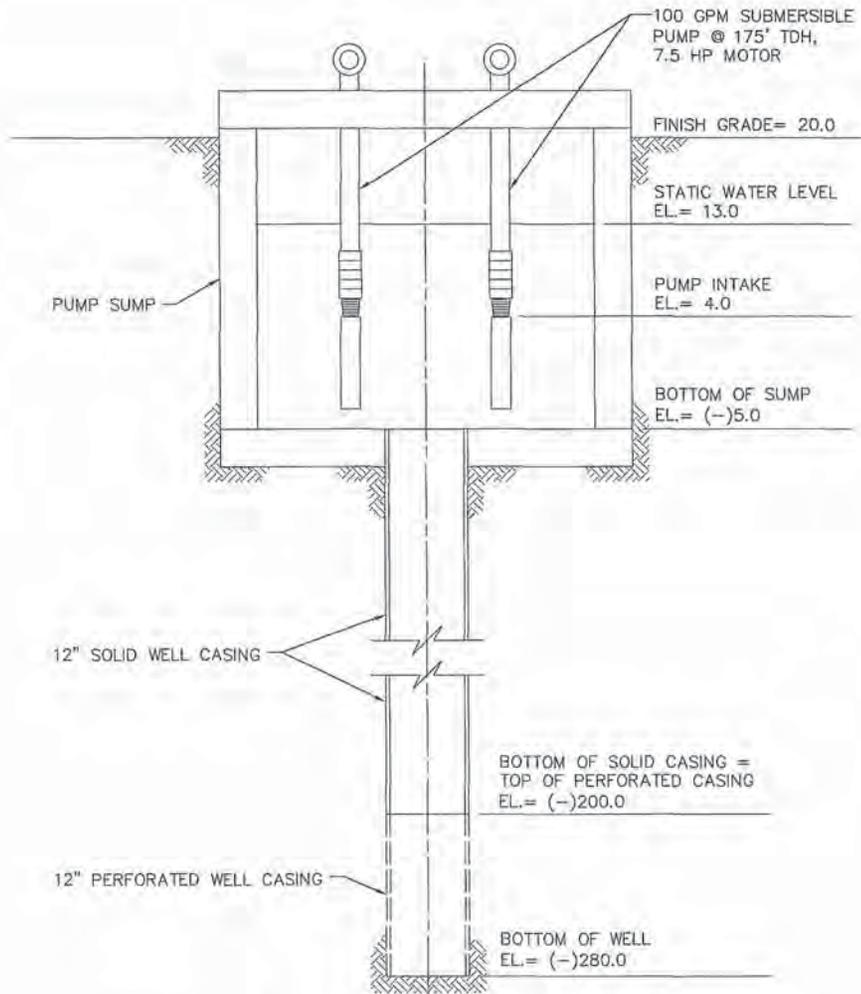
Figure 3 illustrates the water system components as described above. There would be a dedicated 6-inch pipeline from the well to the storage tanks. Distribution pipeline sizing, driven by the fire flowrate sizing criterion, would be 8- and 6-inch to the last hydrants and 4-inch beyond the last hydrants.

cc: Max Graham [Email Only]  
greg@tmwre.com

Attachments



Figure 1  
Kapaea Highlands  
Agricultural Subdivision



**FIGURE 2**  
**RECOMMENDED WELL DEVELOPMENT AND PUMP INSTALLATION**  
**FOR THE KAPAA HIGHLANDS AGRICULTURAL SUBDIVISION**  
 NOT TO SCALE

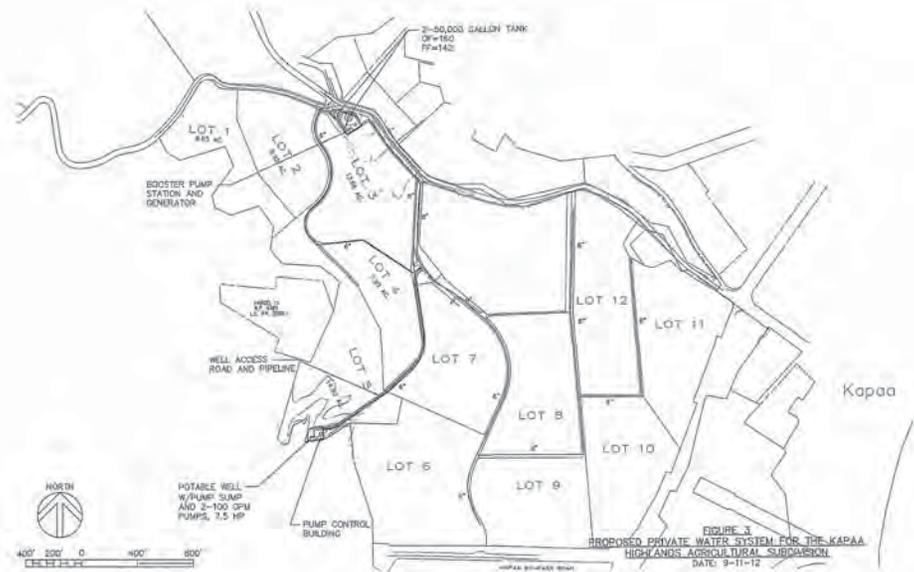


Table 1

Cost Estimate of the Major Water System Components  
for Kapaa Highlands Phase I

Item Description	Quantity	Unit	Unit Price	Amount	Total
<b>Drill, Case, and Pump Test Supply Well</b>					
Mobilization		LS		15,000	
Drill 12-Inch Pilot Hole	300	LF	150	45,000	
Video Log Pilot Hole	1	EA	2,500	2,500	
Test Pump Pilot Hole	1	EA	12,500	12,500	
Ream Pilot Hole to 19 Inches	300	LF	125	37,500	
12" Solid Casing	220	LF	175	38,500	
12" Perforated Casing	80	LF	200	16,000	
Furnishing and Installing grout	215	LF	60	12,900	
Plumbness and Alignment Test	1	EA	3,000	3,000	
Furnishing and Installing Test Pump	1	EA	15,000	15,000	
Development and Test Pumping	72	HRS	250	18,000	
Demobilization		LS		5,000	
<b>Total</b>					<b>\$220,900</b>
<b>Well Site Work and Pump Outfitting</b>					
Site Earthwork	450	CY	50	22,500	
Site Basecourse	805	SY	20	16,100	
Site Fencing	348	LF	35	12,180	
Site Gate	1	EA	2,500	2,500	
Site Drainage System		LS		15,000	
Wet Well Sump and Cover at Well Casing		LS		60,000	
Submersible Pump (350 GPM, 4-Pole, 25 HP)	2	EA	45,000	90,000	
Discharge Unit, includes Support Pads and Piping		LS		25,000	
Pump Control Building		LS		35,000	
Chlorination System		LS		25,000	
Control Building Mechanical		LS		15,000	
Pump and Building Electrical		LS		50,000	
KIUC Transformer Pad and Ducts		LS		35,000	
Metering, Motor Control Center, SCADA System		LS		150,000	
Back Generator with Fuel Tank (60 KW)		LS		40,000	
Transfer Switch for Generator		LS		3,000	
KIUC Facility Charge for Service (OH Service Available)		LS		50,000	
<b>Total</b>					<b>\$646,280</b>
<b>New Well Access Road (from existing culdesac)</b>					
Access Road Excavation and Preparation	1,530	LF	50	76,500	
Basecourse	3,400	SY	25	85,000	
Drainage and Erosion Control		LS		30,000	
<b>Total</b>					<b>\$191,500</b>

Table 1

Cost Estimate of the Major Water System Components  
for Kapaa Highlands Phase I

Item Description	Quantity	Unit	Unit Price	Amount	Total
<b>0.05 MG Tank</b>					
Site Earthwork	1,935	CY	40	77,400	
Basecourse	1,890	SY	20	37,800	
Gravel Fill	452	SY	15	6,780	
Site Fencing	590	LF	35	20,650	
Site Gate	1	EA	2,500	2,500	
Site Drainage System		LS		20,000	
Tank Drainage System		LS		25,000	
Pipe Valves and Fittings		LS		15,000	
0.05 MG Steel Tank With Concrete Floor		LS		150,000	
Tank Level Transmitter System		LS		15,000	
Pipe and Tank Testing		LS		15,000	
Erosion and Dust Control		LS		10,000	
Construction Survey		LS		5,000	
<b>Total</b>					<b>\$400,130</b>
<b>Booster System</b>					
Sitework for Booster Pump Station		LS		25,000	
Booster Station Connection Piping & Valves		LS		30,000	
Domestic Booster Pump Station (VFD 25 to 70 gpm, 5 HP)		LS		25,000	
Fire Pump Station (500 GPM at 110-ft TDH, 20 HP)		LS		80,000	
Power and Control Connections		LS		30,000	
MCC for both station with SCADA Controls		LS		125,000	
Back Generator with Fuel Tank (60 KW)		LS		50,000	
Transfer Switch for Generator		LS		3,000	
<b>Total</b>					<b>\$368,000</b>
<b>Pipeline in Phase I Subdivision (includes 8-inch well feed line)</b>					
Main Installation Access and Site Preparation		LS		50,000	
12" HDPE Pipe	1,500	LF	85	127,500	
8" HDPE Pipe	3,115	LF	55	171,325	
6" HDPE Pipe	2,256	LF	40	90,240	
12" GV w/VB	2	EA	3,000	6,000	
8" GV w/VB	3	EA	2,500	7,500	
6" GV w/VB	2	EA	2,000	4,000	
12" DI Fittings	5	EA	1,800	9,000	
8" DI Fittings	6	EA	1,200	7,200	
6" DI Fittings	4	EA	800	3,200	
Fire Hydrant w/GV	5	EA	3,500	17,500	
Pipe Testing and Chlorination		LS		25,000	
Erosion and Dust Control		LS		30,000	
Construction Survey		LS		15,000	
<b>Total</b>					<b>\$563,465</b>
<b>Total for Construction</b>					<b>\$2,390,275</b>
<b>Engineering Design (8%)</b>					<b>190,725</b>
<b>Construction Management (3%)</b>					<b>73,000</b>
<b>Total Cost</b>					<b>\$2,654,000</b>

**Table 2**  
**Cost Estimate of the Major Water System Components**  
**for Kapa'a Highlands Phase 2 Residential Project**

Item Description	Quantity	Unit	Unit Price	Amount	Total
<b>0.50 MG Tank and Booster Station</b>					
Tank Foundation Earthwork	504	CY	40	20,160	
Basecourse	980	SY	20	19,600	
Tank Drainage System		LS		35,000	
Pipe Valves and Fittings		LS		30,000	
0.50 MG Steel Tank With Concrete Floor		LS		750,000	
Tank Level Transmitter System		LS		15,000	
Pipe and Tank Testing		LS		20,000	
Erosion and Dust Control		LS		15,000	
Construction Survey		LS		5,000	
<b>Total</b>					<b>\$909,760</b>
<b>Booster System (Upgrade both Booster Pump Stations)</b>					
Modify Booster Pump Station		LS		40,000	
Booster Station Connection Piping & Valves		LS		45,000	
Domestic Booster Pump Station (VFD 200 to 625 gpm, 25 HP)		LS		120,000	
Fire Pump Station (2000 GPM at 110-ft TDH, 75 HP)		LS		125,000	
Power and Control Connections		LS		30,000	
Modify Existing MCC for New Pump Stations		LS		80,000	
New Back Generator with Fuel Tank for Fire Pump (175kw)		LS		75,000	
Transfer Switch for Generator		LS		6,000	
<b>Total</b>					<b>\$521,000</b>
<b>Pipeline in Phase 2 Subdivision</b>					
Main Installation Access and Site Preparation		LS		60,000	
12" HDPE Pipe	2,100	LF	85	178,500	
8" HDPE Pipe	6,830	LF	50	341,500	
12" GV w/VB	3	EA	3,000	9,000	
8" GV w/VB	10	EA	2,500	25,000	
12" DI Fittings	6	EA	1,800	10,800	
8" DI Fittings	15	EA	1,200	18,000	
Fire Hydrant w/GV	14	EA	3,500	49,000	
Pipe Testing and Chlorination		LS		40,000	
Erosion and Dust Control		LS		30,000	
Construction Survey		LS		15,000	
<b>Total</b>					<b>\$776,800</b>
<b>Total for Construction</b>					<b>\$2,207,560</b>
<b>Engineering Design (8%)</b>					<b>176,440</b>
<b>Construction Management (3%)</b>					<b>66,000</b>
<b>Total Cost</b>					<b>\$2,450,000</b>

**Exhibit F**

**Preliminary Engineering Report Drainage Improvements**  
**Kapa'a Highlands Phase II**

# Preliminary Engineering Report Drainage Improvements

## KAPAA HIGHLANDS – PHASE II

Prepared for:  
Greg Allen  
161 Wailua Rd.  
Kapa'a, HI 96746

Prepared by:  
Honua Engineering, Inc.  
P. O. Box 851  
Hanalei, HI 96714

### Project Description

The Kapa'a Highlands Subdivision is on former cane lands situated on a bluff adjacent to the coastal plain of Kapa'a Town. It is bordered by Olohena Road to the north and the Kapa'a Bypass Road on the south and east sides of the project. Kapa'a Intermediate School is near the middle of the north portion of the property. Phase I of the development will consist of five agricultural lots on the west side of the property. The remainder of the property to the south and east of the school are proposed to be developed during Phase II of the subdivision. The proposed Phase II development will consist of 86 single and 683 multi-family units, plus a neighborhood commercial site, parks, and a church site as shown on Exhibit 1. Ground elevation of the development ranges from 20 to 180 feet above mean sea level.

Per the County of Kauai's "Storm Water Runoff System Manual" 2001, all developments of this scope are required to maintain the existing stormwater flows and patterns as feasibly possible so that downstream properties are not subject to any additional stormwater flows that are created by the increases in impervious surfaces of the watershed by the proposed development. The report examines the existing drainage conditions of the property and the proposed measures to control the stormwater from the proposed Phase II development.

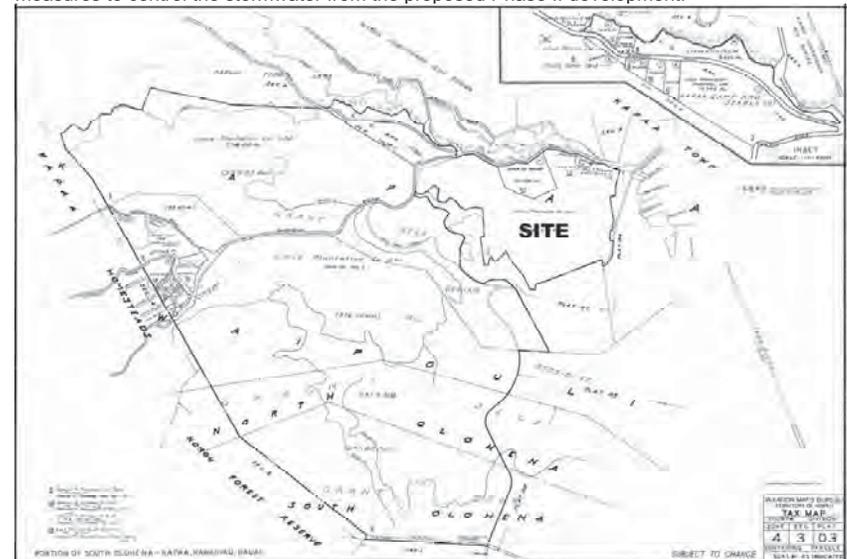


Figure 1: Tax Map Key 4-3-03 (4<sup>th</sup> Division)

## Existing Conditions:

The property is located along Olohena Road about ½ mile mauka of Kapaa Town. The property rises from the coastal flat lands of Kapaa to an elevation of about 140 feet above mean sea level (msl). The Temporary Kapaa Bypass Road passes through a portion of the property along the east and south sides of the property. An unnamed stream flows along the west side of the property. The stream flows along the boundary, passes under a bridge on the By-Pass Road at the southwest corner of the property, and empties into the Waikaea drainage canal about 800' downstream from the property. Near the middle of the property on the north side, along Olohena Road, is the Kapaa Intermediate School site.

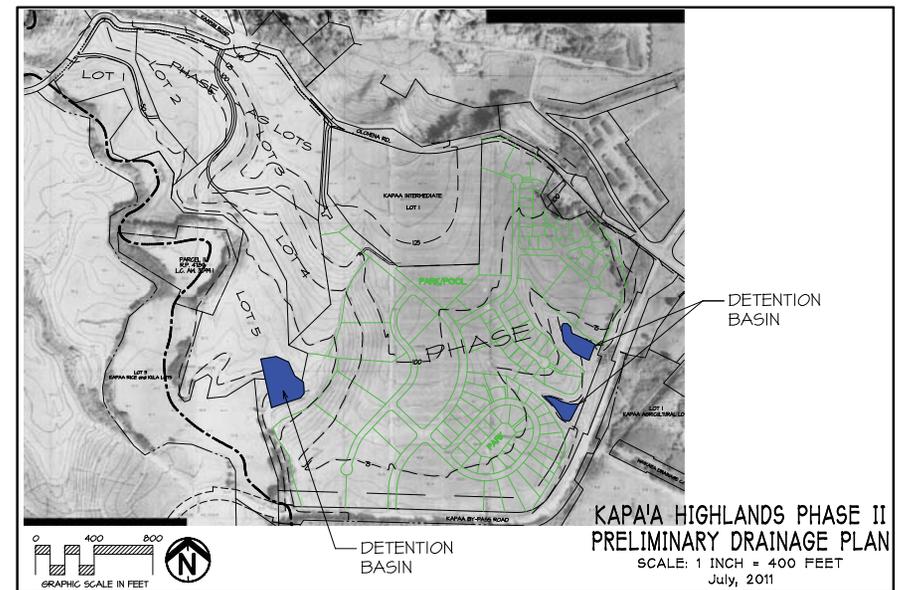
The Lihue Plantation had planted a majority of the 163-acre property in sugar cane, which since the property-changed owners has been allowed to go fallow. The Phase II portion of the property is approximately 97-acres. The fallow lands are presently overgrown with grass and remnant cane. A portion of the property on the northwest side near the unnamed stream is being used for cattle pasture. There are numerous abandoned irrigation ditches on the property that will be filled or rendered inoperable as the property is developed. There is also a small amount of the property that is overly steep for farming and is presently covered in brush and trees.

According to the Natural Resource Conservation Service (NRCS) soil survey the soils on the property are loleau and Puhi silt clay loams. The NRCS hydrologic classification for these soils is Group C for the loleau soils and Group B for the Puhi soils. Group B soils have a moderately low runoff potential, while the Group C soils have a moderately high runoff potential. Both soils are in Group I erosion resistance classification, which is the least erodible of the NRCS classifications.

The topography of the site varies from gently sloping, bluff top property, to steep areas that drop off into drainage gullies that lead to the unnamed stream and to the Bypass Road. The topography is illustrated on Exhibit 1 from aerial mapping done in 1975 for the County of Kauai.

## Proposed Phase II:

The proposed Phase II development will consist of 86 single and 683 multi-family units, plus a neighborhood commercial site, parks, and a church site as shown on Exhibit 1. Stormwater generated from each of the Phase II lots will be directed to the nearest downstream street or natural drainageway. A drainage system along the streets will collect the stormwater and convey it to the detention basins shown on Exhibit 1. The detentions basins moderate the storm flows and allow infiltration back into the soil. They are sized so that the outlet peaks flows match or lower the existing stormwater flows prior to the development for both small rainfall events and the 100 year storm event.



**Exhibit G**

**Preliminary Engineering Report Wastewater Improvements  
Kapa'a Highlands Phase II**

**Preliminary Engineering Report  
Wastewater Improvements**

**KAPAA HIGHLANDS – PHASE II**

Prepared for:  
Greg Allen  
161 Wailua Rd.  
Kapa'a, HI 96746

Prepared by:  
Honua Engineering, Inc.  
P. O. Box 851  
Hanalei, HI 96714

## Project Description

The Kapa'a Highlands Subdivision is on former cane lands situated on a bluff adjacent to the coastal plain of Kapa'a Town. It is bordered by Olohena Road to the north and the Kapa'a Bypass Road on the south and east sides of the project. Kapa'a Intermediate School is near the middle of the north portion of the property. Phase I of the development will consist of five agricultural lots on the west side of the property. The remainder of the property to the south and east of the school are proposed to be developed during Phase II of the subdivision. The proposed Phase II development will consist of 86 single and 683 multi-family units, plus a neighborhood commercial site, parks, and a church site as shown on Exhibit 1. Ground elevation of the development ranges from 20 to 180 feet above mean sea level. Due to its high density the Phase II development will require connection to the Wailua-Kapa'a Sewer System. The following report reviews the anticipated wastewater flows, the adequacy of the existing sewer collection system, and the proposed improvements needed to provide service for the development of Phase II.

## Basis of Design

The *Sewer Design Standards, 1973* by the County of Kauai, Department of Public Works, together with the *Wailua Facility Plan, September 2008* by Fukunaga and Associates were the primary references for this report and will be abbreviated as SDS and WFP, respectively, when quoted in the report.

The WFP is a detailed study of the entire Wailua to Kapa'a wastewater system completed in 2008 to guide the County with the necessary expansion and management of the system through the year 2025. It broke down projected flows to the Wailua Treatment Plant in three phases, the current and near term flows up to the year 2010, middle term flows for the 2010-2015 period, and far term flows for the years 2015 to 2025.

Wailua-Kapa'a Average Daily Wastewater Flows <sup>1</sup>	
Planning Interval	Average Wastewater Flow (mgd)
Current	0.70
Near Term (2010)	0.98
Middle Term (2015)	1.39
Far Term at Wailua WWTP(2025)	1.72
Kapaa Start-Up (2025)	0.40

The need for the WFP was partially based upon the rapid development that was occurring in the Wailua-Kapaa area during 2004-2007 period. Development has slowed

considerably since this time and several of the developments anticipated in the WFP calculations have been put on hold or are no longer proposed. Of the proposed developments, the Coco Palms Hotel will be removed from the near term anticipate flows and be considered part of the middle term flows. The Coconut Beach Resort and Coconut Plantation Village will be removed from the middle term flows and be considered for the far term flows.

The proposed Kapa'a Highlands development is not expected to be at total capacity by 2015, but for the purposes of this report, it will be considered to be completed in the middle term planning period of the WFP. The table below is the adjusted Average Daily Flows (ADF) based upon the current flow to the Wailua Treatment Plant and adjustments due to slower development than anticipated by WFP.

Adjusted Wailua-Kapa'a Average Daily Wastewater Flows	
Planning Interval	Average Wastewater Flow (mgd)
Current	0.70
Near Term (2010)	0.98
Middle Term (2015)	1.39
Far Term at Wailua WWTP(2025)	1.72

Kapa'a Highlands Phase II Wastewater Flow Estimates	
Item	Projected Wastewater Flow (gpd)
Single Family Homes	34,400
Multi-Family Homes	170,750
Neighborhood Commercial	4,800
Total	209,950

Note: Single Family Homes assumed to have 4 occupants/unit and Multi-Family Homes have 2.5 occupants/unit.

<sup>1</sup> Table ES-1, WFP, September 2008

## Preliminary Design

Based upon the projected flow of 209,950 gpd (0.21 mgd), with a max load factor of 4.1, a 12" sewer main would be required to serve the development. The location of the main is shown on Exhibit 1. It would begin along the Kapa'a By-pass Road and terminate at an existing manhole near the intersection of Ulu and Kukui Streets. The length of the main within the existing public Right-of-Ways would be about 3,400 linear feet. At the existing manhole connection the existing main downstream of the connection is a 21" main with a capacity of 3.2 mgd. The 21" main currently has a peak flow of about 0.6 mgd, therefore the proposed flow is well within the capacity of the existing sewer system, including allowances for the future increases anticipated in the "Final Wailua Facility Plan", September 2008.



## Exhibit H

### Traffic Impact Assessment Report Kapa'a Highlands Subdivision Kapa'a, Kaua'i, Hawai'i TMK: (4) 4-3-03:01

#### Phillip Rowell and Associates

47-273 'D' Hui Iwa Street Kaneohe, Hawaii 96744 Phone: (808) 239-8206 FAX: (808) 239-4175 Email: prowell@hawaii.rr.com

December 9, 2013

Mr. Greg Allen  
Kapa'a Highlands  
161 Wailua Road  
Kapa'a Hawaii 96746

Re: Traffic Impact Assessment Report Kapa'a Highlands Subdivision  
Kapa'a, Kauai, Hawaii  
TMK: (4) 4-3-03:01

Phillip Rowell and Associates have completed the following Traffic Impact Assessment Report (TIAR) for Kapa'a Highlands Subdivision. The report is presented in the following format:

- A. Project Location and Description
- B. Purpose and Objective of Study
- C. Study Approach
- D. Description of Existing Streets and Intersection Controls
- E. Existing Peak Hour Traffic Volumes
- F. Public Transportation
- G. Level-of-Service Concept
- H. Existing Levels-of-Service
- J. Background Traffic Projections
- K. Project Trip Generation
- L. Background Plus Project Projections
- M. Traffic Impact Assessment
- N. Project Road System
- O. Other Traffic Related Issues
- P. Summary and Recommendations

#### A. Project Location and Description

1. The proposed project is located west of Kapa'a Town and adjacent to Kapa'a Intermediate School, generally in the southwest quadrant of the intersection of Oloheua Road and Kapa'a Bypass. [See Attachment A.](#)
2. The project is a residential subdivision with single-family and multi-family residences and neighborhood supporting retail. The project has two phases as shown on [Attachment B.](#) The development plan is summarized as follows:

<u>Phase 1</u>	<u>Phase 2</u>
16 Single-Family Units	100 Single-Family Units 700 Multi-Family Units 8,000 SF Neighborhood Retail

3. Access to and egress from Phase 1 will be via driveways along the south side of Oloheua Road west of Kapa'a Intermediate School.

4. Access to and egress from Phase 2 will be provided via a new intersection along the north side of Kapa'a Bypass and a new intersection along the south side of Olohehena Road. These two intersections will be connected by a new curvilinear roadway running through the project. For purposes of discussion in the report, this roadway is referred to as Road 'A.'

#### **B. Purpose and Objective of Study**

1. Quantify and describe the traffic related characteristics of the proposed project.
2. Identify potential deficiencies adjacent to the project that will impact traffic operations in the vicinity of the proposed project.

#### **C. Study Approach**

1. A preliminary trip generation analysis was performed to define the scope of work and study area. This analysis determined that the proposed project will generate less than 500 trips during either the morning or afternoon peak hour. Based on Institute of Transportation Engineers standards, the traffic study should be a "small development: traffic impact assessment."<sup>1</sup> Accordingly, the study area was defined to include the intersection of Kapa'a Bypass at Olohehena Road and the intersections providing access to and egress from Phase 2 of the project (Kapaa Bypass at Road 'A' and Olohehena Road at Road 'A'). Phase 1 lots are serviced by individual driveways which will have negligible traffic volumes.

State of Hawaii Department of Transportation reviewed the first draft of the report and directed that the study area be expanded to include the intersections of Kuhio Highway at Kukui Street and Kuhio Highway at Kapaa Bypass. See [Attachment O](#).

The County of Kauai directed that the intersection of Olohehena Road at Kaapuni Road and Kaehula Road be included in the study area. See [Attachment P](#).

2. A field reconnaissance was performed to identify existing roadway cross-sections, intersection lane configurations, traffic control devices, and surrounding land uses.
3. Current weekday peak hour traffic volumes were obtained from manual traffic counts at the study intersections.
4. Existing intersection levels-of-service were determined using the methodology described in the *2000 Highway Capacity Manual*. Existing deficiencies were identified based on the results of the level-of-service analysis and field observations.
5. Peak hour traffic that the proposed project will generate was estimated using trip generation analysis procedures recommended by the Institute of Transportation Engineers. Project generated traffic was distributed and assigned to the adjacent roadway network.
6. A level-of-service analysis for future traffic conditions with traffic generated by the study project was performed.

---

<sup>1</sup> Institute of Transportation Engineers, *Transportation and Land Development*, Washington, D.C., 2002, p. 3-6

7. The impacts of traffic generated by the proposed project were quantified and summarized.
8. A report documenting the conclusions of the analyses performed and recommendations was prepared.

#### **D. Description of Existing Streets and Intersection Controls**

Kapa'a Bypass is a two-lane, two-way roadway along the southern and eastern boundaries of the project. This section of Kapa'a Bypass is owned by the Kapa'a Highlands developer, who has entered a memorandum of understanding with State of Hawaii Department of Transportation to dedicate the roadway to the State upon approval of Kapa'a Highlands subdivision<sup>2</sup>. According to State of Hawaii Department of Transportation traffic count data from 2010, Kapa'a Bypass has a weekday traffic volume of 7,400 vehicles per day.

Olohehena Road is a two-lane, two-way roadway along the northern boundary of the project. Olohehena Road also provides service to Kapa'a Intermediate School.

Kuhio Highway through Kapaa Town is a two-lane, two-way State highway along the east of the study area.

##### *Existing Intersections*

The intersection of Kuhio Highway at Kukui Street is a four-legged, signalized intersection located approximately 1,600 feet east of the project. The northbound and southbound approaches are Kuhio Highway and the eastbound and westbound approaches are Kukui Street. The northbound and southbound left turns are protected-permissive.

The intersection of Kuhio Highway at Kapaa Bypass is a three-legged, unsignalized intersection approximately two miles south of Kukui Street. The northbound and southbound approaches are Kuhio Highway. The eastbound approach is the Kapaa Bypass and is the controlled approach. The northbound approach is coned during the morning peak hours to provide on left turn and one through lane. The coning also allows the eastbound to southbound left turn to operate as a free right turn. During the afternoon peak hours and off peak hours, there is one left turn lane and two through lanes. The southbound approach has one through lane and one right turn lane. The eastbound approach has one left turn lane and one right turn lane.

The intersection Kapa'a Bypass and Olohehena Road is a four-legged roundabout. All approaches are one lane only. The north leg of the intersection is one-way southbound into the intersection. The remaining three legs are two-way.

The intersection of Olohehena Road at Kaapuni Road and Kaehula Road is actually two intersections. Olohehena Road is the eastbound and westbound approaches and Kaapuni Road is the STOP sign controlled approach at Olohehena Road. Kaehula Road intersects Kaapuni Road west of Olohehena Road.

The intersection configurations are summarized on [Attachment C](#).

---

<sup>2</sup> Honua Engineering, Inc., *Traffic Considerations Kapa'a Highlands Project*, March 28, 2012

**E. Existing Peak Hour Traffic Volumes**

Current weekday peak hour traffic volumes at the intersection of Kapa'a Bypass at Olohena Road were obtained from manual traffic counts. The counts at the intersection of Olohena Road at Kapaa Bypass were performed Tuesday, May 15, 2012. The counts at the intersection of Kuhio Highway were performed Thursday, August 8, 2013, and the counts at the intersection of Kuhio Highway at Kapaa Bypass were performed on Tuesday, October 29, 2013.

The traffic counts include mopeds, motorcycles, buses, trucks and other large vehicles.

During the surveys, the following was observed at the intersection of Olohena Road at Kapaa Bypass:

1. The number of pedestrians crossing the approaches to the intersection are minimal, even with the bus stop and transfer site at the park along the north side of Olohena Road east of the intersection.
2. Long queues of 15 vehicles or more along the westbound approach of Olohena Road were noted during the morning peak hour.

The existing peak hour traffic volumes are summarized on [Attachments D and E](#).

**F. Public Transportation**

The Kauai Bus operates along Olohena Road and Kapa'a Bypass. A major bus stop and transfer point is located along Olohena Road east of Kapa'a Bypass in the parking lot adjacent to the park.

**G. Level-of-Service Concept**

"Level-of-Service" 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. Level-of-service (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 level-of-service 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. *Level-of-service D is typically considered acceptable for peak hour conditions in urban areas.*<sup>3</sup>

Corresponding to each level-of-service 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

<sup>3</sup> Institute of Transportation Engineers, *Transportation Impact Analyses for Site Development: A Recommended Practice*, 2006, page 60

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.

Like signalized intersections, the operating conditions of intersections controlled by stop signs can be classified by a level-of-service from A to F. However, the method for determining level-of-service 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 level-of-service at an unsignalized intersection is therefore based on delay of each turning movement. [Table 2](#) summarizes the definitions for level-of-service 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.

**H. Existing Levels-of-Service**

The results of the level-of-service analysis of the intersection of Kuhio Highway at Kukui Street is summarized in [Table 3](#). Since this intersection is signalized, the volume-to-capacity ratio, delay and level-of-service is shown for the overall intersection and each controlled movement. The traffic signal timing was estimated by manually timing the traffic signals during the peak hours.

**Table 3 Existing Levels-of-Service - Signalized Intersections<sup>(1)</sup>**

Intersection and Movement	AM Peak Hour			PM Peak Hour		
	V/C <sup>(2)</sup>	Delay <sup>(3)</sup>	LOS <sup>(4)</sup>	V/C	Delay	LOS
	Cycle Length = 60 Seconds <sup>(5)</sup>			Cycle Length = 60 Seconds		
<b>Kuhio Highway at Kuhio Street</b>	<b>0.51</b>	<b>11.5</b>	<b>B</b>	<b>0.49</b>	<b>11.1</b>	<b>B</b>
Eastbound Left & Thru	0.10	17.0	B	0.09	16.9	B
Eastbound Right	0.03	16.4	B	0.01	16.3	B
Westbound Right	0.00	16.2	B	0.01	16.2	B
Northbound Left	0.03	5.0	A	0.02	5.0	A
Northbound Thru & Right	0.68	11.5	B	0.61	10.1	B
Southbound Left & Thru	0.65	10.9	B	0.67	11.5	B
Southbound Right	0.00	4.8	A	0.00	4.8	A

NOTES:  
 (1) See [Attachments F and G](#) for Level-of-Service Worksheets.  
 (2) Volume-to-Capacity ratio.  
 (3) Delay is in seconds per vehicle.  
 (4) Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.  
 (5) Traffic signal cycle length determined by timing the traffic signal during peak hours.

The overall intersection operates at Level-of-Service B during both peak periods. All controlled lane groups operate at Level-of-Service A or B. This indicates good operating conditions.

The results of the level-of-service analysis of the intersection of Kapa'a Bypass and Olohehena Road are summarized in [Table 4](#). For roundabout intersections, the HCS methodology calculates volume-to-capacity ratios for the intersection approaches, which is then related to the volume-to-capacity ratio definitions for levels-of-service discussed previously. The levels-of-service calculations indicate that the eastbound approach is near capacity during the morning peak hour with a volume-to-capacity ratio of 0.92. All the remaining movements operate at Level-of-Service A or B.

**Table 4 Existing Levels-of-Service - Kapa'a Bypass at Olohehena Road**

Approach	AM Peak Hour		PM Peak Hour	
	Without Project		Without Project	
	V/C <sup>(1)</sup>	LOS <sup>(2)</sup>	V/C	LOS
<b>Overall Intersection</b>	<b>0.92</b>	<b>E</b>	<b>0.50</b>	<b>A</b>
Eastbound Approach	0.92	E	0.49	A
Westbound Approach	0.18	A	0.42	A
Northbound Approach	0.09	A	0.38	A
Southbound Approach	0.63	B	0.62	B

NOTES:  
 (1) V/C denotes volume-to-capacity ratio.  
 (2) LOS denotes Level-of-Service.  
 (3) See [Attachments F and G](#) for Level-of-Service Worksheets.

The results of the level-of-service analysis of the remaining unsignalized intersections are summarized in [Table 5](#). The HCM methodology calculates only delays for controlled lane groups only. Volume-to-capacity ratios are not calculated. The 95<sup>th</sup> percentile queue lengths as reported by Synchro are also shown.

**Table 5 Existing Levels-of-Service of Unsignalized Intersections**

Intersection, Approach and Movement	AM Peak Hour			PM Peak Hour		
	Delay <sup>(1)</sup>	LOS <sup>(2)</sup>	95 <sup>th</sup> Queue <sup>(3)</sup>	Delay	LOS	95 <sup>th</sup> Queue
	Cycle Length = 60 Seconds <sup>(5)</sup>			Cycle Length = 60 Seconds		
<b>Kuhio Highway at Kapaa Bypass</b>	<b>95.3</b>	<b>F</b>	<b>NC</b>	<b>12.3</b>	<b>B</b>	<b>NC</b>
Eastbound Left	273.5	F	999	57.9	F	227
Eastbound Right	Uncontrolled Lane Group			Uncontrolled Lane Group		
Northbound Left	9.2	A	8	13.2	B	82
Northbound Thru	Uncontrolled Lane Group			Uncontrolled Lane Group		
Southbound Thru	Uncontrolled Lane Group			Uncontrolled Lane Group		
Southbound Right	Uncontrolled Lane Group			Uncontrolled Lane Group		
<b>Olohehena Road at Kaapuni Road</b>	<b>9.8</b>	<b>A</b>	<b>NC</b>	<b>3.1</b>	<b>A</b>	<b>NC</b>
Eastbound Left & Thru	0.9	A	2	1.7	A	2
Westbound Thru & Right	Uncontrolled Lane Group			Uncontrolled Lane Group		
Southbound Left & Right	22.5	C	112	13.5	B	26
<b>Kaapuni Road at Kaehula Road</b>	<b>0.7</b>	<b>A</b>	<b>NC</b>	<b>0.3</b>	<b>A</b>	<b>NC</b>
Westbound Left & Right	11.5	B	4	11.4	B	1
Northbound Thru & Right	Uncontrolled Lane Group			Uncontrolled Lane Group		
Southbound Left & Thru	0.0	A	0	0.1	A	0

NOTES:  
 (1) Delay is in seconds per vehicle.  
 (2) LOS denotes Level-of-Service.  
 (3) 95<sup>th</sup> percentile queue in feet as reported by Synchro.  
 (4) NC = Not calculated  
 (5) See [Attachments F and G](#) for Level-of-Service Worksheets.

The intersection of Kuhio Highway at Kapaa Bypass operates at Level-of-Service F during the morning peak hour and Level-of-Service B during the afternoon peak hour. It is the eastbound left turn lane with a delay so long that it impacts of the overall intersection, resulting in the poor level-of-service.

The intersection of Olohena Road at Kaapuni Road and Kaehula Road is actually two intersections. Olohena Road is the eastbound and westbound approaches and Kaapuni Road is the STOP sign controlled approach at Olohena Road. Kaehula Road intersects Kaapuni Road west of Olohena Road. Therefore, the level-of-service results are shown for two intersections. The intersections of Olohena Road at Kaapuni Road and Olohena Road at Kaehula Road both operate at Level-of-Service A during both peak periods.

**I. Existing Deficiencies**

The eastbound approach at the intersection of Olohena Road at Kapaa Bypass is at or near capacity during the morning peak hour with a volume-to-capacity ratio of 0.92 and a Level-of-Service of E. The deficient movement is mitigated when the project is constructed as traffic will be redistributed as a result of constructing Road A through the project. This redistribution will be addressed later in this report as part of the traffic impact analysis of the project.

The eastbound to northbound left turns at the intersection of Kuhio Highway at Kapaa Bypass operate at Level-of-Service F during both peak hours. However, the morning and afternoon volumes are only 5 and 12 vehicles, respectively. Since the volumes are so low, mitigation has been deferred. It should also be noted that the proposed development project adds no traffic to these movements.

**J. Background Traffic Projections**

Based on data in the *Kauai Long-Range Land Transportation Plan*<sup>4</sup>, population growth in the Kawaihau District, which includes Kapa'a, will be less than one percent per year until 2020. Also, we are not aware of any approved projects in the vicinity that will impact traffic conditions along Kapa'a Bypass or Olohena Road before the design year of this project. Therefore, for this particular study, it was assumed that there will be no significant increase in peak hour traffic at the study intersections as a result of regional background growth or traffic generated by approved new projects in the vicinity of the project. Future 2020 background (without project) traffic volumes were estimated to be comparable to existing peak hour traffic volumes at the study intersections.

**K. Project Trip Generation**

Future traffic volumes generated by Kapa'a Highlands Subdivision (Phases 1 and 2) were estimated using the methodology described in the *Trip Generation Handbook*<sup>5</sup> and data provided in *Trip Generation*<sup>6</sup>. This method uses trip generation equations or rates to estimate the number of trips that the project will generate during the peak hours of the project and along the adjacent street.

<sup>4</sup> Austin, Tsutsumi & Associates, *Kauai Long-Range Land Transportation Plan*, May 2004

<sup>5</sup> Institute of Transportation Engineers, *Trip Generation Handbook*, Washington, D.C., 2004, p. 7-12

<sup>6</sup> Institute of Transportation Engineers, *Trip Generation, 7th Edition*, Washington, D.C., 2003

The equations used for the trip generation analysis are summarized in [Table 6](#). The trip generation equations for the residential uses are based on the number of planned residential units. The equations for the retail portion of the project are based on the gross leasable square footage of the retail area. The equations shown estimate the number of peak hour trips during the peak hours of the generator, which may or may not coincide with the peak hour of the adjacent street. *Trip Generation* does not note the peak hours of the generators.

A portion of the trips to and from the retail area will be from the adjacent traffic stream. These trips are referred to as "pass by trips" and are deducted from the total number of trip to estimate the number of new trips generated by the project. However, these trips are added to the driveway volumes at the retail areas. The equation for estimating the percent pass by trips is also provided. This equation is based on the gross leasable square footage of the retail area. Pass by equations are provided of the PM peak hour only.

It should be noted that the percentage of pass by trip estimated from the equation provided in the *Trip Generation Handbook* is 81%. State of Hawaii Department of Transportation felt that this percentage was too high. It was agreed with State of Hawaii Department of Transportation that 34% would be used for the trip generation calculations. Refer to [Attachment O](#).

**Table 6 Trip Generation Equations<sup>(1)</sup>**

Period & Direction	Single Family Units (Land Use Code 210)	Multi-Family Units (Land Use Code 230)	Neighborhood Commercial (Land Use Code 820)	Pass By Trips
	Equation or Percent <sup>(1)</sup>	Equation or Percent <sup>(1)</sup>	Equation or Percent <sup>(1)</sup>	Equation or Percent <sup>(2)</sup>
Weekday Total	$\ln(T) = 0.92 \ln(X) + 2.71$	$\ln(T) = 0.85 \ln(X) + 2.55$	$\ln(T) = 0.65 \ln(x) + 5.83$	No Equation Provided
AM Peak Hour	$T = 0.70(X) + 12.05$	$\ln(T) = 0.82 \ln(X) + 0.171$	$\ln(T) = 0.60 \ln(A) + 2.29$	No Equation Provided
	Inbound 25%	18%	61%	
	Outbound 75%	82%	39%	
PM Peak Hour	$\ln(T) = 0.89 \ln(X) + 9.61$	$T = 0.34(X) + 38.31$	$\ln(T) = 0.66 \ln(A) + 3.40$	$\ln(T) = -0.29 \ln(A) + 5.00$
	Inbound 63%	64%	48%	50%
	Outbound 37%	36%	52%	50%

Notes:  
 (1) Source: Institute of Transportation Engineers, *Trip Generation, 7th Edition*, Washington, D.C., 2003  
 (2) Source: Institute of Transportation Engineers, *Trip Generation Handbook*, Washington, D.C., 2004, p. 47  
 (3) T = Trips, X = Number of Units, A = Gross Leasable Square Feet

The results of the trip generation analysis are summarized in [Table 7](#). The conclusion of the trip generation analysis is that Phases 1 and 2 will generate a total of 394 trips during the morning peak hour and 487 trips during the afternoon peak hour. As noted earlier, the numbers of peak hour trips shown are the trips generated during the peak hour of the generator, which may or may not coincide with the peak hours of the adjacent streets.

**Table 7 Trip Generation Calculations**

Period & Direction	Phase 1		Phase 2						Total Project Trips				
	Single Family	Single Family	Multi-Family	Neighborhood Commercial		Phase 2 Total Trip			(Phases 1 and 2)				
	16 Units	100 Units	700 Units	8,000 TLSF									
	Trips	Trips	Trips	Trips	Pass By Trips <sup>(1)</sup>	New Trips	Trips	Pass By Trips	New Trips	Total Trips	Pass By Trips	New Trips	
AM Peak Hour	Total	23	82	255	34	0	34	371	0	371	394	0	394
	Inbound	6	21	46	21	0	21	88	0	88	94	0	94
	Outbound	17	61	209	13	0	13	283	0	283	300	0	300
PM Peak Hour	Total	22	111	276	118	40	78	505	96	409	527	40	487
	Inbound	14	71	177	57	20	37	305	48	257	319	20	299
	Outbound	8	40	99	61	20	41	200	48	152	208	20	188

Notes:  
 (1) The percentage of pass by trips is 34% of the afternoon peak hour trips.

Project trips were distributed and assigned based on existing traffic approach and departure patterns of traffic into and out of the study area as estimated from the traffic counts. Given the location of the retail, which is the center of Phase 2, it was assumed that all the pass by trips would be diverted from the internal road system of Phase 2. The project trip assignments for Phases 1 and 2 are shown on [Attachment H](#) and [I](#), respectively.

**L. Background Plus Project Projections**

Background plus project traffic projections were estimated by superimposing the peak hourly traffic generated by the proposed project on the background (without project) peak hour traffic projections. This assumes that the peak hourly trips generated by the project coincide with the peak hour of the adjacent street. This represents a worse-case condition as it assumes that the peak hours of the intersection approaches and the peak hour of the study project coincide.

As noted earlier, construction of Road 'A' will divert traffic from the eastbound to southbound right turns and northbound to westbound left turns from the intersection of Olohena Road at Kapaa Bypass. The redistribution of traffic is summarized on [Attachment J](#).

The resulting background plus project peak hour traffic projections are shown in [Attachments K](#) and [L](#).

**M. Traffic Impact Assessment**

The traffic impact of the proposed project was assessed by analyzing changes in traffic volumes at the study intersections and changes on the level-of-service.

*Changes in Total Intersection Volumes*

An analysis of the project's share of 2020 background plus project intersection approach volumes at the study intersections is summarized in [Table 8](#). The table summarizes the project's share of total 2020 peak hour approach volumes at each intersection. Also shown are the percentages of 2020 background plus project traffic that is the result of background growth and traffic generated by related projects. The negative percentages reflect the redistribution of traffic as a result of Road 'A'.

**Table 8 Analysis of Project's Share of Total Intersection Approach Volumes <sup>(1)</sup>**

Intersection	Period	Existing	2020 Background Plus Project	Project Traffic	
				Volume	Percentage
Kukui Highway at Kukui Street	AM	1441	1453	12	0.8%
	PM	1370	1385	15	1.1%
Olohena Road at Kapaa Bypass	AM	1447	1372	-75	-5.5%
	PM	1459	1407	-52	-3.7%
Kuhio Highway at Kapaa Bypass	AM	1990	2266	276	12.2%
	PM	2176	2518	342	13.6%

Notes:  
 (1) Volumes shown are total intersection approach volumes or projections.  
 (2) Percentage of total 2015 background plus project traffic.  
 (3) Data to be provided in final draft report.

The percentage of project traffic at the intersection of Kuhio Highway at Kukui Street is 0.8% during the morning peak hour and 1.1% during the afternoon peak hour. The analysis indicates that the peak hour traffic volumes at the intersection of Olohena Road at Kapaa Bypass will be less than existing because of the redistribution of traffic to Road 'A.'

The analysis indicates that peak hour traffic at the intersection of Kuhio Highway at Kapaa Bypass will increase 12.2 % during the morning peak hour and 13.6% during the afternoon peak hour. These increases are higher than desirable but the intersection is over two miles from the project. Typically, the study area for a project that generates the amount of traffic that this project generates should be limited to one-half mile, or less.

*Changes of Levels-of-Service*

A level-of-service analysis was performed for "without project" and "with project" conditions to confirm that the intersections will operate at an acceptable level-of-service and that there are no traffic operational deficiencies.

The results of the 2020 level-of-service analysis of the intersection of Kuhio Highway at Kukui Street are summarized in [Table 9](#). The overall intersection and all controlled movements will

operate at Level-of-Service B without and with project generated traffic. There are no changes in the level-of-service of the intersections or controlled lane groups as a result of project related traffic.

**Table 9 2020 Levels-of-Service - Kuhio Highway at Kukui Street <sup>(1)</sup>**

Intersection and Movement	AM Peak Hour						PM Peak Hour					
	Without Project			With Project			Without Project			With Project		
	V/C <sup>(2)</sup>	Delay <sup>(3)</sup>	LOS <sup>(4)</sup>	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
<b>Overall Intersection</b>	Cycle Length = 60 Seconds <sup>(5)</sup>						Cycle Length = 60 Seconds					
	<b>0.51</b>	<b>11.5</b>	<b>B</b>	<b>0.51</b>	<b>11.6</b>	<b>B</b>	<b>0.49</b>	<b>11.1</b>	<b>B</b>	<b>0.50</b>	<b>11.1</b>	<b>B</b>
Eastbound Left & Thru	0.10	17.0	B	0.11	17.1	B	0.09	16.9	B	0.10	17.0	B
Eastbound Right	0.03	16.4	B	0.04	16.5	B	0.01	16.3	B	0.02	16.3	B
Westbound Right	0.00	16.2	B	0.00	16.2	B	0.01	16.2	B	0.01	16.2	B
Northbound Left	0.03	5.0	A	0.03	5.1	A	0.02	5.0	A	0.04	5.2	A
Northbound Thru & Right	0.68	11.5	B	0.68	11.5	B	0.61	10.1	B	0.61	10.1	B
Southbound Left & Thru	0.65	10.9	B	0.65	10.9	B	0.67	11.5	B	0.67	11.5	B
Southbound Right	0.00	4.8	A	0.00	4.8	A	0.00	4.8	A	0.00	4.8	A

- NOTES:  
 (1) See Attachment M for AM peak hour Level-of-Service Worksheets and Attachment N for PM peak hour Level-of-Service Worksheets.  
 (2) Volume-to-Capacity ratio.  
 (3) Delay is in seconds per vehicle.  
 (4) Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.  
 (5) Traffic signal cycle length determined by timing the traffic signal during peak hours.

The results of the level-of-service analysis for the intersection of the Kapa'a Bypass at Olohehena Road, the only existing study intersection, are summarized in Table 10. The Highway Capacity Manual methodology for analysis of roundabouts calculates only the volume-to-capacity ratio of each intersection approach. The volume-to-capacity ratio is then referenced to the level-of-service definitions for signalized intersection to determine the level-of-service of each approach.

**Table 10 Future (2020) Levels-of-Service - Kapa'a Bypass at Olohehena Road**

Approach	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	V/C <sup>(1)</sup>	LOS <sup>(2)</sup>	V/C	LOS	V/C	LOS	V/C	LOS
<b>Overall Intersection</b>	<b>0.92</b>	<b>E</b>	<b>0.83</b>	<b>D</b>	<b>0.50</b>	<b>A</b>	<b>0.64</b>	<b>B</b>
Eastbound Approach	0.92	E	0.83	D	0.49	A	0.43	A
Westbound Approach	0.18	A	0.19	A	0.42	A	0.42	A
Northbound Approach	0.09	A	0.05	A	0.38	A	0.30	A
Southbound Approach	0.63	B	0.63	B	0.62	B	0.64	B

- NOTES:  
 (1) V/C denotes volume-to-capacity ratio.  
 (2) LOS denotes Level-of-Service.  
 (3) See Attachment M for AM peak hour Level-of-Service Worksheets and Attachment N for PM peak hour Level-of-Service Worksheets.

The analysis concluded that the eastbound approach is over-capacity ( Level-of-Service E) during the morning peak hour without the project but will operate at Level-of-Service D with the project. This improvement is because eastbound to southbound traffic will be diverted to Road A.

The results of the level-of-service analysis for the remaining unsignalized intersections are summarized in Table 11. Shown are the delays, levels-of-service and 95<sup>th</sup> percentile queues.

**Table 11 2020 Levels-of-Service of Unsignalized Intersections**

Intersection, Approach and Movement	AM Peak Hour						PM Peak Hour					
	Without Project			With Project			Without Project			With Project		
	Delay <sup>(1)</sup>	LOS <sup>(2)</sup>	95 <sup>th</sup> Queue <sup>(3)</sup>	Delay	LOS	95 <sup>th</sup> Queue	Delay	LOS	95 <sup>th</sup> Queue	Delay	LOS	95 <sup>th</sup> Queue
<b>Kuhio Highway at Kapaa Bypass</b>	<b>95.3</b>	<b>F</b>	<b>NC</b>	<b>191.4</b>	<b>F</b>	<b>NC</b>	<b>12.3</b>	<b>B</b>	<b>NC</b>	<b>42.4</b>	<b>E</b>	<b>NC</b>
Eastbound Left	273.5	F	999	479.7	F	1676	57.9	F	227	190.1	F	1116
Eastbound Right	Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group		
Northbound Left	9.2	A	8	9.6	A	15	13.2	B	82	21.0	C	203
Northbound Thru	Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group		
Southbound Thru	Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group		
Southbound Right	Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group		
<b>Olohehena Road at Kaapuni Road</b>	<b>9.8</b>	<b>A</b>	<b>NC</b>	<b>10.1</b>	<b>B</b>	<b>NC</b>	<b>3.1</b>	<b>A</b>	<b>NC</b>	<b>3.3</b>	<b>A</b>	<b>NC</b>
Eastbound Left & Thru	0.9	A	2	0.9	A	2	1.7	A	2	1.5	A	2
Westbound Thru & Right	Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group		
Southbound Left & Right	22.5	C	112	24.0	C	121	13.5	B	26	14.4	B	32
<b>Kaapuni Road at Kaehula Road</b>	<b>0.7</b>	<b>A</b>	<b>NC</b>	<b>0.6</b>	<b>A</b>	<b>NC</b>	<b>0.3</b>	<b>A</b>	<b>NC</b>	<b>0.3</b>	<b>A</b>	<b>NC</b>
Westbound Left & Right	11.5	B	4	11.7	B	4	11.4	B	1	11.6	B	1
Northbound Thru & Right	Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group			Uncontrolled Lane Group		
Southbound Left & Thru	0.0	A	0	0.0	A	0	0.1	A	0	0.1	A	0

- NOTES:  
 (1) Delay is in seconds per vehicle.  
 (2) LOS denotes Level-of-Service.  
 (3) 95<sup>th</sup> percentile queue in feet as reported by Synchro.  
 (4) NC = Not calculated  
 (5) See Attachment M for AM peak hour Level-of-Service Worksheets and Attachment N for PM peak hour Level-of-Service Worksheets.

The intersection of Kuhio Highway at Kapaa Bypass will operate at Level-of-Service F without and with the project during the morning and afternoon peak hours. The delay of the eastbound to northbound left turn increases even though the project adds no traffic to this movement. The delay of this movement is so long that it affects the level-of-service of the overall intersections.

The remaining unsignalized intersections will operate at Level-of-Service A without and with project traffic.

The results of the level-of-service analysis of the new STOP sign controlled intersections are summarized in Table 12. As shown, all lane groups will operate at Level-of-Service C, or better.

**Table 12 2020 Levels-of-Service - New Intersections**

Intersection and Movement	AM Peak Hour			PM Peak Hour		
	Delay <sup>1</sup>	LOS <sup>2</sup>	Queue <sup>3</sup> (Feet)	Delay	LOS	Queue (Feet)
<b>Kapa'a Bypass at Road 'A'</b>	<b>6.5</b>	<b>A</b>	<b>NC</b>	<b>5.3</b>	<b>A</b>	<b>NC</b>
Eastbound Left & Thru	6.2	A	10	5.3	A	24
Southbound Left & Right	16.5	C	93	12.0	B	33
<b>Oloheua Road at Road 'A'</b>	<b>3.0</b>	<b>A</b>	<b>NC</b>	<b>3.7</b>	<b>A</b>	<b>NC</b>
Westbound Left & Thru	1.5	A	2	1.5	A	4
Northbound Left & Right	17.1	C	36	16.8	C	35

NOTES:  
 (1) Delay is in seconds per vehicle.  
 (2) LOS denotes Level-of-Service. Level-of-Service is based on delay.  
 (3) 95<sup>th</sup> Percentile in feet as reported by Synchro.  
 (4) See Attachment M for AM peak hour Level-of-Service Worksheets and Attachment N for PM peak hour Level-of-Service Worksheets.  
 (5) NC = Not calculated.

**N. Project Road System**

For signalized intersections, Level-of-Service D is the minimum acceptable Level-of-Service<sup>7</sup> and that this standard is applicable to the overall intersection rather than each controlled lane group. Minor movements, such as left turns, and minor side street approaches may operate at Level-of-Service E or F for short periods of time during the peak hours so that the overall intersection and major movements along the major highway will operate at Level-of-Service D, or better. All volume-to-capacity ratios must be 1.00 or less<sup>8</sup>.

A standard has not been established for unsignalized intersections. Therefore, we have used a standard that Level-of-Service D is an acceptable level-of-service for any major controlled lane groups, such as left turns from a major street to a minor street. Side street approaches may operate at Level-of-Service E or F for short periods of time. This is determined from the delays of the individual lane groups. If the delay of any of the side street approaches appears to be so long that it will affect the overall level-of-service of the intersection, then roadway improvements should be identified and accessed.

Using this standard, no additional roadway improvements are recommended to accommodate project related traffic.

The eastbound to northbound left turns at the intersection of Kuhio Highway at Kapaa Bypass will operate at Level-of-Service F, without and with project traffic. The proposed project adds no traffic to this movement. The proposed project adds traffic to the northbound to westbound left turn, which increases the delay to the eastbound to northbound left turn.

<sup>7</sup> Institute of Transportation Engineers, *Transportation Impact Analyses for Site Development: A Recommended Practice*, 2006, page 60.

<sup>8</sup> Transportation Research Board, *Highway Capacity Manual*, Washington, D.C., 2000, p. 16-35.

The level-of-service of the eastbound approach of Oloheua Road to Kapa'a Bypass improves from Level-of-Service E to Level-of-Service D with project as a result of construction of Road 'A' between Kapa'a Bypass and Olowena Road, providing an alternate route and diverting traffic from the intersection. Thus, Road 'A' running through the project connecting these two intersections, redistributes traffic and reduces traffic of the overcapacity movement at this intersection during the AM peak hour.

**O. Other Traffic Related Issues**

1. Impacts of Closing Kapaa Bypass

Based on the traffic counts performed for this study, the Kapa'a Bypass accommodates between 600 and 700 vehicles per hour during the peak hours. A closure of the bypass would force this traffic to use Kuhio Highway. During the field reconnaissance for this project, it was noted that traffic flow along Kuhio Highway is congested, especially during the afternoons, with very slow speeds and long delays indicating low levels-of-service. It would be difficult for the intersections along Kuhio Highway in Kapa'a Town to accommodate this additional traffic at acceptable levels-of-service. The addition of traffic that now uses kapa'a Bypass to current traffic along Kuhio Highway would result in longer delays and therefore lower levels-of-service. The conclusion is that Kapa'a Bypass serves as a major mitigation to potential traffic congestion and low levels-of-service along Kuhio Highway.

2. Pedestrian and Traffic

It is reasonable that there will be a small amount of pedestrian and bicycle activity along Oloheua Road in the vicinity of Kapa'a Intermediate School. Some of this pedestrian activity may be generated from Kapa'a Highlands Subdivision. Accordingly, the intersections into and out of the subdivisions should provide pedestrian crosswalks to accommodate this activity.

3. Speed Control Along Road 'A'

As noted earlier in this report, Road 'A' will provide an alternate route to Kapa'a Intermediate School since it will be a more direct route for northbound traffic. Since Road 'A' will be through a residential area, traffic calming measure should be provided to control vehicle speeds and enhance the safety of pedestrians. Measures that should be considered include four-way stops, speed humps or tables.

**P. Summary and Recommendations**

1. Kapa'a Highlands subdivision is located west of Kapa'a Town and adjacent to Kapa'a Intermediate High School. The project is a residential subdivision with single-family and multi-family residences and neighborhood supporting retail.
2. The project has two phases. Phase 1 will be 16 single-family agricultural lots. Access to and egress from these lot will via driveways along Oloheua Road west of Kapa'a Intermediate School.

Mr. Greg Allen  
Kapa'a Highlands  
January 6, 2014  
Page 16

3. The second phase will consist of 100 single-family units, 700 multi-family units and 8,000 square feet of neighborhood supporting retail. Access to and egress from Phase 2 will be provided via a new intersection along the north side of Kapa'a Bypass and a new intersection along the south side of Olohena Road.
4. The conclusion of the trip generation analysis is that Phases 1 and 2 will generate a total of 394 trips during the morning peak hour and 487 trips during the afternoon peak hour.
5. The level-of-service analysis of the intersection of Kuhio Highway at Kukui Street determined that the overall intersection and all controlled movements will operate at Level-of-Service B without and with project generated traffic. There are no changes in the level-of-service of the intersections or controlled lane groups as a result of project related traffic.
6. A level-of-service analysis of the intersection of Kapa'a Bypass at Olohena Road concluded that the eastbound approach to the roundabout is currently over-capacity (Level-of-Service E) during the morning peak hour without the project but will operate at Level-of-Service D with the project. This improvement is because eastbound to southbound traffic will be diverted from the intersection to Road A.
7. The intersection of Kuhio Highway at Kapa'a Bypass will operate at Level-of-Service F without and with the project during the morning and afternoon peak hours. The delay of the eastbound to northbound left turn increases even though the project adds no traffic to this movement. The delay of this movement is so long that it affects the level-of-service of the overall intersections. The proposed project adds no traffic to this movement. The proposed project adds traffic to the northbound to westbound left turn, which increases the delay to the eastbound to northbound left turn, but is not considered significant. The morning and afternoon peak hour projections for this lane group are 5 and 12 vehicles per hour, respectively. Traffic impacts due to the project are not considered significant.

Mr. Greg Allen  
Kapa'a Highlands  
January 6, 2014  
Page 17

8. Based on the results of the level-of-service analysis, no roadway improvements are recommended to accommodate project related traffic. The project actually has a positive impact as a result of constructing Road 'A', which will divert traffic away from the intersection of Olohena Road and Kapa'a Bypass. The eastbound to southbound movement will be over-capacity without Road 'A'.

Respectfully submitted,  
**PHILLIP ROWELL AND ASSOCIATES**

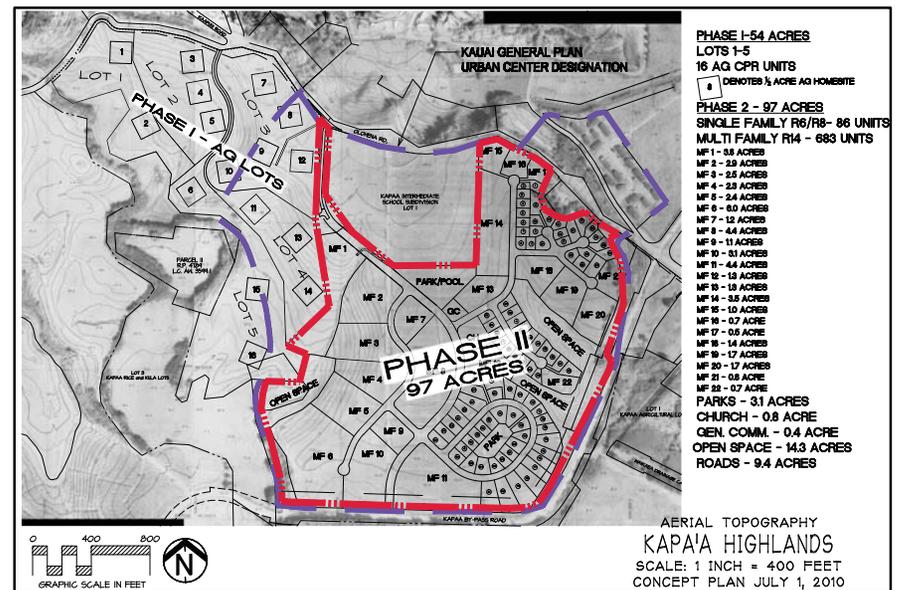


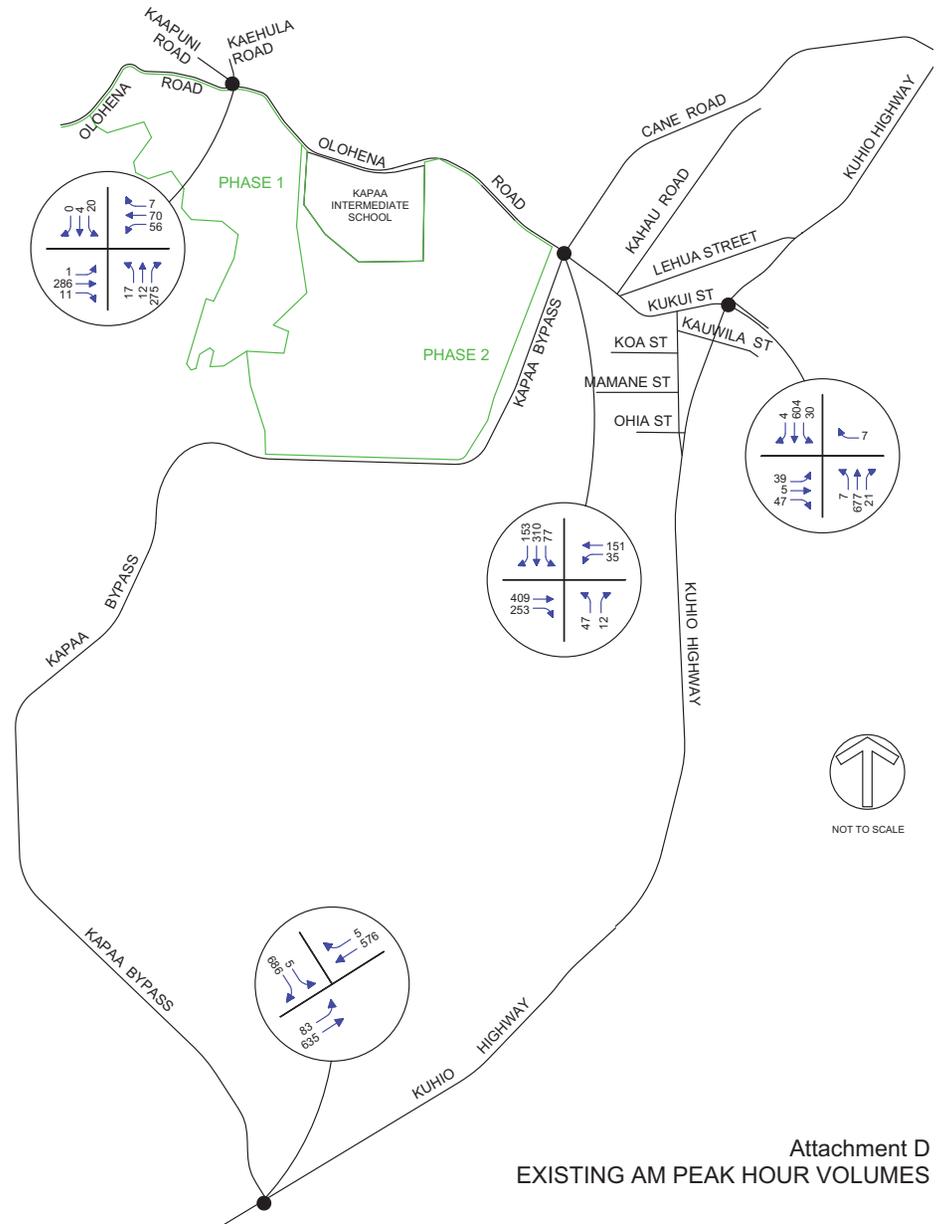
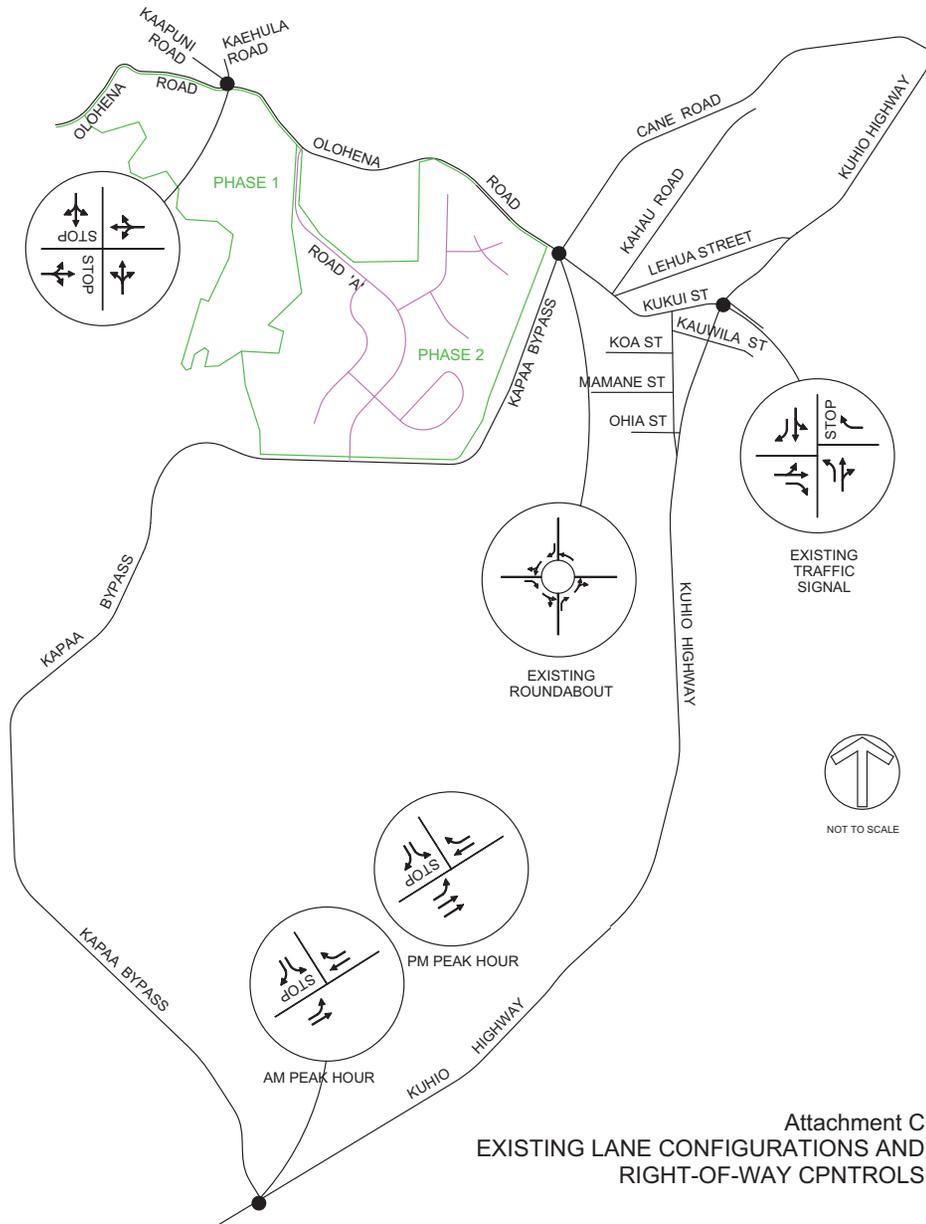
Phillip J. Rowell, P.E.  
Principal





Attachment B  
 Subdivision Plan  
 (Provided By Others)







HCM Signalized Intersection Capacity Analysis  
1: KUKUI STREET & KUHIO HIGHWAY

11/15/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗			↖	↗	↘			↖	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00			1.00	1.00	1.00			1.00	1.00
Frt		1.00	0.85			0.86	1.00	1.00			1.00	0.85
Flt Protected		0.96	1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)		1783	1583			1611	1770	1854			1858	1583
Flt Permitted		0.96	1.00			1.00	0.28	1.00			0.95	1.00
Satd. Flow (perm)		1783	1583			1611	523	1854			1774	1583
Volume (vph)	39	5	47	0	0	7	7	677	21	30	604	4
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	5	51	0	0	8	8	736	23	33	657	4
RTOR Reduction (vph)	0	0	37	0	0	6	0	2	0	0	0	2
Lane Group Flow (vph)	0	47	14	0	0	2	8	757	0	0	690	2
Turn Type	Perm	Perm	Perm	custom	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases		4					2			6		
Permitted Phases	4		4			8	2			6		6
Actuated Green, G (s)	16.0	16.0			16.0	36.0	36.0			36.0	36.0	
Effective Green, g (s)	16.0	16.0			16.0	36.0	36.0			36.0	36.0	
Actuated g/C Ratio	0.27	0.27			0.27	0.60	0.60			0.60	0.60	
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0			4.0	4.0	
Lane Grp Cap (vph)	475	422			430	314	1112			1064	950	
v/s Ratio Prot							c0.41					
v/s Ratio Perm	0.03	0.03			0.00	0.02				0.39	0.00	
v/c Ratio	0.10	0.03			0.00	0.03	0.68			0.65	0.00	
Uniform Delay, d1	16.6	16.3			16.2	4.9	8.1			7.9	4.8	
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	0.4	0.1			0.0	0.1	3.4			3.1	0.0	
Delay (s)	17.0	16.4			16.2	5.0	11.5			10.9	4.8	
Level of Service	B	B			B	A	B			B	A	
Approach Delay (s)	16.7			16.2			11.4			10.9		
Approach LOS	B			B			B			B		

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Queues  
1: KUKUI STREET & KUHIO HIGHWAY

11/15/2013

Lane Group	EBT	EBR	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↘		↖	↗
Volume (vph)	5	47	7	7	677	30	604	4
Lane Group Flow (vph)	47	51	8	8	759	0	690	4
Turn Type	Perm	custom	Perm		Perm	Perm	Perm	Perm
Protected Phases	4				2		6	
Permitted Phases		4	8	2		6		6
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag								
Lead-Lag Optimize?								
v/c Ratio	0.10	0.11	0.01	0.03	0.68		0.65	0.00
Control Delay	17.3	6.6	0.0	5.1	12.0		11.5	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	17.3	6.6	0.0	5.1	12.0		11.5	3.5
Queue Length 50th (ft)	13	0	0	1	160		141	0
Queue Length 95th (ft)	34	21	0	5	270		241	3
Internal Link Dist (ft)	1654				6852		2720	
Turn Bay Length (ft)								
Base Capacity (vph)	475	460	591	314	1114		1064	951
Starvation Cap Reductn	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0
Reduced v/c Ratio	0.10	0.11	0.01	0.03	0.68		0.65	0.00

Intersection Summary	
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed

Splits and Phases: 1: KUKUI STREET & KUHIO HIGHWAY



HCM Unsignalized Intersection Capacity Analysis  
2: OLOHENA ROAD & KAPAA BYPASS

11/15/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Right Turn Channelized												
Volume (veh/h)	0	409	253	35	151	0	47	0	12	77	310	153
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	445	275	38	164	0	51	0	13	84	337	166
Approach Volume (veh/h)		720			202			64			587	
Crossing Volume (veh/h)		459			51			528			253	
High Capacity (veh/h)		965			1331			913			1135	
High v/c (veh/h)		0.75			0.15			0.07			0.52	
Low Capacity (veh/h)		782			1112			736			935	
Low v/c (veh/h)		0.92			0.18			0.09			0.63	
<b>Intersection Summary</b>												
Maximum v/c High	0.75											
Maximum v/c Low	0.92											
Intersection Capacity Utilization	73.5%		ICU Level of Service		D							

HCM Unsignalized Intersection Capacity Analysis  
3: KAPAA BYPASS & KUHIO HIGHWAY

11/15/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	5	686	83	635	576	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	746	90	690	626	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		10				
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1497	626	632			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1497	626	632			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	0	91			
cM capacity (veh/h)	122	484	951			
<b>Direction, Lane #</b>						
	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	751	90	690	626	5	
Volume Left	5	90	0	0	0	
Volume Right	746	0	0	0	5	
cSH	488	951	1700	1700	1700	
Volume to Capacity	1.54	0.09	0.41	0.37	0.00	
Queue Length 95th (ft)	999	8	0	0	0	
Control Delay (s)	273.5	9.2	0.0	0.0	0.0	
Lane LOS	F	A				
Approach Delay (s)	273.5	1.1		0.0		
Approach LOS	F					
<b>Intersection Summary</b>						
Average Delay	95.3					
Intersection Capacity Utilization	79.5%		ICU Level of Service		D	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
4: OLOHENA ROAD & KAAPUNI ROAD

11/15/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	29	275	66	77	306	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	299	72	84	333	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	155				476	114
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	155				476	114
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
IF (s)	2.2				3.5	3.3
p0 queue free %	98				38	98
cM capacity (veh/h)	1425				536	939
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>SB 1</b>			
Volume Total	330	155	349			
Volume Left	32	0	333			
Volume Right	0	84	16			
cSH	1425	1700	547			
Volume to Capacity	0.02	0.09	0.64			
Queue Length 95th (ft)	2	0	112			
Control Delay (s)	0.9	0.0	22.5			
Lane LOS	A		C			
Approach Delay (s)	0.9	0.0	22.5			
Approach LOS			C			
<b>Intersection Summary</b>						
Average Delay			9.8			
Intersection Capacity Utilization			52.1%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis  
5: KAEHULA ROAD & KAAPUNI ROAD

11/15/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↕		↕		↕	↕
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	24	0	87	19	1	298
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	0	95	21	1	324
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	431	105			115	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	431	105			115	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	96	100			100	
cM capacity (veh/h)	581	950			1474	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	26	115	325			
Volume Left	26	0	1			
Volume Right	0	21	0			
cSH	581	1700	1474			
Volume to Capacity	0.04	0.07	0.00			
Queue Length 95th (ft)	4	0	0			
Control Delay (s)	11.5	0.0	0.0			
Lane LOS	B		A			
Approach Delay (s)	11.5	0.0	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			0.7			
Intersection Capacity Utilization			26.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Signalized Intersection Capacity Analysis  
1: KUKUI STREET & KUHIO HIGHWAY

11/15/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕			↕	↕	↕			↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00			1.00	1.00	1.00			1.00	1.00
Frt		1.00	0.85			0.86	1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)		1788	1583			1611	1770	1844			1858	1583
Flt Permitted		0.96	1.00			1.00	0.26	1.00			0.95	1.00
Satd. Flow (perm)		1788	1583			1611	489	1844			1776	1583
Volume (vph)	34	6	20	0	0	15	6	585	42	33	627	2
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	7	22	0	0	16	7	636	46	36	682	2
RTOR Reduction (vph)	0	0	16	0	0	12	0	4	0	0	0	1
Lane Group Flow (vph)	0	44	6	0	0	4	7	678	0	0	718	1
Turn Type	Perm	Perm	Perm	custom	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases		4					2			6		6
Permitted Phases	4		4			8	2			6		6
Actuated Green, G (s)		16.0	16.0			16.0	36.0	36.0			36.0	36.0
Effective Green, g (s)		16.0	16.0			16.0	36.0	36.0			36.0	36.0
Actuated g/C Ratio		0.27	0.27			0.27	0.60	0.60			0.60	0.60
Clearance Time (s)		4.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Grp Cap (vph)		477	422			430	293	1106			1066	950
v/s Ratio Prot								0.37				
v/s Ratio Perm		0.02	0.01			0.01	0.01				c0.40	0.00
v/c Ratio		0.09	0.01			0.01	0.02	0.61			0.67	0.00
Uniform Delay, d1		16.5	16.2			16.2	4.9	7.6			8.1	4.8
Progression Factor		1.00	1.00			1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2		0.4	0.1			0.0	0.2	2.5			3.4	0.0
Delay (s)		16.9	16.3			16.2	5.0	10.1			11.5	4.8
Level of Service		B	B			B	A	B			B	A
Approach Delay (s)		16.7			16.2			10.1			11.4	
Approach LOS		B			B			B			B	
<b>Intersection Summary</b>												
HCM Average Control Delay		11.1									B	
HCM Volume to Capacity ratio		0.49										
Actuated Cycle Length (s)		60.0				Sum of lost time (s)		8.0				
Intersection Capacity Utilization		69.9%				ICU Level of Service		C				
Analysis Period (min)		15										
c	Critical Lane Group											

Attachment G  
Level-of-Service Worksheets for Existing PM Peak Hour  
Conditions

Queues

1: KUKUI STREET & KUHIO HIGHWAY

11/15/2013

Lane Group	EBT	EBR	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	6	20	15	6	585	33	627	2
Lane Group Flow (vph)	44	22	16	7	682	0	718	2
Turn Type	Perm custom		Perm		Perm	Perm		Perm
Protected Phases	4				2		6	
Permitted Phases		4	8	2		6		6
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag								
Lead-Lag Optimize?								
v/c Ratio	0.09	0.05	0.03	0.02	0.61		0.67	0.00
Control Delay	17.3	8.3	0.1	5.2	10.5		12.1	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	17.3	8.3	0.1	5.2	10.5		12.1	3.5
Queue Length 50th (ft)	12	0	0	1	132		151	0
Queue Length 95th (ft)	33	14	0	5	223		257	2
Internal Link Dist (ft)	1654			6852			2720	
Turn Bay Length (ft)								
Base Capacity (vph)	477	438	631	293	1111		1066	951
Starvation Cap Reductn	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0
Reduced v/c Ratio	0.09	0.05	0.03	0.02	0.61		0.67	0.00

Intersection Summary	
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed

Splits and Phases: 1: KUKUI STREET & KUHIO HIGHWAY



HCM Unsignalized Intersection Capacity Analysis

2: OLOHENA ROAD & KAPAA BYPASS

11/15/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Right Turn Channelized												
Volume (veh/h)	0	253	116	79	310	0	143	0	155	77	209	117
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	275	126	86	337	0	155	0	168	84	227	127
Approach Volume (veh/h)		401			423			324			438	
Crossing Volume (veh/h)		397			155			359			578	
High Capacity (veh/h)		1014			1226			1045			877	
High v/c (veh/h)		0.40			0.34			0.31			0.50	
Low Capacity (veh/h)		826			1017			854			704	
Low v/c (veh/h)		0.49			0.42			0.38			0.62	

Intersection Summary	
Maximum v/c High	0.50
Maximum v/c Low	0.62
Intersection Capacity Utilization	88.5%
ICU Level of Service	E

HCM Unsignalized Intersection Capacity Analysis  
3: KAPAA BYPASS & KUHIO HIGHWAY

11/15/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔	↔	↔	↕	↕	↔
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	12	343	464	766	577	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	373	504	833	627	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)			10			
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2052	627	642			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2052	627	642			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
IF (s)	3.5	3.3	2.2			
p0 queue free %	41	13	46			
cM capacity (veh/h)	22	426	938			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>NB 2</b>	<b>NB 3</b>	<b>SB 1</b>	<b>SB 2</b>
Volume Total	386	504	416	416	627	15
Volume Left	13	504	0	0	0	0
Volume Right	373	0	0	0	0	15
cSH	441	938	1700	1700	1700	1700
Volume to Capacity	0.87	0.54	0.24	0.24	0.37	0.01
Queue Length 95th (ft)	227	82	0	0	0	0
Control Delay (s)	57.9	13.2	0.0	0.0	0.0	0.0
Lane LOS	F	B				
Approach Delay (s)	57.9	5.0			0.0	
Approach LOS	F					
<b>Intersection Summary</b>						
Average Delay	12.3					
Intersection Capacity Utilization	69.4%		ICU Level of Service		C	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
4: OLOHENA ROAD & KAAPUNI ROAD

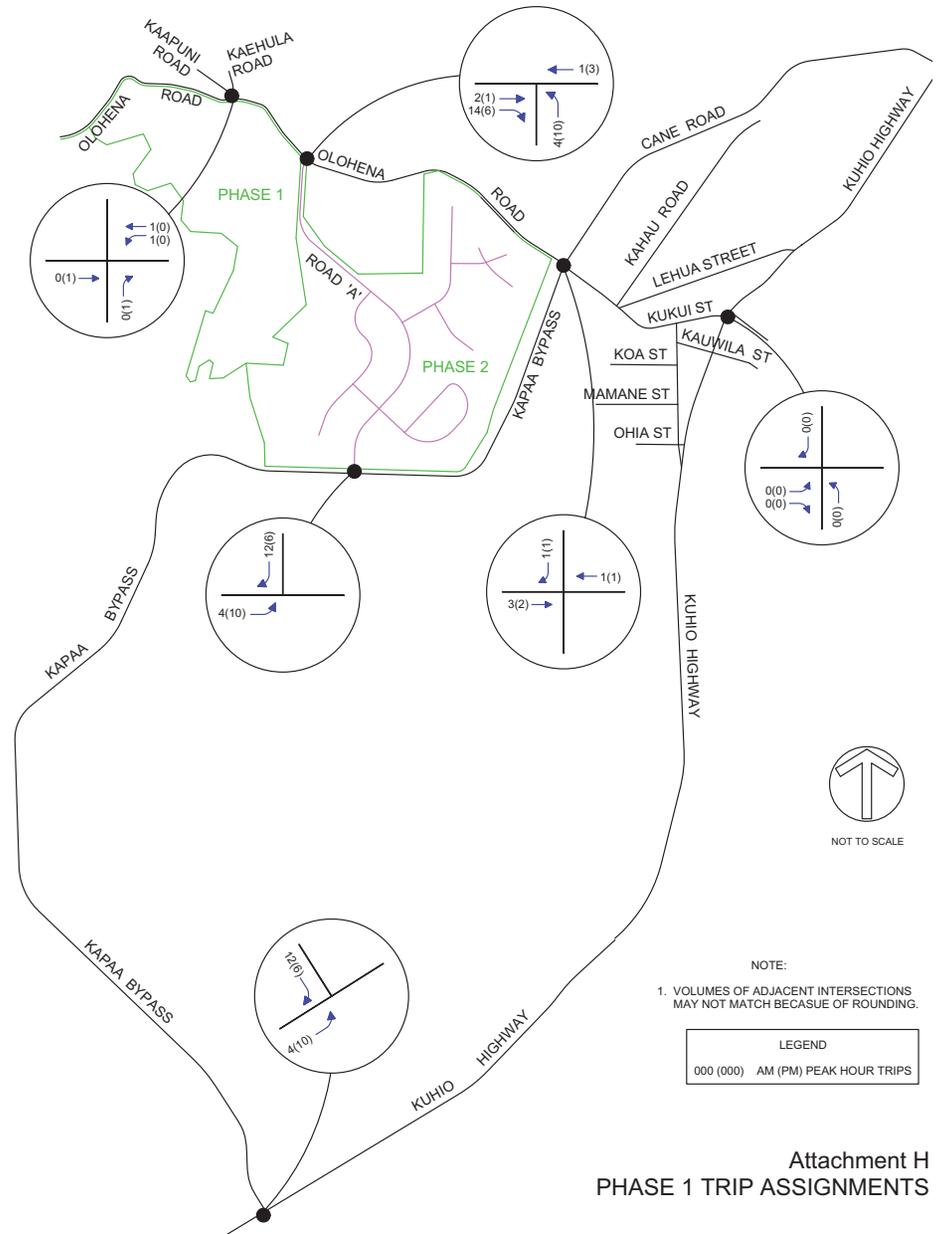
11/15/2013

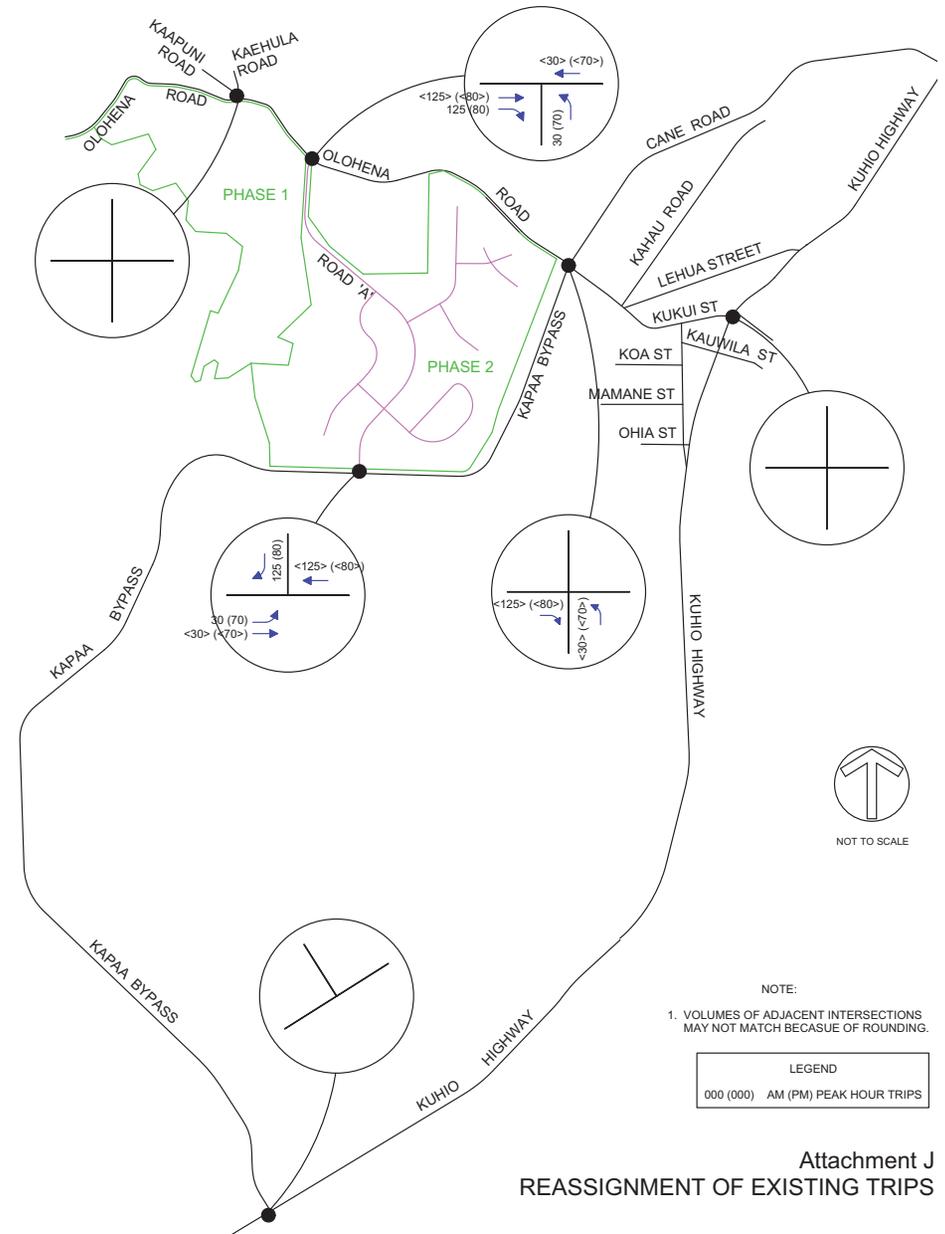
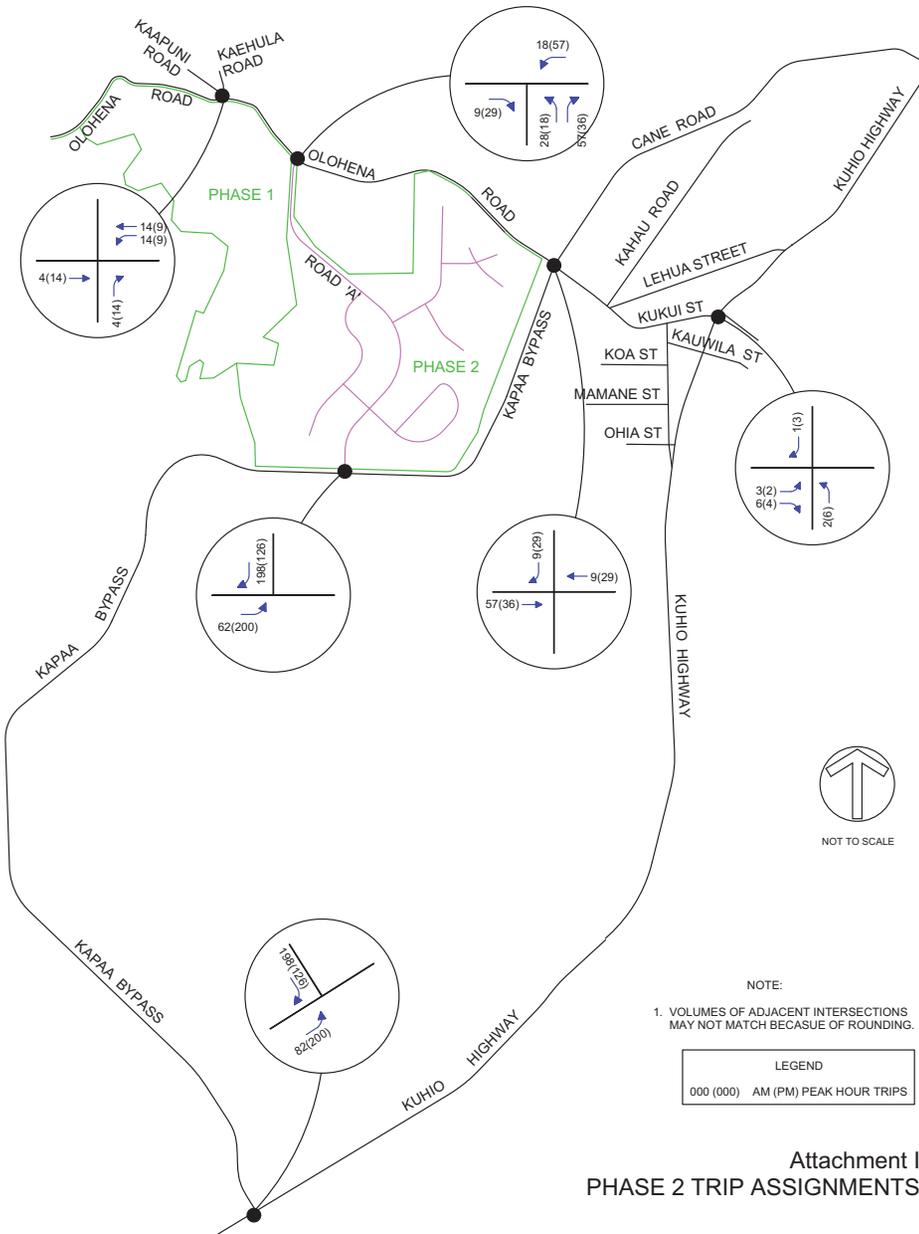
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Sign Control	Free	Free	Free	Free	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	20	87	169	257	110	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	95	184	279	120	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	463				461	323
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	463				461	323
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
IF (s)	2.2				3.5	3.3
p0 queue free %	98				78	95
cM capacity (veh/h)	1098				547	718
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>SB 1</b>			
Volume Total	116	463	152			
Volume Left	22	0	120			
Volume Right	0	279	33			
cSH	1098	1700	577			
Volume to Capacity	0.02	0.27	0.26			
Queue Length 95th (ft)	2	0	26			
Control Delay (s)	1.7	0.0	13.5			
Lane LOS	A		B			
Approach Delay (s)	1.7	0.0	13.5			
Approach LOS			B			
<b>Intersection Summary</b>						
Average Delay	3.1					
Intersection Capacity Utilization	39.2%		ICU Level of Service		A	
Analysis Period (min)	15					

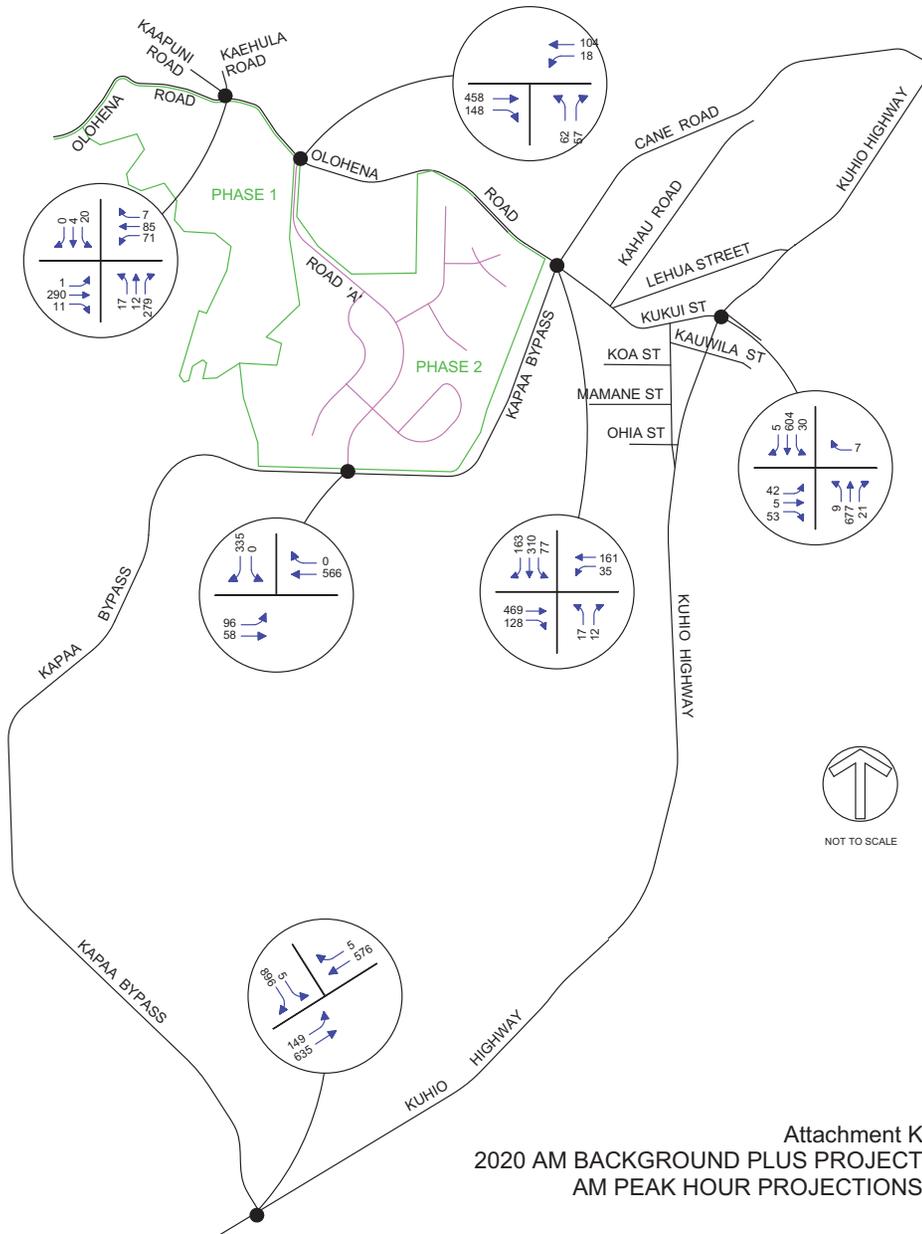
HCM Unsignalized Intersection Capacity Analysis  
 5: KAEHULA ROAD & KAAPUNI ROAD

11/15/2013

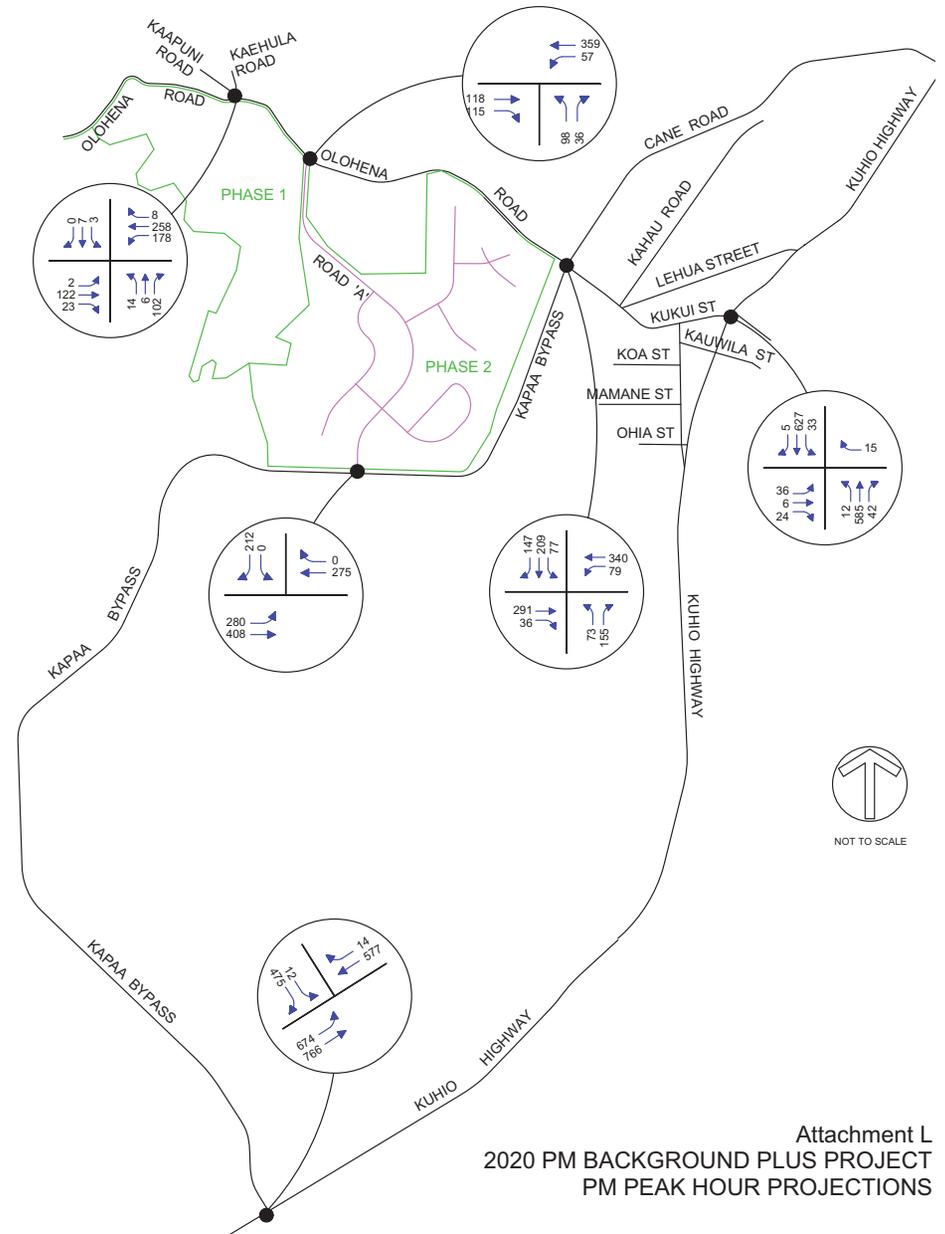
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	T	R
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	10	0	263	14	2	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	286	15	2	141
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	439	293			301	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	439	293			301	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	574	746			1260	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	11	301	143			
Volume Left	11	0	2			
Volume Right	0	15	0			
cSH	574	1700	1260			
Volume to Capacity	0.02	0.18	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	11.4	0.0	0.1			
Lane LOS	B		A			
Approach Delay (s)	11.4	0.0	0.1			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay	0.3					
Intersection Capacity Utilization	24.7%		ICU Level of Service		A	
Analysis Period (min)	15					







Attachment K  
2020 AM BACKGROUND PLUS PROJECT  
AM PEAK HOUR PROJECTIONS



Attachment L  
2020 PM BACKGROUND PLUS PROJECT  
PM PEAK HOUR PROJECTIONS

HCM Signalized Intersection Capacity Analysis  
1: KUKUI STREET & KUHIO HIGHWAY

12/2/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕			↕	↕	↕			↕	↕
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00			1.00	1.00	1.00			1.00	1.00
Frt		1.00	0.85			0.86	1.00	1.00			1.00	0.85
Flt Protected		0.96	1.00			1.00	0.95	1.00			1.00	1.00
Satd. Flow (prot)		1782	1583			1611	1770	1854			1858	1583
Flt Permitted		0.96	1.00			1.00	0.28	1.00			0.95	1.00
Satd. Flow (perm)		1782	1583			1611	523	1854			1774	1583
Volume (vph)	42	5	53	0	0	7	9	677	21	30	604	5
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	5	58	0	0	8	10	736	23	33	657	5
RTOR Reduction (vph)	0	0	43	0	0	6	0	2	0	0	0	2
Lane Group Flow (vph)	0	51	15	0	0	2	10	757	0	0	690	3
Turn Type	Perm	Perm	Perm	custom	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases		4					2			6		6
Permitted Phases	4		4			8	2			6		6
Actuated Green, G (s)		16.0	16.0			16.0	36.0	36.0			36.0	36.0
Effective Green, g (s)		16.0	16.0			16.0	36.0	36.0			36.0	36.0
Actuated g/C Ratio		0.27	0.27			0.27	0.60	0.60			0.60	0.60
Clearance Time (s)		4.0	4.0			4.0	4.0	4.0			4.0	4.0
Lane Grp Cap (vph)		475	422			430	314	1112			1064	950
v/s Ratio Prot							c0.41					
v/s Ratio Perm		0.03	0.04			0.00	0.02				0.39	0.00
v/c Ratio		0.11	0.04			0.00	0.03	0.68			0.65	0.00
Uniform Delay, d1		16.6	16.3			16.2	4.9	8.1			7.9	4.8
Progression Factor		1.00	1.00			1.00	1.00	1.00			1.00	1.00
Incremental Delay, d2		0.5	0.2			0.0	0.2	3.4			3.1	0.0
Delay (s)		17.1	16.5			16.2	5.1	11.5			10.9	4.8
Level of Service		B	B			B	A	B			B	A
Approach Delay (s)		16.7			16.2			11.4			10.9	
Approach LOS		B			B			B			B	
<b>Intersection Summary</b>												
HCM Average Control Delay		11.6									B	
HCM Volume to Capacity ratio		0.51										
Actuated Cycle Length (s)		60.0				Sum of lost time (s)		8.0				
Intersection Capacity Utilization		66.2%				ICU Level of Service		C				
Analysis Period (min)		15										
c	Critical Lane Group											

Attachment M  
Level-of-Service Worksheets for 2020 Background Plus Project  
AM Peak Hour Conditions

Queues

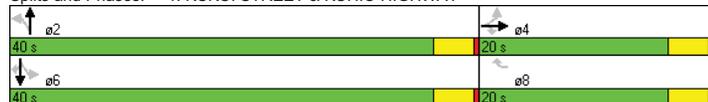
1: KUKUI STREET & KUHIO HIGHWAY

12/2/2013

Lane Group	EBT	EBR	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↖	↖	↗	↗
Volume (vph)	5	53	7	9	677	30	604	5
Lane Group Flow (vph)	51	58	8	10	759	0	690	5
Turn Type	Perm custom		Perm		Perm	Perm		Perm
Protected Phases	4				2			6
Permitted Phases		4	8	2		6		6
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag								
Lead-Lag Optimize?								
v/c Ratio	0.11	0.12	0.01	0.03	0.68		0.65	0.01
Control Delay	17.4	6.4	0.0	5.3	12.0		11.5	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	17.4	6.4	0.0	5.3	12.0		11.5	3.2
Queue Length 50th (ft)	14	0	0	1	160		141	0
Queue Length 95th (ft)	36	23	0	6	270		241	3
Internal Link Dist (ft)	1654			6852			2720	
Turn Bay Length (ft)								
Base Capacity (vph)	475	465	591	314	1114		1064	952
Starvation Cap Reductn	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0
Reduced v/c Ratio	0.11	0.12	0.01	0.03	0.68		0.65	0.01

Intersection Summary	
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed

Splits and Phases: 1: KUKUI STREET & KUHIO HIGHWAY



HCM Unsignalized Intersection Capacity Analysis

2: OLOHENA ROAD & KAPAA BYPASS

12/2/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Right Turn Channelized												
Volume (veh/h)	0	469	128	35	161	0	17	0	12	77	310	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	510	139	38	175	0	18	0	13	84	337	177
Approach Volume (veh/h)		649			213			32			598	
Crossing Volume (veh/h)		459			18			593			232	
High Capacity (veh/h)		965			1365			866			1155	
High v/c (veh/h)		0.67			0.16			0.04			0.52	
Low Capacity (veh/h)		782			1143			695			953	
Low v/c (veh/h)		0.83			0.19			0.05			0.63	

Intersection Summary	
Maximum v/c High	0.67
Maximum v/c Low	0.83
Intersection Capacity Utilization	75.6%
ICU Level of Service	D

HCM Unsignalized Intersection Capacity Analysis  
3: KAPAA BYPASS & KUHIO HIGHWAY

12/2/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔	↔	↔	↕	↕	↔
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	5	896	149	635	576	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	974	162	690	626	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)			10			
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1640	626	632			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1640	626	632			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
IF (s)	3.5	3.3	2.2			
p0 queue free %	94	0	83			
cM capacity (veh/h)	91	484	951			
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>NB 1</b>	<b>NB 2</b>	<b>SB 1</b>	<b>SB 2</b>	
Volume Total	979	162	690	626	5	
Volume Left	5	162	0	0	0	
Volume Right	974	0	0	0	5	
cSH	487	951	1700	1700	1700	
Volume to Capacity	2.01	0.17	0.41	0.37	0.00	
Queue Length 95th (ft)	1676	15	0	0	0	
Control Delay (s)	479.7	9.6	0.0	0.0	0.0	
Lane LOS	F	A				
Approach Delay (s)	479.7	1.8		0.0		
Approach LOS	F					
<b>Intersection Summary</b>						
Average Delay						191.4
Intersection Capacity Utilization						92.5%
ICU Level of Service						F
Analysis Period (min)						15

HCM Unsignalized Intersection Capacity Analysis  
4: OLOHENA ROAD & KAAPUNI ROAD

12/2/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Sign Control		Free	Free		Stop	
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	29	279	71	92	310	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	303	77	100	337	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	177				493	127
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	177				493	127
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
IF (s)	2.2				3.5	3.3
p0 queue free %	98				36	98
cM capacity (veh/h)	1399				523	923
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>SB 1</b>			
Volume Total	335	177	353			
Volume Left	32	0	337			
Volume Right	0	100	16			
cSH	1399	1700	534			
Volume to Capacity	0.02	0.10	0.66			
Queue Length 95th (ft)	2	0	121			
Control Delay (s)	0.9	0.0	24.0			
Lane LOS	A		C			
Approach Delay (s)	0.9	0.0	24.0			
Approach LOS			C			
<b>Intersection Summary</b>						
Average Delay						10.1
Intersection Capacity Utilization						53.7%
ICU Level of Service						A
Analysis Period (min)						15

HCM Unsignalized Intersection Capacity Analysis  
5: KAEHULA ROAD & KAAPUNI ROAD

12/2/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↕	↕	↔	↔
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	24	0	102	19	1	301
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	0	111	21	1	327
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	451	121			132	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	451	121			132	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	95	100			100	
cM capacity (veh/h)	566	930			1454	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	26	132	328			
Volume Left	26	0	1			
Volume Right	0	21	0			
cSH	566	1700	1454			
Volume to Capacity	0.05	0.08	0.00			
Queue Length 95th (ft)	4	0	0			
Control Delay (s)	11.7	0.0	0.0			
Lane LOS	B		A			
Approach Delay (s)	11.7	0.0	0.0			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay	0.6					
Intersection Capacity Utilization	26.6%		ICU Level of Service		A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
6: KAPAA BYPASS & ROAD 'A'

12/2/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	96	58	0	566	0	335
Peak Hour Factor	0.87	0.87	0.90	0.90	0.80	0.80
Hourly flow rate (vph)	110	67	0	629	0	419
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	629				602	314
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	629				602	314
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
IF (s)	2.2				3.5	3.3
p0 queue free %	88				100	42
cM capacity (veh/h)	953				409	726
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>SB 1</b>			
Volume Total	177	629	419			
Volume Left	110	0	0			
Volume Right	0	629	419			
cSH	953	1700	726			
Volume to Capacity	0.12	0.37	0.58			
Queue Length 95th (ft)	10	0	93			
Control Delay (s)	6.2	0.0	16.5			
Lane LOS	A		C			
Approach Delay (s)	6.2	0.0	16.5			
Approach LOS			C			
<b>Intersection Summary</b>						
Average Delay	6.5					
Intersection Capacity Utilization	74.2%		ICU Level of Service		D	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
 7: OLOHENA ROAD & ROAD 'A'

12/2/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔		↔	
Sign Control	Free		Free		Stop	
Grade	0%		0%		0%	
Volume (veh/h)	458	148	18	104	62	57
Peak Hour Factor	0.95	0.95	0.91	0.91	0.80	0.80
Hourly flow rate (vph)	482	156	20	114	78	71
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			638		714	560
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			638		714	560
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
IF (s)			2.2		3.5	3.3
p0 queue free %			98		80	87
cM capacity (veh/h)			946		390	528
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	638	134	149			
Volume Left	0	20	78			
Volume Right	156	0	71			
cSH	1700	946	446			
Volume to Capacity	0.38	0.02	0.33			
Queue Length 95th (ft)	0	2	36			
Control Delay (s)	0.0	1.5	17.1			
Lane LOS		A	C			
Approach Delay (s)	0.0	1.5	17.1			
Approach LOS			C			
<b>Intersection Summary</b>						
Average Delay			3.0			
Intersection Capacity Utilization	46.7%		ICU Level of Service	A		
Analysis Period (min)	15					

Attachment N  
 Level-of-Service Worksheets for 2020 Background Plus Project  
 PM Peak Hour Conditions

HCM Signalized Intersection Capacity Analysis  
1: KUKUI STREET & KUHIO HIGHWAY

11/15/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↖	↗			↖	↗	↘			↖	↗	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0	4.0			4.0	4.0	4.0			4.0	4.0	
Lane Util. Factor		1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Frt		1.00	0.85			0.86	1.00	0.99			1.00	0.85	
Flt Protected		0.96	1.00			1.00	0.95	1.00			1.00	1.00	
Satd. Flow (prot)		1787	1583			1611	1770	1844			1858	1583	
Flt Permitted		0.96	1.00			1.00	0.26	1.00			0.95	1.00	
Satd. Flow (perm)		1787	1583			1611	489	1844			1776	1583	
Volume (vph)		36	6	24	0	0	15	12	585	42	33	627	5
Peak-hour factor, PHF		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)		39	7	26	0	0	16	13	636	46	36	682	5
RTOR Reduction (vph)		0	0	19	0	0	12	0	4	0	0	0	2
Lane Group Flow (vph)		0	46	7	0	0	4	13	678	0	0	718	3
Turn Type		Perm	Perm			custom	Perm			Perm		Perm	
Protected Phases		4						2				6	
Permitted Phases		4	4			8	2			6		6	
Actuated Green, G (s)		16.0	16.0			16.0	36.0	36.0		36.0		36.0	
Effective Green, g (s)		16.0	16.0			16.0	36.0	36.0		36.0		36.0	
Actuated g/C Ratio		0.27	0.27			0.27	0.60	0.60		0.60		0.60	
Clearance Time (s)		4.0	4.0			4.0	4.0	4.0		4.0		4.0	
Lane Grp Cap (vph)		477	422			430	293	1106		1066		950	
v/s Ratio Prot								0.37					
v/s Ratio Perm		0.03	0.02			0.01	0.03			c0.40		0.00	
v/c Ratio		0.10	0.02			0.01	0.04	0.61		0.67		0.00	
Uniform Delay, d1		16.6	16.2			16.2	4.9	7.6		8.1		4.8	
Progression Factor		1.00	1.00			1.00	1.00	1.00		1.00		1.00	
Incremental Delay, d2		0.4	0.1			0.0	0.3	2.5		3.4		0.0	
Delay (s)		17.0	16.3			16.2	5.2	10.1		11.5		4.8	
Level of Service		B	B			B	A	B		B		A	
Approach Delay (s)		16.7			16.2			10.0				11.4	
Approach LOS		B			B			B				B	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Queues  
1: KUKUI STREET & KUHIO HIGHWAY

11/15/2013

Lane Group	EBT	EBR	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↘		↖	↗
Volume (vph)	6	24	15	12	585	33	627	5
Lane Group Flow (vph)	46	26	16	13	682	0	718	5
Turn Type		Perm	custom	Perm		Perm		Perm
Protected Phases	4				2			6
Permitted Phases		4	8	2		6		6
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag								
Lead-Lag Optimize?								
v/c Ratio	0.10	0.06	0.03	0.04	0.61		0.67	0.01
Control Delay	17.3	8.0	0.1	5.5	10.5		12.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	17.3	8.0	0.1	5.5	10.5		12.1	3.2
Queue Length 50th (ft)	13	0	0	2	132		151	0
Queue Length 95th (ft)	34	15	0	7	223		257	3
Internal Link Dist (ft)					6852		2720	
Turn Bay Length (ft)								
Base Capacity (vph)	476	441	631	293	1111		1066	952
Starvation Cap Reductn	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0
Reduced v/c Ratio	0.10	0.06	0.03	0.04	0.61		0.67	0.01

Intersection Summary	
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed

Splits and Phases: 1: KUKUI STREET & KUHIO HIGHWAY



HCM Unsignalized Intersection Capacity Analysis  
2: OLOHENA ROAD & KAPAA BYPASS

12/2/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Right Turn Channelized												
Volume (veh/h)	0	291	36	79	340	0	73	0	155	77	209	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	316	39	86	370	0	79	0	168	84	227	160
Approach Volume (veh/h)		355			455			248			471	
Crossing Volume (veh/h)		397			79			400			535	
High Capacity (veh/h)		1014			1302			1011			908	
High v/c (veh/h)		0.35			0.35			0.25			0.52	
Low Capacity (veh/h)		826			1086			823			732	
Low v/c (veh/h)		0.43			0.42			0.30			0.64	
<b>Intersection Summary</b>												
Maximum v/c High	0.52											
Maximum v/c Low	0.64											
Intersection Capacity Utilization	77.3%		ICU Level of Service				D					

HCM Unsignalized Intersection Capacity Analysis  
3: KAPAA BYPASS & KUHIO HIGHWAY

12/2/2013

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	12	475	674	766	577	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	516	733	833	627	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		10				
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2509	627	642			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2509	627	642			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	22			
cM capacity (veh/h)	5	426	938			
<b>Direction, Lane #</b>						
	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	529	733	416	416	627	15
Volume Left	13	733	0	0	0	0
Volume Right	516	0	0	0	0	15
cSH	208	938	1700	1700	1700	1700
Volume to Capacity	2.55	0.78	0.24	0.24	0.37	0.01
Queue Length 95th (ft)	1116	203	0	0	0	0
Control Delay (s)	190.1	21.0	0.0	0.0	0.0	0.0
Lane LOS	F	C				
Approach Delay (s)	190.1	9.8			0.0	
Approach LOS	F					
<b>Intersection Summary</b>						
Average Delay	42.4					
Intersection Capacity Utilization	81.0%		ICU Level of Service			
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
4: OLOHENA ROAD & KAAPUNI ROAD

12/2/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	20	102	178	266	125	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	111	193	289	136	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	483				492	338
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	483				492	338
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
IF (s)	2.2				3.5	3.3
p0 queue free %	98				74	95
cM capacity (veh/h)	1080				525	704
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>SB 1</b>			
Volume Total	133	483	168			
Volume Left	22	0	136			
Volume Right	0	289	33			
cSH	1080	1700	552			
Volume to Capacity	0.02	0.28	0.31			
Queue Length 95th (ft)	2	0	32			
Control Delay (s)	1.5	0.0	14.4			
Lane LOS	A		B			
Approach Delay (s)	1.5	0.0	14.4			
Approach LOS			B			
<b>Intersection Summary</b>						
Average Delay			3.3			
Intersection Capacity Utilization	41.1%			ICU Level of Service	A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
5: KAEHULA ROAD & KAAPUNI ROAD

12/2/2013

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↕		↕		↕	↕
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	10	0	272	14	2	145
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	296	15	2	158
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	465	303			311	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	465	303			311	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	555	736			1250	
<b>Direction, Lane #</b>	<b>WB 1</b>	<b>NB 1</b>	<b>SB 1</b>			
Volume Total	11	311	160			
Volume Left	11	0	2			
Volume Right	0	15	0			
cSH	555	1700	1250			
Volume to Capacity	0.02	0.18	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	11.6	0.0	0.1			
Lane LOS	B		A			
Approach Delay (s)	11.6	0.0	0.1			
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			0.3			
Intersection Capacity Utilization	25.2%			ICU Level of Service	A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
6: KAPAA BYPASS & ROAD 'A'

12/2/2013

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	↕
Sign Control		Free	Free		Stop	Stop
Grade		0%	0%		0%	0%
Volume (veh/h)	280	408	275	0	0	212
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	304	443	299	0	0	230
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	299				1351	299
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	299				1351	299
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
IF (s)	2.2				3.5	3.3
p0 queue free %	76				100	69
cM capacity (veh/h)	1262				126	741
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>SB 1</b>			
Volume Total	748	299	230			
Volume Left	304	0	0			
Volume Right	0	0	230			
cSH	1262	1700	741			
Volume to Capacity	0.24	0.18	0.31			
Queue Length 95th (ft)	24	0	33			
Control Delay (s)	5.3	0.0	12.0			
Lane LOS	A		B			
Approach Delay (s)	5.3	0.0	12.0			
Approach LOS			B			
<b>Intersection Summary</b>						
Average Delay	5.3					
Intersection Capacity Utilization	74.6%		ICU Level of Service		D	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis  
7: OLOHENA ROAD & ROAD 'A'

12/2/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↕		↕	↕	↕
Sign Control	Free			Free	Stop	Stop
Grade	0%			0%	0%	
Volume (veh/h)	118	115	57	359	98	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	128	125	62	390	107	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			253		705	191
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			253		705	191
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
IF (s)			2.2		3.5	3.3
p0 queue free %			95		72	95
cM capacity (veh/h)			1312		384	851
<b>Direction, Lane #</b>	<b>EB 1</b>	<b>WB 1</b>	<b>NB 1</b>			
Volume Total	253	452	146			
Volume Left	0	62	107			
Volume Right	125	0	39			
cSH	1700	1312	450			
Volume to Capacity	0.15	0.05	0.32			
Queue Length 95th (ft)	0	4	35			
Control Delay (s)	0.0	1.5	16.8			
Lane LOS		A	C			
Approach Delay (s)	0.0	1.5	16.8			
Approach LOS			C			
<b>Intersection Summary</b>						
Average Delay	3.7					
Intersection Capacity Utilization	52.9%		ICU Level of Service		A	
Analysis Period (min)	15					

Attachment O  
Comments from State of Hawaii Department of Transportation and Responses  
Relative to DRAFT TIAR Submitted June 6, 2012

Comment		Response
1.	The study area is too limited. The limits of the study area needs to be expanded to include the Kuhio Highway/Olohehena Road intersection, Kuhio Highway/Temporary Kapaa Bypass Road intersection and other intersections along Kuhio Highway to a point where the development's project generated traffic impact is less than 3%.	Per our telephone conversation, we believe that the Kuhio Highway/Olohehena Road intersection referred to is the intersection of Kuhio Highway at Kukui Street. It was also agreed that the study area would be expanded to include the two intersections noted. Based on the traffic distribution patterns noted during the traffic counts and the existing street network, only a small amount of will have a destination along Kuhio Highway between Kukui Street and Kapaa Bypass.
2.	The traffic volumes from the Kapaa County swimming pool and park on the 3.1 acre park site shall be in the trip generation and distribution calculations.	Based on trip generation data provided in Trip Generation, 8 <sup>th</sup> Edition, the park will generate less than five (5) trips per hour during either the a morning or afternoon peak hour. This amount of traffic is too little to impact the level-of-service calculations. Therefore, this project was not included in the trip generation calculations.
3.	The average pass-by trip percentage of approximately 80% for land use 820 appears to be too high for the commercial uses. The pass-by trip percentage shall be validated.	Per our telephone conversation, it was agreed that the trip generation calculations would be revised to use a pass-by percentage of 34% rather than 80%. The report has been revised accordingly.

Attachment P  
Comments from County of Kauai Department of Public Works and Responses  
Relative to DRAFT TIAR Submitted June 6, 2012

Comment		Response
1 & 2	Comments not related to TIAR.	
3.	The Traffic Impact Assessment Report (TIAR) needs to be finalized. The report states "A preliminary trip generation analysis was performed to define the scope of work and the study area." in compliance with Hawaii Administrative Rule 16-115-9 which states "all plans, specifications, maps, reports, survey descriptions, and every sheet in a set of design drawings prepared by or under the supervision of a licensed professional engineer, architect, land surveyor, or landscape architect <b>shall</b> be stamped with the authorized seal or stamp when filed with public officials, and under the seal or stamp, the authentication <b>shall</b> state, "This work was prepared by me or under my supervision," be signed by the licensee, and <b>shall</b> state the expiration date of the licensee.	Performing a preliminary trip generation study to define the scope of work is always the first step in the TIAR process. I think the reviewer has interpreted this to mean that the entire TIAR is "preliminary," which is not the case. The TIAR used the trip generation analysis discussed Section K (page 6) of the report.  The remainder of the paragraph talks about attaching my engineer's seal. This is provided on the signature page of the report.
4	The TIAR needs to evaluate the development impacts and mitigation actions needed to improve the existing 3-way, skewed intersection of Olohehena, Kaapuni and Kaehulua Roads. The report indicates Road 'A' will provide an alternate route to Kapaa Intermediate School since it will be a more direct route for northbound traffic. We are concerned that increased traffic volumes would increase the likelihood of accidents at the 3-way intersection. Realignment of the roadway angles of the intersection may be warranted to increase sight distances and ease turning movements at the intersection.	This intersection was added to the report. The proposed project added little traffic to the intersection and had a minimal impact on the turning movements. Therefore, the TIAR does not provide any recommendation to improve this intersection.
5	The Kapaa Bypass Road is under the jurisdiction of the State Department of Transportation (DOT), Highways Division. Comments relating to access and traffic improvements need to be solicited from State DOT, Highways Division.	See Attachment S.
6 - 24	Comments not related to TIAR.	

Comments from State of Hawaii Department of Transportation and Responses  
Relative to TIAR Submitted December 9, 2013

	Comment	Response
1.	In Section K - Project Trip Generation, there is a typographical error for PM single-family units and the AM/PM multifamily formulas should be from 7:00-9:00 and from 4:00 to 6:00 rather than peak hour of generator.	Acknowledged.
2.	In Section M - Traffic Impact Assessment, the southern termini of the Kapaa Bypass being more than two miles away from the project does not alter the fact that the bypass is a limited access facility so traffic on the bypass has limited chance to disperse to other destinations. The trip distribution and volumes at the southern termini was no shown in any table. The increase in the amount of traffic is substantial at 12.2% AM and 13.6% PM. The results of the analysis of the Kuhio Highway at Kapaa Bypass intersection in Table 11 (2020 Level-of-Service (LOS) at Unsignalized Intersections) indicates significant increases in delay (LOS F becoming much worse LOS F) for the East to North (left turn out of the bypass) in both AM and PM, and moderate delay increase for the North to West (left turn into the bypass) (LOS B going to C) in the PM. We do not agree with the TIAR conclusion that the project contribution to these LOS conditions is not significant. A traffic signal warrant analysis for the intersection shall be prepared. Queuing analysis of the left-turn movements are required and queuing onto Kuhio Highway and Kapaa Bypass shall not be allowed. Transportation improvements shall be recommended to mitigate project generated impacts.	<p>First, the project trip assignments are shown on Attachments H, I and J of the TIAR. Trip distributions are not typically included in a TIAR.</p> <p>The critical movement at this intersection is the eastbound to northbound left turn, which is 5 vehicles per hour during the morning peak hour and 12 vehicles per hour during the afternoon peak hour. The volumes of this movement did not change as a result of project generated traffic as the project did not add traffic to this movement. All outbound traffic from the project will make right turns at the intersection, which is a free movement during the morning peak hour and STOP sign controlled during the afternoon peak hour.</p> <p>It was determined that a signal warrant analysis of this intersection was not appropriate since the eastbound to southbound right turn is a free movement and therefore would not be considered in the side street approach volume and the eastbound to northbound volumes do not even approach the minimum approach volumes to trigger the signal warrants, which is 80 vehicles per hour for the Four Hour Volume Warrant.</p> <p>Lastly, since the developer has provided the Kapaa Bypass, he has already done more than his fair share to mitigate traffic in the Kapaa area. Without the Kapaa Bypass, traffic volumes and traffic congestion along Kuhio Highway in Kapaa would be intolerable.</p>
3.	In Section M, the TIAR also makes reference to the project Road A serving as a alternative route from Olohena Road to the Kapaa Bypass, diverting traffic fro and thereby improving LOS at the roundabout (Olohena Road and Kapaa Bypass). However, since Road A will pass through the Project's Phase 2 residential area the TIAR recommended	The traffic calming recommendations for Road A are intended to slow traffic down, not to force traffic to another roadway. A simple look at the map indicates that Road A will be a shorter trip for traffic between Olohena Road, including traffic to and from the Kapaa Intermediate School, and the southern part of Kapaa Bypass. Since traffic will take the

	that various traffic calming measure, including all-way stops, be provided for pedestrian safety. Being that the foregoing objectives are in conflict with each other, the traffic diversion and LOS improvement must be verified. Otherwise, mitigation improvements at the eastbound approach of the roundabout may be required to achieve acceptable LOS.	shorter route, in terms of time and distance, it is appropriate to divert some traffic to Road A, especially during the morning peak hour when the eastbound approach of Olohena Road to the roundabout operates at a low LOS E.
4.	The northern end of the Kapaa Bypass Road intersection with Kuhio Highway shall be included in the TIAR. Although it is a single lane, one-way road from Kuhio Highway to the Olohena Roundabout, the entry intersections needs to be evaluated.	Per our discussions with the Planning Branch of SDOT, it was agreed that the study area would be expanded to include the intersection of Kuhio Highway at Kukui Street and the southern intersection of Kuhio Highway at Kapaa Bypass. Since Kapaa Bypass at the northern intersection of Kuhio Highway at Kapaa Bypass is one-way southbound, any project traffic added to the intersection would be free flow southbound. Since the movement is free flowing, it would no be considered in the LOS analysis.
5.	A left -turn warrant study should be conducted for the Kapaa Bypass Road intersection with Road A and a conceptual configuration of the intersection should be provided in the TIAR. Queuing onto the through lanes of the Kapaa Bypass Road shall not be allowed. Access to the Kapaa Bypass Road must be coordinated with and constructed to the satisfaction of the Highways Division, Kauai District Engineer.	First, both the FHWA and NCHRP data that are presented as "warrants" are actually "guidelines." It was decided that a separate left turn lane along Kapaa Bypass at Road A was not "needed" since this movement was projected to operate at LOS A during both morning and afternoon peak hours and that the 95 <sup>th</sup> percentile queues are less than one vehicle. Refer to Table 12, page 14.

NEIL ABERCROMBIE  
GOVERNOR



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

March 26, 2014

GLENN M. OKIMOTO  
DIRECTOR

Deputy Directors  
FORD N. FUCHIGAMI  
RANDY GRUNE  
AUDREY HIDANO  
JADINE URASAKI  
IN REPLY REFER TO:  
HWY-PS 2.6887

Mr. Phillip J. Rowell, P.E.  
Phillip Rowell and Associates  
47-273 D Hui Iwa Street  
Kaneohe, Hawaii 96744

Dear Mr. Rowell:

Subject: Traffic Impact Assessment Report for Kapaa Highlands Subdivision  
Kauai, Kapaa, TMK: (4) 4-3-003: 001

Thank you for the opportunity to review the subject Traffic Impact Assessment Report (TIAR) dated December 9, 2013, which evaluates the traffic impact of the proposed Kapaa Highlands Subdivision, a two-phase development consisting of a total of approximately 116 single-family and 700 multi-family units and an 8,000 square feet (SF) neighborhood retail area. The project is located approximately at the intersection of Oloheua Road and the (temporary) Kapaa Bypass Road, State Route 5600, with proposed access to both roads. Oloheua Road ends on the west side of the intersection with the Kapaa Bypass Road and continues as Kukui Street on the east side of the intersection and Kukui Street which intersects with Kuhio Highway, State Route 56. The Kapaa Bypass Road continues southwest past the proposed subdivision and intersects with Kuhio Highway to the south of Kapaa, thereby bypassing a heavily used segment of Kuhio Highway.

The portion of the Kapaa Bypass that borders the proposed subdivision is still privately owned, however the land owner has agreed by Memorandum of Understanding to dedicate the land under the road upon final subdivision approval being granted.

We have the following comments:

1. In Section K - Project Trip Generation, there is a typographical error for PM single-family units and the AM/PM multi-family formulas should be from 7:00-9:00 am and 4:00-6:00 pm rather than peak hour of generator.
2. In Section M - Traffic Impact Assessment, the southern termini of the Kapaa Bypass being more than two miles away from the project does not alter the fact that the bypass is a limited access facility so traffic on the bypass has limited chance to disperse to other destinations. The trip distribution and volume at the southern termini was not shown in any table. The increase in the amount of traffic is substantial at 12.2% AM and 13.6% PM. The results of the analysis of the Kuhio Highway at Kapaa Bypass Road intersection in Table 11 (2020 Level of Service (LOS) of Unsignalized Intersections) indicates significant increases in delay (LOS F becoming much worse LOS F) for the East to North (left-turn out of the bypass) in both AM and PM, and a moderate delay

Mr. Phillip J. Rowell, P.E.  
March 26, 2014  
Page 2

HWY-PS 2.6887

increase for the North to West (left-turn into the bypass) (LOS B going to C) in PM. We do not agree with the TIAR conclusion that the project contribution to these LOS F conditions is not significant. A traffic signal warrant analysis of the intersection shall be prepared. Queuing analysis of the left-turn movements are required and queuing onto Kuhio Highway and Kapaa Bypass Road shall not be allowed. Transportation improvements shall be recommended to mitigate project generated impacts.

3. In Section M, the TIAR also makes reference to the project Road A serving as an alternative route from Oloheua Road to the Kapaa Bypass, diverting traffic from and thereby improving LOS at the roundabout (Oloheua Road and Kapaa Bypass). However, since Road A will pass through the project's Phase 2 residential area the TIAR recommends that various traffic calming measures, including possible all-way stops, be provided for pedestrian safety. Being that the foregoing objectives are in conflict with each other, the traffic diversion and LOS improvement must be verified. Otherwise, mitigation improvements at the eastbound approach of the roundabout may be required to achieve acceptable LOS.
4. The northern end of the Kapaa Bypass Road at its intersection with Kuhio Highway shall be included in the TIAR. Although it is a single lane, one-way road from Kuhio Highway to the Oloheua Roundabout, the entry intersection needs to be evaluated.
5. A left-turn warrant study should be conducted for the Kapaa Bypass Road intersection with Road A and a conceptual configuration of the intersection should be provided in the TIAR. Queuing onto the through lanes of the Kapaa Bypass Road shall not be allowed. Access to the Kapaa Bypass Road must be coordinated with and constructed to the satisfaction of the Highways Division, Kauai District Engineer.

If there are any questions, please contact Ken Tatsuguchi, Engineering Program Manager, Highways Planning Branch, at 587-1830. Please reference File Review Number 2014-006 in all contacts and correspondence regarding these comments.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.  
Director of Transportation

cc: Mr. Greg Allen, Kapaa Highlands

NEIL ABERGROMBIE  
GOVERNOR



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

June 6, 2014

COPY

FORD N. FUCHIGAMI  
INTERIM DIRECTOR

Deputy Director  
BARRY GRUPE  
ALEXREY HIGANO  
ROSS M. HIGASHI  
JADINE URAKAWA  
IN REPLY REFER TO:

HWY-PS 2.7311

Mr. Phillip J. Rowell, P.E.  
Phillip Rowell and Associates  
47-273 D Hui Iwa Street  
Kaneohe, Hawaii 96744

Dear Mr. Rowell:

Subject: Traffic Consultant Response to HWY-PS 2.6887, Traffic Impact Assessment Report (December 9, 2013), Kapaa Highlands Subdivision, Kapaa, Kauai  
TMK: (4) 4-3-003:001

Thank you for your response, transmitted by Greg Allen on April 9, 2014, via email, to our comment letter, HWY-PS 2.6887, dated March 26, 2014, on the traffic impact of the proposed Kapaa Highlands Subdivision.

We amend our prior comments as follows:

1. Comment 2 – Your justification that a traffic signal warrant and queue analysis would not be appropriate is acceptable.
2. Comment 3 – Our concern over “traffic calming” measures along Road A through the subdivision remain, since it would potentially reduce the utility that Road A would divert significant traffic; however your justification is acceptable.
3. Comment 4 – Your explanation is acceptable.
4. Comment 5 – A left-turn storage lane from the Kapaa Bypass into Road A of the subdivision may be deferred for the immediate future but the subdivision is still required to provide one should traffic conditions warrant it at no cost to the Department of Transportation (DOT).

With reference to the executed Memorandum of Agreement dated May 30, 2002, the appropriate right-of-way of the Kapaa Bypass with “No Access Permitted” except at existing access (i.e. Road A) along the project frontage, shall be dedicated to the DOT as a condition of the Land Use Commission.

Mr. Phillip J. Rowell, P.E.  
June 6, 2014  
Page 2

HWY-PS 2.7311

If you have any questions, please contact Gary Ashikawa, Systems Planning Engineer, Highways Division, Planning Branch, at 587-6336. Please reference file review number 2014-006-1 in all contacts and correspondence regarding these comments.

Very truly yours,

FORD N. FUCHIGAMI  
Interim Director of Transportation

c: Mr. Greg Allen, Kapaa Highlands, LLC

## Exhibit I

## Kapa'a Highlands Legal Description and Maps

## Portion of Parcel 1

All of that certain parcel of land, being a portion of Parcel 1 of Tax Map Key 4-3-03 (4<sup>th</sup> Division), being a portion of Grant 5266 to Rufus P. Spalding situate at Kapaa, Kauai, Hawaii and more particularly described as follows:

Beginning at the "+" on a concrete driveway at the East corner of this parcel of land at the North corner of Grant 8216 to Joe Martins on the Southwest side of Olohena Road, the coordinates of which referred to Government Survey Triangulation Station "NONOU" being 5,660.65 feet North and 11,159.65 feet East and running by azimuths measured clockwise from True South:

- |     |  |        |  |
|-----|--|--------|--|
| 1.  | 35 ° 59'   | 385.90 | feet along Grant 8216 to Joe Martin to a pipe;   |
| 2.  | 22 ° 52'   | 212.20 | feet along Grant 8216 to Joe Martin; and Kapaa Agricultural Lot 1 to a pipe;             |
| 3.  | 100 ° 09'  | 134.70 | feet along Kapaa Agricultural Lot 1 to a pipe;   |
| 4.  | 13 ° 38'   | 502.70 | feet along Kapaa Agricultural Lot 1 to a pipe;   |
| 5.  | 27 ° 12'   | 171.70 | feet along Kapaa Agricultural Lot 1 to a pipe;   |
| 6.  | 37 ° 25'   | 44.50  | feet along Kapaa Agricultural Lot 1 to a "+" on the rock;                                |
| 7.  | 96 ° 52'   | 41.00  | feet along Kapaa Agricultural Lot 1 to a pipe;   |
| 8.  | 24 ° 40'   | 202.40 | feet along Kapaa Agricultural Lot 1 to a pipe;   |
| 9.  | 318 ° 05'  | 87.36  | feet along Kapaa Agricultural Lot 1 to a pipe;   |
| 10. | 30 ° 57'   | 297.55 | feet along Kapaa Agricultural Lot 1 to a pipe;   |
| 11. | Thence along Kapaa Agricultural Lot 1 on a curve to the right with a radius of 253.97 feet, the chord azimuth and distance being:<br>62 ° 33' 30"                      266.22 feet<br>to a pipe; |        |  |
| 12. | 94 ° 10'   | 11.52  | feet along Kapaa Agricultural Lot 1 to a pipe;   |
| 13. | 194 ° 30'  | 134.28 | feet along the Cane Haul Road Right-of-Way (Part 4) and Grant 5237 to Hee Fat to a pipe; |



47. 211 ° 17' 145.50 feet along Olohena Road to a P-K nail;
48. Thence along Olohena Road on a curve to the right with a radius of 65.00 feet, the chord azimuth and distance being:  
268 ° 48' 30" 109.67 feet  
to a pipe;
49. Thence along Olohena Road on a curve to the left with a radius of 87.10 feet, the chord azimuth and distance being:  
299 ° 32' 78.54 feet  
to a pipe;
50. 272 ° 44' 249.69 feet along Olohena Road to a pipe;
51. 281 ° 55' 203.19 feet along Olohena Road to a pipe;
52. 291 ° 21' 251.40 feet along Olohena Road to a pipe;
53. 261 ° 28' 149.18 feet along Olohena Road to a pipe;
54. 286 ° 25' 226.46 feet along Olohena Road to a pipe;
55. 325 ° 04' 288.93 feet along Olohena Road to a pipe;
56. 317 ° 06' 310.87 feet along Olohena Road to a pipe;
57. 3 ° 37' 476.50 feet along Lot 2, Olohena Road widening parcel and Lot 1, Kapaa Intermediate School, and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
58. 323 ° 35' 304.65 feet along Lot 1, Kapaa Intermediate School, and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
59. 309 ° 45' 390.14 feet along Lot 1, Kapaa Intermediate School, and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
60. 268 ° 25' 554.33 feet along Lot 1, Kapaa Intermediate School, and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;

61. 181 ° 14' 848.53 feet along Lot 1, Kapaa Intermediate School, and Lot 2, Olohena Road widening Parcel and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
62. 257 ° 37' 127.84 feet along Olohena Road;
63. 297 ° 22' 265.20 feet along Olohena Road to a pipe;
64. 298 ° 02' 25.00 feet along Olohena Road to a pipe;
65. Thence along Olohena Road on a curve to the right with a radius of 375.00 feet, the chord azimuth and distance being:  
307 ° 06' 30" 118.30 feet;  
to a pipe;
66. 316 ° 11' 29.85 feet along Olohena Road to a pipe;
67. 28 ° 30' 203.12 feet along TMK: 4-3-03:13 and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
68. 335 ° 00' 100.00 feet along TMK: 4-3-03:13 and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
69. 301 ° 35' 130.00 feet along TMK: 4-3-03:13 and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
70. 278 ° 40' 50.00 feet along TMK: 4-3-03:13 and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
71. 246 ° 30' 140.00 feet along TMK: 4-3-03:13 and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;
72. 316 ° 11' 110.00 feet along TMK: 4-3-03:13 and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe;

- |     |           |        |   |
|-----|-----------|--------|---|
| 73. | 272 ° 20' | 46.00  | feet along TMK: 4-3-03:13 and along the remainder of Grant 5266 to Rufus P. Spalding to a pipe; |
| 74. | 300 ° 02' | 135.22 | feet along Olohena Road;  |
| 75. | 307 ° 00' | 566.89 | feet along Olohena Road to the point of beginning and containing an AREA of 163.125 Acres.      |

SUBJECT, HOWEVER to an easement for the Temporary Kapaa By-Pass Road Right-of-Way containing an AREA of 7.859 Acres.

ALSO, SUBJECT, HOWEVER to Easements E-1, E-2, E-3 (60.00 ft. wide) and E-4 for electrical transmission lines and poles and containing areas of 79,706 s.f., 31,444 s.f., 21,431 s.f., and 1,947 s.f., respectively.

Also subject to a 20 ft. future road widening setback line along Olohena Road.

WAGNER ENGINEERING SERVICES, INC.



November 13, 1997  
P.O. Box 851  
Hanalei, Hawaii 96714

*Ronald J. Wagner*

Ronald J. Wagner  
Licensed Professional Land  
Surveyor Certificate No. 5074

URBAN STATE LAND USE  
Portion of Parcel 1

All of that certain parcel of land being the Urban State Land Use District portion of Parcel 1 of Tax Map Key 4-3-03 (4<sup>th</sup> Division), being a portion of Grant 5266 to Rufus P. Spalding situate at Kapaa, Kauai, Hawaii and more particularly described as follows:

Beginning at the East corner of this parcel of land on the Southwest side of Olohena Road, the coordinates of which referred to Government Survey Triangulation Station "NONOU" being 5,934.74 feet North and 10,795.91 feet East and running by azimuths measured clockwise from True South:

- |    |  |        |   |
|----|--|--------|---|
| 1. | 35 ° 13'   | 14.72  | feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement; |
| 2. | 305 ° 13'  | 121.57 | feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement; |
| 3. | Thence over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way Easement on a curve to the right with a radius of 50.00 feet, the chord azimuth and distance being:<br>344 ° 48' 44"                      63.74 feet;  |        |   |
| 4. | Thence over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way Easement on a curve to the left with a radius of 1,030.00 feet, the chord azimuth and distance being:<br>22 ° 40' 14"                      62.45 feet; |        |   |
| 5. | 20 ° 56'   | 150.64 | feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement; |
| 6. | 110 ° 56'  | 30.00  | feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement; |
| 7. | 20 ° 56'   | 500.00 | feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement; |

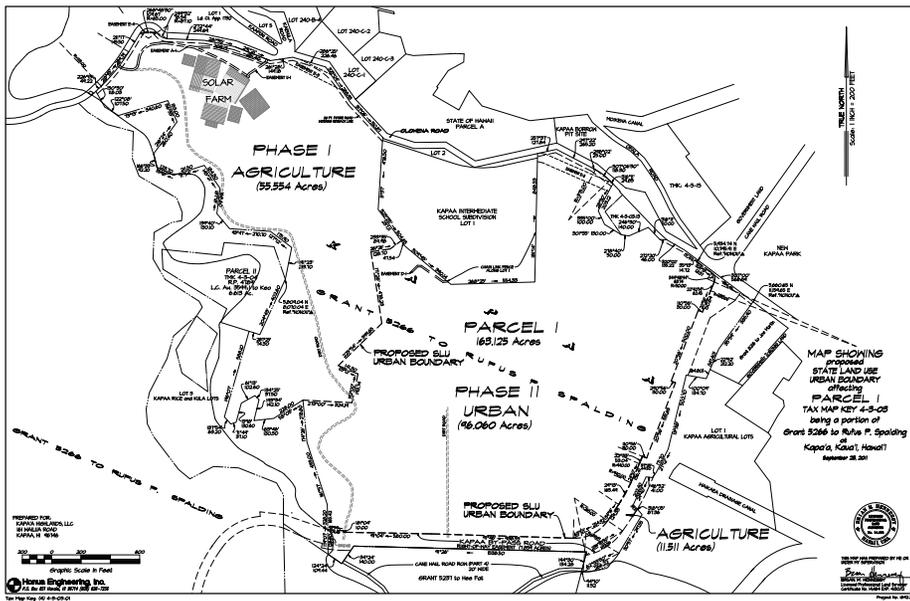
8.	290 ° 56'	30.00	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;
9.	20 ° 56'	531.65	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;
10.	110 ° 56'	30.00	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;
11.	Thence over and across Parcel 1, Tax Map Key	4-3-03 along Kapaa By-Pass Road right-of-way easement on a curve to the right with a radius of 940.00 feet, the chord azimuth and distance being: 22 ° 33'	53.04 feet;
12.	24 ° 10'	136.41	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;
13.	Thence over and across Parcel 1, Tax Map Key	4-3-03 along Kapaa By-Pass Road right-of-way easement on a curve to the right with a radius of 940.00 feet, the chord azimuth and distance being: 29 ° 13'	165.49 feet;
14.	34 ° 16'	129.33	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;
15.	Thence over and across Parcel 1, Tax Map Key	4-3-03 along Kapaa By-Pass Road right-of-way easement on a curve to the right with a radius of 265.00 feet, the chord azimuth and distance being: 63 ° 01'	254.92 feet;
16.	91 ° 46'	938.55	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;

17.	91 ° 04'	580.00	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;
18.	181 ° 04'	10.00	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;
19.	93 ° 59'	104.46	feet over and across Parcel 1, Tax Map Key 4-3-03 along Kapaa By-Pass Road right-of-way easement;
20.	179 ° 07'	165.42	feet along Lot 3, Kapaa Rice and Kula Lots to a pipe;
21.	161 ° 57'	433.00	feet along Lot 3, Kapaa Rice and Kula Lots to a pipe;
22.	174 ° 26'	278.80	feet along Lot 3, Kapaa Rice and Kula Lots to a pipe;
23.	273 ° 00'	324.19	feet over and across Parcel 1, Tax Map Key 4-3-03;
24.	192 ° 00'	193.74	feet over and across Parcel 1, Tax Map Key 4-3-03;
25.	113 ° 12'	141.30	feet over and across Parcel 1, Tax Map Key 4-3-03;
26.	225 ° 54'	399.65	feet over and across Parcel 1, Tax Map Key 4-3-03;
27.	171 ° 26'	478.33	feet over and across Parcel 1, Tax Map Key 4-3-03;
28.	261 ° 26'	128.70	feet over and across Parcel 1, Tax Map Key 4-3-03;
29.	233 ° 35'	89.98	feet over and across Parcel 1, Tax Map Key 4-3-03;



Exhibit J

Botanical Survey  
Kapa'a Highlands Phase II  
TMK (4) 4-3-003:001  
Kaua'i, Hawai'i



**Botanical Survey  
Kapa`a Highlands Phase II  
TMK (4) 4-3-003:001  
Kaua`i, Hawai`i  
April-May  
2012**

Prepared by

**Kenneth R. Wood<sup>1</sup> / Research Biologist  
Megan Kirkpatrick / M.S. Environmental Science  
<sup>1</sup>P. O. Box 745, `Ele`ele, Kaua`i, Hawai`i, U.S.A. 96705  
[kwood@ntbg.org](mailto:kwood@ntbg.org)**

**TABLE OF CONTENTS**

**Summary.....3**  
**Study Area.....3**  
**Survey Methods.....4**  
**Description of Vegetation.....4**  
**Conclusion.....5**  
**Checklist (Table 1).....6**  
**Survey Area (Figure 1 & 2).....8**  
**References.....9**

**Botanical Survey**  
**Kapa`a Highlands Phase II**  
**TMK (4) 4-3-003:001**  
**Kaua`i, Hawai`i**  
**April 2012**

Kenneth R. Wood, Research Biologist, & Megan Kirkpatrick, M.S. Environmental Science  
 P.O. Box 745, `Ele`ele, Kaua`i, Hawai`i, U.S.A. 96705, [kwood@ntbg.org](mailto:kwood@ntbg.org),

**Summary:** During April and May of 2012 a botanical survey was conducted on a 97 acre parcel in Kapa`a, Kaua`i, referred to as Kapa`a Highlands Phase II (TMK (4)3-8-003:001). This research documented 44 vascular plant species within the survey area. Forty taxa were non-native plant species, three taxa were very common indigenous native species, and one taxon was a Polynesian introduction (Table 1). NO FEDERALLY LISTED AS THREATENED OR ENDANGERED PLANT SPECIES WERE OBSERVED WITHIN OR NEAR THE SURVEY AREA. This report includes a general description of the study site; the methods of survey; and a vascular plant checklist of all plant species observed.

**STUDY AREA.** On April 19, 2012 and May 7, 2012, K. R. Wood (Endangered Species Specialist) and assistant Megan D. Kirkpatrick (M.S. Environmental Science) conducted a biological inventory on an undeveloped parcel of property in Kapa`a, Kaua`i (TMK [4]3-8-003:001) (Figures 1 & 2). The survey area is approximately 97 acres of undeveloped land. The primary objectives of this field survey were to:

- a) search for threatened and endangered plant species as well as species of concern;
- b) provide a complete vascular plant checklist of both native and non-native plant taxa observed on property; and
- c) provide a summary concerning the conservation status of all native taxa observed;

**SURVEY METHODS.** A walk-through survey method was used. Transects included walking/driving around boundaries of property (TMK (4)3-8-003:001) and several transects through the interior portions of property. Plant identifications were made in the field and were recorded by the author (Table 1). Plant names and authors of dicots and monocots follow Wagner et al. (1990) and pteridophytes follow Palmer (2003). Plants of particular interest were collected by the second author (MK) as herbarium specimen vouchers and deposited at the National Tropical Botanical Garden (NTBG) herbarium. Specimens were placed in newspaper sheets and pressed in-between cardboard herbarium presses and dried at the NTBG.

**DESCRIPTION OF VEGETATION.**

The study area represents a lowland non-native mesic plant community dominated by secondary vegetation of trees, shrubs, and grasses, many of which are considered invasive. The land is vacant and currently undeveloped and has a past history of grazing and sugarcane cultivation.

The non-native grass *Panicum maximum* (Poaceae – Guinea grass) and non-native shrub or small tree *Leucaena leucocephala* (Fabaceae – koa haole) are by far the dominant species found at the site. Additional common non-native trees and shrubs include: *Lantana camara* (Verbenaceae – lākana), *Indigofera suffruticosa* (Fabaceae – indigo), *Syzygium cumini* (Myrtaceae – Java plum), *Psidium guajava* (Myrtaceae – guava), *Spathodea campanulata* (Bignoniaceae – African tulip), and *Senna surattensis* (Fabaceae – kolomona). Several less common non-native trees and shrubs include: *Clidemia hirta* (Melastomataceae – Koster's curse), *Cinnamomum camphora* (Lauraceae – camphor tree), *Falcataria moluccana* (Fabaceae – albezia), *Ficus microcarpa* (Moraceae – Chinese banyan), and *Schefflera actinophylla* (Araliaceae – octopus tree). No Hawaiian endemic species (i.e., restricted to only Hawai`i) were observed. One Polynesian introduction was observed, namely *Aleurites moluccana* (Euphorbiaceae – kukui tree) which is common throughout the Hawaiian islands. The three indigenous species found at the site are quite common and include: *Hibiscus tiliaceus* (Malvaceae – hau) which is also often an invasive tree species, the fern species *Psilotum nudum* (Psilotaceae – moa), and *Waltheria indica* (Sterculiaceae - `uhaloa). For complete checklist of species see Table 1 which also includes the common names and status (i.e., indigenous/naturalized) category of each taxon.

**CONCLUSION.**

NO THREATENED OR ENDANGERED PLANT SPECIES WERE OBSERVED WITHIN OR ANYWHERE NEAR THE SURVEY AREA DURING RESEARCH -and therefore there are no concerns about possible impacts to rare plant species at the Kapa`a Highlands Phase II project. The current conditions of this study site indicate that the area has been dominated by non-native weedy species for a very long time. The senior author certifies his expertise with more than 25 years conducting biological inventories within the Hawaiian Islands and has specialized in the conservation of Hawai`i's *Federally Listed as Endangered* plant species, including those considered *Candidates* for listing, *Species of Concern*, or *Federally Listed as Threatened* (USFWS 1999a, 1999b, 2004, 2010).

**TABLE 1. Checklist of Vascular Plants Observed in Kapa`a Highlands Phase II Survey Area (TMK (4) 4-3-003:001)**

Status Symbols: ind=Indigenous (naturally occurring in Hawai`i, yet found in other areas of the world), nat=Naturalized (non-native), pol=Polynesian introduction. Note: Checklist alphabetical by genus. Flowering plants follow Wagner et al. 1990; pteridophytes follow Palmer 2003.

FAMILY	GENUS / SPECIES	COMMON NAME	STATUS
Asparagaceae	<i>Agave sisalana</i> Perrine	sisal, sisal hemp, century plant, malina	nat
Asteraceae	<i>Ageratum conyzoides</i> L.	maile hohonono, maile hohonono, maile kula	nat
Euphorbiaceae	<i>Aleurites moluccana</i> (L.) Willd.	kukui, kukui, candlenut	pol
Blechnaceae	<i>Blechnum appendiculatum</i> Willd.		nat
Poaceae	<i>Bracharia mutica</i> (Forssk.) Stapf	California grass, Para grass	nat
Fabaceae	<i>Canavalia cathartica</i> Thouars	maunaloa	nat
Fabaceae	<i>Chamaecrista nictitans</i> (L.) Moench var. <i>glabrata</i> (Vogel) H. S. Irwin & Barneby	partridge pea, laukī	nat
Poaceae	<i>Chloris barbata</i> (L.) Sw.	swollen fingergrass, mau`u lei	nat
Lauraceae	<i>Cinnamomum camphora</i> (L.) J.Presl	camphor tree	nat
Melastomataceae	<i>Clidemia hirta</i> (L.) D.Don	Koster's curse	nat
Asteraceae	<i>Cyanthillium cinereum</i> (L.) H.Rob.	little ironweed	nat
Thelypteridaceae	<i>Cyclosorus dentatus</i> (Forssk.) Ching	pa'i'ihā	nat
Poaceae	<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass, mānienie	nat
Cyperaceae	<i>Cyperus pilosus</i> Vahl		nat
Poaceae	<i>Eragrostis brownii</i> (Kunth) Nees ex Steud.	sheepgrass	nat
Fabaceae	<i>Falcataria moluccana</i> (Miq.) Barneby & J.W.Grimes		nat
Moraceae	<i>Ficus microcarpa</i> L.f.	Chinese banyan, Malayan banyan	nat
Cyperaceae	<i>Fimbristylis miliacea</i> (L.) Vahl		nat
Malvaceae	<i>Hibiscus tiliaceus</i> L.	hau	ind
Lamiaceae	<i>Hyptis pectinata</i> (L.) Poit.	comb hyptis	nat
Fabaceae	<i>Indigofera suffruticosa</i> Mill.	indigo, 'inikō, 'inikoa, kotū	nat
Verbenaceae	<i>Lantana camara</i> L.	lākana, lā'au kalakala, lanakana (Ni'ihau),	nat

FAMILY	GENUS / SPECIES	COMMON NAME	STATUS
Fabaceae	<i>Leucaena leucocephala</i> (Lam.) de Wit	koa haole, ēkoa, liliikoa	nat
Malvaceae	<i>Malvastrum coromandelianum</i> (L.) Garcke	false mallow	nat
Poaceae	<i>Melinis repens</i> (Willd.) Zizka	Natal redbop, Natal grass	nat
Fabaceae	<i>Mimosa pudica</i> L.	sensitive plant, sleeping grass, pua hilahila	nat
Fabaceae	<i>Neonotonia wightii</i> (Wight & Arn.) Verdc.		nat
Lomariopsidaceae	<i>Nephrolepis brownii</i> (Desv.) Hovenkamp & Miyam.		nat
Poaceae	<i>Panicum maximum</i> Jacq.	Guinea grass	nat
Asteraceae	<i>Parthenium hysterophorus</i> L.	false ragweed, Santa Maria	nat
Asteraceae	<i>Pluchea carolinensis</i> (Jacq.) G.Don	sourbush, marsh fleabane	nat
Myrtaceae	<i>Psidium guajava</i> L.	common guava, kuawa,	nat
Psilotaceae	<i>Psilotum nudum</i> (L.) P.Beauv.	moa, moa nahele	ind
Euphorbiaceae	<i>Ricinus communis</i> L.	castor bean, pā`aiaia	nat
Araliaceae	<i>Schefflera actinophylla</i> (Endl.) Harms	octopus tree, umbrella tree	nat
Poaceae	<i>Schizostachyum</i> sp.	'ohe	nat
Fabaceae	<i>Senna surattensis</i> (Burm.f.) H.S.Irwin & Barneby	kolomona, kalamona	nat
Malvaceae	<i>Sida spinosa</i> L.	prickly sida	nat
Bignoniaceae	<i>Spathodea campanulata</i> P.Beauv.	African tulip tree, fountain tree	nat
Asteraceae	<i>Sphagneticola trilobata</i> (L.) Pruski	wedelia	nat
Verbenaceae	<i>Stachytarpheta jamaicensis</i> (L.) Vahl	Jamaica vervain, ōwī	nat
Myrtaceae	<i>Syzygium cumini</i> (L.) Skeels	Java plum, jambolan plum	nat
Acanthaceae	<i>Thunbergia fragrans</i> Roxb.	white thunbergia, sweet clock-vine	nat
Sterculiaceae	<i>Walteria indica</i> L.	'uhaloa, 'ala'ala pū loa	ind



Figure 1. Aerial Image of Kapa`a Highlands Project Area.



Figure 2. Kapa`a Highlands Phase II concept plan.

#### REFERENCES

Palmer, D. D. 2003. Hawai`i's Ferns and Fern Allies. University of Hawai`i Press, Honolulu.

USFWS (United States Fish and Wildlife Service). 1999a. U.S. Fish and Wildlife Service species list, plants. March 23, 1999. Pacific Islands Office, Honolulu, HI.

USFWS (United States Fish and Wildlife Service). 1999b. Endangered and threatened wildlife and plants. 50 CFR 17.11 and 17.12. December 31, 1999.

USFWS (United States Fish and Wildlife Service). 2004. Hawaiian Islands Plants: Updated June 15, 2004, Listed and Candidate Species, as Designated under the U.S. Endangered Species Act. 17pp.

USFWS (United States Fish and Wildlife Service). 2010. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for 48 Species on Kaua'i and Designation of Critical Habitat. Federal Register Vol. 75, No. 70, April 13, 2010, pages 1895919008

Wagner, W.L., D.R. Herbst, and S.H. Sohmer. 1990. Manual of the flowering plants of Hawaii. 2 vols. University of Hawaii Press and Bishop Museum Press, Honolulu. Bishop Museum Special Publication 83.

## Exhibit K

### Biological Surveys Conducted on the Kapa`a Highlands Phase II Project Site TMK: (4)-3-003:001, Island of Kaua`i, Hawai`i

---

**Biological Surveys Conducted on the Kapa‘a Highlands  
Phase II Project Site, TMK: (4)-3-003:001,  
Island of Kaua‘i, Hawai‘i**

---

Prepared by:

Reginald E. David  
Rana Biological Consulting, Inc.  
P.O. Box 1371  
Kailua-Kona, Hawai‘i 96745

&

Prepared for:  
Greg Allen  
Kapa‘a Highlands

May 24, 2012

---

**Table of Contents**

<b>EXECUTIVE SUMMARY</b> .....	<b>3</b>
<b>INTRODUCTION AND BACKGROUND</b> .....	<b>5</b>
<b>GENERAL SITE DESCRIPTION</b> .....	<b>5</b>
<b>METHODS</b> .....	<b>8</b>
BOTANICAL SURVEY METHODS .....	8
AVIAN SURVEY METHODS .....	8
MAMMALIAN SURVEY METHODS .....	8
<b>RESULTS</b> .....	<b>9</b>
BOTANICAL SURVEY .....	9
AVIAN SURVEY RESULTS .....	9
MAMMALIAN SURVEY RESULTS .....	9
<b>DISCUSSION</b> .....	<b>11</b>
AVIAN RESOURCES .....	11
MAMMALIAN RESOURCES .....	12
<b>POTENTIAL IMPACTS TO PROTECTED SPECIES</b> .....	<b>12</b>
BOTANICAL .....	12
SEABIRDS .....	12
HAWAIIAN HOARY BAT.....	12
<b>CRITICAL HABITAT</b> .....	<b>13</b>
<b>RECOMMENDATIONS</b> .....	<b>13</b>
<b>GLOSSARY</b> .....	<b>14</b>
<b>LITERATURE CITED</b> .....	<b>15</b>
<b>APPENDIX A</b> .....	<b>19</b>

---

### ***Executive Summary***

Biological field surveys were conducted on an approximately 97-acre parcel of land identified as Tax Map Key (4) 3-8-003:001 located in Kapa'a, Island of Kaua'i. The owners are proposing to develop these lands as Phase II of the Kapa'a Highlands subdivision

The primary purpose of the surveys was to determine if there are any botanical, avian and terrestrial mammalian species currently listed, or proposed for listing under either federal or State of Hawai'i endangered species statutes within or adjacent to the study area. The avian and mammalian surveys were conducted May 21, 2012, and the botanical survey was conducted on April 19 and May 7, 2012.

No species currently proposed or listed as threatened or endangered under either the federal or state of Hawaii endangered species statutes was documented during the course of the biological surveys conducted on the subject property in April and May, 2012.

There is no federally delineated Critical Habitat for any species present on or adjacent to the project area. Thus the development and operation of the proposed project will not result in impacts to federally designated Critical Habitat. There is no equivalent statute under State law.

#### ***Potential Impacts to Protected Species***

##### ***Botanical***

As all of the plant species recorded are either naturalized species or common indigenous species it is not expected that the development and operation of the proposed subdivision will result in deleterious impacts to any botanical species currently listed or proposed for listing under either federal or State of Hawai'i endangered species statutes.

##### ***Seabirds***

The principal potential impact that construction and operation of the Kapa'a Highlands Phase II project poses to protected seabirds is the increased threat that birds will be downed after becoming disoriented by lights associated with the project during the nesting season. The two main ways that outdoor lighting could pose a threat to these nocturnally flying seabirds is if, 1) during construction it is deemed expedient, or necessary to conduct nighttime construction activities, and 2) following build-out, the potential operation of streetlights and exterior safety and security lighting.

##### ***Hawaiian hoary bat***

The principal potential impact that the development of the Kapa'a Highlands Phase II project poses to bats is during the clearing and grubbing phases of construction as vegetation is removed. The removal of vegetation within the project site may temporarily displace individual bats, which may use the vegetation as a roosting location. As bats use multiple roosts within their home territories, the potential disturbance resulting from the removal of the vegetation is likely to be minimal. During the pupping season, females

---

carrying their pups may be less able to rapidly vacate a roost site as the vegetation is cleared. Additionally, adult female bats sometimes leave their pups in the roost tree while they forage. Very small pups may be unable to flee a tree that is being felled. Potential adverse effects from such disturbance can be avoided or minimized by not clearing woody vegetation taller than 4.6 meters (15-feet), between June 15 and September 15, the period in which bats are potentially at risk from vegetation clearing.

## Introduction and Background

An avian and mammalian survey was conducted on an approximately 97-acre parcel of land identified as Tax Map Key (4) 3-8-003:001 located in Kapa'a, Island of Kaua'i (Figure 1). The owners are proposing to develop these lands as Phase II of the Kapa'a Highlands subdivision.

This report describes the methods used and the results of the avian and terrestrial mammalian surveys conducted on the project site by this author and a summary of the results of the botanical surveys conducted on the site by Wood and Kirkpatrick (2012)<sup>1</sup>. Both surveys were conducted as part of the environmental disclosure process associated with the proposed project.

The primary purpose of the surveys was to determine if there are any botanical, avian and terrestrial mammalian species currently listed, or proposed for listing under either federal or State of Hawai'i endangered species statutes within or adjacent to the study area. The federal and State of Hawai'i listed species status follows species identified in the following referenced documents, (Department of Land and Natural Resources (DLNR) 1998; U. S. Fish & Wildlife Service (USFWS) 2005, 2012). The avian and mammalian surveys were conducted May 21, 2012, and the botanical survey was conducted on April 19 and May 7, 2012.

Hawaiian and scientific names are italicized in the text. A glossary of technical terms and acronyms used in the document, which may be unfamiliar to the reader, are included at the end of the narrative text.

## General Site Description

The approximately 97 acre project site is bound to the north by Olohena Road (SR 581) and Kapa'a Middle School, to the east and south by the Kapa'a Bypass Road and to the west by undeveloped land and a new solar power generating facility (Figure 1). The site is made up of gently rolling hills that attain a maximum elevation of ~ 45 meters above mean sea level in the northwestern corner, sloping *makai* in an east-southeast direction down to an elevation of approximately ~ 6 meters ASL at the intersection of Olohena Road and the Kapa'a Bypass Road.

The site has a long history of sugar cultivation, followed by use as cattle pasturage. The vegetation currently on the site is dominated almost to the exclusion of native species by Guinea grass (*Panicum maximum*), koa haole (*Leucaena leucocephala*), lantana (*Lantana camara*), with Java plum trees (*Syzygium cumini*), dotted across the landscape (Figure 2). The southwestern boundary of the site has fairly dense stands of hau (*Hibiscus tiliaceus*) along the boundary (Figure 3).

<sup>1</sup> Wood, K.R., and M. Kirkpatrick. 2012. Botanical Survey Kapa'a Highlands Phase II TMK (4) 4-3-003:001 Kaua'i, Hawai'i April-May 2012, is appended to this document as Appendix A.





Figure 2 – Typical Guinea grass/koa haole shrub vegetation looking northwest



Figure 3 – Hau bushes along southwestern boundary

---

## Methods

Plant names mostly follow *Manual of the Flowering Plants of Hawai'i* (Wagner et al., 1990, 1999). The avian phylogenetic order and nomenclature used in this report follows the *AOU Check-List of North American Birds* (American Ornithologists' Union, 1998), and the 42nd through the 52nd supplements to the Check-List (American Ornithologists' Union, 2000; Banks et al., 2002, 2003, 2004, 2005, 2006, 2007, 2008; Chesser et al., 2009, 2010, 2011). Mammalian species scientific names follow (Tomich, 1986). Place names follow (Pukui et al., 1974).

### Botanical Survey Methods

The botanical survey was conducted using a pedestrian (walking) transect methodology to cover the project area. Wood and Kirkpatrick's methodologies are detailed in Appendix A.

### Avian Survey Methods

A total of six avian point count stations were sited roughly equidistant from each other within the project site. Six-minute point counts were made at each of the count stations. Each station was counted once. Field observations were made with the aid of Leica 8 X 42 binoculars and by listening for vocalizations. Point counts were concentrated during the early morning hours, the peak of daily bird activity. Time not spent counting was used to search the remainder of the project site for species and habitats that were not detected during count sessions.

### Mammalian Survey Methods

With the exception of the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), or 'ōpe'ape'a as it is known locally, all terrestrial mammals currently found on the Island of Kaua'i are alien species, and most are ubiquitous. The survey for terrestrial mammalian species was limited to visual and auditory detection, coupled with visual observation of scat, tracks, and other animal sign. No trapping program or heterodyne bat detection survey methods were used during the course of this survey. A running tally was kept of all terrestrial vertebrate mammalian species detected within the project area during time spent within the project site.

## Results

### Botanical Survey

A total of 44 species of vascular plants were identified from the survey area. Three of the species detected *moa* (*Psilotum nudum*), *hau* (*Hibiscus tiliaceus*) and '*uhaloa* (*Waltheria indica*) are common indigenous species in the Islands. One species *kukui* (*Aleurites moluccana*) is a Polynesian introduction (Wood and Kirkpatrick, 2012).

Wood and Kirkpatrick did not detect any botanical species currently listed as endangered or threatened under either federal or State of Hawai'i endangered species statutes. For a detailed description of their findings please see Appendix A.

### Avian Survey Results

A total of 193 individual birds of 17 species, representing 13 separate families, were recorded during station counts (Table 1). All 17 species recorded are alien to the Hawaiian Islands (Table 1).

Avian diversity and densities were in keeping with the location of the property and the habitat presently on the site. Four species, House Finch (*Carpodacus mexicanus*), Nutmeg Mannikin (*Lonchura punctulata*), Japanese White-eye (*Zosterops japonicus*) and Zebra Dove (*Geopelia striata*) accounted for slightly more than 45 percent of all birds recorded during station counts. The most commonly recorded species was House Finch, which accounted for 14 percent of the total number of individual birds recorded. An average of 32 individual birds was recorded per station count; a number that is about average for point counts in this area on the Island of Kaua'i.

No avian species currently proposed or listed under either the State of Hawai'i or federal endangered species statutes was detected during the course of this survey, nor would they be expected given the habitat currently present on the site.

### Mammalian Survey Results

Four terrestrial mammalian species were detected while on the site. Numerous dogs (*Canis f. familiaris*) were heard barking from areas adjacent to the site. Tracks and scat of pig (*Sus s. scrofa*) were encountered within the site. Tracks, and scat of both horse (*Equus c. caballus*) and cow (*Bos taurus*), were also encountered within the site.

Table 1 – Avian Species Kapa'a Highlands Phase II Point Counts

Common Name	Scientific Name	ST	RA
	GALLIFORMES		
	PHASIANIDAE – Pheasants & Partridges		
	Phasianinae – Pheasants & Allies		
Red Junglefowl	<i>Gallus gallus</i>	A	1.50
	PELECANIFORMES		
	ARDEIDAE - Herons, Bitterns & Allies		
Cattle Egret	<i>Bubulcus ibis</i>	A	0.83
	COLUMBIDAE - Pigeons & Doves		
Spotted Dove	<i>Streptopelia chinensis</i>	A	2.00
Zebra Dove	<i>Geopelia striata</i>	A	2.67
	PASSERIFORMES		
	CETTIDAE - Cettia Warblers & Allies		
Japanese Bush-Warbler	<i>Cettia diphone</i>	A	1.17
	ZOSTEROPIDAE - White-eyes		
Japanese White-eye	<i>Zosterops japonicus</i>	A	1.17
	TIMALIIDAE - Babblers		
Chinese Hwamei	<i>Garrulax canorus</i>	A	0.50
	TURDIDAE - Thrushes		
White-rumped Shama	<i>Copsychus malabaricus</i>	A	1.17
	STURNIDAE - Starlings		
Common Myna	<i>Acridotheres tristis</i>	A	2.50
	EMBERIZIDAE - Emberizids		
Red-crested Cardinal	<i>Paroaria coronata</i>	A	1.00
	CARDINALIDAE - Cardinals Saltators & Allies		
Northern Cardinal	<i>Cardinalis cardinalis</i>	A	1.67
	ICTERIDAE - Blackbirds		
Western Meadowlark	<i>Sturnella neglecta</i>	A	0.67
	FRINGILLIDAE - Fringilline and Cardueline Finches & Allies		
	Carduelinae - Cardueline Finches		
House Finch	<i>Carpodacus mexicanus</i>	A	4.50
	ESTRILDIDAE - Estrildid Finches		
	Estrildinae - Estrildine Finches		
Red Avadavat	<i>Amandava amandava</i>	A	0.56
Nutmeg Mannikin	<i>Lonchura punctulata</i>	A	4.33
Chestnut Munia	<i>Lonchura atricapilla</i>	A	2.17
Java Sparrow	<i>Padda oryzivora</i>	A	1.33

#### Key to Table 1

ST Status

A Alien - Introduced to the Hawaiian Islands by humans

RA Relative Abundance - Number of birds detected divided by the number of count stations (6)

---

## Discussion

### Botanical Resources

Only nine percent of the plant species (~4/~44) detected on the subject property were either indigenous or early Polynesian introductions. This proportion is remarkably low for lowland areas on Kaua'i, and graphically illustrates the highly disturbed and depauperate nature of the native vegetation present on this site. Please see Appendix A for a more detailed discussion of the botanical resources present on the site.

### Avian Resources

The findings of the avian survey are consistent with the location of the property, and the habitat present on the site. As previously stated all of the avian species detected during the course of this survey are alien to the Hawaiian Islands.

Although not detected during this survey, the endangered Hawaiian Petrel (*Pterodroma sandwichensis*), and the threatened endemic sub-species of the Newell's Shearwater (*Puffinus auricularis newelli*) have been recorded over-flying the project site between April and the end of November each year (David, 1995; Morgan *et al.*, 2003, 2004; David and Planning Solutions 2008). Additionally, the Save Our Shearwaters Program has recovered both species from the general project area on an annual basis over the past three decades (Morgan *et al.*, 2003, 2004; David and Planning Solutions, 2008; Save our Shearwater Program, 2012).

The petrel is listed as endangered, and the shearwater as threatened under both Federal and State of Hawai'i endangered species statutes. The primary cause of mortality in both Hawaiian Petrels and Newell's Shearwaters is thought to be predation by alien mammalian species at the nesting colonies (USFWS 1983, Simons and Hodges 1998, Ainley *et al.*, 2001). Collision with man-made structures is considered to be the second most significant cause of mortality of these seabird species in Hawai'i. Nocturnally flying seabirds, especially fledglings on their way to sea in the summer and fall, can become disoriented by exterior lighting. When disoriented, seabirds can collide with manmade structures, and if they are not killed outright, the dazed or injured birds are easy targets of opportunity for feral mammals (Hadley 1961; Telfer 1979; Sincock 1981; Reed *et al.*, 1985; Telfer *et al.*, 1987; Cooper and Day, 1998; Podolsky *et al.* 1998; Ainley *et al.*, 2001; Hue *et al.*, 2001; Day *et al.* 2003). There are no nesting colonies nor appropriate nesting habitat for either of these listed seabird species within the current study site.

Following build out it is probable that cleared areas, especially those that are landscaped as lawns, and or parking lots will provide loafing habitat for Pacific Golden-Plover (*Pluvialis fulva*). The plover is an indigenous migratory shorebird species which nests in the high Arctic during the late spring and summer months, returning to Hawai'i and the Tropical Pacific to spend the fall and winter months each year. They usually leave Hawai'i for their

---

trip back to the Arctic in late April or the very early part of May each year. This species is a common site around the state during the late fall and winter months.

### Mammalian Resources

The findings of the mammalian survey are consistent with the location of the property and the habitat currently present on the site. We did not record Hawaiian hoary bats overflying the site. Hawaiian hoary bats are widely distributed in the lowland areas on the Island of Kaua'i, and have been documented in and around almost all areas that still have some dense vegetation (Tomich, 1986; USFWS 1998, David, 2012).

Although no rodents were detected during the course of this survey, it is virtually certain one or more of the four established alien muridae found on Kaua'i, roof rat (*Rattus r. rattus*), Norway rat (*Rattus norvegicus*), European house mouse (*Mus musculus domesticus*) and possibly Polynesian rats (*Rattus exulans hawaiiensis*) use various resources found within the general project area. All of these introduced rodents are deleterious to native ecosystems and the native faunal species dependant on them.

### Potential Impacts to Protected Species

#### Botanical

As all of the plant species recorded are either naturalized species or common indigenous species it is not expected that the development and operation of the proposed subdivision will result in deleterious impacts to any botanical species currently listed or proposed for listing under either federal or State of Hawai'i endangered species statutes.

#### Seabirds

The principal potential impact that construction and operation of the Kapa'a Highlands Phase II project poses to protected seabirds is the increased threat that birds will be downed after becoming disoriented by lights associated with the project during the nesting season. The two main ways that outdoor lighting could pose a threat to these nocturnally flying seabirds is if, 1) during construction it is deemed expedient, or necessary to conduct nighttime construction activities, and 2) following build-out, the potential operation of streetlights and exterior safety and security lighting.

#### Hawaiian hoary bat

The principal potential impact that the development of the Kapa'a Highlands Phase II project poses to bats is during the clearing and grubbing phases of construction as vegetation is removed. The removal of vegetation within the project site may temporarily displace individual bats, which may use the vegetation as a roosting location. As bats use multiple roosts within their home territories, the potential disturbance resulting from the removal of the vegetation is likely to be minimal. During the pupping season, females carrying their pups may be less able to rapidly vacate a roost site as the vegetation is cleared. Additionally, adult female bats sometimes leave their pups in the roost tree while they forage. Very small pups may be unable to flee a tree that is being felled. Potential

---

adverse effects from such disturbance can be avoided or minimized by not clearing woody vegetation taller than 4.6 meters (15-feet), between June 15 and September 15, the period in which bats are potentially at risk from vegetation clearing.

#### **Critical Habitat**

There is no federally delineated Critical Habitat for any species present on or adjacent to the project area. Thus the development and operation of the proposed project will not result in impacts to federally designated Critical Habitat. There is no equivalent statute under State law.

#### **Recommendations**

- All exterior lights installed in conjunction with the proposed project should be shielded to reduce the potential for interactions of nocturnally flying seabirds with external lights and man-made structures (Reed *et al.*, 1985; Telfer *et al.*, 1987). Any lighting fixtures that meet the "Dark Skies" guidelines are appropriate.
- It is recommended that woody vegetation taller than 4.6 meters (15-feet), not be cleared between June 1 and September 15, the period in which bats are potentially at risk from vegetation clearing.
- It is recommended that, where appropriate and practicable, native plant species be used in landscaping efforts. Not only is this ecologically prudent, but also if the appropriate plants are used, it will also likely save maintenance and water costs over the long term.

---

### **Glossary**

Alien – Introduced to Hawai'i by humans  
Commensal – Animals that share human food and lodgings, such as rats, mice cats and dogs.  
Crepuscular – Twilight hours  
Endangered – Listed and protected under the Endangered Species Act of 1973, as amended (ESA) as an endangered species  
Endemic – Native to the Hawaiian Islands and unique to Hawai'i  
Indigenous – Native to the Hawaiian Islands, but also found elsewhere naturally  
*makai* – Down-slope, towards the ocean  
Muridae – Rodents, including rats, mice and voles, one of the most diverse families of mammals  
Naturalized – A plant or animal that has become established in an area that it is not indigenous to  
Nocturnal – Night-time, after dark  
*Ōpe'ape'a* – Endemic endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*)  
Pelagic – An animal that spends its life at sea – in this case seabirds that only return to land to nest and rear their young  
Phylogenetic – The evolutionary order that organisms are arranged by  
Ruderal – Disturbed, rocky, rubbishy areas, such as old agricultural fields and rock piles  
Sign – Biological term referring to tracks, scat, rubbing, odor, marks, nests, and other signs created by animals by which their presence may be detected  
Threatened – Listed and protected under the ESA as a threatened species.

ASL – Above mean sea level  
DLNR – Hawai'i State Department of Land & Natural Resources  
DOFAW – Division of Forestry and Wildlife  
ESA – Endangered Species Act of 1973, as amended  
TMK – Tax Map Key  
USFWS – United State Fish & Wildlife Service

---

### Literature Cited

- Ainley, D. G., R. Podolsky, L. Deforest, G. Spencer, and N. Nur. 2001. The Status and Population Trends of the Newell's Shearwater on Kaua'i: Insights from Modeling, in: Scott, J. M., S. Conant, and C. Van Riper III (editors) *Evolution, Ecology, Conservation, and Management of Hawaiian Birds: A Vanishing Avifauna*. Studies in Avian Biology No. 22: Cooper's Ornithological Society, Allen Press, Lawrence, Kansas. (Pg. 108-123).
- American Ornithologist's Union. 1998. *Check-list of North American Birds*. 7th edition. AOU. Washington D.C. 829pp.
- \_\_\_\_\_. 2000. Forty-second supplement to the American Ornithologist's Union *Check-list of North American Birds*. Auk 117:847-858.
- Banks, R. C., C. Cicero, J. L. Dunn, A. W. Kratter, P. C. Rasmussen, J. V. Remsen, Jr., J. D. Rising, and D. F. Stotz. 2002. Forty-third supplement to the American Ornithologist's Union *Check-list of North American Birds*. Auk 119:897-906.
- \_\_\_\_\_. 2003. Forty-fourth supplement to the American Ornithologist's Union *Check-list of North American Birds*. Auk 120:923-931.
- \_\_\_\_\_. 2004. Forty-fifth supplement to the American Ornithologist's Union *Check-list of North American Birds*. Auk 121:985-995.
- \_\_\_\_\_. 2005. Forty-sixth supplement to the American Ornithologist's Union *Check-list of North American Birds*. Auk 122:1031-1031.
- \_\_\_\_\_. 2006. Forty-seventh supplement to the American Ornithologist's Union *Check-list of North American Birds*. Auk 123:926-936.
- Banks, R. C., C. R. Terry Chesser, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V. Remsen, Jr., J. D. Rising, and D. F. Stotz. 2007. Forty-eighth supplement to the American Ornithologist Union *Check-list of North American Birds*. Auk 124:1109-1115.
- Banks, R. C., C. R. Terry Chesser, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V. Remsen, Jr., J. D. Rising, and D. F. Stotz, and K. Winker. 2009. Fiftieth supplement to the American Ornithologist Union *Check-list of North American Birds*. Auk 125:758-768.
- Chesser, R. T., R. C. Banks, F. K. Barker, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V. Remsen, Jr., J. D. Rising, and D. F. Stotz, and K. Winker. 2011. Fifty-second supplement to the American Ornithologist Union *Check-list of North American Birds*. Auk 128:600-613.
- Cooper, B. A and R. H. Day. 1994. Kauai endangered seabird study. Volume 1: Interactions of Dark-rumped Petrels and Newell's Shearwaters with utility structures on Kauai, Hawaii: Final Report, TR-105847-V1, Electric Power Research Institute, Palo Alto, California.
- Cooper, B. A and R. H. Day. 1998. Summer Behavior and Mortality of Dark-rumped Petrels and Newell's Shearwaters at Power Lines on Kauai. *Colonial Waterbirds*, 21 (1): 11-19.
- Day, R. H., B. Cooper, and T. C. Telfer. 2003. Decline of Townsend's (Newell's Shearwaters (*Puffinus auricularis newelli*) on Kauai, Hawaii. *The Auk* 120: 669-679.
- David, R. E. 2012. Unpublished field notes – Kaua'i 1980 - 2012.
- David, R. E., R. H. Day, and B. A. Cooper 2002. Results of Newell's Shearwater Surveys at the Kaluahonu, Moalepe and Anahola Memorial Colonies, Island of Kaua'i, Hawai'i, July 2002. Prepared for Planning Solutions, Inc., and Kaua'i Electric.
- David, R. E., and Planning Solutions 2008. 2007 Save Our Shearwaters Program End of Year Report: Prepared for: Kaua'i Island Utility Cooperative & The Hawai'i Department of Land and Natural Resources, Division of Forestry and Wildlife.
- Department of Land and Natural Resources (DLNR). 1998. Indigenous Wildlife, Endangered And Threatened Wildlife And Plants, And Introduced Wild Birds. Department of Land and Natural Resources. State of Hawaii. Administrative Rule §13-134-1 through §13-134-10, dated March 02, 1998.
- Hadley, T. H. 1961. Shearwater calamity on Kauai. *Elepaio* 21:60.
- Hawai'i Department of Land and Natural Resources (HDLNR). 1998. Indigenous Wildlife, Endangered and Threatened Wildlife and Plants, and Introduced Wild Birds. State of Hawai'i. Administrative Rule §13-134-1 through §13-134-10.
- Hue, D., C. Glidden, J. Lippert, L. Schnell, J. MacIvor and J. Meisler. 2001. Habitat Use and Limiting Factors in a Population of Hawaiian Dark-rumped Petrels on Mauna Loa, Hawai'i, in: : Scott, J. M., S. Conant, and C. Van Riper III (editors) *Evolution, Ecology, Conservation, and Management of Hawaiian Birds: A Vanishing Avifauna*. Studies in Avian Biology No. 22. Cooper's Ornithological Society, Allen Press, Lawrence, Kansas (Pg. 234-242).
- Morgan, C., P. White, and R. E. David. 2003. Habitat Conservation Plan: Kaua'i Island Utility Cooperative: Working Paper No. 2 - Data Analysis: Interpreting the Save Our Shearwaters Bird Recovery Database (1979-2002) for Habitat Conservation Planning. Prepared for: Kaua'i Island Utility Cooperative.
- \_\_\_\_\_. 2004. Habitat Conservation Plan: Kaua'i Island Utility Cooperative: Data Report and

- 
- Analysis: Save Our Shearwaters Bird Program 2003 Update. Prepared for: Kaua'i Island Utility Cooperative.
- Podolsky, R., D.G. Ainley, G. Spencer, L. de Forest, and N. Nur. 1998. "Mortality of Newell's Shearwaters Caused by Collisions with Urban Structures on Kaua'i". Colonial Waterbirds 21:20-34.
- Pukui, M. K., S. H. Elbert, and E. T. Mookini 1976. *Place Names of Hawaii*. University of Hawaii Press. Honolulu, Hawai'i. 289 pp.
- Reed, J. R., J. L. Sincock, and J. P. Hailman 1985. Light Attraction in Endangered Procellariiform Birds: Reduction by Shielding Upward Radiation. *Auk* 102: 377-383.
- Save our Shearwaters 2012. Unpublished SOS data 1979 – 2011.
- Simons, T. R., and C. N. Hodges. 1998. Dark-rumped Petrel (*Pterodroma phaeopygia*). In A. Poole and F. Gill (editors). *The Birds of North America*, No. 345. The Academy of Natural Sciences, Philadelphia, PA. and the American Ornithologists Union, Washington, D.C.
- Sincock, J. L. 1981. Saving the Newell's Shearwater. Pages 76-78 in Proceedings of the Hawaii Forestry and Wildlife Conference, 2-4 October 1980. Department of Land and Natural Resources, State of Hawaii, Honolulu.
- Telfer, T. C. 1979. Successful Newell's Shearwater Salvage on Kauai. *'Elepaio* 39:71
- Telfer, T. C., J. L. Sincock, G. V. Byrd, and J. R. Reed. 1987. Attraction of Hawaiian seabirds to lights: Conservation efforts and effects of moon phase. *Wildlife Society Bulletin* 15:406-413.
- Tomich, P.Q. 1986. *Mammals in Hawaii*. Bishop Museum Press. Honolulu, Hawaii. 37 pp.
- U.S. Fish & Wildlife Service (USFWS) 1983. Hawaiian Dark-Rumped Petrel & Newell's Manx Shearwater Recovery Plan. USFWS, Portland, Oregon. February 1983.
- \_\_\_\_\_. Recovery Plan for the Hawaiian Hoary Bat. U.S. Fish & Wildlife Service, Portland, Oregon.
- \_\_\_\_\_. 2005. Endangered and Threatened Wildlife and Plants. 50CFR 17:11 and 17:12 (Tuesday, November 1, 2005).
- \_\_\_\_\_. 2012. USFWS Threatened and Endangered Species System (TESS), online at [http://ecos.fws.gov/tess\\_public/StartTESS.do](http://ecos.fws.gov/tess_public/StartTESS.do) Last accessed on May22, 2012.
- Wagner, W.L., D.R. Herbst, and S.H. Sohmer. 1990. *Manual of the Flowering Plants of Hawai'i*. University of Hawaii Press, Honolulu, Hawaii 1854 pp.
- Wagner, W.L. and D.R. Herbst. 1999. *Supplement to the Manual of the Flowering Plants of Hawai'i*, pp. 1855-1918. In: Wagner, W.L., D.R. Herbst, and S.H. Sohmer, *Manual of*

- 
- the flowering plants of Hawai'i. Revised edition. 2 vols. University of Hawaii Press and Bishop Museum Press, Honolulu.
- Wood, K.R., and M. Kirkpatrick. 2012. Botanical Survey Kapa'a Highlands Phase II TMK (4) 4-3-003:001 Kaua'i, Hawai'i April-May 2012. Prepared for Greg Allen.

---

***Appendix A***

Wood, K.R., and M. Kirkpatrick. 2012.  
Botanical Survey Kapa'a Highlands Phase II  
TMK (4) 4-3-003:001  
Kaua'i, Hawai'i April-May 2012.

**Exhibit L**

**An Archaeological Assessment for the Proposed Kapa`a  
Highlands Phase II Project  
Kapa`a Ahupua`a, Kawaihau, Kaua`i**



# An Archaeological Assessment With Subsurface Testing for the Proposed Kapa`a Highlands Phase II Project, Kapa`a Ahupua`a, Kawaihau, Kaua`i TMK (4) 4-3-3: 1

By

Nancy McMahon, M.A. and Wendy Tolleson, M.A.

Prepared for:  
Three Stooges LLC

Exploration Associates, Ltd

Revised September 2013

<b>INTRODUCTION</b>	<b>1</b>
Project Background	1
Scope of Work	1
Methods	5
Natural Setting	5
<b>HISTORICAL BACKGROUND</b>	<b>6</b>
From Puna District to Kawaihau District	6
Heiau of Kapa`a	9
The Mahele: Kapa`a Land Commission Awards	10
Early Historic Accounts of Kapa`a (1830's-1900's)	11
20th Century History of Kapa`a (1900 - Present)	13
<b>PREVIOUS ARCHAEOLOGICAL RESEARCH</b>	<b>15</b>
Archaeological Studies and Sites in Kapa`a Ahupua`a	15
Pattern of Archaeological Sites in Kapa`a	21
<b>RESULTS OF FIELD WORK</b>	<b>23</b>
Pedestrian Survey	23
Subsurface Testing	23
<b>RECOMMENDATIONS</b>	<b>29</b>
<b>REFERENCES</b>	<b>30</b>
<b>APPENDIX A</b>	<b>35</b>
Photos of the Area Surveyed with Figure Numbers	36
<b>APPENDIX B</b>	<b>40</b>
State Historic Preservation Letters Pertinent to this Project	41
<b>APPENDIX C</b>	<b>42</b>
Soil Survey for Solar Farm on Phase I Property	43

## LIST OF FIGURES

Figure 1. USGS Map of the Project Area.	2
Figure 2. Project location and surveyed area outlined in purple.	3
Figure 3. Project development map.	3
Figure 4. Aerial View of the Kapa`a Highlands Phase II Looking West.	4
Figure 5. Aerial View of the Kapa`a Highlands Phase II Looking <i>Mauka</i> .	4
Figure 6. Map showing previous archaeological studies in Kapa`a.	17
Figure 7. Map of previously documented archaeological sites in Kapa`a.	21
Figure 8. Trench locations.	23
Figure 9. Profile Test Trench 2 on left and Trench 3 on right	24
Figure 10. Entrance off Olohena Road looking <i>Makai</i> the Solar Farm in the Distance	24
Figure 11. Remnant Road with Cattle Grazing in the Distance.	25
Figure 12. Lower Elevation Outside Area from the Access Road.	26
Figure 13. View Across the Project Area, Facing <i>Makai</i> and Northeast.	27
Figure 14. Looking at the Roof of Kapa`a Middle School.	28
<b>APPENDIX A</b>	<b>35</b>
Figure 1. View of Project Area from the gate at the top of Olohena Road.	36
Figure 2. Solar Farm and Equipment Buildings	37
Figure 3. Cattle Grazing in the Project Area	37
Figure 4. Fence in the left side of photo indicating property boundary	38
Figure 5. Goats Grazing in the Project Area.	39

## LIST OF TABLES

Table 1. Heiau of Kapa`a	9
Table 2. Mahele Land Claims in Kapa`a Ahupua`a	10
Table 3. Previous Archaeological Studies in Kapa`a	15
Table 4. Historic Properties in Kapa`a Ahupua`a	18

# INTRODUCTION

## Project Background

At the request of Three Stooges LLC., Exploration Associates Ltd. (EAL) conducted an archaeological assessment of a parcel of land (referred to hereafter as Kapa`a Highlands Phase II) in Kapa`a (in TMK 4-3-3:1) (Figures 1 & 2). The survey was performed to address any historic preservation or cultural impact issues that might affect the proposed development.

The proposed development, Kapa`a Highlands Phase II, project involves the development of a residential subdivision on a 97 acre parcel. Approximately 69 acres will be subdivided into residential lots both single family and multi-family units. In addition the breakdown of Phase II will include: roads - 9.4 acres; church - 0.8 acres; general commercial - 0.4 acres; parks - 3.1 acres and open space - 14.3 acres.

## Scope of Work

The purpose of this archaeological investigation is to address any archaeological and/or historical concerns. The proposed work includes a surface survey, subsurface testing, and a report detailing methods and any finds. This archaeological work meets the requirements of an inventory-level survey per the rules and regulations of (State Historic Preservation Division/Department of Land and Natural Resources) SHPD/DLNR. The level of work is sufficient to address site types, locations, and allow for future mitigation recommendations if appropriate. Any property over 50 years of age must be evaluated for historic Significance on the National Register of Historic places, and include remnant pre-contact and historic period site.

The scope of work includes:

- Historical research includes study of archival sources, historic maps, Land Commission Awards and previous archaeological reports to construct a history of land use and to determine if archaeological sites have been recorded on or near this property.
- Pedestrian survey of 100% of the subject parcel to identify any surface archaeological features and investigate and assess the potential for impact to such sites, and limited subsurface testing to identify any subsurface sensitive areas that may require further investigation or mitigation before the project proceeds.
- Preparation of a report which will include the results of the historical research and the fieldwork with an assessment of archaeological potential based on that research with recommendations for further archaeological work, if appropriate. It also will provide mitigation recommendations if there are archaeologically sensitive areas that require further consideration.

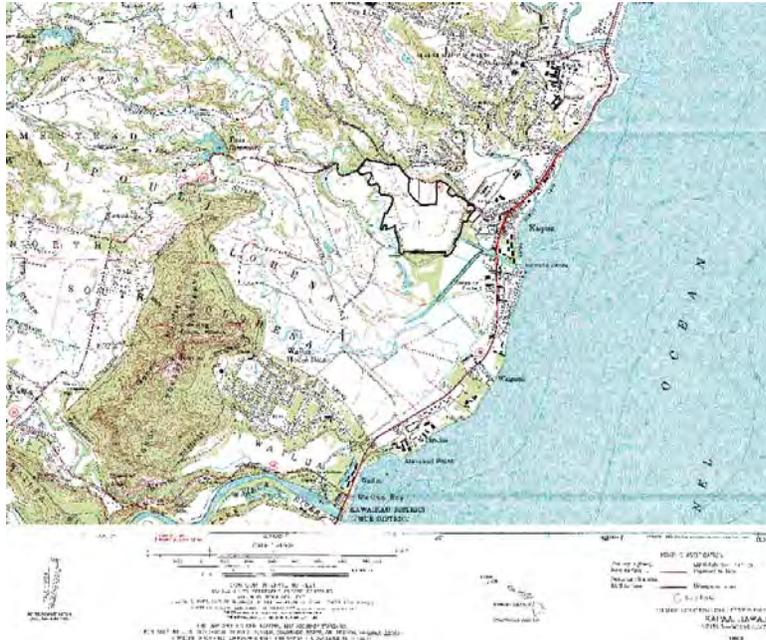


Figure 1. USGS Map Showing Project Area



Figure 2. Project location and surveyed area outlined in purple.

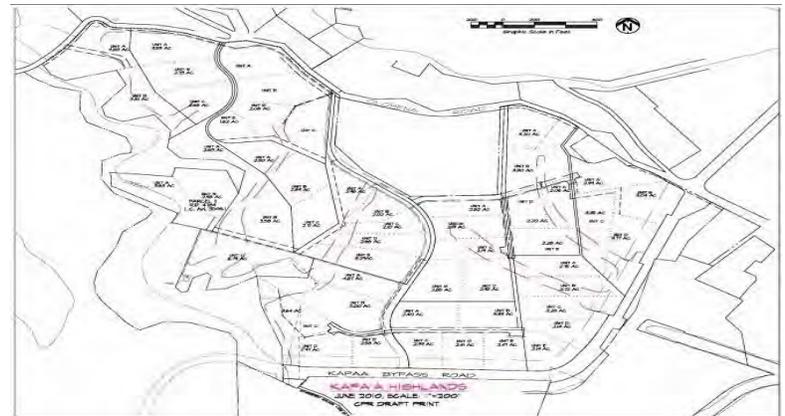


Figure 3. Project development map.



Figure 4 Aerial View of the Kapa'a Highlands Phase II Looking West.



Figure 5. Aerial View of Kapa'a Highlands Phase II Looking Mauka.

## Methods

On January 3, 2012 and April 25, 2012 and November 11, 2012 a survey of the Kapa'a Highlands Phase II project area was conducted by Exploration Associates Ltd. by archaeologist Nancy McMahon, M.A. Survey transects oriented north-south were spaced 10 m. apart where possible through thick guinea grass. Field observations were recorded and photographs were taken of the project area, the surrounding area, and the backhoe trenches. Three test trenches were machine excavated to examine the soils and determine if any stratigraphy or buried cultural deposits was present. Soils were classified using a Munsell color chart, then photographed.

Historical research includes a review of previous archaeological studies on file at the State Historic Preservation Division of the Department of Land and Natural Resources; studies of documents at Hamilton Library UH Manoa, the Kapa'a and Lihue Public Libraries, the Kaua'i Museum, the Kaua'i Historical Society and from the study of maps at the Survey Office of the Department of Land and Natural Resources. Nineteenth-century Land Commission Award claim records were accessed via the Internet from the *Mahele* Database prepared by Wai'hona `Aina Corp.

## Natural Setting/Project Area

The subject parcel is located north of Kapa'a town on former cane lands situated on a bluff adjacent to the coastal plain. It is bordered by Olohena Road to the north and the Kapa'a Bypass Road on the south and east. Kapaa Intermediate School is located on state land near the middle of the northern portion of the property. A Phase I parcel has an existing solar farm and equipment building.

The southern border of the project area is adjacent to the by-pass road within an elevation of approximately 55 feet above msl. The topography of the project area rises in elevation to the northern border approximately 130 feet above msl or an average increase of less than 5%. There are particular areas of the property with 20% slopes. The project area is currently fallow and is vegetated with Guinea Grass (*Panicum maximum*), Koa Haole (*Leucaena leucocephala*), and Java Plum (*Syzygium cumini*). The last cultivation of sugar cane on the project area was 15 years ago, but due to the poor soil, strong trade winds from the ocean, the viability of agricultural crops is limited. Solar farming, goat and cattle grazing are the current utilization of the property.

Foote et al (1972) described the soil in this area as Lihue-Puhi association, deep, nearly level to steep, well drained soils with fine texture and moderately fine texture subsoil. Permeability is moderately rapid, run-off is slow and erosion hazard is slight. The mean annual rainfall throughout the study area is about 22 inches per year. Average temperatures in the region range from the 60s to the low 90s, Fahrenheit. Temperature differences between day and night are about 15 degrees. The consistent direction of the tradewinds is from the northeast at between 10 and 15 miles per hour.

# HISTORICAL BACKGROUND

## From Puna District to Kawaihau District

The *ahupua'a* of Kapa'a belongs in the ancient district of Puna, one of five ancient districts on Kaua'i (King 1935: 228). Puna was the second largest district on Kaua'i, behind Kona, and extended from Kipu, south of Lihue to Kama'oma'o'o, just north of Kealia. For taxation, educational and judicial reasons, new districts were created in the 1840s. The Puna District, with the same boundaries became the Lihu'e District, named for an important town in that district. In 1878, King Kalakau'a in securing a future name for the new *Hu'i* Kawaihau, created the new district of Kawaihau. This new district encompassed the *ahupua'a* ranging from Olohena on the south to Kilauea on the north. Subsequent alterations to district boundaries in the 1920s left Kawaihau with Olohena as its southernmost boundary and Moloa'a as its northernmost boundary (King 1935:222).

## Traditional and Legendary Accounts of Kapa'a

A more in depth study of the legends and mythology of Kapa'a can be found in the Cultural Impact Assessment for the Proposed Kapa'a Highlands Phase II [EAL 2012]. Just a few of some of the legends of the area are included in this report.

Pallia and Ka'ea

High in the *mauka* region of Kapa'a in the Makaleha mountains at a place called Ka'ea, is reported to be the supernatural banana grove of the Kaua'i kupua or demigod Pallia, grandson of Hina (Handy and Handy 1972:424). In a 1913 edition of the newspaper Ka'oko'a Joseph Akina describes Pahla's banana grove:

The stalk could hardly be surrounded by two men, and was about 35 feet high from the soil to the lowest petiole. The length of the cluster from stem to lowest end of the bunch of bananas was about 1 3/4 fathoms long (one anana and one muku). There were only two bananas on each about 4 inches around the middle. There were just two bananas, one on the east side and one on the west, each about a foot or more in length. The one on the east side was tartish, like a *waiwai* (Spanish guava) in taste and the one on the west was practically tasteless. The diameter of the end of the fruit stem of this banana seemed to be about 10 feet. This kind of banana plant and its fruit seemed almost supernatural... (Akina, 1913:5).

Ka Lulu o Mo'ikeha

Kapa'a was the home of the legendary Mo'ikeha. Born at Waipi'o on the island of Hawai'i, Mo'ikeha sailed to Kahiki (Tahiti), the home of his grandfather Maweke, after a disastrous flood. On his return to Hawai'i, he settled at Kapa'a, Kaua'i. Kila, Mo'ikeha's favorite of three sons by the Kaua'i chiefess Ho'oiokamalani, was born at Kapa'a and was said

to be the handsomest man on the island. It was Kila who was sent by his father back to Kahiki to slay his old enemies and retrieve a foster son, the high chief La'amaikahiki (Handy and Handy 1972:424; Beckwith 1970:352-358; Kalakaua 1888:130-135; Fornander 1916, vol.4 pt.1:160). Mo'ikeha's love for Kapa'a is related in the *'olelo no'eau*: Ka lulu o Mo'ikeha i ka laula o Kapa'a. "The calm of Moikeha in the breadth of Kapa'a" (Pukui, 1983: 157).

"Lulu-o-Mo'ikeha" is described as being situated "near the landing and the school of Waimahanalua" (Akina, 1913: 5). The landing in Kapa'a was known as the Makee Landing and was probably constructed in the late 1870s, along with the Makee sugar mill. Today, in place of the old Makee Landing is part of a breakwater located on the north side of Mo'ikeha Canal near the present day Coral Reef Hotel, and approximately half-a-mile north of Waikaea Bridge.

Akina (1913) tells the story of how Mo'ikeha's son, Kila stocks the islands with the fish *akule*, *kawakawa* and *'opelu*. When Kila travels to Kahiki, he seeks out his grandfather Maweke and explains that he is the child of Mo'ikeha. When Maweke asks Kila if Mo'ikeha is enjoying himself, Kila answers with the following chant:

My father enjoys the billowing clouds over Pohaku-pili,

The sticky and delicious poi,

With the fish brought from Puna,

The broad-backed shrimp of Kapalua,

The dark-backed shrimp of Pohakuhapai,

The potent awa root of Maiaki'i,

The breadfruit laid in the embers at Makialo,

The large heavy taros of Keahapana

The crooked surf of Makalwa too

The bending hither and thither of the reed and rush blossoms,

The swaying of the kalukalu grasses of Puna The large, plump, private parts of my mothers,

Of Ho'oiokamalana and Hinau'u, The sun that rises and sets,

He enjoys himself on Kaua'i,

All of Kaua'i is Mo'ikeha's. (Akina, 1913: 6)

Maweke was delighted and when the boy is questioned as to his purpose, Kila tells his grandfather he is seeking fish for his family. Maweke tells Kila to lead the fish back to his homeland. This is how Kila led the *akule*, *kawakawa* and *opelu* to Hawai'i.

Paka'a and the wind gourd of La'amaomao (Keahiahia)

Kapa'a also figures prominently in the famous story of Paka'a, and the wind gourd of La'amaomao. Paka'a was the son of Kuanu'uano, a high-ranking retainer of the Big Island ruling chief Keawenuie'umi (the son and heir to the legendary

Chief, Umi), and La'amaomao, the most beautiful girl of Kapa'a and member of a family of high status *kahuna*. Kuanu'uau left the island of Hawai'i, traveled throughout the other islands and finally settled on Kaua'i, at Kapa'a. It was there that he met and married La'amaomao, although he never revealed his background or high rank to her until the day a messenger arrived, calling Kuanu'uau back to the court of Keawenuia`umi.

Intent on seeking out his real father and making himself known to him, Paka'a prepared for the journey to the Big Island. His mother presented to him a tightly covered gourd containing the bones of her grandmother, also named La'amaomao, the goddess of the winds. With the gourd and chants taught to him by his mother, Paka'a could command the forces of all the winds in Hawai'i. While this story continues on at length about Paka'a and his exploits on the Big Island and later on Moloka'i, it will not be dwelt upon further here. It is important to note that several versions of this story do include the chants which give the traditional names of all of the winds at all the districts on all the islands, preserving them for this and future generations (Nakuina 1990; Rice 1923:69-89; Beckwith 1970:86-87; Thrum 1923:53-67; Fomander 1918-19 vol. 5 pt.1:78- 128).

Frederick Wichman (1998:84) writes that Paka'a grew up on a headland named Keahiahi. Here, Paka'a learned to catch *malolo*, his favorite fish. After studying the ocean and devising his plan to fabricate a sail, Paka'a wove a sail in the shape of a crab claw and tried it out on his uncle's canoe. One day, after going out to catch *malolo*, he challenged the other fishermen to race to shore. He convinced them to fill his canoe with fish suggesting it was the only way he could truly claim the prize if he won:

The fishermen began paddling toward shore. They watched as Paka'a paddled farther out to sea and began to fumble with a pole that had a mat tied to it. It looked so funny that they began to laugh, and soon they lost the rhythm of their own paddling. Suddenly Paka'a's mast was up and the sail filled with wind. Paka'a turned toward shore and shot past the astonished fishermen, landing on the beach far ahead of them. That night, Paka'a, his mother, and his uncle had all the *ma'o'o* they could eat (Wichman 1998:85).

#### Kaweloleimakua

Kapa'a is also mentioned in traditions concerning Kawelo (Kaweloleimakua), Ka'ililauokekoa (Mo'ikeha's daughter, or granddaughter, dependent on differing versions of the tale), the mo'o Kalamainu'u and the origins of the *hina'i hinalea* or the fish trap used to catch the hinalea fish, and the story of Lonoikamakahiki (Fomander 1917, vol.4 pt.2:318, vol.4 pt. 3:704- 705; Rice 1923:106-108; Thrum 1923:123-135; Kamakau 1976:80).

#### Kalukalu grass of Kapa'a

"Kiimoena kalukalu Kapa'a" or "Kapa'a is like the *kalukalu* mats" is a line from a chant recited by Lonoikamakahiki. Kalukalu is a sedge grass, apparently used for weaving mats (Fomander 1917, Vol. IV, Pt. 2, pp. 318-19). Pukui (1983: 187) associates the kalukalu with lovers in "ke kalukalu moe ipo o Kapa'a; the *kalukalu* of Kapa'a that sleeps with the lover". According to Wichman (1998:84), "a kalukalu mat was laid on the ground under a tree, covered with a thick pile of grass, and a second mat was thrown over that for a comfortable bed", thus the association with lovers. Kaua'i was famous for this peculiar grass, and it probably grew around the marshlands of Kapa'a. It is thought to be extinct now, but an old-time resident of the area recalled that it had edible roots, "somewhat like peanuts." Perhaps it was a famine food source (Kapa'a Elementary School 1933:VI).

## Heiau of Kapa'a

During their expeditions around Hawai'i in the 1880's, collecting stories from *ka po'e kahiko*, Lahainaluna students stopped in Kapa'a and Kealia and gathered information regarding *heiau* of the region. Altogether, fourteen *heiau* were named in Kapa'a and Kealia, suggesting the two *ahupua'a* were probably more politically significant in ancient times. Table 1 lists the names of the ten *heiau* identified in the *ahupua'a* of Kapa'a, their location if known, their type, and associated chief and priest.

Table 1. *Heiau* of Kapa'a

Name	Location	Type	Associated
Maielehuna	Kapa'a (Maielehuna is the area of the present day Kapa'a School)	Unknown	Kiha, Kaumuali'i/ Lukahakona
Pueo	Kapa'a	Unknown	Kiha, Kaumuali'i
Pahua	Kapa'a/Kealia	Unknown	Kiha/ Lukahakona
Kumalae	Kapa'a/Kealia	Unknown	Kiha/ Lukahakona
Waiehumalama	Kapa'a/Kealia	Unknown	Kiha/ Lukahakona
Napu'upa'akai	Kapa'a/Kealia	Unknown	Kiha/ Lukahakona
Noeamakali'i	Kapa'a/Kedlia	Heiau for birth of Kaua'ii Chiefs, like Holoholoku	Unknown
Pu'ukoa	Kapa'a/Kealia	Unu type heiau	Unknown
Piouka	Kapa'a/Kealia	Unu type heiau	Unknown
Una	Kapa'a/Kealia	Unknown	Kiha/ Lukahakona
Mano	Kapa'a/Kealia	Unknown	Kiha/ Lukahakona
Kuahiahi	Kapa'a (govmt) school stands on site now)	Unknown	Kaumuali'i/ Lukahakona
Makanalimu	Upland of Kawaihau	Unknown	Kaumuali'i
Kaluluomoikeha	Kapa'a	Unknown	Moikeha

The exact locations of these *heiau* are unknown. The locations of two of the *heiau* correlate with the locations of *wahi pana* which are known to be close to Kuahiahi and Kaluluomo'ikeha. Kuahiahi (also spelled Kaahiahi and Keahiahi) is the rocky headland at the north end of Kapa'a where the first Kapa'a School was once located. Kaluluomo'ikeha is thought to be the general area near the Mo'ikeha Canal and the present day Coral Reef Hotel.

## The Mahele: Kapa'a Land Commission Awards

The Organic Acts of 1845 and 1846 initiated the process of the *Mahele*, the division of Hawaiian lands, which introduced private property into Hawaiian society. In 1848 the crown and the *ali'i* received their lands. The common people received their *kuleana* in 1850. It is through records for Land Commission Awards (LCAs) generated during the Mahele that specific documentation of traditional life in Kapa'a Ahupua'a comes to light. During the *Mahele*, Kapa'a was taken as Crown Lands (Office of the Commissioner of Public Lands of the Territory of Hawaii, 1929). The *i'i* of *Paikahawai* and *Ulakui* in Kapa'a Ahupua'a were retained as Government Lands.

Table 2. Mahele Land Claims in Kapa'a Ahupua'a

LCA Number	Ahupua'a	Claimant	'Ili of the Ahupua'a	Village/Farm	Land Use	Number of Āpana
3971	Kapa'a	Honolii,	Kapana	Kupanihi Village	6 <i>lo'i</i> (uncult), house lot	2 (2 acres, 1 rod, 1 rod)
3554	Kapa'a	Keo	Kahanui	Puhi Village	15 <i>lo'i</i> , house lot	2 (7 acres, 1 rod, 17 rods)
3638	Kapa'a	Hululii	Maeleele	Kaloko Village	12-15 <i>lo'i</i> , house lot	2 (5 acres, 1 rod, 19 rods)
8247	Kapa'a	Ehu	Moalepe/Noalepe		20 <i>lo'i</i> ,	1 (3 rods)
8837	Kapa'a	Kamapaa	Ulukiu lalo Awawaloa Ulukiu		3 <i>lo'i</i> , 2 <i>lo'i</i> , house lot	1 (2 acres, 2 rods, 27 rods)
8843	Kapa'a	Kiau	Apopo	Kalolo Village	6 (5) <i>lo'i</i> and <i>kula</i> , house lot	2 (2.75 acres 3 rods)
10564	Kapa'a	Oleloa Daniel		Hikinui Farm	Fishpond, 10 <i>lo'i</i>	

The land claims during this period show that only five individuals were awarded land parcels in the relatively large *ahupua'a* of Kapa'a. The five awardees were Kiau (#08843), Kamapaa (#08837), Mane Honolii (#03971) Hulilii (#03638) and Ehu (#08247). All four had *lo'i* or irrigated *kalo* fields on the *mauka* side of the lowland swampy area, sometimes extending a short distance up into small, shallow gulches and valleys. Many of these *lo'i* parcels name *pali* or hills/cliffs as boundaries. Each LCA also had a separate house lot located on the *makai* side of the swamp, near the beach. Three of the land claims name ponds on their lands, including Puhi Pond (LCA #03554), and fishponds in Kupanihi 'Ili (LCA #03971) and Hahanui 'Ili (LCA #10564). *Loko* Kihapai may be the same as the fishpond in the same land claim. The other two *loko* are associated with house lots, situated on the *makai* edge of the Kapa'a swamplands suggesting modification of the natural swamplands.

Other natural and cultural resources mentioned in the LCAs include freshwater springs, pig pens, *hau* bushes, *hala* clumps, streams, *'auwai*, and *kula* or pasturelands.

Interestingly, the residential "village" of Kapa'a did not exist as a single entity, but was likely a series of small settlements or compounds, perhaps even individual house lots which stretched along the shoreline of the *ahupua'a* and included (south to north) Kupanihi (Makahaikupanihi), Kalolo (Kaulolo), Puhi, and Uluki.

The fifth individual, Ehu (LCA #08247), was the only person to be awarded a single parcel in the upland area of Kapa'a, Moalepe Valley, approximately five miles one mile southwest of the project area. In 1848, when Ehu made his claim, he was the only one living there. A few years later, according to Honolii's testimony to support Ehu's claim, "There are no houses and no people now living on the land. Ehu found himself lonely there, all his neighbors having either died or left the land. Ehu now lives in Wailua." Evidently Ehu may have been the last person to live at and cultivate in the traditional way, the far *mauka* region of Kapa'a (Van Ryzin and Hammat 2004).

## Early Historic Accounts of Kapaa (1830s-1900s)

Although most of the historic record documents for Kapa'a in this period revolve around missionary activities and the missions themselves, there was indication that the Kapaa area was being considered for new sugar cane experiments, similar to those occurring in Kōloa In 1835 Ladd and Company received a 50 year lease on land in Kōloa from Kamehameha III and Kapa'a Governor Kaikio'ewa of Kapa'a. The terms of the lease allowed the new sugar company "the right of someone other than a chief to control land" and had profound effects on "traditional notions of land tenure dominated by the chiefly hierarchy" (Donohugh, 2001: 88). In 1837, a very similar lease with similar terms was granted to Wilama Ferani, a merchant and U.S. citizen based in Honolulu (Hawai'i State Archives, Interior Dept., Letters, Aug. 1837). The lease was granted by Kauikeaouli for the lands of Kapaa, Kealia and Waipouli for twenty years for the following purpose:

...for the cultivation of sugar cane and anything else that may grow on said land, with all of the right for some place to graze animals, and the forest land above to the top of the mountains and the people who are living on said lands, it is to them whether they stay or not, and if they stay, it shall be as follows: They may cultivate the land according to the instructions of Wilama Ferani and his heirs and those he may designate under him... (Hawai'i State Archives, Interior Dept. Letters, Aug. 1837).

Unlike Ladd & Company which eventually became the Kōloa Sugar Company, there is no further reference to Wilama Ferani and his lease for lands in Kapaa, Kealia and Waipouli. In a brief search for information on Honolulu merchant, Wilama Ferani, nothing was found. It is thought that perhaps Wilama Ferani may be another name for William French, a well-known Honolulu merchant who is documented as having experimented with grinding sugar cane in Waimea, Kapa'a at about the same time the 1837 lease for lands in Kapaa, Kealia and Waipouli was signed (Joesting 1984: 152).

In 1849, son of Wai'oli missionary, William P. Alexander, recorded a trip he took around Kapa'a. Although, he focuses on the larger mission settlements like Kōloa and Hanalei, he does mention Kapa'a.

A few miles from Wailua, near Kapaa we passed the wreck of a schooner on the beach, which once belonged to Capt. Bernard. It was driven in a gale over the reef, and up on the beach, where it now lies. A few miles further we arrived at Kealia. We had some difficulty crossing the river at this place, owing to the restiveness of our horses. The country here near the shore was rather uninviting, except the valley which always contained streams of water (Alexander 1991: 123).

In later years, the notorious Kapaa reef was to become the location of many shipwrecks once a landing was built there in the 1880s.

The first large scale agricultural enterprise was begun in Kapaa in 1877 by the Makee Sugar Plantation and the *Hui Kawaihau* (Dole 1916: 8). Originally a choral society begun in Honolulu its membership consisted of many prominent names, both Hawaiian and *haole*. It was Kalakau'a's thought that the *Hui* members could join forces with Makee, who had previous sugar plantation experience on Maui, to establish a successful sugar corporation on the east side of Kaua'i. Captain Makee was given land in Kapaa to build a mill and he agreed to grind cane grown by *Hui* members. Kalakau'a declared the land between Wailua and Moloaa, the Kawaihau District, a fifth district and for four years the *Hui* attempted to grow sugar cane at Kapahi, on the plateau lands above Kapaa town. After a fire destroyed almost half of the *Hui*'s second crop and after the untimely death of one of their principal advocates, Captain James Makee, the *Hui* began to disperse and property and leasehold rights passed on to Makee's son-in-law and new Makee Plantation owner, Colonel Z.S. Spalding (Dole 1916: 14).

As part of the infrastructure of the new plantation, a sugar mill was erected and the Makee Landing was built in Kapaa during the early years of operation of the Makee Sugar Plantation. Following Captain Makee's death, Colonel Spalding took control of the plantation and in 1885 moved the mill to Kealia (Cook 1999: 51). The deteriorating stone smokestack and landing were still there well into the 1900s (Damon 1931:359). Conde´ and Best (1973:180) suggest that railroad construction for the Makee Plantation began just prior to the mid-1890s. There is one reference to a railroad line leading from the Kapaa landing to Kealia in 1891. During Queen Lili'uokalani's visit to Kaua'i in the summer of 1891, the royal party was treated to music by a band, probably shipped in from O'ahu. "The band came by ship to Kapaa and then by train to Kealia" (Joesting 1984:252). This railroad line is depicted on a 1910 USGS map which shows the line heading south from Kealia Mill and splitting near the present Coral Reef Hotel, another line going to the old Kapaa Landing (Makee Landing) and another line heading *mauka*, crossing the present Moikeha Canal, traveling southwest up Lehua Street and through what is now goat pasture, along a plateau and into the *mauka* area behind Kapaa swamplands. This railroad line was part of a twenty mile network of plantation railroad with some portable track and included a portion of Kealia Valley and in the *mauka* regions of the plateau lands north of Kealia (Conde´ and Best 1973:180).

By the late 1800s hundreds of Portuguese and Japanese immigrants found work on Makee Plantation and the new influx of immigrants required more infrastructure (Cook 1999:51). In 1883, a lease for a school lot was signed between Makee Sugar Company and the Board of Education (Kapaa School 1983: 9). Stipulations in the Portuguese immigrant contracts with Makee Sugar Company stated that "children shall be properly instructed in the public schools" (Garden Island April 1, 1983). The original Kapaa School was constructed in 1883 on a rocky point adjacent to the Makee Sugar Company railroad. Traditionally, this point was known as Kaahiahi (Kapaa School 1983: 10). In 1908, Kapaa School was moved to its present site directly *mauka* and up the hill at Mailehune.

Narrow wagon roads gave way to macadamized roads in the early part of the 20th century. One of these new roads was called the Kaua'i Belt Road and parts of it are thought to have followed along the "Old Government Road" (Cook, 1999). In Kapaa, the present day Kuhio Highway likely follows the same route as the original Government Road and subsequent Kaua'i Belt Road. In fact, the locations of the *kuleana* awards in Kapaa indicate that the majority of the house lots were situated along the Government Road. LCA 3243 names a "road" as one of its boundaries.

In the latter half of the 1800s, following Makee's death, Chinese rice farmers began cultivating the lowlands of Kapaa with increasing success. Several Hawaiian *kuleana* owners leased or sold their parcels *mauka* of the swamp land to Chinese rice cultivators. Other Chinese rice cultivators appealed to the government for swamplands, first leasing and later buying the land. The economic activity displaced the house lot *kuleana* on the *makai* side of the marsh for increasing commercial and residential development (Lai 1985:148-161).

## 20th Century History of Kapa'a (1900 - Present)

In the early 1900s, to help with the burgeoning plantation population, government lands were auctioned off as town lots in Kapaa. One *kama'aina* mentioned that in the 1930s and 1940s, the area north of Moikeha Canal in Kapaa was mostly settled by Portuguese families (Bushnell et al 2002). The Japanese were also very prominent in the 1920s and 1930s largely replacing the Chinese merchants in the Kapaa business sector (Bushnell et al. 2002). Starting in 1926, the territorial Board of Health ran a dispensary in Kapaa, which was located at the *makai* edge of Niu Street, near the extant Kapaa Beach Park parking lot and bike path. The location of the former dispensary currently is a vacant lot. Elsewhere in the vicinity, a fire station occupies the location of the former Coral Reef Hotel, and a courthouse and a jail once stood where the present Kapaa Neighborhood Center is located. It is not known when these structures were abandoned or removed.

In 1913, Hawaiian Canneries opened in Kapaa at the site now occupied by Pono Kai Resort (Cook, 1999: 56). Through the Hawaiian Organic Act, Hawaiian Canneries Company, Ltd. purchased land they were leasing, approximately 8.75 acres, in 1923 (Bureau of Land Conveyances, Grant 8248). A 1923 sketch of the cannery shows only four structures, one very large structure assumed to be the actual cannery and three small structures *makai* of the cannery. By 1956, the cannery was producing 1.5 million cases of pineapple. By 1960, 3400 acres were in pineapple and there were 250 full time employees and 1000 seasonal employees (Honolulu Advertiser, March 20, 1960). In 1962, Hawaiian Canneries went out of business due to competition from third world countries.

The Ahukini Terminal & Railway Company was formed in 1920 to establish a railroad to connect Anahola, Kealia, Kapaa to Ahukini Landing and "provide relatively cheap freight rates for the carriage of plantation sugar to a terminal outlet" (Conde´ and Best, 1973: 185). This company was responsible for extending the railroad line from the Makee Landing, which was no longer in use, to Ahukini Landing, and for constructing the original Waikaea Railroad Bridge and the Moikeha Makai Railroad Bridge.

In 1934, the Lihue Plantation Company absorbed the Ahukini Terminal & Railway Company and Makee Sugar Company (Conde´ and Best, 1973: 167). The railway and rolling stock owned by Makee Sugar Company became the Makee Division of the Lihue Plantation. At this time, besides hauling sugar cane, the railroad was used to haul plantation freight including "fertilizer, etc... canned pineapple from Hawaiian Canneries to Ahukini and Nawiliwili, pineapple refuse from Hawaiian Canneries to a dump near Anahola and fuel oil from Ahukini to Hawaiian Canneries Co., Ltd." (Hawaiian Territorial Planning Board, 1940: 11). Former plantation workers and *kama'aina* growing up in Kapaa remember when the cannery would send their waste to the pineapple dump, a concrete pier just north of Kumukumu Stream (State Site No. 50- 30-08-789) by railroad. The structure is built over the water where the rail cars would dump the pineapple waste. The current would carry the waste to Kapaa which would attract fish and sharks (Bushnell et al. 2002).

Lihue Plantation was the last plantation in Hawaii to convert from railroad transport to trucking (Conde´ and Best, 1973: 167). "By 1957 the company salvaged a part of their plantation railroad, which was being supplanted by roads laid out for on or close to the old rail bed" (Ibid: 167). By 1959, the plantation had completely converted over to trucking. The Cane Haul Road which begins near the intersection of Haua'ala Road and Kuhio Highway is thought to date to the late 1950s and follows the alignment of the old railroad until just before or near`Alibi Point.

Severe floods in Kapaa in 1940 led to the dredging and construction of the Waikaea and Mokeha Canals sometime during that decade. (Hawaii Territorial Planning Board, 1940: 7). Although the Waikaea Canal, bordering the Kapaa Pineapple Cannery, had been proposed as early as 1923, nothing was constructed until after the floods (Bureau of Land Conveyances, Grant 8248). A Master Plan for Kapaa, published in 1940, asks the Territorial Legislature for funds to be set aside for the completion of a drainage canal and for filling *makai* and *mauka* of the canal (Hawaii Territorial Planning Board, 1940:7). In 1955, the local newspaper reported the dredging of coral from the reef fronting Kapaa Beach Park for the building of plantation roads (Garden Island Newspaper, September 21, 1955). This dredging was later blamed for accelerated erosion along Kapaa Beach (Garden Island Newspaper, October 30, 1963). Today, there are several sea walls along the Kapaa Beach Park to check erosion. Old time residents claim the sandy beach in Kapaa was once much more extensive than it is now (Bushnell et al. 2002).

In the 1930s after the incorporation of Makee Sugar Company into Lihue Plantation, Kealia Town was slowly abandoned. Many of the plantation workers bought property of their own and moved out of the plantation camps. The camps which bordered Kuhio Highway were disbanded in the 1980s. In the last part of the 20th century the Lihue Plantation began to phase out and Kapaa Town suffered after the closing of the Kapaa Cannery; however the growing tourist industry helped to ease the economic effects of the Cannery's closing.

## PREVIOUS ARCHAEOLOGICAL RESEARCH

### Archaeological Studies and Sites in Kapa'a Ahupua'a

The following table outlines the archaeological research (Table 3) and historic properties (Table 4) identified in Kapa'a Ahupua'a. These tables are followed by discussion of the research and historic properties. Table 3 provides a list of archaeological research conducted within Kapa'a Ahupua'a, including columns for source, location, nature of study, and findings. The locations of these archaeological studies are shown in Figure 4. Table 4 is a list of known historic properties within the ahupua'a and includes columns for state site numbers, site type, location and reference. The locations of identified sites within Kapa'a Ahupua'a are shown in Figure 5. All site numbers are numbered 50-30-08-SHIP site number. Here only the SHIP site number designation will be used.

**Table 3. Previous Archaeological Studies in coastal Kapa'a.**

#### EXPLORATION ASSOCIATES LTD

Source	Location	Nature of Study	Findings
Bennett 1931	Island wide: identifies 2 sites: Site 110 Taro terraces and bowl and Site 111 A large simple dirt Hawaiian ditch	Archaeological Reconnaissance	Identifies 2 sites: Site 110 Taro terraces and bowl and Site 111 A large simple dirt Hawaiian ditch
Handy and Handy 1972	Archipelago-wide	Native Planter study	Discusses "highly developed irrigation system"
Ching 1976	Just south of the Waikaea Drainage Canal	Archaeological Reconnaissance	No significant findings
Hammatt 1981	Upland Kapaa	Archaeological Reconnaissance	No significant findings
Hammatt 1986	Upper reaches of the Makaleha stream valley.	Archaeological Reconnaissance	No significant findings
Hammatt 1991	Along Kuhio Highway	Subsurface Testing	Identifies two sub-surface cultural layer sites
Kikuchi and Remoaldo 1992	Around Kapaa Town	Cemeteries of Kauai	Identifies six cemeteries
Spear 1992	South side Waikaea Canal, mauka of Kuhio Highway. (TMK: 4-5-05:04, 09)	Monitoring Report	Designated subsurface Site 547

Source	Location	Nature of Study	Findings
Chaffee, Burgett & Spear 1994a	A house lot near the corner of Kukui and Ulu Streets in mauka Kapaa Town. [TMK: 4-5-09:10]	Archaeological Inventory Survey	No significant findings
Chaffee, Burgett & Spear 1994b	Mamane Street Kapaa Town. [TMK: 4-5-09:51]	Archaeological Inventory Survey	No significant findings
Hammatt, Ida & Chiogioji 1994	Proposed bypass routes mauka of Kapaa Town	Archaeological Assessment	No new field work, literature review only
Hammatt, Ida & Folk 1994	South side Waikaea Canal, mauka of Kuhio Highway [TMK: 4-5-05:06]	Archaeological Inventory Survey	Weak cultural layer designated Site 748
Kawachi 1994	Inia Street (Jasper) [TMK 4-5-08:33]	Burial Report	Designated Site 871
McMahon 1994	"behind the armory in Kapa'a near the god stones" The location is uncertain, and at "Buzz's near the Coconut Marketplace"	Documents a report of two burials	16 sets of human remains. Site numbers unknown
Creed, Hammatt, Ida, Masterson & Winieski 1995	Kapa'a Sewer line project, Kuhio Highway, south and central Kapaa Town	Archaeological Monitoring Report	Documents cultural layer of Site - 1848 and (an enlarged) Site - 1849 & recovery of thirty burials at Sites —867, -868, -871, and -1894
Jourdane 1995	1382-A Inia Street, mauka of Kuhio Highway, central Kapaa Town	Burial Report	Site 626
McMahon 1996	South side Waikaea Canal, mauka of Kuhio Highway [TMK: 4-5-05:08]	Archaeological Inventory Survey	No significant cultural material
Hammatt, Chiogioji, Ida & Creed 1997	Test excavations focused inland of Kapaa Town	Archaeological Inventory Survey	Four test trenches were excavated inland of Kapaa Town
Borthwick and Hammatt 1999	Kapaa Seventh-Day Adventist Church at 1132 Kuhio Highway	Archaeological Monitoring and Burial Treatment Plan	Monitoring was indicated as this parcel lay within designated Site 1848.

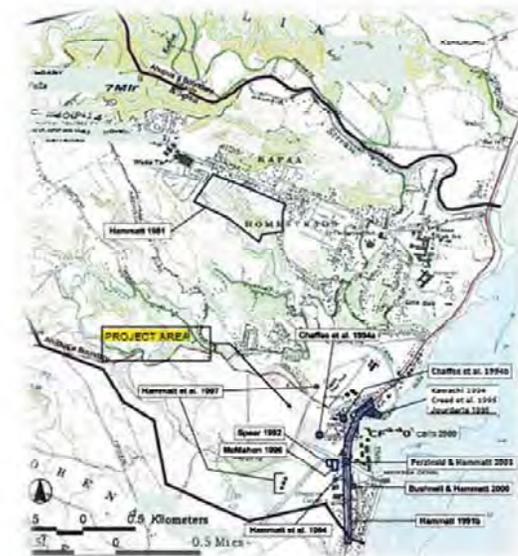


Figure 6. Map showing previous archaeological studies in Kapa'a.

Table 4. Historic Properties in Kapa'a Ahupua'a

Site #	Ahupua'a	Site Type/ Name (if any)	Location	Site Constraints	Reference
B001	Kapa'a	Historic Cemetery	South of bend of Kapa'a Stream, a kilometer <i>mauka</i> from Kuhio Hwy	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B002	Kapa'a	Historic Cemetery	Just <i>mauka</i> from Kuhio Highway, south of Kapa'a Stream	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B003	Kapa'a	Kapa'a Public Cemetery	South of Kanaele Road, one kilometer inland of Kuhio Highway	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B004	Kapa'a	Historic Cemetery	North of Apopo Road, one kilometer inland of Kuhio Highway	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B013	Kapa'a	Historic Cemetery	Just <i>mauka</i> from Kuhio Highway, north of the Waikaea Canal	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B014	Kapa'a	All Saints Episcopal Church Cemetery	Just <i>mauka</i> from Kuhio Highway, south of the Waikaea Canal	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo. 1992:62-65
547	Kapa'a	Sub-surface features including a firepit and a possible house foundation	South of bend of Waikaea Canal, <i>mauka</i> of Kuhio Highway	Archaeological monitoring in the vicinity recommended	Speare 1992:3
626	Kapa'a	Burial	Inia Street, <i>makai</i> of Kuhio Highway,	Consultation and monitoring in vicinity indicated	Jourdane 1995
748	Kapa'a	Minimal findings, a weak cultural layer (buried A-horizon)	South of the bend of the Waikaea Canal, <i>mauka</i> of Kuhio Highway	Considered no longer significant within project area	Hammatt et al. 1994
789	Kapa'a/Kealia	Historic Road	Coastal Cane Haul Road near Kawaihau Road turn off	Unknown	Perzinski et. al. 2000

Site # 50-30-08-	Ahupua'a	Site Type/ Name (if any)	Location	Site Constraints	Reference
867	Kapa'a	1 set of human remains	Kukui Street, just <i>mauka</i> of Kuhio Highway, Kapa'a Town	Consultation and monitoring in vicinity indicated	Creed et al. 1995:50
868	Kapa'a	1 set of human remains	Lehua Street <i>mauka</i> of Kuhio Highway, Kapa'a Town	Consultation and monitoring in vicinity indicated	Creed et al. 1995:50
871	Kapa'a	13 sets of human remains (Creed et al. 1995:50)	Inia Street, <i>makai</i> of hio Highway	Consultation and monitoring in vicinity indicated	Kawachi 1994; Creed et al. 1995:50
1848	Kapa'a	Cultural layer and sub-surface features	Along Kuhio Highway between Wana Road and the Waikaea Drainage Canal	Archaeological monitoring in the vicinity recommended	Hammatt 1991; Creed et al. 1995
1849	Kapa'a	Cultural layer and sub-surface features; Creed et al. 1995:53 expands boundaries to incl. burial sites 626, -867, -868 - 871, and -1894	Along Kuhio Highway between Inia Street and Kaula Street extending to the coast	Consultation and monitoring in vicinity indicated	Hammatt 1991; Creed et al. 1995
1894	Kapa'a	11 sets of human remains	Ulu Street, just north of Kuhio Highway, Kapaa Town	Consultation and monitoring in vicinity indicated	Creed et al. 1995:50
2075	Kapa'a/Kealia	Highway Bridge Foundation (old Kaua'i Belt Road)	Kuhio Highway at Kapa'a/ Kealia River	Unknown	Bushnell et al. 2002:55
2076	Kapa'a	Petroglyph	Rocky coast below former cane haul road (Site -789)	Preservation	Bushnell et al. 2002:55
2077	Kapa'a	Concrete steps (related to historic beach pavilion)	Near present Kapaa Beach Park Pavilion	Unknown	Bushnell et al. 2002:55

Site #	Ahupua'a	Site Type/ Name (if any)	Location	Site Constraints	Reference
2078	Kapa'a	Historic Railway Alignment (2 Railroad Bridges, & RR Culvert Foundation)	Both railroad bridges span the Moikeha Canal; the RR culvert foundation is located north of the Kapaa Swimming Pool.	Unknown	Bushnell et al. 2002:55



Figure 7. Map showing previously documented archaeological sites in Kapa'a

The majority of study areas are located within urban Kapa'a along the shoreline and away from the mountain areas.

### Pattern of Archaeological Sites in Kapa'a

The pattern of archaeological studies in Kapa'a Ahupua'a is somewhat skewed with a dozen projects in urban Kapaa Town and very little work along the coast (Figure 4). Major archaeological sites have been found in area include extensive cultural layers with burials and other cultural features underlying Kuhio Highway near All Saints Gym, and near the older part of Kapaa Town between Waikaea Canal and Kapaa Beach Park, *makai* of Kuhio Highway (Hammatt 1991; Kawachi 1994; Creed et al. 1995; Jourdan 1995; Callis 2000). The *mauka-makai* extent of these

cultural layers has not been clearly defined. The five *kuleana* awarded during the *Mahele* are located adjacent to the present coastal highway. The areas directly *mauka* of Kapaa Town are marshy though much of it has been filled in recent decades for the Bypass Road and shopping centers and housing. These cultural deposits associated with pre-historic and early historic habitation are known to exist in a relatively narrow sand berm that makes up the physiogeography of Kapa`a. The more *mauka* studies but still lower coastal areas, suggest they are located towards the *mauka* fringe of the sand berm, approaching more marshy conditions and have generally reported no significant or minimal findings (Spear 1992; Chaffee et al. 1994a & 1994b; Hammatt et al. 1994, 1997; McMahon 1996). Less than 1.5 km to the south of Waikaea Canal at the southern boundary of Waipouli adjacent to Uhalekawa`a Stream (Waipouli Stream) and the ocean is another extensive subsurface cultural deposit which is associated with a pre-contact fishing encampment located (Hammatt et al. 2000).

Anticipated sites based on historic and archaeological studies in *mauka* Kapa`a are the remains of cane cultivation infrastructure such as ditches and pre-contact too historic period Native Hawaiian terracing for *lo`i* cultivation with nearby habitation sites in the gulches, however the gulches lay outside the current project area.

## RESULTS OF FIELD WORK

### Pedestrian Survey

On January 3 and April 25, 2012 Exploration Associates Ltd. archaeologist Nancy McMahon, M.A. made field inspections on proposed Kapa`a Highlands project area. Access was made via Olohena Road (two gates). North-south oriented transects were utilized to 100% survey the project area. Because of known historic cane cultivation in this area of Kapa`a, predicted sites might be historic plantation related infrastructure such as ditches, flumes, roads, temporary cane-haul railroad berms and reservoirs. None were observed during the survey. The shallow ravine the project area were surveyed and tested, however no pre-Contact or historic era terraces or habitation sites were revealed. The parcel contains no surface archaeological sites. The access road is related to access for construction of the buildings already present on the Phase I parcel.

### Subsurface Testing

On November 11, 2012, three trenches were excavated with a backhoe with a 24 in. width bucket (Figure ). Trench 1 was excavated to a depth of 183 cm with a length of 10 meters. Trench 2 was excavated to a depth of 160 cm and a length of 3 m. Trench 3 was excavated to a depth of 260 cm and a length of 2.5 m. Each evinced the same soil composition. A description of the soils representing all three trenches is presented here.

A representative profile description evinced the same stratigraphy consisting in all three trenches, consisting of three soil layers with only a single clear boundary delineating the topsoil from the underlying soils. Soil differences could only be determined utilizing the Munsell Color Chart. The topsoil in each trench 5 YR 4/3 *reddish brown organic*. The other two layers are classified as 5 YR 5/6 *yellowish red* [20 cmbs] and 5 YR 4/6 *yellowish red* [20cmbs to base of excavation]. Characteristics are dry to very dry, crumbly, medium firm, clayey silt. It is pretty much cultivated soils. A local informant, Mr. Vasquez, who worked for the Lihue plantation most of his life Informant stated the plantation chain and ball dragged this land several time over.

A geologic survey was undertaken on the adjacent Phase I parcel prior to the construction of a solar farm. Soils extracted and examined in test trenches revealed only agricultural soils. No buried cultural layers or plantation infrastructure was present.



Figure 8. Trench locations, facing northeast.



Figure 9. Profile Test Trench 2 on the left and Trench 3 right.



Figure 10. Entrance off Olohena Road looking makai in the distance the Solar Farm part of Phase I



Figure 11. Access Road to Solar Farm with Cattle Grazing in the Distance.



*Figure 12. Lower Elevation Outside Project Area from the access road.*



*Figure 13. View Across the Project Area, Facing Makai and Northeast.*



*Figure 14. The Roof of Kapaa Middle School on State land*

## RECOMMENDATIONS

As no archaeological sites are present, there are no historic preservation concerns for this project. We recommend no further historic preservation work. Though highly unlikely, if any human remains or other significant subsurface deposits are encountered during the course of development activities all work in the immediate area should stop and the State Historic Preservation Division promptly notified.

# REFERENCES

## Akina, Joseph

1913 "*I Ke hou i Ka Lulu-o-Moikeha i ka laula o Kapa`a*", *Kuokoa*. May 2-9, 1913. Bishop Museum Archives  
HEN Place Names, Kaua`i.

## Alexander, William Patterson

1991 "A Tour of Kaua`i in 1849: Private Journal of William DeWitt Alexander," *The Kaua`i Papers*, Kauai  
Historical Society, A Kauai Historical Society Publication, Lihue, Kaua`i, HI.

## Beckwith, Martha

1970 *Hawaiian Mythology*, University Press of Hawai`i, Honolulu.

## Bennett, Wendell C.

1931 *The Archaeology of Kaua`i*, Bishop Museum Bulletin 80, Honolulu, HI. Bishop Museum Archives HEN I: 214  
"Heiaus of Kealia and Kapa`a" and "Well Known Things [or Places]".  
HEN I: 215 "Famous Things mentioned by Two Men".  
HEN I: 216 "Heiaus from Kapa`a to Kealia" and "Things for which Kapa`a was Known".

## Bushnell, K.W., Melanie Mann, Douglas Borthwick, Tony Bush, Todd Tulchin, David Shideler and Hallett H. Hammatt

2002 *Archaeological Inventory Survey for the Proposed Kapa`a/Kealia Bike and Pedestrian Path, Kapa`a and  
Kealia, Kawaihau Districts, Kaua`i Island, Hawaii (TMK 4-5, 4-6-14, 4-7-03 & 04)*. Cultural Surveys  
Hawai`i, Inc. Kailua, HI.

## Calis, Irene

2000 *End of Field Work Report: Human Burial Removal and Archaeological Monitoring, Kapa`a Beach Park Public  
Bathroom Installation, Kapa`a, Kaua`i* Scientific Consultant Services

## Chafee, David B., Berdena Burgett and Robert L. Spear

1994a *An Inventory Survey of a Kukui Street Houselot, Kapa`a Ahupua`a, Kawaihau District, Puna, Island  
of Kaua`i (TMK: 4-5-09:10)*, SCS Inc., Kaneohe, HI.

1994b *An Inventory Survey of a Mamane Street Houselot, Kapa`a Ahupua`a, Kawaihau District, Puna, Island of  
Kaua`i (TMK: 4-5-09:51)*, SCS Inc., Kaneohe, HI.

## Ching, Francis K. W.

1968 *Archaeological Surface Survey; Wailua State Park, Kaua`i, State of Hawaii, Dept. of Land and Natural  
Resources, Honolulu, HI.*

1976 *Letter Report: Archaeological Reconnaissance Report, Kapa`a "Wastewater Treatment and Disposal  
System, ARCH 14-96, Letter to R. M Towill Corporation, ARCH, Lawai, Kaua`i, HI.*

## Conde, Jesse C. and Gerald M. Best

1973 *Sugar Trains, Narrow Gauge Rails of Hawaii*, Glenwood Publishers, Felton, CA.

## Cook, Chris

1999 "*Kaua`i, the Garden Island: A Pictorial History of the Commerce and Work of the People*", Donning  
Co., Virginia Beach, VA.

## Creed, Victoria, Hallett H. Hammatt, Gerald K. Ida, Ian Masterson and John Wineski

1995 *A Summary of the Archaeological Monitoring for the Kapa`a Sewerline Project Waipouli and Kapa`a  
Ahupua`a, Puna District, Kaua`i (TMK: (4)-3-09 and 4-5-03 to 11)*, Cultural Surveys Hawai`i, Kailua, HI.

## Damon, Ethel M.

1934 *The Heiau at Wailua, The Kauai Historical Society by the Garden Island Press, Lihue, Kaua`i, HI.*

1931 *Koamalu, two vols. privately printed by the Honolulu Star-Bulletin Press, Honolulu, HI.*

## Dega, Michael F. and James Powell

2003 *Archaeological Monitoring During Phase I of the Kaua`i Rural Fiber Optic Duct Lines Project, Kaua`i  
Island, Hawaii. Scientific Consultant Services.*

## Dole, Charles S.

1916 "*The Hui Kawaihau*" pp.8-15. A Paper read at the November meeting of the Kauai Historical Society  
on November 16, 1916. In Lihue, Kaua`i.

## Donohugh, Donald

2001 *The Story of Kōloa, A Kaua`i Plantation Town, Mutual Publishing, Honolulu, HI.*

## Foote, Donald E. E. L. Hill, S. Nakamura and F. Stevens

1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii U.S. Department of  
Agriculture. U.S. Government Printing Office, Washington D.C.*

## Fomander, Abraham

1916-19 *Fomander Collection of Hawaiian Antiquities and Folk-Lore, with translations edited and illustrated  
with notes by Thomas G. Thrum, Volume 4, First series, 1916 - 1917 notes by Thomas G. Thrum,  
Memoirs of the Bernice P. Bishop Museum, Vols. 4, 5, 6, Honolulu, HI.*

## Garden Island Newspaper

1955 "*Geologists Says Kapa`a Coral Removal No Threat to Town*". September 21, 1955.

1963 "*Kapa`a Blames Federal Role As Erosion Continues. Says Barrier on Reef is Required*". October 30,  
1963.

1983 "*Centennial Year, Kapa`a School Wants Pix of its 100 Years*". April 1, 1983.

EXPLORATION ASSOCIATES LTD

- Giambelluca, Thomas W., Michael A. Nullet and Thomas A. Schroeder  
1986 Rainfall Atlas of Hawai'i, Department of Land and Natural Resources, Honolulu, HI.
- Hammatt, Hallett H.  
1981 Archaeological Reconnaissance of 52.56 Acres for a Proposed subdivision, TMK: (4)-6-13-1, Kapa'a, Puna, Kaua'i Island, ARCH Report 14-236, Prepared for Waialeale Partners.  
1986 Archaeological Reconnaissance of the Makaleha Springs Water Source Development, Kapa'a, Kaua'i TMK: (4)-6-01:1, Cultural Surveys Hawai'i, Kailua, HI.  
1991 Archaeological Subsurface Testing for the Proposed Kapa'a Sewer line, Wailua, Olohena, Waipouli and Kapa'a, Kaua'i, Cultural Surveys Hawai'i, Kailua, HI.
- Hammatt, Hallett H., Rodney Chiogioji, Gerald K. Ida and Victoria S. Creed  
1996 An Archaeological Inventory Survey for the Kuhio Highway Widening and Bypass Options Within the Ahupua'a of Wailua, South Olohena, North Olohena, Waipouli & Kapa'a, Island of Kaua'i, Cultural Surveys Hawai'i, Inc., Kailua, HI.
- Hammatt, Hallett H., Gerald K. Ida and William H. Folk  
1994 Archaeological Inventory of a 1.87-Acre Parcel, Kapa'a, Kaua'i (TMK (4)-5-05:6), Rev. August 1994, Cultural Surveys Hawai'i, Kailua, HI.
- Handy, E.S. Craighill and Elizabeth G. Handy  
1972 Native Planters in Old Hawaii: Their Life, Lore, and Environment, B.P. Bishop Museum Bulletin 233, B.P. Bishop Museum, Honolulu, HI.
- Hawaii State Archives  
1837 Interior Department, Land, Incoming Letter. August 1837.  
1882 Interior Department, Letter book, Vol. 20, p. 426, Letter from Spalding to the Honorable Jacob Hardy, Circuit Judge—Fourth Circuit Kaua'i.
- Hawaiian Territorial Planning Board  
1940 Master Plan of the Town of Kapa'a, In collaboration with the Kaua'i County Board of Supervisors, Publication No. 8. Advertiser Publishing Co., Honolulu, HI.
- Honolulu Advertiser  
1997 "Amfac to put more land up for sale: Tracts on Kaua'i, Big Island" by Mike Gordon. July 7, 1997. Section B1.  
1960 "Kaua'i Tries to See into Future. March 20, 1960.
- Joesting, Edward  
1984 Kaua'i, The Separate Kingdom, University of Hawaii Press and Kaua'i Museum Association, Ltd., Honolulu.
- Jourdane, Elaine  
1995 Inadvertent Discovery of Human Remains at 1382-A Inia Street, Kapa'a, Kaua'i (Kapa'a Sewerline Project Laterals) Site 626, SHPD, Honolulu, HI.

EXPLORATION ASSOCIATES LTD

- Kalakau'a, David  
1888 The Legends and Myths of Hawaii, Edited by R.M. Dagget, Charles L. Webster and Co., New York.
- Kamakau, Samuel Manaiakalani  
1976 The Works of the People of Old, Na Ham a ka Po'e Kahiko, Bishop Museum Special Publication, No. 61, Honolulu, HI.
- Kapa'a Elementary School  
1982 Kapaa School 1883-1983: A "Century of Knowledge". Kapa'a Elementary, Kapa'a, Kaua'i
- Kawachi, Carol T.  
1994 Inadvertent Burial at 1316 Inia Street (Jasper) TMK 4-5-08:33, Kapa'a, Kawaihau, Kaua'i 50-30-08-871, State Historic Preservation Division, Honolulu, HI.
- Kikuchi, William K. and Susan Remoaldo  
1992 Cemeteries of Kaua'i, Volume 1, Kaua'i Community College and University of Hawaii, Puhi, Kaua'i, HI.
- King, Robert D.  
1935 "Districts in the Hawaiian Islands" In Coulter, John Wesley (compiler)  
A Gazetteer of the Territory of Hawaii, University of Hawaii Research Publications, No. 11, University of Hawaii, Honolulu, HI.
- Lai, Violet L. assisted by Kum Pui Lai  
1985 He Was a Ram, Wong Aloiau of Hawaii, Published for the Hawaii Chinese History Cemetery and the Wong Aloiau Association by University of Hawaii Press, Honolulu.
- McMahon, Nancy A.  
1994 Inadvertent Burial Find, Kapa'a, Kawaihau, Kaua'i, SHPD, Honolulu, HI.  
1996 Archaeological Inventory Survey for 5 Unit Apartment, (TMK:(4)-5-05:8), Kapa'a, Kawaihau, Kaua'i, Exploration Associates, LTD., Kōloa, Kaua'i, HI.
- Nakuina, Moses K.  
1990 The Wind Gourd of La' amaoma, Translated by Esther T. Mookini and Sarah Nakoa, Kalamaku Press, Honolulu.
- Office of the Commissioner of Public Lands  
1929 Indices of Awards, Made by the Board of Commissioners to Quiet Land Title in the Hawaiian Islands.
- Pukui, Mary Kawena  
1983 (Melo No'eau: Hawaiian Proverbs and Poetical Sayings, Bishop Museum Special Publication No.71, Bishop Museum Press, Honolulu, HI.  
1986 Hawaiian Dictionary, 2<sup>nd</sup> Edition, University of Hawaii Press, Honolulu, HI.  
1974 Place Names of Hawaii, University of Hawaii Press, Honolulu, HI.

Rice, William Hyde

1974 Hawaiian Legends, Bernice P. Bishop Museum Bulletin 3, Honolulu, HI; originally published 1923, Kraus Reprint, Millwood, New York, N.Y.

1923 Hawaiian Legends, Bernice P. Bishop Museum Bulletin 3, Honolulu.

Spear, Robert L.

1992 Letter Report Concerning Monitoring for the Cost-U-Less Project Kapa'a, Kaua'i, HI (TMK: (4)-5-5:4&9), Scientific Consultant Services Inc., Honolulu, HI.

Thrum, Thomas G.

1906 "Heiaus and Heiau Sites Throughout the Hawaiian Islands, Kaua'i, in: Hawaiian Almanac and Annual 1907, pp. 36-48, Honolulu, HI.

1923 More Hawaiian Folk Tales, A.C. McClurg & Co., Chicago, IL.

Van Ryzin, Karl and Hallett H. Hammatt

2004 An Archaeological Assessment for The Proposed Water Reservoir, Kapa`a Ahupua`a, Kaua'i (TMK (4)-6-03:10 Cultural Surveys Hawai'i, Kailua, HI.

Wickman, Frederick B.

1998 Kaua'i Ancient Place Names and Their Stories. University of Hawaii Press: Honolulu

# APPENDIX A

## Photos of the Area Surveyed



Figure 1. View of Project Area from the gate at the top of Olohena Road.



Figure 2. Solar Farm on Phase I Property view to north



Figure 3. Cattle Grazing in the Project Area.



*Figure 4. Fence in the left side of photo indicating property boundary.*



*Figure 5. Goats Grazing in the Project Area.*

# APPENDIX B

State Historic Preservation Letter (June 2010) Requesting Survey

State Historic Preservation Letter (December 1999) Subdivision  
"No Effect"



# APPENDIX C

## Report of Geotechnical Evaluation Kapaa Solar Field



December 14, 1999

Mr. Greg Kamm  
P.O. Box 1200  
Kula, HI 96756

LDG NO: 24572 -  
DOC NO: 0012NM02

Dear Mr. Kamm:

**SUBJECT: Chapter 6E-42, Historic Preservation Review --  
Subdivision Permit Application 5-99-45 (Silagi Family Trust  
and Hillside Corp. Center L.L.C.)  
TMN: 4-3-03: 01 per  
Kapaa, Kawaiihau, Kua'i**

Thank you for submitting the 1975 air photo of the above subject parcels. We agree that the land has been extensively altered by cane cultivation and filling. Therefore, we now believe that this project will have "no effect" on significant historic sites.

If you have any questions, please call Nancy McMahon at 742-7033.

Aloha,

  
DON HIBBARD, Administrator  
State Historic Preservation Division

NM:lin

c. D. Crowell, Planning Department County of Kauai



REPORT OF  
GEOTECHNICAL EVALUATION-  
KAPAA SOLAR FIELD  
KAPAA, KAUAI

PREPARED FOR  
WAGNER ENGINEERING SERVICES, INC.

PREPARED BY:  
D.A.Evans, Inc.  
P.O. Box 745  
Kilauea, HI, 96754



REPORT OF  
GEOTECHNICAL EVALUATION-  
KAPAA SOLAR FIELD  
KAPAA, KAUAI

PREPARED FOR  
WAGNER ENGINEERING SERVICES, INC.

PREPARED BY:  
D.A.Evans, Inc.  
P.O. Box 745  
Kilauea, HI, 96754



**TABLE OF CONTENTS**

	Page
<b>INTRODUCTION</b> .....	1
<b>Purpose</b> .....	1
<b>Scope</b> .....	1
<b>Location</b> .....	1
<b>REFERENCES</b> .....	2
<b>PROPOSED DEVELOPMENT</b> .....	3
<b>GEOLOGIC CONDITIONS</b> .....	3
<b>TSUNAMIS</b> .....	4
<b>SURFACE AND SUBSURFACE WATER</b> .....	4
<b>SOIL MATERIAL PROPERTIES</b> .....	4
<b>EARTHQUAKES</b> .....	5
<b>CONCLUSIONS</b> .....	5
<b>Feasibility</b> .....	5
<b>Site Preparation</b> .....	5
<b>Foundation Design</b> .....	5
<b>Pavement Design</b> .....	5
<b>PLATE 1- LOCATION MAP</b> .....	6
<b>PLATE 2- GEOTECHNICAL MAP</b> .....	7
<b>APPENDIX</b> .....	A-1



**INTRODUCTION**

This report summarizes the results of our evaluation of the geotechnical feasibility of construction of a solar farm west of the town of Kapaa, Kauai. We understand the installation will be used to supply electric power to the Kauai Island Utility Cooperative.

**PURPOSE**

This report is for the exclusive use of our client, Wagner Engineering Services, Inc. Its purpose is to satisfy the terms of the contract between our two firms. The report summarizes the findings, conclusions and recommendations which were generated by the evaluation. The intent of the report has been to present conclusions and recommendations of a geotechnical nature in such a way as to assist the owner and their design team in preparing plans and specifications for construction.

**SCOPE**

As outlined in our contract dated August 22, 2010, the following work elements were performed.

- Review of available geologic data and stereographic aerial photographs.
- Subsurface exploration using a rubber-tired "Extendahoe" backhoe.
- Laboratory testing of selected samples of soil collected during subsurface exploration.
- Preparation of a formal report summarizing our findings, conclusions and recommendations.

**LOCATION**

The site is located slightly less than three miles west of the town of Kapaa. It is accessed by an unpaved road exiting from Olohena Road. The site is shown on Plate 1- Location Map.

**REFERENCES**

The following references were used in preparing our proposal, conducting our evaluation and preparing this report.



Our Job No. 2010-08-01

Page 2

- "Roadside Geology of Hawaii", Richard W. Hazlett and Donald W. Hyndman, Mountain Press Publishing Company, 1966.
- "Volcanoes in the Sea The Geology of Hawaii", Second Edition, Gordon A. MacDonald, Agafin T. Abbott and Frank L. Peterson, University of Hawaii Press, 1985.
- "Tsunami", Second Edition, Walter C. Dudley and Min Lee, University of Hawaii Press, 1998.
- "Atlas of Natural Hazards in the Hawaiian Coastal Zone", USGS, Geologic Investigations, Series I-2761, 2002.
- "Reconnaissance Following the October 15<sup>th</sup>, 2006 Earthquakes on the Island of Hawaii, University Of Hawaii, College Of Engineering, Research Report UHM/CEE/06-07, October 26, 2006.

#### SITE CONDITIONS AND PROPOSED DEVELOPMENT

The site, as evidenced by preliminary topography and USGS mapping, is located on an elevated stream terrace on the south side of Oloheua Road, 2.8 miles west of old Kapaa town and about 4000 feet northeast of the Nonou Forest Reserve. At the time of our exploration, vegetation was sparse due to the ongoing drought. Topography slopes toward the ancestral channel with the steepest portion immediately below Oloheua Road.

Detailed plans of the proposed development were not available at the time of our exploration although, because of the nature of the development, the knowledge that it is a solar field is sufficient for our purposes. Drawings which have been provided by your office indicate that the project will consist of six solar panel arrays of varying size mounted on a shallow foundation system.

#### GEOLOGIC CONDITIONS

The Lihue Depression is the dominant geologic feature which has influenced this site. The Lihue Depression is apparently the remains of the caldera of the ancestral Wai'ali'ali shield volcano. The caldera was displaced during the massive landsliding which caused the collapse of the portion of the island now occupied by Kapaa and Waipouli. The site is on the northern edge of the depression.

Although there is evidence to suggest that the island is still undergoing some settlement associated with the collapse of the volcano, the amount of movement is apparently so small as to be undetectable without instrumentation and there is no longer volcanic activity on the island.



Our Job No. 2010-08-01

Page 3

Our subsurface exploration indicates that the site is an erosion terrace formed by previous stream action. Subsequent erosion has produced a residual soil profile which grades from a fully developed, moderately firm, surface soil to very stiff weathered rock at a depth of about six feet. In this area, as is the case on the majority of the eastern side of the island, the underlying rock is part of the Koloa series of volcanic flow material.

#### TSUNAMIS

The island of Kauai is susceptible to damage from tsunamis. Although there is a comparatively sophisticated early warning system in place world-wide, the ability of the system to predict the size of any particular event is limited. The general consensus is that tsunamis are certain to occur but their frequency is uncertain. Published data suggest that the site is not vulnerable to damage from tsunami run-up of the magnitude experienced in the Hawaiian Islands historically.

#### SURFACE AND SUBSURFACE WATER

Drainage on the property occurs as southwesterly sheet flow from the slope below Oloheua Road toward the established stream. At the time of our exploration, drought conditions existed on the island and surface was non-existent.

We found no subsurface water to the depth of exploration. Because of the existing drought conditions, the near-surface soil was dry and brittle.

#### CONCLUSIONS

Based on the results of our geotechnical evaluation, we can offer the following conclusions.

#### FEASIBILITY

In our opinion, it is geotechnically feasible to develop the site essentially as proposed provided the improvements are properly designed and constructed.

#### SITE PREPARATION

We have assumed that little or no grading, other than that required for the creation of an access road and support facilities will be needed. Moreover, it is our understanding that the arrays will be supported by some form of pipe piles. As a result, it is likely that site preparation will be minimal.



Our Job No. 2010-089-01

Page 4

### EARTHQUAKES

The island of Kauai is in Uniform Building Code seismic zone 1, a designation indicative of a low level of seismic activity. Published data indicate that, during the period 1962 to 1980, for example, there were no recorded earthquakes with a Richter Magnitude greater than 3.0 with an epicenter on or near Kauai. Within the last two years, however, earthquakes in the Richter Magnitude 3 to 4 range have occurred offshore of Maui and Oahu as well as the Loihi seamount east of the Big Island and magma production from Kilauea has altered perceptibly. Of particular importance was the October 15, 2006, M=6.7 and the November 23, 2006, M=5.0 events off the Kona Coast. This may be indicative of shifts in the Pacific tectonic plate which could generate an increase in seismic activity for the near future. As part of our evaluation, we have provided below the numeric parameters necessary to perform the site characterization analysis required by the 1997 Uniform Building Code.

Soil Profile- S<sub>6</sub>  
 $z = 0.075$   
 $c_u = 0.12$   
 $c_v = 0.18$   
 $N_u = 1.0$   
 $N_v = 1.0$

In our opinion, it is likely that the site will experience low-level ground shaking due to volcanic activity on or near the Big Island, but the magnitude and number of these events will not be larger than those in the historic record.

### TSUNAMI

Tsunami run-up of historic proportions has been in the 10 to 40 foot range and, historically, has been concentrated on the north shore of the island. Although the pre-historic "monster" tsunami is still a theoretical possibility, the design practice in coastal areas of the island has apparently been to consider the run-up of historic proportion. The site of the proposed solar field is well above the elevation of historic run-up.

### FOUNDATION DESIGN

The upper two feet of the surface soil in the area of the arrays is poorly consolidated and should not be relied for either foundation support or uplift resistance. Below two feet, the soil is stiff and capable of generating more than 2500 pounds per square foot for bearing. Uplift resistance can be determined using the relationship  $(1100)d + W$  where "d" is outside shaft diameter, "W" is unit weight of the shaft and "l" is shaft length below two feet. This assumes that the shaft consists of a



Our Job No. 2010-08-01

Page 5

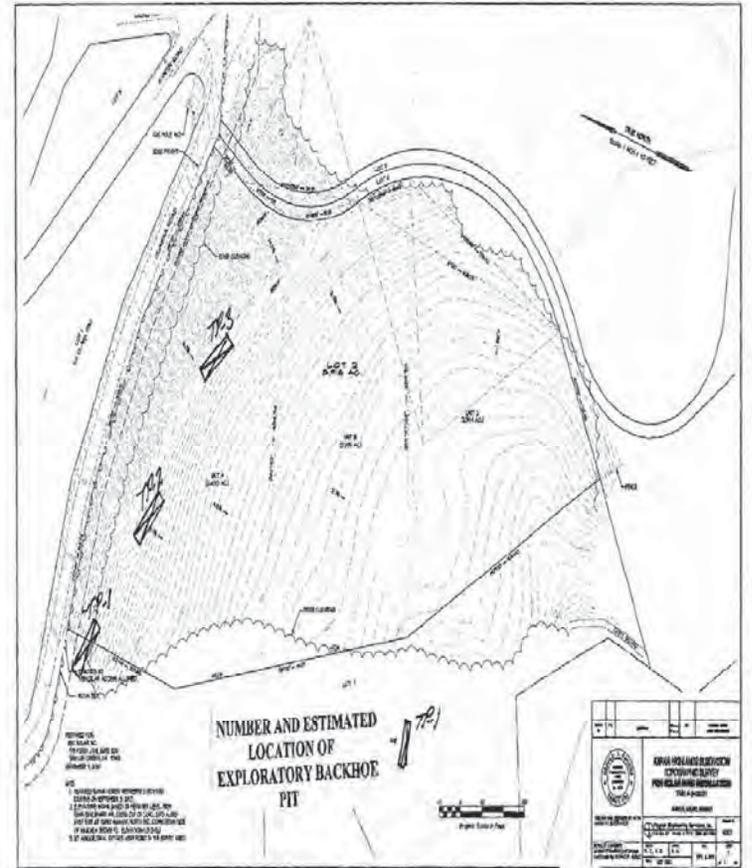
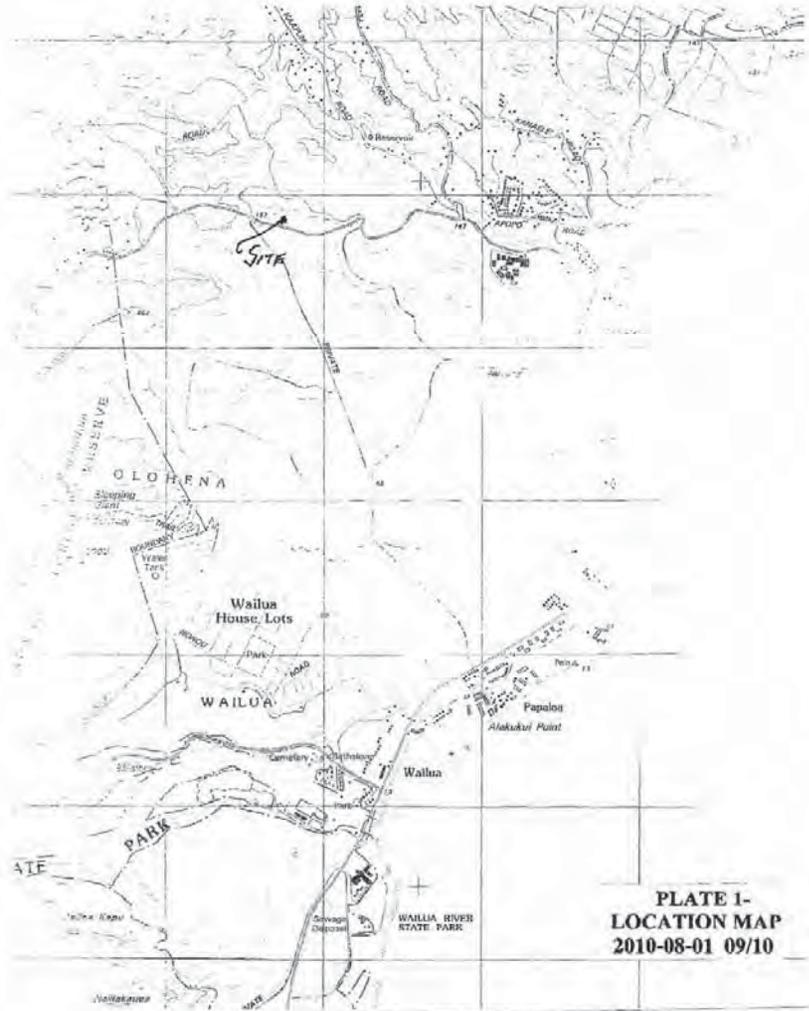
protected metal shaft encased in concrete. A passive pressure of 300 pounds per cubic foot (equivalent fluid) is reasonable for the soil below a depth of two feet.

Laboratory tests to determine the relative corrosivity of the soil are currently being performed and the results will be reported under separate cover. However, our work on the island has shown, as the result of a number of tests, that the soil derived from the Koloa volcanic material is highly to severely corrosive to both concrete and metal. The results of the on-site tests will be submitted under separate cover.

### SURFACE DRAINAGE

Runoff from rainfall and irrigation should be directed away from the proposed structures to an approved drainage device.

The Plates which are attached and complete this report are listed in the Table of Contents.  
 oOo





Our Job 2010-08-01

Page A-1

## APPENDIX SUPPORTING DATA AND PROCEDURES

### SURFACE GEOLOGIC MAPPING

A limited amount of surface geologic mapping was performed as part of our evaluation. This mapping was performed both physically and with the aid of topographic maps before and during the subsurface exploration. The results of this work were assimilated with the subsurface exploration.

### SUBSURFACE EXPLORATION

Subsurface exploration at the site consisted of the excavation of three trenches using a rubber-tired backhoe with a three-foot-wide bucket. The trenches were located to (a) aid in establishing a "picture" of probable subsurface conditions at the site, and (b) provide access to the subsurface for possible sampling of soil and/or rock. To that extent, both the geomorphology of the site and the type and location of proposed improvements have a bearing on the location of subsurface exploration points. Our estimate of the location of each backhoe trench is shown on Plate-2 Geotechnical Map. Graphic logs, using standard United States Geological Survey, United States Corps of Engineers and United States Bureau of Reclamation nomenclature are included as Plates A-1.1 through A-1.3- Log of Test Pit. Upon completion, all pits were backfilled, tamped and wheel-rolled. The location of each test pits was also marked with a stake and flagging.

### LABORATORY TESTING

**Moisture/Density.** Field moisture content and in-place dry density were determined for each "undisturbed" sleeve sample obtained during exploration. The field moisture content was determined according to ASTM Test Method D2216-66 by obtaining one-half of the moisture sample from each end of the sleeve. The in-place wet and dry density was determined by using the wet weight of the entire sleeve.

At the same time the field moisture content and in-place dry density were determined, the soil material at each end of the sleeve was classified according to the Unified Soil Classification System and pocket penetrometer readings were taken in the cohesive samples. The results of the field moisture content and in-place dry density tests are presented on Plates- A-1 and A-1.2-Log of Test Pit.

**Index Tests.** For purposes of this report, we have grouped grain-size distribution and Atterberg Limits under "index tests". The bulk sample taken from test pit TP-1 at a depth of two to



Our Job No. 2010-08-01

Page A-2

three feet was also subjected to an analysis of its distribution of grain size and its Liquid Limit, Plastic Limit, and Plasticity Index were determined. The distribution of grain size was determined according to ASTM Test Method D422-63. Relative plasticity was determined according to ASTM Test Methods D423-66 and D424-59. Using these data, the soil can, among other things, be provided a positive Unified Soil Classification System group name. The tests indicate that the soil has no gravel-sized particles, 18 percent sand-sized particles, 80 percent silt-sized particles, two percent clay-sized particles, a Liquid Limit of 59, a Plastic Limit of 46 and a Plasticity Index of 13. The soil has been given a Unified Soil Classification System group name and symbol of Sandy Silt (MH). The results are summarized on Plate A-2- Relative Plasticity Data and Plate A-3- Grain Size Distribution Data.

**Direct Shear Tests.** Undisturbed samples taken from test pits TP-1 and Test Pit TP-2 at two feet were subjected to consolidated, drained direct shear tests to determine the shearing resistance of the soil. In each case, samples were allowed to stabilize in a suitable loading frame under the normal stress for the test (in this case, 500, 750 and 1000 pounds per square foot). The samples were then flooded, allowed to stabilize and then sheared at a constant rate of 0.008 inches per minute to failure. The applied normal and induced shear stresses were monitored with electronic load cells and the displacement in the normal and shear directions monitored with linear variable displacement transducers (LVDT's). The force and displacement in the direction of shear were plotted electronically. The results of the tests are summarized graphically on Plates A-4 - Shear Strength Data.

**Corrosion Tests.** Tests to determine the relative corrosivity of the on-site soil are currently being completed and will be submitted under separate cover.

With the exception of the corrosion tests, all laboratory testing was performed for us by Evans, Colbaugh & Associates, Inc. in San Marcos, California.

Log of Test Pit No. TP- 1									
Date: 09/11/10		Elevation: +60 (Map Datum)							
Logged By: DAE		Hole Size/ Type: 2x 6'x 6' Backhoe							
Depth (feet)	Sample Type	Blow count	Dry Density	Moisture Content	Other Tests	USCS	Graphic Log	Description	
1								SOIL (Residual), Clayey Silt (ML), medium-brown, moderately firm, dry, to very dry.	
2	D	59	72	50	DS, AL, GS	MH		stiff at two feet	
3									
4								very stiff, at 4 feet, mottled light brown and yellow grading to highly weathered Koloa volcanic rock at six feet.	
5									
6									
7									
8									
9									
10									
11								Bottom at 6 feet. No water. No caving. Hole backfilled, tamped and wheel-rilled	

Water level shown is at time of measurement and may be different at different times.  
Blow counts are per foot; dry density is in pounds per square foot; moisture content is percent of dry weight.

	Date: 09/12/10	Project No.: 2010-08-01	<b>PLATE A-1.1</b>
	<b>SOLAR PANEL FIELD LOG OF TEST PIT TP-1</b>		

Log of Test Pit No. TP- 2									
Date: 09/11/10		Elevation: +60 (Map Datum)							
Logged By: DAE		Hole Size/ Type: 2x 6'x 6' Backhoe							
Depth (feet)	Sample Type	Blow count	Dry Density	Moisture Content	Other Tests	USCS	Graphic Log	Description	
1								SOIL (Residual), Clayey Silt (ML), medium-brown, moderately firm, dry, to very dry.	
2	D		70	28	DS	MH		stiff at two feet	
3									
4								very stiff, at 4 feet, mottled light brown and yellow grading to highly weathered Koloa volcanic rock at six feet.	
5									
6									
7									
8									
9									
10									
11								Bottom at 6 feet. No water. No caving. Hole backfilled, tamped and wheel-rilled	

Water level shown is at time of measurement and may be different at different times.  
Blow counts are per foot; dry density is in pounds per square foot; moisture content is percent of dry weight.

	Date: 09/12/10	Project No.: 2010-08-01	<b>PLATE A-1.2</b>
	<b>SOLAR PANEL FIELD LOG OF TEST PIT TP-2</b>		

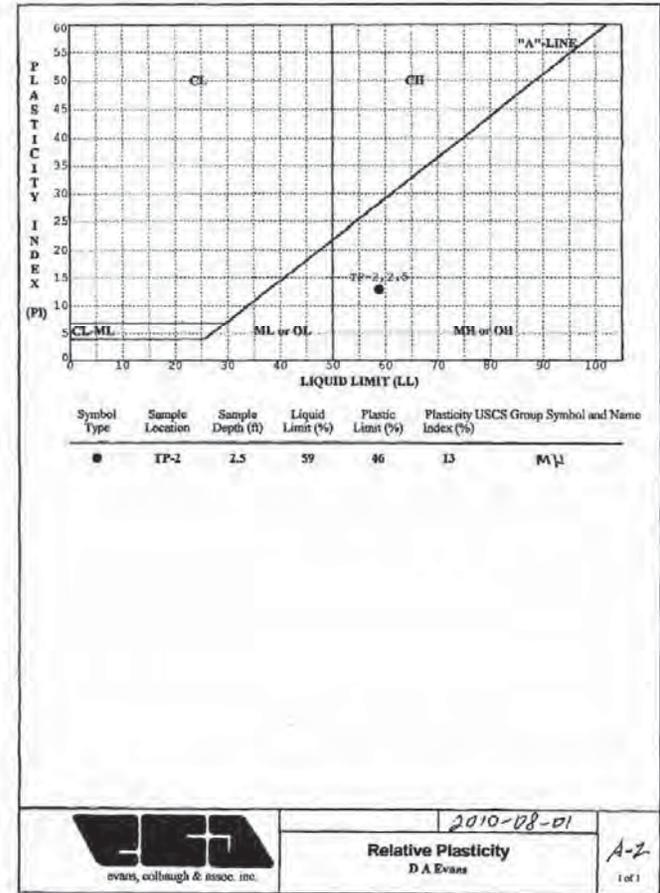
### Log of Test Pit No. TP-3

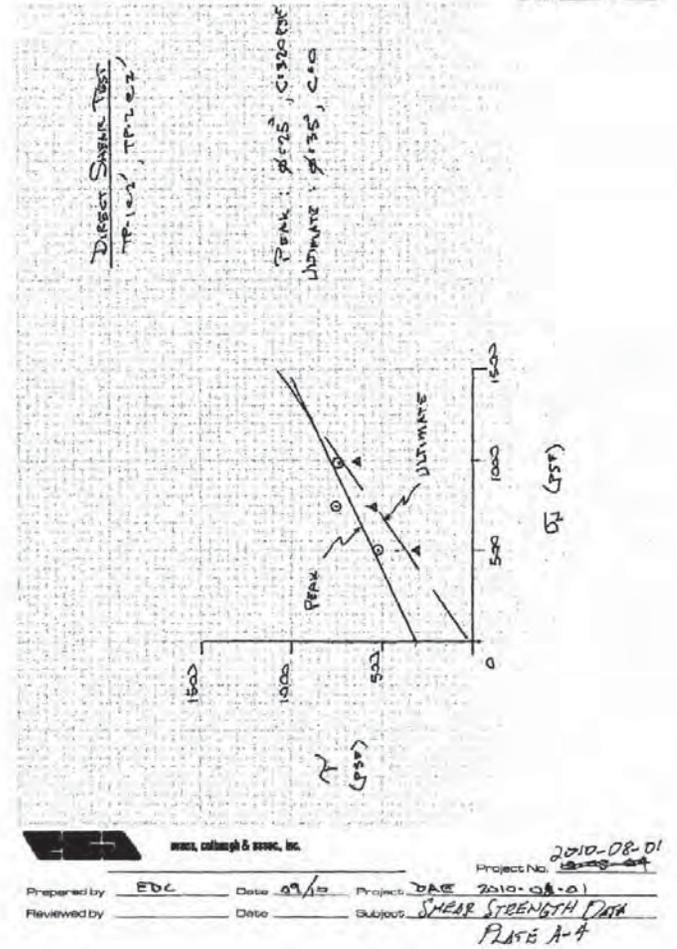
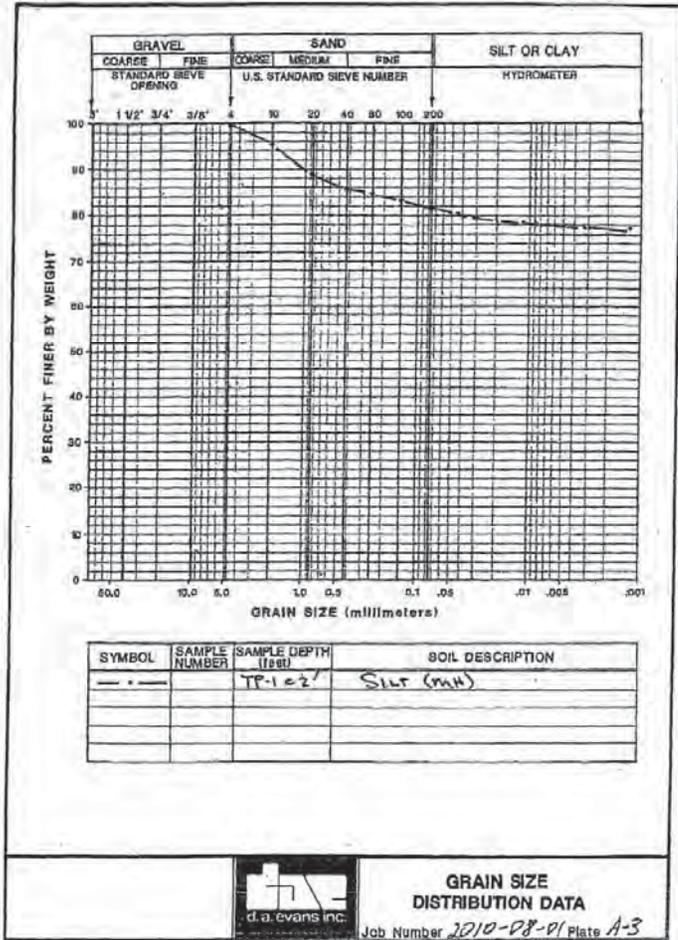
Date: 09/11/10      Elevation: +60 (Mnp Datum)  
 Logged By: DAE      Hole Size/ Type: 2'x 6'x 6' Backhoe

Depth (feet)	Sample Type	Flow out	Dry Density	Moisture Content	Other Tests	USCS	Empirical Log	Description
1								SOIL (Residual), Clayey Silt (ML), medium-brown, moderately firm, dry, to very dry.
2								four inch dia. "bomb" at three feet.
3								
4								
5								
6								stiff at six feet.
7								
8								
9								
10								
11								Bottom at 6 feet. No water. No caving. Hole backfilled, tamped and wheel-rolled.

Water level shown is at time of measurement and may be different at different times.  
 Blow counts are per foot; dry density is in pounds per square foot; moisture content is percent of dry weight.

	Date: 09/12/10	Project No.: 2010-08-01	PLATE A-1.3
SOLAR PANEL FIELD LOG OF TEST PIT TP-3			





**Exhibit M**

**A Cultural Impact Assessment for the Proposed Kapa`a  
Highlands Phase II  
Kapa`a Ahupua`a, Kawaihau District, Kaua`i**



Exploration Associates Ltd.

A Cultural Impact Assessment  
for the Proposed Kapa`a High-  
lands Phase II,  
Kapa`a Ahupua`a, Kawaihau  
District, Kaua`i

TMK (4) 4-3-03:01

by

Nancy McMahon, M.A.

Prepared for  
Three Stooges LLC

By  
Exploration Associates, Ltd.  
May 2012

# TABLE OF CONTENTS

INTRODUCTION	2
Scope of Work	2
Methods	2
KAPA'A	6
Natural Setting	9
Mo'olelo of Kapa'a	10
Place Names and Wahi Pana of Kapa'a	18
Summary of the Mythological and Traditional Accounts of Kapa'a	22
Early Post-Contact Period The Mahele Period	26
The Late 1800s 20th Century History of Kapa'a	29
Previous Archaeological and Cultural Studies of Kapa'a	33
RESULTS OF COMMUNITY CONSULTATION	39
TRADITIONAL RESOURCES/CULTURAL PRACTICES	42
SUMMARY AND CONCLUSION	46
BIBLIOGRAPHY	48
APPENDIX	58

## LIST OF FIGURES

Figure 1. Tax Map Showing the Kapa'a Highlands Phase II	7
Figure 2. Aerial View of the Project Area Looking North	8
Figure 3. Portion of 1872 Survey Map by James Gay, Showing Swamp Land in Puna	23
Figure 4. Aerial View of Kapa'a, Kaua'i, looking west, circa 1933 (Bishop Museum Archives)	31
Figure 5. Hawai'i Territory Survey Map (Iao 1914) of Kapa'a Section Showing Roads, Railroads and Camps	32
Figure 6. Historic Properties in Kapa'a Ahupua'a	37
Figure 7. Cattle Grazing	40
Figure 8. Goats (in the Distance) Grazing	40
Figure 9. Solar Farm and Equipment Buildings	41
Figure 10. Road Remnant with Cattle in Background	45

## LIST OF TABLES

Table 1. Place Names of Kapa'a	10
Table 2. Mahele Land Claims and Land Use of Kapa'a	25
Table 3. Heiau of Kapa'a	33
Table 4. Historic Properties in Kapa'a Ahupua'a	34

# INTRODUCTION

## Scope of Work

The following scope of work was agreed upon to fulfill the requirements of a cultural impact assessment, as outlined by the Office of Environmental Quality Control guidelines:

- 1) Further background research with the goal of identifying traditional Hawaiian activities including gathering of plant, animal and other resources or agricultural pursuits as may be indicated in the historic record.
- 2) Examination of historical documents, Land Commission Awards, and historic maps, with the specific purpose of identifying traditional Hawaiian activities including gathering of plant, animal and other resources or agricultural pursuits as may be indicated in the historic record to develop a Cultural landscape background study,
- 3) A review of the existing archaeological information pertaining to the sites in the study area as they may allow us to reconstruct traditional land use activities and identify and describe the cultural resources, practices and beliefs associated with the parcel and identify present uses, if appropriate.
- 4) Conduct oral interviews with persons and agencies knowledgeable about the historic and traditional practices in the project area and region. This includes eight formal interviews and more informal interviews plus coordination with relevant community groups.
- 5) Preparation of a report on items 1-3 summarizing the information gathered related to traditional practices and land use. The report will assess the impact of the proposed action on the cultural practices and features identified.

## Methods

### 1. Historic Research

Research was conducted to find historic maps at the Hawai'i State Survey Office, the State Historic Preservation Division library and the Kaua'i Historical Society. Historical research was conducted at the State Historic Preservation Division Library, the Hawai'i State Archives and the Bishop Museum where information on historic land use and past cultural traditions was sought. The Bishop Museum also provided historic photographs for

the report. In an attempt to obtain more regional or local sources, historic documents were sought at the Kaua'i Historical Society, Kaua'i Museum and the Kapa'a Public Library.

### 2. Archaeological Review

The library at the Department of Land and Natural Resources, State Historic Preservation Division were used to obtain information regarding previous archaeological and cultural studies in the Kapa'a area. Previously identified archaeological sites are presented for each section separately and are discussed in the context of associated cultural traditions. A complete review of archaeological sites, including descriptions, *ahupua'a*, settlement patterns and archaeological constraints is available in a separate archaeological assessment document (McMahon 2012).

### 3. Identification of Knowledgeable Informants

Hawaiian organizations, community members and cultural and lineal descendants with lineal ties to the greater Kapa'a area were contacted to: (1) identify potential knowledgeable individuals with cultural expertise and knowledge of the project area and surrounding vicinity, and (2) identify cultural concerns and potential impacts relative to the project. An effort was made to locate informants who either grew up in the project area or who, in the past, used the area for cultural purposes. These included lifetime residents of Kapa'a Town, families with ties to the historic rice industries of Kapa'a and former employees of Lihue Plantation who may have lived in one of the residential camps near the study area. Other potential user groups were residents in the Kapa'a who have their roots in Kapa'a, and continue to utilize the *makai* areas for cultural reasons. In addition, informal talk-story with community members familiar with the study area is ongoing. The organizations consulted were the State Historic Preservation Division (SHPD), The Office of Hawaiian Affairs (OHA), the Kaua'i/Ni'ihau Islands Burial Council, the Royal Order of Kamehameha, Kaumuali'i Chapter, Kaua'i County Council, Kaua'i County Mayor, Kaua'i Health Heritage Coastal Corridor Committee, Kaua'i Historical Society, Kaua'i Historic Preservation Commission.

### 4. Interviews

Interviews were conducted for this assessment. Once the participant was identified, she/he was contacted and interviewed. Excerpts from the interview are used throughout this report, wherever applicable.

### 5. Report

This study documents relevant information on traditions and practices from the historic record as well as from contemporary oral sources. The report includes cultural and historic documentation of Kapa'a, a summary of archaeological studies, the results of

community consultation, and an assessment of traditional resources/traditional practices. The report is organized in such a way that reflects the effort of data and information gathering. This is the information used in the final assessment of Traditional Resources/Cultural Practices reported in the Conclusions Section IV and V.

## KAPA'A

The Kapa'a Highlands Phase II is located in Kapa'a, above the Kapa'a Bypass Road and adjacent to Kapa'a Middle School. The property is further identified by Kaua'i Tax Map Key No. (4) 4-3-03:01. The total acreage of the area is 163.125. (Figure 1 and 2).

The project area lies in the traditional *ahupua'a* of Kapa'a belongs' to the ancient district of Puna (now the district is more commonly called "Kawaihau"), one of five ancient districts on Kaua'i (King 1935: 228). Puna was the second largest district on Kaua'i, behind Kona, and extended from Kipu south of Lihu'e to Kamalomalo'o, just north of Kealia. For taxation, educational and judicial reasons, new districts were created in the 1840's. The Puna District, with the same boundaries became the Lihu'e District, named for an important town in that district. In 1878, by the act of King Kalakaua in securing a future name for the new Hui Kawaihau, created the new district of Kawaihau. This new district encompassed the *ahupua'a* ranging from Olohena on the south to Kilauea on the north. Subsequent alterations to district boundaries in the 1920's left Kawaihau with Olohena as its southernmost boundary and Moloa'a as its northernmost boundary (King 1935:222).

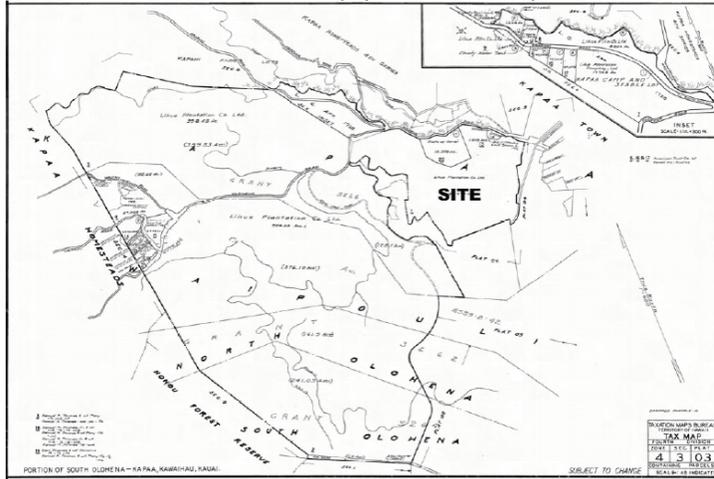


Figure 1. Tax Map Showing the Project Area for Kapaa Highlands Phase II.

Figure 2. Aerial View of Project Area Looking North



## Natural Setting

The *ahupua'a* of Kapa'a, is located on the eastern side of the island of Kaua'i, in the old district or *moku* of Puna. Adjacent and to the north is the *ahupua'a* of Keālia, and to the south, Waipouli. Like other *ahupua'a* in Puna, Kapa'a is exposed to the northeast tradewinds and receives 40 to 50 inches of rain a year at the shore and considerably more precipitation inland. The area of the *ahupua'a* of Kapa'a, is approximately 6,394 acres (Gay 1872 R.M. 159, Commission of Boundaries Record, Kaua'i, vol.1, 1873:23; Commission of Boundaries Record, Kauai, vol. 1, 1872:109). Wichman (1998:84) notes the paradox that Kapa'a "is one of the largest *ahupua'a* of the Puna District [of Kaua'i] and the most bereft of legends."

Alluvium, colluvium and terrigenous sediments resulting from the erosion of the primary island building events in Kaua'i history, the Waimea Canyon Volcanic Series and the Koloa Volcanic Series, are the major sources of sediment for the formation of Kaua'i's non-mountainous region, including Kapa'a (MacDonald and Abbott 1970:382-384). Kapa'a is located within the physiographic division known as the Lihue Plain (Armstrong 1973:30). During higher sea levels, terrigenous sediment accumulated further inland as streams released their sediment loads further inland from where the shoreline had encroached. Also, reefs grew with the rising sea level, and, as the sea receded, marine sediments were created and deposited on shore by the erosion of these reefs. Both of these processes were part of the formation of the Lihue Plain.

The soils of the project area reflect the original geologic sediments deposited and the erosional processes induced by climatic agents. Backshore of the sand berm in Kapa'a, are found sandy loams associated with the Mokuleia soil series (Foote et al. 1972:95). These soils consist of mostly recent alluvium deposited over coral sand and are typical of the eastern and northern coastal plains of Kaua'i. Behind Kapa'a Town and north of Moikeha Canal is found mixed fill. South of Moikeha Canal are Mokuleia clay loams, similar to the sandy loams fronting them. The soils found in the sand berm in Waipouli and Olohena are of the Lihue Series, which are characterized as well-drained soils derived from igneous material originating in Kapa'a's uplands (Foote et al. 1972:82).

Historically, these *ahupua'a* contained two prominent landscape features, a coastal plain with sand dunes and a large marsh. An 1872 map (Figure 2) by James Gay delineating the boundaries of Kapa'a and adjacent lands shows that much of the *makai* region was a "swamp" that extended from Waipouli into Kapa'a. This "swamp" appears to be the most prominent natural feature of the seaward end of Waipouli and Kapa'a. The *makai* areas of the *ahupua'a* can be characterized as fairly flat. Kapa'a has an irregularly-

shaped gulches and small valleys in the uplands, through which small tributary streams run, including the Kapahi, Makaleha, Moalepe and Konohiki Streams. While some of these streams combine with other tributaries in neighboring Keālia to form Kapa'a Stream, which empties into the ocean at the northern border of the *ahupua'a*, others flow directly into the marsh areas of Kapa'a and Waipouli (Handy and Handy 1972:394,423; Territorial Planning Board 1940:9).

Kapa'a Town areas is built on a sand berm with ocean on the *makai* side and marsh on the *mauka* side. The sand berm was probably slightly wider here than in other localities, but dry land was probably always at a premium.

## Mo'olelo of Kapa'a

A brief overview of some of the better documented mythological and traditional accounts of Kapa'a is presented below and is followed by a brief summation of their import.

The Puna district of Kaua'i is well known for two legendary chiefs, Kawelo and Mō'ikeha. Kawelo is more closely associated with Wailua and Hanamā'ulu and Mō'ikeha is linked to Kapa'a. Mō'ikeha is understood to be the grandchild of Maweke, one of the principal genealogical lines from which Hawaiians today trace their ancestry (Beckwith 1970:352). Sometime between the eleventh and twelfth centuries marks the arrival of Maweke to the Hawaiian Islands. Mō'ikeha succeeds his older brother Kumuhonua as ruling chief during the time of Mailikūhahi. Kapa'a is mentioned in traditions concerning Kawelo (Kaweloleimākua), the *mo'o* Kalamainu'u and the origins of the *hina'i hinālea* fish, and the story of Lonoikamakahiki (Fornander 1917:IV:318, 704-705; Rice 1923: 106-108; Thrum 1923: 123-135; Kamakau 1976:80).

### 1. Mō'ikeha

Kapa'a was the final home of the legendary chief Mō'ikeha. Born at Waipi'o on the island of Hawai'i, Mō'ikeha sailed to Kahiki (Tahiti), the home of his grandfather, Maweke, after a disastrous flood. On his return to Hawai'i, he settled at Kapa'a, Kaua'i. Kila, Mō'ikeha's favorite of three sons by the Kaua'i chiefess Ho'oiipoikamalani, was born at Kapa'a and was considered the most handsome man on the island. It was Kila who was sent by his father back to Kahiki to slay his old enemies and retrieve a foster son, the high chief La'amaikahiki (Handy and Handy 1972:424; Beckwith 1970:352-358; Kalākaua 1888:130-135; Fornander 1917:IV:160). Mō'ikeha's love for Kapa'a is recalled in the *'olelo no'eau*: *Ka lulu o Mo'ikeha i ka laulā o Kapa'a* "The calm of Mō'ikeha in the breadth of Kapa'a" (Pukui 1983: 157).

The place “Lulu-o-Mō’ikeha” is described as being situated “near the landing and the school of Waimahanalua” (Akina 1913: 5). The landing in Kapa’a was known as the Makee Landing and was probably constructed in the late 1870s, along with the Makee sugar mill. Today, in place of the old Makee Landing is part of a breakwater located on the north side of Moikeha Canal, near the present day Coral Reef Hotel (Bushnell et al. 2002:7).

In the Hawaiian newspaper *Ku’oko’a* published at the turn of the century, Akina (1913: 6) also tells the story of how Mō’ikeha’s son, Kila stocks the Hawaiian Islands with the *akule*, *kawakawa* and *’ōpelu* fish. When Kila travels to Kahiki, he seeks out his grandfather Maweke and explains that he is the child of Mō’ikeha. When Maweke asks Kila if Mō’ikeha is enjoying himself, Kila answers with the following chant of Puna, Kaua’i:

My father enjoys the billowing clouds over Pōhaku-pili,	<i>I walea no ku’u makuakāne i ke ao ho’okanunu, iluna o Pōhakupili</i>
The sticky and delicious poi,	<i>I ka poi uouo ono ae no a,</i>
With the fish brought from Puna,	<i>Me ka i’a i na mai o ka Puna,</i>
The broad-backed shrimp of Kapalua,	<i>Ka opae hoainahanaha o Kapalua;</i>
The dark-backed shrimp of Pohakuhapai,	<i>Na opae kua hauli o Pohakuhapai,</i>
The potent awa root of Maiakii,	<i>Na puawa ona mai no o Maiakii,</i>
The breadfruit laid in the embers at Makialo	<i>Me ka ulu moelehu mai no o Makialo,</i>
The large heavy taros of Keahapana	<i>Me na kalo pehi hua o Keahapana,</i>
The crooked surf of Makaiwa too	<i>A i keeke nalu ae no hoi o Makaiwa,</i>
The bending hither and thither of the reed and rush blossoms,	<i>A i ke kahuli aku kahuli mai o ka pua uku me ka pua neki,</i>
The swaying of the kalukalu Puna,	<i>A i ka nu’a ae no o ke kalukalu o Puna, grasses of</i>
The large, plump, private of my mothers,	<i>A i na mea nui nepunepu no a ku’u mau parts makuahine</i>
Of Ho’oipoikamalanai and Hinau-u,	<i>O Ho’oipoikamalanai me Hinau-u,</i>
The sun that rises and sets,	<i>A i ka la hiki ae no a napoo aku,</i>
He enjoys himself on Kaua’i,	<i>Walea ai no ka nohona ia Kaua’i,</i>
All of Kaua’i is Mō’ikeha’s	<i>Ua puni a puni Kaua’i ia Mō’ikeha</i>

Maweke was delighted and when the boy is questioned as to his purpose, Kila tells his great grandfather he is seeking fish for his family. Maweke tells Kila to lead the fish back to his homeland. This is how Kila led the *akule*, *kawakawa* and *’ōpelu* to Hawai’i (For- nander 1917:IV:162-163).

In another legend of Kila, Mō’ikeha sends his son to Tahiti to slay his enemies. Upon reaching Tahiti, Kila meets his father’s aunt, Kanepohihi, in the form of a blind, super- natural rat. He introduces himself, sending his father Mō’ikeha’s greetings. Kanepohihi asks of Mō’ikeha, and Kila responds:

He is indulging in ease in Kaua’i	<i>I walea ia Kaua’i</i>
Where the sun rises and sets again,	<i>I ka lā hiki ae a pō iho</i>
Where the surf of Makaiwa curves and	<i>I ke kee a ka nalu o Makaiwa bends,</i>
Where the sun comes up over	<i>I ka hiki mai a ka la maluna</i>
The kalukalu of Kewa;	<i>O ke kalukalu o Kewa</i>
The stretched out waters of Wailua,	<i>O ka wai halau o Wailua</i>
And the entrancing favors of my mother	<i>O ka lealea o ka mai o kuu makuahine</i>
Ho’oipoikamalanai	<i>O Ho’oipoikamalanai</i>
He will live and die in Kaua’i	<i>O kahi noho no o Kaua’i a make</i>

(For- nander 1916:IV:162-163)

## 2. Ka’ililauokekoa the Chiefess of Kapa’a and the Lute Kanikawi

Waipouli and Kapa’a are mentioned in the legend of Ka’ililauokekoa, a chiefess of Kapa’a and granddaughter or daughter of Mō’ikeha. Thomas Thrum (1907: 83-84) relates that:

[Kaililauokekoa’s] greatest desire was to play konane, a game somewhat re-sembling checkers, and to ride the curving surf of Makaiwa (*ke’eke’e nalu o Makaiwa*), a surf which breaks directly outside of Waipouli, Kapa’a. She passed the larger part of her time in this matter every day, and because of the con- tinual kissing of her cheeks by the fine spray of the sea of Makaiwa, the bloom of her youth became attractive ‘as a torch on high,’ so unsur- passed was her personal charm.

In the Thrum (1923:123-135) version, Ka’ililauokekoa is seduced by the nose flute of Kauakahiali’i who is at the time residing in Wailua uka at a place called Pihanakalani. She travels up to Pihanakalani with her companion where she joins Kauakahiali’i as his wife. They are found by Mō’ikeha’s people and taken down to Kapa’a where Kauakahi- ali’i is imprisoned. A boy named Kalukaluokewa takes pity on Kauakahiali’i and sneaks

through the *kalukalu* grass and the *ahuawa* rushes to bring the prisoner food and water. Meanwhile, Ka'ililauokekoa tells her parents of her calling by Kanikawi to the home of Kahalehewa at Pihanakalani and her encounter with Kauakahiali'i.

### 3. Kalukalu grass of Kapa'a

"*Kūmoena kalukalu Kapa'a*" or "Kapa'a is like the *kalukalu* mats" is a line from a chant recited by Lonoikamakahiki. *Kalukalu* is a sedge grass, apparently used for weaving mats (Fornander 1917:IV:318-319). Pukui (1983:187) associates the *kalukalu* with lovers in "*ke kalukalu moe ipo o Kapa'a*"; "the *kalukalu* of Kapa'a that sleeps with the lover." According to Wichman (1998:84), "a *kalukalu* mat was laid on the ground under a tree, covered with a thick pile of grass, and a second mat was thrown over that for a comfortable bed," thus the association with lovers. Kaua'i was famous for this peculiar grass, and it probably grew around the marshlands of Kapa'a. It is thought to be extinct now, but an old-time resident of the area recalled that it had edible roots, "somewhat like peanuts." Perhaps it was a famine food source (Kapa'a Elementary School 1933: VI).

### 4. Pāka'a and the wind gourd of La'amaomao (Keahiahi)

Kapa'a also figures prominently in the famous story of Pāka'a and the wind gourd of La'amaomao. Pāka'a was the son of Kuanu'uano, a high-ranking retainer of the Big Island ruling chief Keawenuia'umi (the son and heir to the legendary chief 'Umi), and La'amaomao, the most beautiful woman of Kapa'a and member of a family of high status *kahuna*. Kuanu'uano left the island of Hawai'i, traveled throughout the other islands and finally settled on Kaua'i, at Kapa'a. It was there that he met and married La'amaomao, although he never revealed his background or high rank to her until the day a messenger arrived, calling Kuanu'uano back to the court of Keawenuia'umi. By that time, La'amaomao was with child but Kuanu'uano could not take her with him. He instructed her to name the child, if it turned out to be a boy, Pāka'a. Pāka'a was raised on the beach at Kapa'a by La'amaomao and her brother Ma'ilou, a bird snarer. He grew to be an intelligent young man and it is said he was the first to adapt the use of a sail to small fishing canoes. Although Pāka'a was told by his mother from a very young age that his father was Ma'ilou, he suspected otherwise. After constant questioning by Pāka'a, La'amaomao told her son the truth about Kuanu'uano.

Intent on seeking out his real father, Pāka'a prepared for the journey to Hawai'i Island. His mother presented him with a tightly covered gourd containing the bones of her grandmother, also named La'amaomao, the goddess of the winds. With the gourd and chants taught to him by his mother, Pāka'a could command the forces of all the winds in Hawai'i. While this story continues on at length about Pāka'a and his exploits on Hawai'i and later

on Moloka'i, it will not be dwelt upon further here. It is important to note that several versions of this story do include the chants which give the traditional names of all the winds at all the districts on all the islands, preserving them for this and future generations (Nakuina 1990; Rice 1923:69-89; Beckwith 1970:86-87; Thrum 1923:53-67; Fornander 1918:V: 78-128).

Frederick Wichman (1998:84) writes that Pāka'a grew up on a headland named Keahiahi just south of Kapa'a River. Here, Pāka'a learned to catch *mālolo*, his favorite fish. After studying the ocean and devising his plan to fabricate a sail, Pāka'a wove a sail in the shape of a crab claw and tried it out on his uncle's canoe. One day, after going out to catch *mālolo*, he challenged the other fishermen to race to shore. He convinced them to fill his canoe with fish suggesting it was the only way he could truly claim the prize if he won:

The fishermen began paddling toward shore. They watched as Pāka'a paddled farther out to sea and began to fumble with a pole that had a mat tied to it. It looked so funny that they began to laugh, and soon they lost the rhythm of their own paddling. Suddenly Pāka'a's mast was up and the sail filled with wind. Pāka'a turned toward shore and shot past the astonished fishermen, landing on the beach far ahead of them. That night, Pāka'a, his mother, and his uncle had all the *mālolo* they could eat [Wichman 1998:85].

### 5. Kaweloleimakua

Kapa'a is also mentioned in traditions concerning Kawelo (Kaweloleimakua), Keililauokekoa (Moikeha's daughter, or granddaughter, dependent on differing versions of the tale), the *mo'o* or reptile Kalamainu'u and the origins of the *hina'i hinalaea* or the fish trap used to catch the *hinalaea* fish, and the story of Lonoikamakahiki (Fornander 1917, vol.4 pt.2:318, vol.4 pt.3:704-705; Rice 1923:106-108; Thrum 1923:123-135; Kamakau 1976:80).

### 6. Kanaka-Nunui-Moe-The Sleeping Giant

Frederick B. Wichman relates an account of Kaua'i's Sleeping Giant:

A long time ago, there was a giant living in Kawaihau among the low hills behind Kapa'a town. He was so tall he could see above the coconut trees. If he sat very still, it was easy to mistake him for one of the hills. Anyone who did not know him was afraid of his great size, fearing

the damage he might cause. However the people of Kawaihau loved him, for he was very friendly and went out of his way to be useful.

This giant was always careful where he stepped so that he would not injure anyone and he never destroyed taro patches or houses with a careless foot. When he wished to rest, he sat on one of the small hills above Kapa'a. The villagers were glad when this happened for his weight flattened the hilltop, making another plot of ground fit for cultivation.

"He is very helpful," the Kapa'a people said to astonished stranger who came to their land. "He does many things for us quickly that otherwise we could not do in many months." Wherever this giant stepped he left deep footprints and in these deep holes the people planted banana trees. The villagers threw leaves, taro peelings, and other vegetable rubbish into these holes. When compost had been formed, they planted banana sprouts. In this way, the people of Kapa'a always had ripe bananas to give to the giant, for banana was his favorite food.

The giant yawned very often, for he was always sleepy. The gust of wind from his mouth often knocked down houses and blew the grass thatch into the sea. The giant was always very apologetic whenever this happened and he quickly brought logs from the uplands to rebuild the fallen houses and gathered *pili* for the thatching.

He found it difficult to stay awake more than a hundred years at a time. When he could no longer fight against the drowsiness overpowering him, he would sleep using a small hill for a pillow. Because of this, the people called him Kakanunui-moe, the sleeping giant.

When he slept, Nunui slept for hundreds of years while the winds blew dirt over him and seeds were dropped there by the birds. The gently showers sent by *Kahale-lehua*, goddess of the gentle rains, fed these seeds and forest grew up over the giant. When Nunui awoke and stretched, the people of Kapa'a fled in great fear, for what they had thought to be a hill had come alive.

One time, while Nunui was still awake, the high chief of Kawaihau wanted to build a large *heiau* to honor one of his gods. This was to be no ordinary temple. The chief wanted water-polished rocks for the walls and hard *koa* wood from Kokee for the framework of the god's house.

So the chief told the Kawaihau people what he wanted them to do. They must gather rocks from the golden brown waters of the Koke'e streams and

cut *koa* trees on the edges of Waimea canyon, and gather *pili* grass that grew at Mana. "All this must be done in the turn of one moon," he ordered.

The unhappy people left their chief and silently returned to their village. The giant Nunui, stepping carefully among them, saw the long faces of the people.

"What is wrong?" he asked.

The Kapa'a villagers told him what they must do within the impossibly short time. "This cannot be done," the people said in low, sad voices. "How can we go to Kokee and bring back stones enough to build the walls in that time? And cut down the *koa* trees and bring the logs here and build the sacred house? And even if we do these things, who will cultivate our fields?"

Nunui smiled gently. "Tend to your fields," he said. "This work is nothing for me, and I'll gladly help you. Besides, it will give me something to do."

The giant went to Kokee and scooped up smooth, round boulders from the golden brown waters and brought them to Kapa'a. "Chief," he called to the astonished ruler, "show me where you wish to build this *heiau*."

The amazed chief pointed out the place set aside for the temple. Nunui placed the rocks to form a wall, fitting them so closely together that not even a mouse could squeeze between the cracks. Within a week, he had built a strong, thick, handsome wall around the sacred place.

Nunui returned to the edge of Waimea Canyon and cut down *koa* trees and trimmed them into the shape he needed. He carried these back and made the framework of the house. He gathered *pili* grass from Wild and wrapped the stems into bundles, tied these bundles to the framework, and within half the time the chief had set, the *heiau* was finished.

Everyone was happy. The farmers had been able to keep up with their chores, the chief had his *heiau*, and Nunui had something to do. There was even time enough a celebration. The chief ordered all his people to gather bananas and to pound sweet potatoes and taro into poi. Some people hurried to slaughter pigs and dogs to be cooked in the *imu*, while other paddled out to sea to fill their canoes with fish and sent their wives to gather seaweed and *opihii* from the reef. At last, enough food for everyone was ready, and the chief, the villagers, and Nunui sat down before the overflowing bowls and platters.

"Eat," said the chief to Nunui. "After the work you have done, you must be hungry."

The giant ate all the food that had been put before him. When he was through, his stomach bulged and he was very sleepy. He chose a comfortable hill just a short distance above Kapa'a town. Nunui stretched a last time, lay down along the top of the hill, and soon was sound asleep.

As he slept through the years, the winds blew dirt over him and the birds brought seeds. Ka-hale-lehua, goddess of the gentle rains, sent showers to water the plants that now covered the giant.

So Kanaka-nunui-moe sleeps and sleeps and has come to resemble a long hill with a lump at one end where his nose is and lumps at the other ends where his feet are. He no longer looks like a living being, but one day, perhaps soon, his eyes will open, he'll yawn and stretch his arms, and sit up. [Wichman 1985:13-16]

#### 7. Lepeamoa

In the Legend of "Lepeamoa (The Chicken Girl of Palama)" (Thrum 1923:177) is a reference to a fantastic battle at Kapa'a between Lepeamoa's brother, the hero Kaulani and a supernatural kupua called Akuapehualē ("god of swollen billows"):

Kaulani struck him a heavy blow and the spear leaped again and again upon him, till he rolled into a mountain stream at a place called Kapa'a, out of which he crawled, almost drowned. Then he was driven along even to the image houses, where a fierce battle took place, in which the wooden images took part, many of them being torn to pieces by the teeth of Akuapehualē.

#### 8. Palila and Ka'ea

High in the *mauka* region of Kapa'a in the Makaleha mountains at a place called Ka'ea, is reported to be the supernatural banana grove of the Kaua'i *kupua* or demigod Palila, grandson of Hina (Handy and Handy 1972:424). Joseph Akina for *Kieoko 'a* Newspaper in 1913 describes Palila's banana grove:

The stalk could hardly be surrounded by two men, and was about 35 feet high from the soil to the lowest petiole. The length of the cluster from stem to lowest end of the bunch of bananas was about  $1\frac{3}{4}$  fathoms long (one *anana* and one *muku*). There were only two bananas on each about 4  $\frac{1}{2}$  inches around the middle. There were just two bananas, one on the east side and one on the west, each about a foot or more in length. The one on the east side was tartish, like a *waiawi* (Spanish guava) in taste and the one on the west was practically tasteless. The diameter of the end of the fruit stem of this banana seemed to be about 11/2 feet. This kind of banana plant and its fruit seemed almost supernatural... (Akina, 1913:5).

#### 9. Winds

The winds of Kapa'a and Waipouli are named in the *mo'olelo* of Kuapaka'a and these include the *kehau* for Kapa'a, the *ho'olua* for Makaiwa and the *inuwai* for Waipouli (Forlander 1917:IV:96). A *kama'āina* interviewed for the 50th anniversary book of Kapa'a School in 1933 (p. 28) identified the winds of Kapa'a:

...Some persons call the wind MAKANI LIHUE: That is, those who live here in Kapa'a, because the wind comes from Lihue. The wind we had on Jan. 30 was really, MAKANI LIHUE. The wind that comes from Hanalei is called MAKANI KIU which means, a very cold wind. The wind that comes from the northeast—(tradewind) is called MAKANI HOOLUA. This is the plant destroying wind...

#### Place Names and Wahi Pana of Kapa'a

Place names and *wahi pana* ("legendary place") (Pukui and Elbert 1986:377) are an integral part of Hawaiian culture. "In Hawaiian culture, if a particular spot is given a name, it is because an event occurred there which has meaning for the people of that time" (McGuire 2000:17). The *wahi pana* were then passed on through language and the oral tradition, thus preserving the unique significance of the place. Hawaiians named all sorts of objects and places, points of interest that may have gone unnoticed by persons of other cultural backgrounds.

Hawaiians named taro patches, rocks and trees that represented deities and ancestors, sites of houses and *heiau* (places of worship), canoe landings, fishing stations in the sea, resting places in the forests, and the tiniest spots where miraculous or interesting events are believed to have taken place. (Pukui et al. 1974:x)

The following is a list of place names for Kapa'a, mentioned in this report. This list should by no means be considered complete. Place names were gathered from traditional literature (*mo'olelo*, chants), historical sources, maps and the Māhele records. Almost all of the *'ili* names were taken from Land Commission Award records. Sadly, none of these *'ili* names were documented on historic maps researched for this project, and their meanings and cultural associations appear to be lost and forgotten.

*Place Names of Hawai'i* (Pukui et al. 1974) was used as the primary source for all place name translations. Where there were no known translations, a literal translation of the place name was sometimes made using the *Hawaiian Dictionary* (Pukui and Elbert 1986). The intent of the author is merely to present the available information and let the reader come to his/her own conclusions.

An attempt was made to include the proper diacritical marks for all known and generally accepted translations of place names. Making incorrect assumptions about the pronunciation and where to place the diacritical marks in a name can entirely change the meaning of a name, (e.g. *pū‘ā‘ā*: “scattered; to flee in disorder and fright”; *pua‘a*: “pig, pork”). Therefore, in cases where the pronunciation of a name was uncertain, diacritical marks were not used and no attempt was made to translate the name. In some cases, cultural relationships were made based on the literal translation of the root word.

One of the beauties of the Hawaiian language is the dualism in names and the double meanings—the literal meaning and the *kaona* or hidden meaning. It should be remembered that the true significance of a place name lies only with the people who use them and know their history.

The following abbreviations are used throughout the Place Names section for ease and efficiency. (Refer to the References section for complete citations.)

LCA=Land Commission Award

PE=Hawaiian Dictionary by Pukui and Elbert, 1986

PEM=Place Names of Hawai‘i by Pukui, Elbert and Mookini, 1974

**Table 1 Place Names of Kapa‘a.**

Name	Meaning	Reference
Apopo	Land division, possibly 'ili in Kapa'a, pali, Literally "tomorrow"?	(LCA #10907/#8343) Soehren (2002:265)
Awawaloa	The name of a land division, possibly an 'ili in Kapa'a in which lo'i were cultivated meaning - long valley, gulch, ravine.	(LCA #8843/#8837), (Soehren, 2002:265)
Hahanui /Kahanui	The name of an 'ili in Kapa'a where lo'i were claimed pali, stream, Lobelia plant?	(LCA #10564/#3554/#3599), (Soehren, 2002:265)
Hoa	Pali, Literally "Friend"?	(LCA#3638:1) (Soehren, 2002:265)
Ho'opi'i	Waialele, Literally "To cause to rise?"	(Soehren, 2002:265)
Humu'ula	Pu'u, Literally "Jasper stone?"	(LCA #8247) (Soehren, 2002:265)
Kahana	The name of a land, possibly an 'ili in Kapa'a where uncultivated lo'i were claimed Literally, "cutting"	(LCA 3971). (PEM: 63), (Soehren, 2002:265)

Name	Meaning	Reference
Kaiakea/Kaikea	Name of area encompassing Kuahiahi Point. "Kaikea: White sea foam, especially as washed up on a beach: ka'ike'a: Station of the cross (Catholic); procession of the cross"	(PE:116).
Kalolo/Kaloko	The name of a village or house lot in Kapa'a Ahupua'a Kauhale, kula, Literally, "the pond", " liquor"	(LCA#3638, #8843), (Soehren, 2002:265)
Kaloloku	Name of swamp in back of Kapa'a and Waipouli	
Kamahuna	Pu'u	(Soehren, 2002:265)
Kamali'i	Ridge, Literally "Children"	(Soehren, 2002:265)
Kapa'a	Ahupua'a name, Literally "solid" or "the closing"	(Wichman, 1988:84 and Soehren, 2002:265)
Kapahi	Village, stream, Literally "the Knife"	(Soehren, 2002:265)
Kapeku	Lo'i, Literally "the Kick"	LCA# 8837, (Soehren, 2002:265)
Kaulolo	Kauhale	LCA# 3638, (Soehren, 2002:265)
Kehau	Name of wind of Kapa'a	(Fornander, 1918:V:96, 97)
Keiwa	Ridge, boundary point, Literally "The ninth"	(Soehren, 2002:265)
Koalua	Surf, Literally "Two coral heads",	Finney 1959, (Soehren, 2002:265)
Kolehaka	Pali,	LCA#3971/#3243 (Soehren, 2002:265)
Kolokolo	Name of deep fresh water pond, Literally "Soap Plant"	Wichman (1988:84)
Kolouna	Pali,	LCA# 8247, (Soehren, 2002:265)
Kuahiahi/Kaahiahi	Name of rocky headland at north end of Kapa'a Ahupua'a;	
Kuahiahi/Keahiahi	Location of first Kapa'a School (1883-1908); location of former heiau called Kuahiahi, place where the legendary figure Paka'a, keeper of the wind gourd of La'amaomao, grew up and fished Literally "twilight"	(PEM 211 :216) ; (Wichman 1998 : 85)
Kupali'i	Name of a pond in Puna district famed in chant for the rustling of the manierie grass	(PEM: 211-216)

Name	Meaning	Reference
Kupanihi	The name of a pond in the Puna district associated with Kaeo, Kaumuāli'i's older brother, ʻili, kauhale, Name of fishpond and land in Kapa'a claimed	(PEM:216); in LCA #3971/#3243, (Soehren, 2002:265)
Maelele	The name of a land division, possibly an 'ili in Kapa'a in which lo'i Literally "Numb" were cultivated,	(LCA #3638), (Soehren, 2002:265)
Makaleha	Pu'u, boundary point, Eyes looking about as in wonder and admiration,	Boundary Commission, (Soehren, 2002:265)
Makanalimu	Place, heiau, Literally "Gift of seaweed"	PEM:141
Makea	'Auwai, Literally "fallow land"	LCA# 3599/#3554 (Soehren, 2002:265)
Moalepe/Moalepi	Hill in the mauka region of Keālia (HAS, Interior Dept., Land, June 23, 1862); land division, stream possibly an 'ili in mauka region of Kapa'a	LCA #8247 (Soehren, 2002:265)
Moikeha Canal	Canal which is traversed by two plantation era railroads near the present day Kapa'a Public Library and the Coral Reef Hotel	
Naele	Pali, Literally "swamp, big"	LCA #8837, (Soehren, 2002:265)
Paikahawai	'ili,	(Soehren, 2002:265)
Pohakiikii	Pu'u, Tilted stone,	(Soehren, 2002:265)
Pohakupili	Pu'u, boundary point, Literally "joined stone",	(Soehren, 2002:265)
Poo	Surf, Literally "Head"	Finney 1959, (Soehren, 2002:265)
Pueo	Pali, Literally "owl",	LCA# 8843, (Soehren, 2002:265)
Puhi	The name of a village or household in Kapa'a Ahupua'a, Kauhale, pond, Literally "eel",	LCA #3554/#3599, (Soehren, 2002:265)
Puohomaka	Pali,	LCA# 8837, (Soehren, 2002:265)
Pupukai	Pali,	LCA# 3638, (Soehren, 2002:265)
Puu Ekeeke	Pali,	LCA# 8837, (Soehren, 2002:265)
Puu Lauii	Pu'u, boundary point, Laui'i fern hill,	Boundary Commission,(Soehren, 2002:265)
Ulakiu	Ku,	LCA# 8837, (Soehren, 2002:265)
Uluki	Name of a houselot or village in Kapa'a	(LCA #8837)

Name	Meaning	Reference
Waika'ea	Canal and boat ramp in Kapa'a adjacent to the present day Pono Kai Resort, ditch,	(Clark 2002:374), (Soehren, 2002:265)
Waikaeae	A place described as being located in the uplands near Nounou	(PEM Placenames, Ku'oko'a, May 2, 1913)
Waieia	Rock, boundary point, Literally "Abundant Water"	Boundary Commission, (Soehren, 2002:265)
Waimahanalua	Name of a stream and school located near the old Makee The name mahanalua suggests the stream was forked and fed by multiple streams which could well be the case since the backlands of Kapa'a were swamplands fed by many streams. near the present day Moikeha Canal.	(PEM Placenames, Ku'oko'a May 9, 1913).
Waitala	"local" name used to refer to Waika'ea Canal	(T. Sokei, July 28, 2003 in Bushnell et.al. 2004)

### Summary of the Mythological and Traditional accounts of Kapa'a

A survey of traditional mythological literature shows Kapa'a prominently associated with some of the most famous legendary and historical figures including Maui, Kawelo, Mo'ikeha, Maweke, Palila, Paka'a and Kanaka Nunui Moe. What few specific references there are suggest that high status habitation was focused near the coast with less intensive utilization of the uplands which were regarded as wild places. The most notable feature of the traditional accounts are the references to grasses and sedges (*Kalukalu* grass and *Ahuawa* rushes) which undoubtedly reflects in part the natural marsh lands near the coast but may also reflect transformation of the landscape through a denudation of trees by the activities of a relatively dense population harvesting slow growing trees for firewood and construction materials over many centuries.

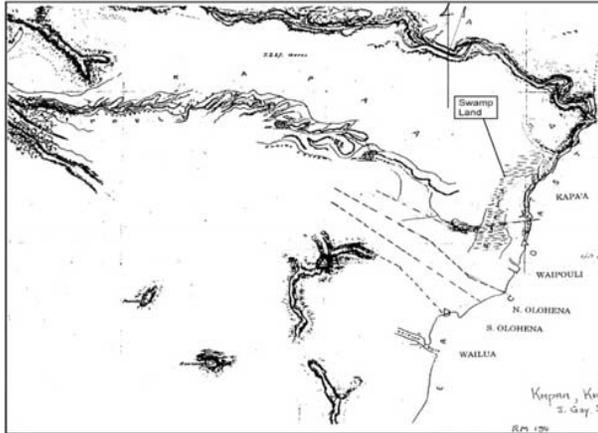


Figure 3. Portion of 1872 Survey Map by James Gay, Showing Swamp Land in Puna.

## Early Post-Contact Period

Very few recorded observations exist for this period in Kapa'a's history. George Vancouver (1798:221-223) examined the east coast of the island from his ship in 1793 and stated that it was the "most fertile and pleasant district of the island..." However, he did not anchor nor go ashore there due to inhospitable ocean conditions.

Kiimakani stands out as a particularly interesting Hawaiian chief in the early post-contact history of Waipouli. In 1824, the brig, "Pride of Hawaii," owned by Liholiho (Kamehameha II), ran aground in Hanalei Bay. Hiram Bingham (1847:221-222) recorded the efforts of a great crowd of Hawaiians to pull the vessel to shore for salvage:

Kiimakani passed up and down through the different ranks, and from place to place, repeatedly sung out with prolonged notes, and trumpet tongue... 'be quiet - shut up the voice.' To which the people responded... 'say nothing,' as a continuance of the prohibition to which they were ready to assent when they should come to the tug. Between the trumpet notes, the old chieftain, with

the natural tones and inflections, instructed them to grasp the ropes firmly, rise together at the signal, and leaning inland, to look and draw straight forward, without looking backwards toward the vessel. They being thus marshalled and instructed, remained quiet for some minutes, upon their hams.

The salvage efforts ultimately failed and the brig was lost. Bingham's account vividly suggests the force of personality of the chief and further betokens an authority and stature that may have been founded upon the traditional prestige of his domain, Waipouli.

Kiimakani appears in Samuel Kamakau's account (1961:267) of the 1824 rebellion of the chiefs of Kaua'i upon the death of Kaumuali'i. Kalanimoku, representative of Kamehameha II, had called a council of the Kaua'i chiefs at Waimea during which he announced

"The lands shall continue as they now stand. Our son, Kahala-i'a, shall be ruler over you." A blind chief of Waipouli in Puna, named Ki'ai-makani, said, "That is not right; the land should be put together and re-divided because we have a new rule," but Ka-lani-moku would not consent to this.

After some Kaua'i chiefs, including Kiimakani, rebelled against the imposed decrees:

On August 8 [1824] the battle of Wahiawa was fought close to Hanapepe. The Hawaii men were at Hanapepe, the Kauai forces at Wahiawa, where a fort had been hastily erected and a single cannon (named Hume-hume) mounted as a feeble attempt to hold back the enemy... Large numbers of Kauai soldiers had gathered on the battleground, but they were unarmed save with wooden spears, digging sticks, and javelins... No one was killed on the field, but as they took to flight they were pursued and slain. So Kia'imakani, Na-ke'u, and their followers met death [Kamakau 1961: 268].

Kamakau's singling out of Kiimakani for special mention reinforces the impression that the chief and his *ahupua'a* may have shared a traditional prestige.

In 1840, Peale and Rich, with Charles Wilkes' United States Exploring Expedition, traversed the coastline there on horseback heading north from Wailua:

The country on the way is of the same character as that already seen. They passed the small villages of Kuapau, Ke'alia, Anehola, Mowaa, and Kauharaki, situated at the mouths of the mountain streams, which were closed with similar sand-bars to those already described. These bars afforded places to cross at, though requiring great precaution when on horseback. The streams above the bars were in most cases deep, wide, and navigable a few miles for canoes. Besides the sugarcane, taro, &c., some good fields of rice were seen. The country may be called open; it is covered

with grass forming excellent pasture-grounds, and abounds in plover and turnstones, scattered in small flocks [Wilkes 1845:69].

James Jarves (1844:157), who tracked much of the same route as Peale and Rich, noted "nothing of particular interest is met with on the road, until arriving at Anahola."

### The Mahele Period

The Organic Acts of 1845 and 1846 initiated the process of the Mahele, which introduced private property into Hawaiian society. It is through information garnered from records for Land Commission Awards (LCAs) generated during the Mahele that specific documentation of traditional life in Kapa'a come to light.

**Table 2. Mahele Land Claims and Land Use of Kapa'a.**

LCA Number	Ahupua'a	Claimant	'Ili of the Ahupua'a	Land Use	Number of 'Āpana
3243 (See 3971)	Kapa'a	Honolii, Ioane	Kahana, Kupanihi Village	6 lo'i (uncult), house lot	2 (2 acres, 1 rood, 1 ord)
3554	Kapa'a	Keo	Kahanui Puihi Village	15 lo'i, house lot	2 (7 acres, 1 rood, 17 rods)
3638	Kapa'a	Huluili	Maelele Kalo Village	12-15 lo'i, house lot	2 (5 acres, 1 rood, 19 rods)
8247	Kapa'a	Ehu	Moalepe / Noalepe	20 lo'i,	1 (3 rods)
8837	Kapa'a	Kamapaa	Ulukiu lalo Awawaloa Ulukiu	3 lo'i, 2 lo'i, house lot	1 (2 acres, 2 roods, 27 rods)
8843	Kapa'a	Kiau	Apopo Kalo Village	6 (5) lo'i and kula, house lot	2 (2.75 acres, 3 rods)
10564	Kapa'a	Oleloa, Daniel	Hikinui farm	fishpond, 10 lo'i	

### Kapa'a Land Commission Awards

Documents relating to Land Commission Awards (*kuleana*) during this period show, surprisingly, that only six individuals were awarded *kuleana* parcels in the relatively large *ahupua'a* of Kapa'a. Five of the six received multiple parcels and show characteristic similarities. They are Keo (LCA #3554, 3599), Kiau (#8843), Kamapaa (#8837), Ioane Honolii (#3971), and Huluili (#3638) (See Table 1). All five had *lo'i* on the *mauka* side of the lowland swamp area, sometimes extending a short distance up into small, shallow gulches and valleys. Each also had a separate house lot located on the *makai* side of the swamp, adjacent to the beach.

Interestingly, the residential "village" of Kapa'a did not exist as a single entity, but was a series of small settlements or compounds that stretched along the shoreline of the *ahupua'a* and included (south to north) Kupanihi (Makahaikupanihi), Kalo (Kaulolo), Puihi, and Ulukiu. The sixth individual, Ehu (#8247), was the only person to be awarded a single parcel in the upland area of Kapa'a at Moalepe valley, approximately five miles from the shore. In 1848, when Ehu made his claim, he was the only one living there. A few years later, according to Honolii's testimony to support Ehu's claim, "There are no houses and no people now living on the land. Ehu found himself lonely there, all his neighbors having either died or left the land. Ehu now lives in Wailua." Ehu may have been the last person to live at and cultivate in the traditional way the far *mauka* region of Kapa'a.

A check of the Foreign Testimony (F.T) for *Kuleana* Claims to Quiet Land Titles in the Hawaiian Islands (1848-50) reveals the names of three *'auwai* in Kapa'a. Cross-referencing this information with various maps gives a general indication of their location: Makahaikupanihi, along the southern border near the shore and the settlement in Waipouli; Makea, near the current Kapa'a Public Library on the *mauka* side of Kūhiō Highway; and Kapa'a, probably along the current Kanaele Road.

There were no *kuleana* claims found within the project area.

### The Late 1800s

In 1849, a son of Wai'oli missionaries, William P. Alexander, recorded a trip he took around Kaua'i. Although, he focuses on the larger mission settlements like Koloa and Hanalei, he does mention Kapa'a:

A few miles from Wailua, near Kapa'a, we passed the wreck of a schooner on the beach, which once belonged to Capt. Bernard. It was driven in a gale over

the reef, and up on the beach, where it now lies. A few miles further we arrived at Kealia. We had some difficulty crossing the river at this place, owing to the restiveness of our horses. The country here near the shore was rather uninviting, except the valley which always contained streams of water (Alexander, 1991: 123).

In later years, the notorious Kapa'a reef was to become the location of many shipwrecks particularly once a landing was built there in the 1880s.

Although most of the historic record documents for Kaua'i in this period revolve around missionary activities and the missions themselves, there was indication that the Kapa'a area was being considered for new sugar cane experiments, similar to those occurring in Koloa. In a historic move, Ladd and Company received a 50 year lease on land in Koloa from Kamehameha III and Kaua'i Governor Kaikio'ewa of Kaua'i. The terms of the lease allowed the new sugar company "the right of someone other than a chief to control land" and had profound effects on "traditional notions of land tenure dominated by the chiefly hierarchy" (Donohugh, 2001: 88). In 1837, a very similar lease with similar terms was granted to Wilama Ferani, a merchant and U.S. citizen based in Honolulu (Hawai'i State Archives, Interior Dept., Letters, Aug. 1837). The lease was granted by Kaiuikaouli or Kamehameha III for the lands of Kapa'a, Kealia and Waipouli for twenty years for the following purpose:

...for the cultivation of sugar cane and anything else that may grow on said land, with all of the right for some place to graze animals, and the forest land above to the top of the mountains and the people who are living on said lands, it is to them whether they stay or not, and if they stay, it shall be as follows: They may cultivate the land according to the instructions of Wilama Ferani and his heirs and those he may designate under him... (Hawai'i State Archives, Interior Dept., Letters, Aug. 1837).

Unlike Ladd & Company which eventually became the Koloa Sugar Company, there is no further reference to Wilama Ferani and his lease for lands in Kapa'a, Kealia and Waipouli. In a brief search for information on Honolulu merchant, Wilama Ferani, nothing was found. It is thought that perhaps Wilama Ferani may be another name for William French, a well known Honolulu merchant who is documented as having experimented with grinding sugar cane in Waimea, Kaua'i at about the same time the 1837 lease for lands in Kapa'a, Kealia and Waipouli was signed (Joesting, 1984: 152).

The sugar industry came to the Kapa'a region in 1877 with the establishment of the Makee Sugar Company and subsequent construction of a mill near the north end of the present town. Cane was cultivated mainly in the upland areas on former *kula* lands. The first crop was planted by the *Hui* Kawaihau, a group composed of associates of King

David Kalākaua. The king threw much of his political and economic power behind the project to ensure its success (Dole 1929:8-15). The *Hui* Kawaihau was originally a choral society begun in Honolulu whose membership consisted of many prominent names, both Hawaiian and *haole*. It was Kalakaua's thought that the *Hui* members could join forces with Makee, who had previous sugar plantation experience on Maui, to establish a successful sugar corporation on the east side of Kaua'i. Captain Makee was given land in Kapa'a to build a mill and he agreed to grind cane grown by *Hui* members. Kalakaua declared the land between Wailua and Moloa'a, the Kawaihau District, a fifth district and for four years the *Hui* attempted to grow sugar cane at Kapahi, on the plateau lands above Kapa'a. After a fire destroyed almost one half of the *Hui*'s second crop of cane and the untimely death of one of their principal advocates, Captain James Makee, the *Hui* began to disperse and property and leasehold rights passed on to Makee's son-in-law and new Makee Plantation owner, Colonel Z. S. Spalding (Dole, 1916: 14). As part of the infrastructure of the new plantation, a sugar mill was erected and the Makee Landing was built in Kapa'a during the early years of the Makee Sugar Plantation. Following Captain Makee's death, Colonel Spalding took control of the Plantation and in 1885 moved the mill to Kealia (Cook, 1999: 51). The deteriorating stone smokestack and landing were still there well into the 1900s (Damon, 1931:359).

A train line went inland from Kapa'a Town from the coast along the present Lehua Street alignment heading south behind Kapa'a Town. This railroad line skirts the rice lands behind Kapa'a Town. Another branch ran between Hauaala and Hundley Roads and the branch from behind Kapa'a Town joined the Hauaala/Hundley railroad alignment where the proposed corridors for this project join the present Kūhiō Highway. The train line continued north to the Keālia (Kapa'a) River. Chinese rice farmers had begun to cultivate the lowlands of Kapa'a with increasing success about this same time. Several Hawaiian *kuleana* owners leased or sold outright their parcels *mauka* of the swampland to rice cultivators. Concurrently, the economic activity as a result of the rice and sugar cultivation sparked interest in the house lot *kuleana* on the *makai* side of the marsh for increasing commercial and residential development (Lai 1985:148-161). This land was drained and used for cane in the early 20th century before more recent urbanization of the area.

Narrow wagon roads gave way to macadamized roads in the early part of the 20th century. This new road was called the Kaua'i Belt Road and parts of it are thought to have followed the "Old Government Road" (Cook, 1999). In Kapa'a, the present day Kuhio Highway probably follows the same route as the original Government Road and subsequent Kaua'i Belt Road. The location of the *kuleana* awards in Kapa'a indicates that the majority of the house lots were situated along the Government Road. LCA 3243 names a "road" as one of its boundaries.

## 20th Century History of Kapa'a

In the early 1900s, government lands were auctioned off as town lots in Kapa'a Town to help with the burgeoning plantation population. Many of these lots were purchased by Portuguese and Japanese laborers who had fulfilled their contract duties with Makee Plantation. One *kama'āina* interviewed for a previous project in Kapa'a mentioned that in the 1930s and 1940s, the area north of Mo'ikeha Canal in Kapa'a was mostly settled by Portuguese families (W. Kaneakua in Bushnell et al. 2002:28). The Japanese were also very prominent in the 1920s and 1930s, largely replacing the Chinese merchants of the turn of the century in the Kapa'a business sector.

Though most of the large plantation camps were located in neighboring Keālia, there were a few in Kapa'a. Many people consulted had clear memories of the plantation camps in Kapa'a: a fairly large camp located just behind Kapa'a Town and three smaller camps located in the hills above Kapa'a. The large camp, Pueo Camp (Figure 6), was located adjacent to the intersection where the current Kapa'a Bypass Road turns off of Olohena Road (Interview w/ A. Paik, 5/14/03 in Bushnell et al. 2004). One Kapa'a resident who grew up in Pueo Camp remembers the camp being quite large with between 75 and 100 people, mostly single Filipino and Chinese men with some Japanese families and a few Hawaiian and Portuguese families. Pueo Camp is thought to be a fairly early Makee Plantation Sugar Camp built strategically adjacent to the railroad tracks which accessed the sugar fields in the upland areas of Kapa'a. Though no one consulted knew the date Pueo Camp was established, the oldest of our informants, Mrs. Alice Paik, born in 1912, knew the camp was there before she was born (Interview w/ A. Paik, 5/14/03 in Bushnell et al. 2004). Pueo camp was destroyed sometime in the 1950s. The other three camps located in the hills adjacent to or just off of Olohena Road were considerably smaller than Pueo Camp. These consisted of Stable Camp, 35 Camp and 18 Camp (See Figure 6). Two other camps in the Kapa'a/Waipouli area were also mentioned. Aguiar camp was a residential camp for employees of the pineapple industry, and Mundon Camp was thought to be a residential camp for Lihue Plantation workers (Interview w/ G. Hiyane, 5/14/03 in Bushnell et al. 2004).

Pineapple became the next largest commercial enterprise in the region. In 1913, Hawaiian Canneries opened in Kapa'a at the site now occupied by Pono Kai Resort (Cook 1999:56; Figure 6). The Kapa'a Cannery provided employment for many Kapa'a residents and many of the informants for this project mentioned having worked in the cannery during some time of their lives. By 1960, 3400 acres were in pineapple and there were 250 full time employees and 1000 seasonal employees for the Kapa'a Cannery. However, in 1962, Hawaiian Canneries went out of business due to competition from third world countries.

The Ahukini Terminal & Railway Company was formed in 1920 to establish a railroad to connect Anahola, Keālia and Kapa'a to Ahukini Landing at Hanamā'ulu and to "provide relatively cheap freight rates for the carriage of plantation sugar to a terminal outlet" (Condé and Best 1973:185). This company was responsible for extending the Makee Sugar Company railroad line from the Makee Landing [formerly located near the present day Coral Reef Hotel] to the Ahukini Landing at Hanamā'ulu Bay. This railroad line traversed near much of the study area (Figures 4 & 5) and was in use from 1921, through the take-over by Lihue Plantation Company in 1934 and until Lihue Plantation converted from railroad transport to trucking in the late 1950s.

Lihue Plantation was the last plantation in Hawai'i to convert from railroad transport to trucking (Condé and Best 1973: 167). In 1955, reports came out on the dredging for coral proposed for the reef fronting Kapa'a Beach Park (*Garden Island Newspaper*, September 21, 1955). This coral was to be used for building plantation roads. The dredging was later blamed for accelerated erosion along Kapa'a Beach (*Garden Island Newspaper*, October 30, 1963). Today, there are several sea walls along the Kapa'a Beach Park to check erosion. Old time residents claim the sandy beach at Kapa'a was once much more extensive than it is now. "By 1957 the company was salvaging a part of their plantation road, which was being supplanted by roads laid out for the most part on or close to the old rail bed" (Condé and Best 1973: 167). By 1959, the plantation had completely converted over to trucking.

Severe floods in Kapa'a in 1940 led to the dredging and construction of the Waikaea and Moikeha Canals sometime in the 1940s (Territorial Planning Board 1940:7). Although the Waikaea Canal, bordering the Kapa'a Pineapple Cannery, had been proposed as early as 1923, nothing was constructed until after the floods (Bureau of Land Conveyances, Grant 8248). A Master Plan for Kapa'a, published in 1940, asks the Territorial Legislature for funds to be set aside for the completion of a drainage canal and for filling *makai* and *mauka* of the canal (Territorial Planning Board 1940:7). In 1955, reports came out on the dredging for coral proposed for the reef fronting Kapa'a Beach Park (*Garden Island Newspaper*, September 21, 1955). The coral was to be used for building plantation roads. This dredging was later blamed for accelerated erosion along Kapa'a Beach (*Garden Island Newspaper*, October 30, 1963).

Today, there are several sea walls along the Kapa'a Beach Park to check erosion. Old time residents claim the sandy beach in Kapa'a was once much more extensive than it is now (Bushnell et al. 2002).

Many of the plantation workers bought property of their own and moved out of plantation camps. The plantation camps which bordered Kahio Highway were disbanded in the 1980s. The Lihue Plantation began to phase out in the last part of the 20th century. Kapa'a Town suffered after the closing of the Kapa'a Cannery, however the growing tourist industry helped to ease the economic affects of the Cannery's closing.



Figure 4. Aerial View of Kapa'a, Kaua'i, looking west, circa 1933 (Bishop Museum Archives)

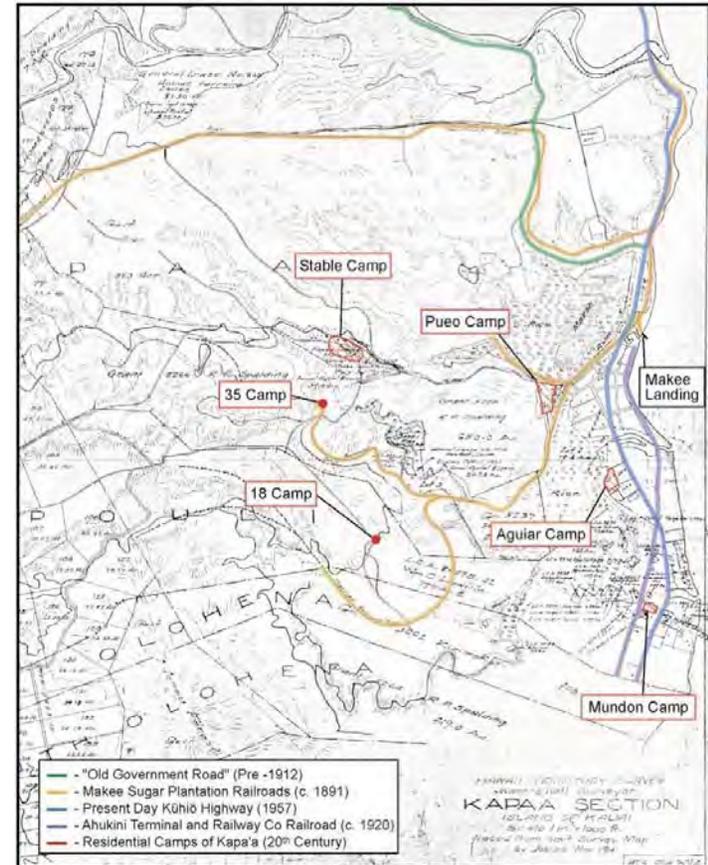


Figure 5. Hawai'i Territory Survey Map (1914) of Kapa'a Section Showing Roads, Railroads and Camps

### Previous Archaeological and Cultural Studies of Kapa'a

During their expeditions around Hawai'i in the 1880s collecting stories from *ka pō'e kahiko*, Lahainaluna students stopped in Kapa'a and Kealia and gathered information regarding *heiau* of the region (Bishop Museum Archives (HEN I:214). Fourteen *heiau* were named, suggesting that these two *ahupua'a* were probably more socially /politically/ religiously significant in ancient times and a testament to the substantial population of these *ahupua'a*.

Unfortunately, the locations for most *heiau* were given as Kapa'a/Kealia, indicating that the exact location of the *heiau* was not identified. Of the fourteen *heiau*, five are definitely located in Kapa'a. These include the locations of *wahi pana* or sacred places, Mailehuna (in the area of the present day Kapa'a School), Pueo, Kuahiahi ((also spelled Kaahiahi and Keahiahi) the site of the first Government School in Kapa'a—adjacent to the Kūhiō Highway near the northern boundary of Kapa'a Ahupua'a), Makanalimu (in upland of Kawaihau) and Kaluluomoikeha. Kaluluomolkeha is thought to be the general area near the Mo'ikeha Canal and the present day Coral Reef Hotel.

There are no known remains of these *heiau* today. The exact locations of these *heiau* are unknown.

**Table 3. Heiau of Kapa'a**

Name	Location	Type	Associated
Mailehuna	Kapa'a (Mailehuna is the area of the present day Kapa'a School)	unknown	Kiha, Kaumuali'i/ Lukahakona
Pueo	Kapa'a	unknown	Kiha, Kaumuali'i/ Lukahakona
Pahua	Kapa'a/Kealia	unknown	Kiha/ Lukahakona
Kumalae	Kapa'a/Kealia	unknown	Kiha/ Lukahakona
Waiehumalama	Kapa'a/Kealia	unknown	Kiha/ Lukahakona
Napu'upa'akai	Kapa'a/Kealia	unknown	Kiha/ Lukahakona
Noeamakali'i	Kapa'a/Kedlla	"heiau for birth of Kaua'i Chiefs, like Holoholoku"	Unknown
Pu'ukoa	Kapa'a/Kealia	"unu type heiau"	Unknown
Piouka	Kapa'a/Kealia	"unu type heiau"	Unknown
Una	Kapa'a/Kealia	Unknown	Kiha/ Lukahakona
Mano	Kapa'a/Kealia	Unknown	Kiha/ Lukahakona

Name	Location	Type	Associated
Kuahiahi	Kapa'a (govn't school stands on site now)	Unknown	Kaumuali'i/ Lukahakona
Makanalimu	Upland of Kawaihau	Unknown	Kaumuali'i
Kaluluomoikeha	Kapa'a	Unknown	Mo'ikeha

### 4. Historic Properties in Kapa'a Ahupua'a (see Figure 6)

Site # 50-30-08-	Ahupua'a	Site Type/ Name (if any)	Location	Site Constraints	Reference
B001	Kapa'a	Historic Cemetery	South of bend of Kapa'a Stream, a kilometer mauka from Kūhiō Hwy	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B002	Kapa'a	Historic Cemetery	Just mauka from Kūhiō Highway, south of Kapa'a Stream	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B003	Kapa'a	Kapa'a Public Cemetery	South of Kanaele Road, one kilometer inland of Kūhiō Highway	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B004	Kapa'a	Historic Cemetery	North of Apopo Road, one kilometer inland of Kūhiō Highway	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B013	Kapa'a	Historic Cemetery	Just mauka from Kūhiō Highway, north of the Waikaea Canal	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992
B014	Kapa'a	All Saints Episcopal Church Cemetery	Just mauka from Kūhiō Highway, south of the Waikaea Canal	Appears to be a discrete historic cemetery	Kikuchi and Remoaldo 1992:62-65
547	Kapa'a	sub-surface features including a firepit and a possible house foundation	South of bend of Waikaea Canal, mauka of Kūhiō Highway	Archaeological monitoring in the vicinity is recommended	Spears 1992:3

Site # 50-30-08-	Ahupua'a	Site Type/ Name (if any)	Location	Site Constraints	Reference
626	Kapa'a	Burial	'Inia Street, makai of Kuliö Highway, central Kapa'a	Consultation and monitoring in vicinity indicated	Jourdane 1995
748	Kapa'a	Minimal findings, a weak cultural layer (buried A-horizon)	South of the bend of the Waikaea Canal, mauka of Kuliö Highway	Considered no longer significant within project area	Hammatt et al. 1994
789	Kapa'a/ Kealia	Historic Road	Coastal Cane Haul Road near Kawaihau Road turn off		Perzinski et al. 2000
867	Kapa'a	1 set of human remains	Kukui Street, just mauka of Kuliö Highway, Kapa'a Town	Consultation and monitoring in vicinity indicated	Creed et al. 1995:50
868	Kapa'a	1 set of human remains	Lehua Street mauka of Kuliö Highway, Kapa'a Town	Consultation and monitoring in vicinity indicated	Creed et al. 1995:50
871	Kapa'a	13 sets of human remains (Creed et al. 1995:50)	'Inia Street, makai of Kuliö Highway	Consultation and monitoring in vicinity indicated	Kawachi 1994; Creed et al. 1995:50
1848	Kapa'a	Cultural layer and sub-surface features	Along Kuliö Highway between Wana Road and the Waikaea Drainage Canal	Archaeological monitoring in the vicinity is recommended	Hammatt 1991; Creed et al. 1995
1849	Kapa'a	Cultural layer and sub-surface features; Creed et al. 1995:53 expands boundaries to incl. burial sites, - 626, -867, -868 -871, and -1894	Along Kuliö Highway between 'Inia Street and Kauwila Street extending to the coast	Consultation and monitoring in vicinity indicated	Hammatt 1991; Creed et al. 1995
1894	Kapa'a	11 sets of human remains	Ulu Street, just north of Kuliö Highway, Kapa'a Town	Consultation and monitoring in vicinity indicated	Creed et al. 1995:50

Site # 50-30-08-	Ahupua'a	Site Type/ Name (if any)	Location	Site Constraints	Reference
2075	Kapa'a/Ke älia	Highway Bridge Foundation (old Kaula'i Belt Road)	Kuliö Highway at Kapa'a/ Keälia River		Bushnell et al. 2002:55
2076	Kapa'a	Petroglyph	Rocky coast below former cane haul road (Site -789)	Preservation	Bushnell et al. 2002:55
2077	Kapa'a	Concrete steps (related to historic beach pavilion)	Near present Kapa'a Beach Park Pavilion		Bushnell et al. 2002:55
2078	Kapa'a	Historic Railway Alignment (2 Railroad Bridges, & RR Culvert Foundation)	Both railroad bridges span the Moikeha Canal; the RR culvert foundation is located north of the Kapa'a Swimming Pool.		Bushnell et al. 2002:55

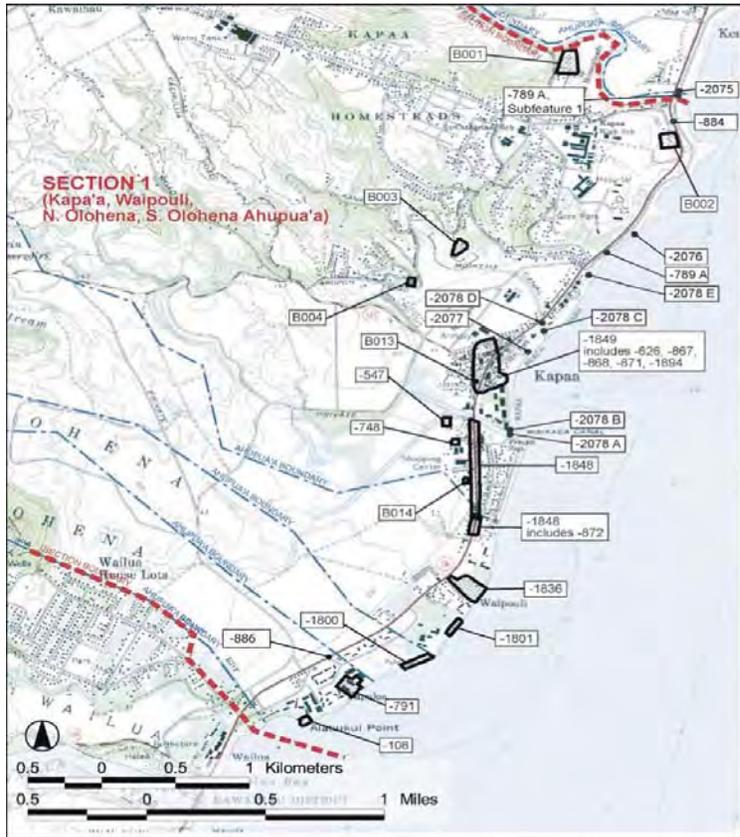


Figure 6. Historic Properties in Kapa'a, Waipouli and Olohena Ahupua'a.

In summary, the archaeological research of the Kapa'a, area has been somewhat skewed to development which has mostly occurred along the coast. Early 20th century archaeological studies attested to the existence of upland terraces, however subsequent studies in the 1980s found no record of upland sites. Although there is little in the way of surface archaeology of Kapa'a that has been able to withstand the test of time (with the exception of Kukui Heiau), archaeological studies have illustrated the vast potential for intact subsurface cultural layers. These cultural deposits extend throughout modern day Kapa'a Town, on the shorelines between the Waipouli Town Center and the Coconut Plantation Resort and along the coast in Olohena *makai* of the old Coconut Plantation Cinema. These cultural deposits suggest a long occupation of the area over many centuries beginning by the late 15th or early 16th centuries.

# RESULTS OF COMMUNITY CONSULTATION

As partial fulfillment of the Scope of Work, consultation with organizations and the community was conducted to identify knowledgeable *kūpuna* and participants to be interviewed, as well as others who could inform on the history of the subject area and previous land use. The organizations consulted were the State Historic Preservation Division, the Department of Land and Natural Resources (DLNR), the Office of Hawaiian Affairs, the Kaua'i/Ni'ihau Islands Burial Council, the Kaua'i Historical Society, and the Kaua'i Historic Preservation Review Committee (KHPRC).

A substantial effort was made to locate knowledgeable informants for the area of Kapa'a. An attempt was made to contact as many individuals as possible. These led us to the 5 knowledgeable parties that were interviewed for this project. A cultural impact assessment conducted for the Kapa'a-Kealia Bike and Pedestrian Path included a narrow corridor from the Waikaea Drainage Canal to Hōmaikawa'a, a small inlet beyond Kealia (Bushnell et al. 2002). In addition cultural impact assessment was also conducted for the Kapa'a Relief Route (Bushnell et. al. 2004). Only one cultural impact assessment has been conducted for the uplands of Kapa'a for the proposed Water Reservoir *Mauka* Locale in Kapa'a, Kaua'i Island (Mitchell et. al. 2004). These CIA and historic research of the project area, community consultation and informant interviews were combined to provide an assessment of cultural traditions, both past and present.

Traditions were also collected in connection to the streams, canals and marsh areas where 'ōpae and 'o'opu were once found in abundance. Fishing for 'oama in Kapa'a's canals continues to be a lively family tradition during the summers.

## Consultation Process

Through the consultation process, five individuals were identified as potential informants. Three had written letters of their knowledge of the area (Stanley Vasques,

Willie Sanchez, and Albert Fukashima) [see Appendix]. Two others informants gave a verbal interviews. One of these the Martin family spoke about the use of the lands for pasture when the Plantation ceased using the land for cane. The other informant was from the East Kauai Soil and Water District (Les Milnes) and had no knowledge any plantation ditches that were still intact within the project area. The old maps he had, showed the ditch system around Twin Reservoir which is located directly across Olo-hena Road from this property but the maps stop before this project area. This indicates that there were no permanent plantation ditch lines on this parcel.

Mr. Fukashima drew a map of his recollection of the land uses of the project area, which matched some of the historic maps for Kapa'a.



Figure 7 and 8 Showing Cattle and Goats (in the Distance) Grazing.

No Native Hawaiian informants came forward to discuss any traditional gather associated with this project area. The Office of Hawaiian Affairs gave a list of possible individuals with extensive knowledge of traditional cultural practices and resources but none knew of any for this project area.



Figure 9. KIUC's Solar Farm and Equipment Buildings.

## TRADITIONAL CULTURAL PRACTICES OF KAPA' A

### Burials

The coastline in Kapa'a once contained extensive sand dunes that were documented in travels throughout the nineteenth century (Knudsen 1991; Alexander 1991). Most of the sand dunes were modified or destroyed at the onset of the twentieth century. This was due to the extensive use of the coastal areas for ranching, settlement, and new transportation routes like trains and roads. Archaeological studies in the Kapa'a area demonstrate the widespread prehistoric use of sand as a medium for burials. Burials have been identified along the coast and extending well *mauka* of the coastline into present day Kapa'a Town. Cultural deposits found associated with burials in the Kapa'a area shed light on the Hawaiian tradition of burying members of the *'ohana* in the *kulaiwi*, or birth land.

For Hawaiians, "man's immortality was manifest in his bones...Even the bones of the living became symbols of the link between man's progenitors and his own eventual immortality" (Pukui et al. 1972:106). Thus, the discovery of *iwi* (bones) is a very sensitive issue for the Hawaiian community requiring much mediation and protocol.

No burials are believed to be present within the project area and none are known in the vicinity.

### Marshlands of Kapa'a

The areas inland of Kapa'a and Waipouli Towns were formerly the marshlands of Kapa'a. During the 20th century, portions of the marshlands of Kapa'a and Waipouli were filled, drained and designated as marginal agricultural lands. Traditionally, however, these marshlands were once much more significant. Westerners may call them "swamps," but Hawaiians who grew up in the Kapa'a and Waipouli area knew they were fishponds (Bushnell et. al. 2004). Many *kama'aina* recall fishing for freshwater shrimp and

gobies, the *'opae* and *'o'opu*. For the Kaneakua brothers, their childhood memories of *'opae* are tied to the old Chinese vendors who once traversed the neighborhood selling the shrimps.

I can remember Chinese, they used to catch shrimp, fresh water shrimp in big five gallon can. They put it in there, both side and they have their stick across, walking through the little village that we were over there and used to come out and say, "*'Opae, 'Opae*" and families who want buy the *'Opae* and they used to dig it out in a big a scoop, bowl, and was so much you know. Yeah, those were the days. Our streams used to be loaded with shrimp (Interview with J. & W. Kaneakua 8/1/02 in Bushnell et al. 2002).

One informant said that his experience catching *'opae* centered on the irrigation ditches that drained the marshlands behind Kapa'a. "My first lessons in swimming were in the drain ditches the sugar people created to dry out their cane lands. Also in the ditches were the *'opae* or river shrimp. I caught *'opae* and cooked them with soy sauce in recycled oil sardine cans." (Interview with G. Hiyane, 5/14/03 in Bushnell et al. 2004). One individual who grew up in Pueo Camp adjacent to the marsh recalls frequenting the irrigation ditches in Waipouli for *'opae*, *'o'opu*, and *pantat* (catfish) that were then sold to the old Chinese men in the camp for 10¢ (Personal communication with G. Mukai, 8/5/03 in Bushnell et al. 2004).

Mr. Sokei who grew up in a rice growing family in the back of what is known as All Saints Church in Kapa'a shared some memories of his home in the 1930s that may reflect the landscape a hundred years prior. Mr. Sokei remembers the family home located on high ground above the marsh. "Back then, the land was natural, full of mounds. Rice was cultivated in fields all the way to the hills. The water level in the marsh would go up and down with the tide and when there was lots of water, one could find *'o'opu*, *'opae*, catfish, frogs and mud turtles for eating" (Personal communication with T. Sokei, 7/28/03 in Bushnell et al. 2004). Likewise, the *kuleana* awards of the 1840s and 1850s present a picture of homes scattered on the edges of the marsh and on islands of high ground within the marsh. Numerous *'auwai* were constructed to irrigate *lo'i kalo*. *Hau* bush was shaped into fences to separate *kuleana* or physical features and fishponds were built to stock fish. For Hawaiians living the marsh was an extremely productive area constituting the basis of their existence.

The notion that the marshlands were quite significant traditionally is also evident in the Hawaiian place names, particularly the *wahi pana* (storied places) associated with the Kapa'a/Waipouli marsh. Mākaha-o-Kupānihi was a pond, a "deep pool set aside for *ali'i* to bathe in" located at the border of Kapa'a and Waipouli Ahupua'a presumably within the marsh (Lahainaluna Students Compositions, No. 15). It was here that Kaumuali'i's half-brother Keawe was shot to death forever defiling the waters of Kupānihi. Another *wahi pana* in this district was Kēwā. The proverb '*ke kalukalu o Kēwā*' refers to a certain type

of grass, *kalukalu* (used in making a very soft gauze or *kapa*) found growing in the marshlands of Kapa'a and Waipouli (Fornander 1916:IV:162).

## Gathering for Plant Resources

Hawaiians utilized upland resources for a multitude of purposes. Forest resources were gathered, for not only the basic needs of food and clothing, but for tools, weapons, canoe building, house construction, dyes, adornments, hula, medicinal and religious purposes. The present project area is dominated by alien vegetation (albezia, ginger, California grass) although some traditional cultigens (banana, bamboo, *kid* and historically introduced food plants (papaya) are present as well. Within the project area itself no specific documentation was found regarding gathering of plants during traditional Hawaiian times. During this assessment there were no ongoing practices related to traditional gathering of plant resources identified in the present project area. None of the individuals contacted for this assessment identified any native plant gathering practices within the project area.

## Historic Properties

No historic properties were identified within the project area or in the vicinity. The density of identified historic properties is far greater near the coast of Kapa'a Ahupua'a. For a listing of the historic properties of Kapa'a, Kaua'i, see Table 4.

## Trails

Based on nineteenth and twentieth century maps the primary transportation routes *mauka/makai* correlated closely to the existing major roadways. During this assessment there were no trail systems identified in the proposed project area.

## Planation Ditch System or 'Auwai

Based on the archaeological assessment (McMahon, 2012), field checks, documentation from land records, plantations records and maps, and informants information, no remnants of these historic properties exist. Several pieces presumed to be rem-

nant of the metal flumes (transportable irrigation) were found. It is also thought that the existing roads on the property might be filled.



Figure 10. Remnant Road and Cattle Grazing in the Project Area.

## SUMMARY AND CONCLUSIONS

A cultural impact assessment was conducted for the proposed Kapa'a Highlands Phase II. Historic research of the project area was carried out to identify any cultural resources or traditional cultural practices associated with the area encompassing the proposed Kapa'a Highlands Phase II. In addition, community consultation was conducted. An attempt was made to contact parties regarding cultural knowledge, land use history, cultural sites and traditional Hawaiian or other cultural practices in the vicinity of the project area. Five individuals came forward as knowledgeable informants. In addition to the informants, other community members shared valuable information regarding traditional land use, attitudes and practices associated with the project area.

The marshlands of Kapa'a were once a significant resource prior to Western contact. The fringes of the marsh were utilized for *lo'i kalo*, and other resources including the gathering of *kalukalu*, a type of grass utilized for *kapa*. Places in the marshes also served as fishponds. Vestiges of the cultural significance of the marshlands are retained in the *mo'olelo* and *'olelo no'eau* particular to this area. With the establishment of the sugar plantations in the late nineteenth century, the marshlands were significantly altered. Marsh areas were drained and filled to create more dryland for commercial agriculture and pasture land. Several individuals consulted and interviewed grew up fishing for *'opae* and *'o'opu* in the irrigation ditches which once drained the swamps. They expressed sadness at the changing of the landscape and the passing of their childhood traditions with the final draining and filling of the swamps. No further concerns regarding the marshlands were expressed other than the presumed low potential of possibly encountering habitation deposits and burials related to former LCA parcels.

This report documents the use of the *'auwai* or plantation ditches for irrigation and water use by the residents up until the 1960s. The *'auwai* were also utilized for a variety of activities beyond their primary irrigation purpose. The bulk of the *'auwai* have been lost through modern pasturage, disuse and adjacent road improvements.

In general the community emphasized the importance of communicating with the *'ohana* of Kapa'a regarding changes to the land. This includes asking permission of the *'ohana*, including *'uhane* (immortal spirits) for opening up the land to proposed new

uses. It was stressed that this and other protocols are necessary to “open the path” for change, thus avoiding accidents and potential obstacles of a cultural nature.

In summary, there are no known traditional resources or cultural practices associated with the Kapaa Highlands Project Area.

## BIBLIOGRAPHY

- Akina, Joseph  
1913 “I Ke hou I Ka Lulu-o-Moikeha I ka laula o kapaa”, Ku’oko’a. May 2-9, 1913. Bishop Museum Archives HEN Place Names, Kauai.
- Alexander, William Patterson  
1991 "A Tour of Kauai in 1849: Private Journal of William DeWitt Alexander," *The Kauai Papers*, Kauai Historical Society, A Kauai Historical Society Publication, Lihue, Kauai, HI.
- Armitage, George T. and H.P. Judd  
1944 *Ghost Dog and Other Hawaiian Legends*; Advertiser Publishing Co., Ltd., Honolulu.
- Armstrong, Warwick, Ed.  
1973 *Atlas of Hawai'i*, University of Hawaii Press, Honolulu.
- Barrère, Dorothy, compiler  
1994 *The King's Māhele: The Awardees and Their Lands*, Honolulu, HI.
- Beckwith, Martha W.  
1970 *Hawaiian Mythology*, University of Hawaii Press, Honolulu, HI.
- Bennett, Wendell C.  
1931 *The Archaeology of Kaua'i*, Bishop Museum Bulletin 80, Honolulu.
- Bingham, Hiram  
1847 *A Residence of Twenty-One Years in the Sandwich Islands*, Huntington, Hartford.Conn., Convers, New York
- Bishop Museum Archives  
HEN I: 214 "Heiaus of Kealia and Kapa`a" and "Well Known Things [or Places]".  
HEN I: 215 "Famous Things mentioned by Two Men".  
HEN I: 216 "Heiaus from Kapa'a to Kealia" and "Things for which Kapa'a was Known".
- Borthwick, Douglas F. and Hallett H. Hammatt

- 1999 Archaeological Monitoring and Burial Treatment Plans for the Proposed Improvements to the Kapa'a Seventh-day Adventist Church, Kapa'a Ahupua'a, Puna District, Kaua'i Island (TMK 4-5-03: 19), Cultural Surveys Hawaii'i, Kailua, HI.
- Boundary Commission see Commission of Boundaries
- Buck, Peter H. (see also Te Rangi Hiroa)
- 1964 Arts and Crafts of Hawaii, Bishop Museum Special Publication 45, Vol. I, Honolulu.
- Bureau of Land Conveyances  
Grant 8248
- Bushnell, K.W., D.W. Shideler, and H. H. Hammatt
- 2002 Cultural Impact Assessment for the Proposed Kapa'a -Kealia Bike and Pedestrian Path, Kapa'a and Kealia, Kawaihau District, Kaua'i Island, Hawaii'i (TMK: 4-5, 4-6-14, 4-7-03 & 04), Vols. I & II; Cultural Surveys Hawaii'i, Inc., Kailua, HI
- 2004 Cultural Impact Assessment for Kapa'a Relief Route: Kapa'a Waipouli, Olena and Hanamaulu, Kaua'i Island, Hawaii'i Cultural Surveys Hawaii'i, Kailua, HI
- Bushnell, Kristina and Hallett H. Hammatt
- 2000 An Archaeological Monitoring Report for Improvements to the Kapa'a Seventh-Day Adventist Church, 1132 Kuhio Highway, Kapa'a Ahupua'a, District of Puna, Island of Kauai (TMK 4-5-03:19), Cultural Surveys Hawaii, Kailua, HI.
- Bushnell, K.W., Melanie Mann, Douglas Borthwick, Tony Bush, Todd Tulchin, David Shideler and Hallett H. Hammatt
- 2003 *Archaeological Inventory Survey for the Proposed Kapa'a/Kealia Bike and Pedestrian Path, Kapa'a and Kealia, Kawaihau District, Kaua'i Island, Hawaii (TMK 4-5, 4-6-14, 4-7-03 & 04)*. Cultural Surveys Hawaii, Inc. Kailua, HI.
- Calis, Irene
- 2000 End of Field Work Report: Human Burial Removal and Archaeological Monitoring, Kapa'a Beach Park Public Bathroom Installation, Kapa'a, Kaua'i Scientific Consultant Services.
- Chafee, David B., Berdena Burgett and Robert L. Spear
- 1994a An Inventory Survey of a Mamane Street Houselot, Kapa'a Ahupua'a, Kawaihau District, Puna, Island of Kaua'i (TMK: 4-5-09:51), SCS Inc., Kane'ohe, HI.

- 1994b An Inventory Survey of a Kukui Street Houselot, Kapa'a Ahupua'a, Kawaihau District, Puna, Island of Kaua'i (TMK: 4-5-09:10), SCS Inc., Kane'ohe, HI.
- Chaffee, David B. and Robert L. Spear
- 1995 A Reconnaissance Survey Letter Report, Earl & Maggie Arruda Property, Kapa'a, Kaua'i, Hawaii'i, TMK 4-4-02:100 Scientific Consultant Services, Inc. Kane'ohe, HI.
- Ching, Francis K. W.
- 1976 *Letter Report: Archaeological Reconnaissance - Report, Kapa'a "Wastewater Treatment and Disposal System*, ARCH 14-96, Letter to R. M Towill Corporation, ARCH, Lawa'i, Kaua'i, HI.
- Clark, John R.K.
- 2002 Hawaii'i Place Names, Shores, Beaches and Surf Sites, University of Hawaii Press, Honolulu, HI.
- Commission of Boundaries
- 1864-1905 Record of Commission of Boundaries for the Island of Kaua'i, vol. 1, Honolulu, HI.
- Condé, Jesse C. and Gerald M. Best
- 1973 *Sugar Trains, Narrow Gauge Rails of Hawaii*, Glenwood Publishers, Felton, CA.
- Cook, Chris
- 1999 "Kaua'i, the Garden Island: A Pictorial History of the Commerce and Work of the People", Donning Co., Virginia Beach, VA.
- Cooper, George and Gavan Daws
- 1990 *Land and Power in Hawaii, The Democratic Years*; University of Hawaii Press, Honolulu.
- Coulter, John Wesley
- 1931 *Population and Utilization of Land and Sea in Hawaii*, 1853 Bernice P. Bishop Museum Bulletin 88, Honolulu, Hawaii.
- Coulter, John Wesley and Chee Kwon Chun
- 1937 *Chinese Rice Farmers in Hawaii*, University of Hawaii'i, Honolulu.
- Creed, Victoria, Hallett H. Hammatt, Gerald K. Ida, Ian Masterson and John Winieski
- 1995 *A Summary of the Archaeological Monitoring for the Kapa'a Sewerline Project Waipouli and Kapa'a Ahupua'a, Puna District, Kaua'i (TMK: 4-3-09 and 4-5-03 to 11)*, Cultural Surveys Hawaii, Kailua, HI.

- Damon, Ethel M.  
1931 Koamalu, Privately printed at the Honolulu Star-Bulletin Press, Honolulu, (2 Volumes).
- Dega, Michael F. and James Powell  
2003 Archaeological Monitoring During Phase I of the Kaua'i Rural Fiber Optic Duct Lines Project, Kaua'i Island, Hawai'i. Scientific Consultant Services
- Dole, Charles S.  
1929 "The Hui Kawaihau" in Papers of the Hawaiian Historical Society, Number 16, Honolulu.
- Donohugh, Donald  
2001 *The Story of Koloa, A Kaua'i Plantation Town*, Mutual Publishing, Honolulu, HI.
- Elmore, Michelle and Joseph Kennedy  
2003 *An Archaeological Monitoring Report for the Proposed Kiihio Drainage Improvements Kapa'a and Anahola (Project # 56AC-01-01)* Located in Kawaihau District, Island of Kaua ACPI.
- Foote, Donald E., Elmer L. Hill, Sakuichi Nakamura, and Floyd Stephens  
1972 Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. Soil Conservation Service, U.S. Department of Agriculture.
- Fornander, Abraham  
1878-85 An Account of the Polynesian Race, Its Origin and Migrations and the Ancient History of the Hawaiian People to the Time of Kamehameha I, 3 vols., Trubner & Co., London.
- Fornander, Abraham  
1917-1918 Collection of Hawaiian Antiquities and Folklore, T.G. Thrum edit., Memoirs of the Bernice Pauahi Bishop Museum (Vol. IV & V), Bishop Museum Press, Honolulu.
- Fornander, Abraham  
1996 Ancient History of the Hawaiian People to the Times of Kamehameha I, with an Introduction by Glen Grant, Mutual Publishing, Honolulu, HI.
- Garden Island Newspaper  
1955 "Geologists Says Kapaa Coral Removal No Threat to Town". September 21, 1955.

- 1963 "Kapaa Blames Federal Role As Erosion Continues. Says Barrier on Reef is Required". October 30, 1963.
- 1983 "Centennial Year, Kapa'a School Wants Pix of its 100 Years". April 1, 1983.
- Giambelluca, Thomas W., Michael A. Nullet and Thomas A. Schroeder  
1986 *Rainfall Atlas of Hawaii*, Department of Land and Natural Resources, Honolulu, HI.
- Glick, Clarence E.  
1980 Sojourners and Settlers: Chinese Migrants in Hawaii. Hawaii Chinese History Center and The University Press of Hawaii, Honolulu.
- Hammatt, Hallett H.  
1981 Archaeological Reconnaissance of 52.56 Acres for a Proposed Subdivision, TMK:4-8(?) -13-1, Kapa'a, Puna, Kaua'i Island, ARCH Report 140298, Prepared for Waialeale Partners.
- 1986 Archaeological Reconnaissance of the Makaleha Springs Water Source Development, Kapa'a, Kaua'i TMK: 4-6-01:1, Cultural Surveys Hawaii, Kailua, HI.
- 1987 Letter Reports on Kapa'a Sewerline Project
- 1991a *Archaeological Subsurface Testing for the Proposed Kapa'a Sewer line, Wailua, Olohena, Waipouli and Kapa'a, Kaua'i*, Cultural Surveys Hawaii, Kailua, HI.
- 1991b *Archaeological Subsurface Testing for the Proposed Kapa'a Sewerline, Wailua, Olohena, Waipouli and Kapa'a, Kaua'i*, Cultural Surveys Hawaii, Kailua, O'ahu.
- Hammatt, Hallett H., Rodney Chiogioji, Gerald K. Ida, and Victoria S. Creed  
1997 An Archaeological Inventory Survey for the Kuhio Highway Widening and Bypass Options within the Ahupua'a of Wailua, South Olohena, North Olohena, Waipouli & Kapa'a, Island of Kaua'i, with Appendix on Paleontology by Jerome Ward, Ph.D., Cultural Surveys Hawaii, Kailua, HI.
- Hammatt, Hallett H., Gerald K. Ida, and Rodney Chiogioji  
1994 Archaeological Document Review and Assessment of Three Alternative Widening and Bypass Options for the Kuhio Highway Within the Ahupua'a of Hanamaulu, Wailua, South Olohena, North Olohena, Waipouli & Kapa'a, Lihu'e and Kawaihau Districts, Island of Kaua'i, Revised 1994, Cultural Surveys Hawaii, Kailua, HI.

- Hammatt, Hallett H., Gerald K. Ida and William H. Folk  
 1994 Archaeological Inventory of a 1.87-Acre Parcel, Kapa'a, Kaua'i (TMK 4-5-05:6), Rev. August 1994, Cultural Surveys Hawaii, Kailua, HI.
- Hammatt, Hallett H. and David W. Shideler  
 2004 Archaeological Assessment of Alternative Routes Proposed for the Lydgate to Kapa'a Bike and Pedestrian Pathway Project Within the Ahupua'a of Wailua, South Olohena, North Olohena, Waipouli and Kapa'a, Cultural Surveys Hawai'i, Kailua, HI.
- Hammatt, Hallett H., David W. Shideler and William H. Folk  
 2002 Archaeological Study in Support of Proposed Kuhio Highway Improvements (Kapa'a By-Pass) Hanama'ulu to Kapa'a Ahupua'a, Kaua'i, Cultural Surveys Hawai'i, Kailua, HI.
- Handy, E.S. Craighill  
 1940 The Hawaiian Planter, Volume 1, Bishop Museum, Bulletin No. 161., Honolulu, HI.
- Handy, E.S. Craighill, and Elizabeth G. Handy  
 1972 Native Planters in Old Hawaii, Bishop Museum Press, Honolulu, HI.
- Hawaii State Archives  
 1837 Interior Department, Land, Incoming Letter. August 1837.
- 1882 Interior Department, Letter book, Vol. 20, p. 426, Letter from Spalding to the Honorable Jacob Hardy, Circuit Judge—Fourth Circuit Kauai
- Hawaii Territorial Planning Board  
 1940 Master Plan of the Town of Kapa'a, In collaboration with the Kaua'i County Board of Supervisors, Publication No. 8. Advertiser Publishing Co., Honolulu, HI.
- Honolulu Advertiser  
 1997 "Amfac to put more land up for sale: Tracts on Kaua'i, Big Island" by Mike Gordon. July 7, 1997. Section B1.
- 1960 "Kaua'i Tries to See into Future. March 20, 1960.
- Jarves, James Jackson  
 1844 Scenes and Scenery in the Sandwich Islands and a Trip through Central America 1837-42, J. Munroe and Co., Boston.

- Joesting, Edward  
 1984 Kaua'i, The Separate Kingdom, University of Hawaii Press and Kaua'i Museum Association, Ltd., Honolulu
- Jourdane, Elaine  
 1995 Inadvertent Discovery of Human Remains at 1382-A Inia Street, Kapa'a, Kaua'i (Kapa'a Sewerline Project Laterals) Site 626, SHPD, Honolulu, HI..
- Kalākaua, David  
 1888 The Legends and Myths of Hawaii, Charles L. Webster, (Reprint of three volumes published in 1877-85), New York.
- Kamakau, Samuel Manaiakalani  
 1961 Ruling Chiefs of Hawaii, The Kamehameha Schools Press, Honolulu, HI.
- Kamakau, Samuel Manaiakalani  
 1976 The Works of the People of Old, Bishop Museum Special Publication, No. 61, Honolulu.
- Kapa`a Elementary School  
 1933 Kapaa Elementary School, Kula O Kapa'a, 1883-1933, Published by the school on its fiftieth anniversary, Kapa'a, Kaua'i .
- 1983 Kapa'a School 1883 1983: A "Century of Knowledge". Kapa'a Elementary, Kapa'a, Kaua'i .
- Kawachi, Carol T.  
 1994 Inadvertent Burial at 1316 Inia Street (Jasper) TMK 4-5-08:33, Kapa'a, Kawaihau, Kauai 50-30-08-871, State Historic Preservation Division, Honolulu, HI.
- Keaweamahi, D.  
 1876 "Huakai makaikai ia Kauai." Ka Lahui Hawai'i, 10 & 17 August 1876. "Tour of Kauai." English Translation by M.K. Pukui. BMA: HEN Thrum #227.
- Kikuchi, William K. and Susan Remoaldo  
 1992 Cemeteries of Kaua'i, Vol. 1, Kaua'i Community College and University of Hawai'i, Puih, Kaua'i .
- King, Robert D.  
 1935 "Districts in the Hawaiian Islands" In Coulter, John Wesley (compiler) A Gazetteer of the Territory of Hawaii, University of Hawaii Research Publications, No. 11, University of Hawaii, Honolulu, HI.
- King, Robert D., compiler  
 1942 Real Property, Appraisers Manual, Honolulu, HI.

Klass, Tim

- 1970 World War II on Kauai: Historical Research, Prepared for the Kauai Historical Society by The Westland Foundation, Portland, Oregon.

KRD (Kaua'i Renovation and Development - Kaipo Akana)

- 1994 Archaeological Monitoring of the Rock Wall Revetment for Burial Site - 746

Lai, Violet L. assisted by Kum Pui Lai

- 1985 He Was a Ram, Wong Aloiau of Hawaii, Published for the Hawaii Chinese History Center and the Wong Aloiau Association by University Press of Hawai'i, Honolulu.

Lydgate, J.M.

- 1917 Kaumuali'i, The Last King of Kaua'i, Hawaiian Historical Society, Annual Report No. 24, Honolulu.

Lydgate, John M.

- 1916 "The Pictured Rocks", The Garden Island, 22 February: 5.

MacDonald, G.A. and Abbott, A.T.

- 1970 Volcanoes in the Sea. University of Hawaii Press, Honolulu.

McMahon, Nancy A.

- 1996 Archaeological Inventory Survey for 5 Unit Apartment, TMK: 4-5-05:8, Kapa'a, Kawaihau, Kaua'i, Exploration Associates, Ltd., Koloa, Kauai, HI.
- 1994 Inadvertent Burial Find, Kapa 'a, Kawaihau, Kaua 'i, SHPD, Honolulu, HI
- 1993a Inadvertent Burial Discovery and Disinterment, Site 50-30-09-6011, State Preservation Division, DLNR, Honolulu, HI.
- 1992a Field Inspection Report for Site 50-30-04-1880, on file at State Historic Preservation Division.
- 1992b Field Inspection Report for Site 50-30-04-1881, on file at State Historic Preservation Division.
- 2012 An Archaeological Assessment for the Kapaa Highlands Phase II, TMK: (4) 4-3-03:01, Exploration Associates Ltd, Lihue, Kauai

Mitchell, Auli'i and Hallett Hammatt

- 2004 A Cultural Impact Assessment For A Proposed Water Reservoir, Kapa'a Ahupua'a, Kawaihau District, Kaua'i, TMKS 4-6-11.; 4-6-8:24, 4-6-03: 30, Cultural Surveys Hawaii, Kailua HI

Malo, David

- 1951 Hawaiian Antiquities, Bishop Museum Press: Honolulu.

Nakuina, Moses K.

- 1990 The Wind Gourd of La'amaomao, Translated by Esther T. Mookini and Sarah Nakoa, Kalamaku Press, Honolulu.

Office of the Commissioner of Public Lands

- 1929 Indices of Awards, Made by the Board of Commissioners to Quiet Land Title in the Hawaiian Islands.

Pacific Planning & Engineering, Inc.

- 1992 Environmental Assessment and Environmental Impact Statement Preparation Notice Kuhio Highway, Hanamaulu to Kapaa Project Number 56A-07-90, Kapa'a, Kaua'i, Hawai'i, For U.S. Department of Transportation Federal Highways Administration and State of Hawai'i, Department of Transportation Highways Division.

Perzinski, Mary and Hallett H. Hammatt

- 2001 A Summary of Archaeological Monitoring for the Kuhio Highway, Waikaea Bridge Widening Project Kapa'a Ahupua'a, Kawaihau District, Kaua'i Island (TMK: 4-3-06 to 4-3-08), Cultural Surveys Hawaii, Kailua, HI.

Porteus, Stanley B.

- 1962 A Century of Social Thinking in Hawaii, Pacific Books Publication, Palo Alto, CA.

Pukui, Mary Kawena

- 1983 Olelo No'ea: Hawaiian Proverbs and Poetical Sayings, Bishop Museum Special Publication No.71, Bishop Museum Press, Honolulu.
- 1986 Hawaiian Dictionary, 2<sup>nd</sup> Edition, University of Hawaii Press, Honolulu, HI.

Pukui, Mary K., Samuel H. Elbert and Esther Mookini

- 1974 Place Names of Hawai'i, University of Hawai'i Press, Honolulu.

Rice, William Hyde

- 1923 Hawaiian Legends, Bernice P. Bishop Museum Bulletin 3, Honolulu..

Spear, Robert L.

- 1992c Letter Report Concerning Monitoring for the Cost-U-Less Project Kapa'a, Kaua'i, Hawai'i (TMK: 4-5-5:4&9), Scientific Consultant Services Inc.

Territorial Planning Board, Territory of Hawaii in collaboration with the County Board of Supervisors, County of Kaua'i

- 1910 Master Plan of the Town of Kapaa, County of Kauai, Hawaii, Publication No. 8, Advertiser Publishing Co., Ltd., Honolulu.

Thrum, Thomas G.

- 1906 "Heiaus and Heiau Sites Throughout the Hawaiian Islands, Kauai, in: Hawaiian Almanac and Annual 1907, pp. 36-48, Honolulu, HI.
- 1923 More Hawaiian Folk Tales, A.C. McClurg & Co., Chicago.
- 1998 Hawaiian Folk Tales: A Collection of Native Legends, Mutual Publishing, Honolulu.

Vancouver, George

- 1798 A Voyage of Discovery to the North Pacific Ocean and Round the World Performed in the Years 1790-95, 6 vols., John Stockdale, London.

Van Ryzin, Karl and Hallett H. Hammatt

- 2004 An Archaeological Assessment For The Proposed Water Reservoir, Kapa 'aAhupua 'a, Kaua 'i TMK 4-6-03:10 Cultural Surveys Hawai'i, Kailua, HI.

Wichman, Frederick B.

- 1998 Kaua'i Ancient Place Names and Their Stories. University of Hawaii Press: Honolulu.
- 1985 Kauai Tales, Bamboo Ridge Press, Honolulu, HI

Wilkes, Charles

- 1845? Narrative of the United States Exploring Expedition, During the Years 1838, 1839, 1840, 1841, 1842, 5 Vols. Lea and Blanchard, Philadelphia, Pa.

## APPENDIX

### Letters from Informants

DEC 4 2012 4:37PM

13 4618 3 171

I worked for Lihua Plantation from 1965-1984 in various jobs I worked in Kapaa 20, approximately 80-100 acres, of which TMK (4) 4-3-03-1 is a portion of this field. My father and uncles, also, worked in these fields in the 1930s-1970s. I worked in Kapaa 20 any other year as a bulldozer driver pushing cane as a crane operator and with the Plow department plowing this field. At no time did we ever see or hear of anyone finding any human remains or gravesites in this field. If you have questions or require additional information, please call me at 651-8978.

Stanley Vaquer  
 1757 Hula Rd  
 Kapaa HI 96746

December 30, 2011

To Whom It May Concern,

I Willie Sanchez was the first person to work in the area of TMK (4) 4-3-03-1 after Amfac Sugar sold the property. I started mowing the property in about 1999. The agricultural water system was abandoned and the interior ditches have become almost flat from non-use. I have never seen any historical or cultural items on this property. I mowed the property for about 5 years. The property is now overgrown with guinea grass and hale koa.

*Willie Sanchez*  
 Willie Sanchez



**Exhibit N**

**Comment Letters, Scoping Letters and Letters of Support**

**Bernard P. Carvalho, Jr.**  
Mayor

**Gary K. Heu**  
Managing Director



**DEPARTMENT OF PUBLIC WORKS**  
**County of Kauai, State of Hawaii**  
4444 Rice Street, Suite 275, Lihue, Hawaii 96766  
TEL (808) 241-4992 FAX (808) 241-6604

**Larry Dill, P.E.**  
County Engineer

**Lyle Tabata**  
Deputy County Engineer

January 4, 2012

Vladmir P. Devens, Chairperson  
Land Use Commission  
Department of Business, Economic Development, and Tourism  
State of Hawaii  
P.O. Box 2359  
Honolulu, Hawaii 96804-2359

**Subject:** Petition to amend the Land Use Boundary of certain lands situated at Kapa'a, Island of Kauai, State of Hawaii, consisting of 97 acres from the Agriculture and Rural District, to the Urban District, Tax Map Key No. (4) 4-3-003:001, Kapa'a Highlands, Three Stooges, LLC

Dear Chairperson Devens:

This letter is to inform you of the County of Kauai, Department of Public Work's (County) general support of the Kapa'a Highlands petition to amend 97 acres in Kapa'a to the Urban District. The proposed amendment is for the development of 231 affordable housing units. The County is generally supportive of petitions that will provide affordable housing units in a manner consistent with the Kauai County General Plan.

We have met with the Petitioners, Three Stooges LLC, and we will work with them to ensure that any impacts from the project are analyzed and effectively mitigated.

Please call me at (808) 241-4996 if you have any questions.

Very truly yours,

Larry Dill, P.E.  
County Engineer

cc: Greg Allen  
Mayor Carvalho

*An Equal Opportunity Employer*

December 30, 2011

I worked for Lihue Plantation from 1963-1984 in various jobs I worked in Kapaa 20, approximately 80-100 acres, of which TMK (4) 4-3-03-1 is a portion of this field. My father and uncles, also, worked in these fields in the 1930's-1970's I worked in Kapaa 20 every other year as a bulldozer driver pushing cane as a crane operator and with the Plow Department plowing this field AT NO TIME did we ever see or hear of anyone finding any human remains or gravesites in this field If you have questions or require additional information, please call me at 651-8978

To Whom It May Concern,

I Willie Sanchez was the first person to work in the area of TMK (4) 4-3-03-1 after Amfac Sugar sold the property. I started mowing the property in about 1999. The agricultural water system was abandoned and the interior ditches have become almost flat from non-use. I have never seen any historical or cultural items on this property. I mowed the property for about 5 years. The property is now overgrown with guinea grass and hale koa.

Willie Sanchez

Stanley Vasquez  
1737 Haina Rd  
Kapaa HI 96746

NEIL ABERCROMBIE  
GOVERNOR



KATHRYN S. MATAYOSHI  
SUPERINTENDENT

STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
OFFICE OF THE COMPLEX AREA SUPERINTENDENT  
KAUAI SCHOOLS  
3060 Ewa Street, Room 305  
Lihue, Hawaii 96768

October 28, 2011

Mr. Greg Allen  
Kapaa Highlands Phase II Project  
Harbor Mall

Dear Mr. Allen:

This is a letter of support for the relocation of the County of Kauai, Kapaa Swimming Pool to the subdivision area of the Kapaa Highlands Phase II Project.

The project will provide an opportunity to have a recreational facility in an area away from the tsunami inundation zone due to the current location. The relocation of the Kapaa Swimming Pool will provide accessibility to swimming and recreational activities for the general population in the Kapaa area.

The proposed new location of the pool will be in close proximity to Kapaa Middle School for students, teachers and staff usage for educational purposes such as physical education, sports events, and water safety training.

The Kauai Complex Area supports your effort to relocate the pool. It will serve as an added resource to reach our educational and healthy Hawaii initiatives for our students in the Kapaa complex school area.

We look forward to reviewing your environmental studies to better understand the full impact of your proposed Kapaa Highlands Phase II Project.

Please feel free to call me at 274-3502 should you have any questions.

Aloha,

William N. Arakaki  
Kauai Complex Area Superintendent

cc: Mayor Bernard P. Carvalho, Jr.



P. O. Box 81 - Lihue, HI 96766  
phone 808.822.9447 ; fax 808.822.3075  
www.KauaiPath.org  
Pres@KauaiPath.org

registered 501(c)(3)

October 17, 2011

Commissioner Normand R. Lezy, Chairperson  
Land Use Commission  
Department of Business, Economic Development, and Tourism  
State of Hawaii  
PO Box 2359  
Honolulu, HI. 96804-2359

**RE: Petition to amend the Land Use Boundary of certain lands situated at Kapa'a, Island of Kaua'i, State of Hawaii, consisting of 97 acres from the Agriculture and Rural District to the Urban District, Tax Map Key No. (4)4-3-03:001. Kapa'a Highlands, Three Stooges, LLC**

Dear Commissioner Lezy,

Thank you for the opportunity for the Kauai Path, Inc. Board of Directors to offer our support for Kapa'a Highlands subdivision.

This proposed development as described to us by the developer appears to be consistent with smart, responsible growth. The planned development has the potential to serve the best interests of our communities. Preliminary plans we have been shown integrate community parks, green spaces, residential housing, and commercial areas. These elements promote a healthy and livable community.

Accordingly, it is our recommendation that if the Commission approves the applicants' request to change the property's zoning, such an approval should include conditions requiring the project to incorporate active transportation facilities. We recommend that these accommodations be designed with all users in mind. Such facilities should be described in a well-conceived circulation plan with provisions for safe bicycling and access to public transportation serving riders and pedestrians of all ages and abilities in compliance with Americans with Disabilities Act ("ADA") guidelines. The final plan

Kauai residents working together to preserve, protect, and extend access island-wide through the design, implementation, and stewardship of non-vehicular paths.

should include appropriate traffic calming features like roundabouts, back-in diagonal parking, sidewalks, bike lanes and/or multi-use paths, public transportation stop(s), safe crossing opportunities, and median islands. These concepts encompass a Complete Streets approach to urban development.

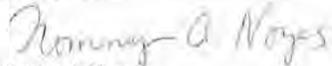
As a feature conducive to smart growth and urban in-fill projects, we further recommend the inclusion of a modest community center providing sundries, sanitary facilities, and preferably some type of commercial food service for neighbors, visitors to the public swimming pool, the project's residents, and the nearby Kapa'a Middle School campus.

Creating attractive multimodal transportation connections—not only within the project, but most importantly to the surrounding multimodal infrastructure as well—will help create a community where families can live, work, and play with less dependence on automobiles and enhanced opportunities for improved health.

Respectfully,



Sally Jo Manea, President Board of Directors,  
Kauai Path Inc.



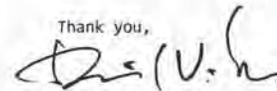
Tommy A Noyes  
Member of Board of Directors  
Kauai Path Inc.

Dear Land Use Commission,

10/14/11

This letter is to show my support for the Kapa'a Highlands subdivision. It has been many years since the Kapa'a Ahupua'a has had a new planned subdivision. Planned communities are superior to random growth because they integrate community parks, green spaces, commercial areas and housing in an organized, smart layout that benefits everyone. The Kapa'a Highlands subdivision will be a planned community. It promises a healthy and livable community that will provide some work force housing which is sorely needed. I ask that you give the Three Stooges LLC and Kapa'a Highlands your approval.

Thank you,



David Vickers

Island Truss

October 14, 2011

Land Use Commission  
Department of Business, Economic Development, and Tourism  
State of Hawai'i  
P.O. Box 2359  
Honolulu Hawai'i 96804-2359

Re: Petition to amend the Land Use Boundary of certain lands situated at Kapa'a, Island of Kaua'i, State of Hawai'i, consisting of 97 acres from the Agriculture and Rural District to the Urban District, Tax Map Key No. (4)4-3-03:001. Kapa'a Highlands, Three Stooges, LLC.

Dear Land Use Commissioners,

I am writing in support of the Kapaa Highlands project. As a person who has a degree in Urban Planning I believe this project has many of the features of a true smart growth community and will be a welcomed and vital addition to the Kapaa community. The project is close to town center making it a walkable community. It is also near a public transportation site. The plans are also asking for some limited mixed use within the community which could provide shopping and jobs within walking distance for residents. The project will allow the middle school to in effect expand into the park area and provide them with use of a pool (a needed addition since the nearby Kapaa pool is in need of repair.

The community will have a good density with single family homes duplexes and apartments. The plan is to make this community affordable for the average person which is most needed. The so called "gap housing" is often neglected on Kauai. They are incorporating parks and green space and the community is across the street from the Kapaa Park which will be a great addition for the kids of the community. The community will be walkable and bike able and they are looking to extend a spoke of the eastside bike path to the community. All streets are planned to be complete and therefore safe for all modes of transportation. The developers will be dedicating the bypass road to the state which is necessary for the development of Kapaa. The current circle at the bypass is a very safe feature for pedestrians and bicycles.

There are so many good and thoughtful smart growth considerations in this community that it should be approved and built. In addition this is one of the best uses for this land that is so near to central Kapaa.

Thank you for your consideration of this project, which I feel should be approved overwhelming.

Sincerely,

Neil J Clendeninn, MD, PhD, MS-arch  
PO Box 1005, Hanalei, HI 96714  
[cybermad@msn.com](mailto:cybermad@msn.com)  
808-294-0660

KURT R. BOSSHARD

ATTORNEY AT LAW  
3144 ELUA STREET  
LIHUE, HAWAII 96766  
TELEPHONE 808-245-5302  
FAX 808-245-0929

October 6, 2011

Re: TMK 4-3-03-001

To Whom It May Concern:

I am the President of Kapaa Solar LLC. In 2010, Kapaa Solar LLC entered into with its owners who are the applicants herein, a lease/purchase and option to purchase portions of TMK 4-3-03-001. Construction of Kapaa Solar LLC's approximately 1.2 megawatt facility which will feed the Kauai Island Utility Cooperative's grid was successfully completed in December 2010. Construction was completed without placing any encumbrances upon the real property. And, in fact should the owner/applicant successfully complete the subdivision of the property, Kapaa Solar hopes to purchase several of the agriculturally zoned condominium units where the solar farm is located. The Kurt Bosshard Trust, of which I am the Trustee, has been the first mortgage holder as to the property since 2001.

I presently engage in other agricultural pursuits on approximately 30 additional acres of this property. Presently, the property is used for pasturage but my intention is to engage in more intensive farming activities should I be able to obtain subdivided lots/units where I am now farming. These activities would include aquaculture and fish farming, as I own an adjacent kuleana which has access to water. In these regards, I have had the Kauai Community College Chancellor and faculty members at the site who have shown interest in working with me to move such a project forward. KCC has a "sustainability" curriculum and it would like to place its graduates into such projects.

I have been a resident of Kauai's east side since 1976 and believe I have significant knowledge of this property, development in this area, and the communities' needs and concerns. Kapaa Solar LLC and the Bosshard Trust believe that the development of the property as proposed by the owners is in the communities' best interests as outlined in the application presently pending your approval. It is unfortunate that this land was not available in the year 2000 and thereafter when growth in the Kapaa area was forced to spread out away from the Kapaa urban area. It would be a shame should the same pressures for growth again emerge and the land not be available for reasonable urban expansion to meet the needs of Kauai's east and north sides. Timely approval of the

To Whom It May Concern  
October 6, 2011

owners' application would be a significant step towards proper planning for the area and the communities' benefit.

I am available to respond to any questions you may have as to any of the foregoing and appreciate your attention to these matters.

Sincerely,  


KURT BOSSHARD  
President, Kapaa Solar LLC  
Trustee, Kurt Bosshard Trust

KB:tes

COUNTY COUNCIL  
JAY FURFARO, CHAIR  
JOANN A. YUKIMURA, VICE CHAIR  
TIM BYNUM  
DICKIE CHANG  
KIPUKAI KUALI'I  
NADINE K. NAKAMURA  
MEL RAPOZO



4396 RICE STREET, SUITE 209  
LIHU'E, KAUAI, HAWAII 96766  
E-mail: cokcouncil@kauai.gov

October 5, 2011

Records

OFFICE OF THE COUNTY CLERK  
Council Services Division  
Elections Division

PETER A. NAKAMURA, County Clerk  
EDUARDO TOPENIO, JR., Deputy County Clerk

Telephone: (808) 241-4188  
Facsimile: (808) 241-6349

Normand R. Lezy, Chairperson  
Land Use Commission  
State of Hawaii  
Department of Business, Economic Development, and Tourism  
P.O. Box 2359  
Honolulu, Hawaii 96804-2359

Dear Chairperson Lezy:

**RE: Petition To Amend The Land Use Boundary Of Certain Lands Situated At Kapa'a. Island of Kaua'i, State of Hawai'i, Consisting Of 97 Acres From The Agriculture And Rural District To The Urban District, Tax Map Key No. (4)4-3-03:001. Kapa'a Highlands, Three Stooges, LLC.**

Thank you for the opportunity to offer my support in my individual capacity as a member of the Kaua'i County Council for the amendment of 97 acres in the Urban State Land Use District.

I have been assured that the Petitioners, Three Stooges, LLC, continues to work directly with various County departments in order to follow all County ordinance requirements.

The proposed amendment is expected to provide 231 affordable housing units, both single family and multi-family types of structures.

The Petitioners are dedicated to creating a multi-use development that serves the best interest of its surrounding community and is consistent with smart, responsible growth.

Thank you for allowing me this opportunity to provide my support as an individual member of the Kaua'i County Council.

U:2011 memos & letters/CMBynumSupportLTRtoLUCChairperson/TT:mpw

AN EQUAL OPPORTUNITY EMPLOYER

Test leg

Norman R. Lezy, Chairperson  
October 5, 2011  
Page 2

Should you have any questions, please feel free to contact me at (808) 241-4188.

Sincerely,



TIM BYNUM  
Councilmember  
Kaua'i County Council

10/04/2011 12:14 FAX 8082464847

P Childs Atty at Law

001

NEIL ABERCROMBIE  
GOVERNOR OF HAWAII



GARY L. HOOSER  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
235 SOUTH BERETANIA STREET, SUITE 702  
HONOLULU, HAWAII 96813

In reply, please refer to  
File

October 3, 2011

Patrick J. Childs  
Suite 104  
4365 Kukul Grove Street  
Lihue, Hawaii 96766

Dear Mr. Childs:

**Subject: Kapaa Highlands Phase II, Petition for District Boundary Amendment, TMK: 4-4-02-01 por. Kauai**

Am in receipt of your letter requesting the Office of Environmental Quality Control (OEQC) to "...confirm through your office that there is no specific requirement for an EA at this time."

Based on the information presented in your letter, it appears that this action involves an application before the Land Use Commission requesting the redistricting of 97 acres of agricultural land into urban. In this case, the determination as to whether or not this application triggers HRS Chapter 343 would be made by the LUC. It is my understanding that changing the land use designation as described does not by itself trigger HRS Chapter 343, however depending on the extent and nature of the planned development, a permitting agency may determine otherwise. Furthermore, depending on the developments ultimate impact on adjacent State highways, the Department of Transportation should also be consulted. I would be pleased to meet and discuss this project or any issues of concern or questions that you might have, should you believe that would be helpful.

*NOTE: The OEQC is not authorized to determine or enforce compliance with HRS Chapter 343, nor does it have legal authority to approve or disapprove exemptions, EA's or EIS documents. The OEQC policy on such requests is to consult and offer general guidance based on our understanding of HRS Chapter 343 and past practice with regards to its implementation, but to refrain from issuing specific opinions on specific projects, except that the OEQC may make a recommendation as to the acceptability of a final statement upon request. Not only does the OEQC not have the legal authority to direct compliance or make determinations, the office also lacks the resources to effectively analyze specific projects, conduct site visits and in general conduct the due diligence needed to properly evaluate a projects impacts and potential Chapter 343 compliance issues. The responsibility for such analysis and determinations rests solely on the permitting and approving or accepting agency.*

Sincerely,



Gary Hooser, Director  
Office of Environmental Quality Control

Bernard P. Carvalho, Jr.  
Mayor



Michael A. Dahilig  
Interim Director of Planning

Gary K. Heu  
Managing Director

**PLANNING DEPARTMENT**  
County of Kaua'i, State of Hawai'i  
4444 Rice Street, Suite A-473, Lihue, Hawai'i 96766  
TEL (808) 241-4050 FAX (808) 241-6699

Dee M. Crowell  
Deputy Director of Planning

August 31, 2011

Max W. J. Graham, Jr.  
BELLES GRAHAM PROUDFOOT WILSON & CHUN, LLP.  
Watumull Plaza  
4334 Rice Street, Suite 202  
Lihue, Hawai'i 96766-1388



Subject: KAPA'A HIGHLANDS SUBDIVISION – Subdivision of Parcel 1, Being a Portion of Grant 5266 to Rufus P. Spalding Into Lots 1 to 13, Inclusive, Kapa'a and Waipōuli, Kaua'i, Hawai'i. (S-99-45, Allen Family LLC/Moloa'a Bay Ventures, LLC/Three Stooges, LLC)

An extension until **AUGUST 31, 2012** to file final subdivision maps has been approved by the Planning Commission at their meeting held on August 30, 2011. The Applicant shall submit an updated status report on the subdivision that includes a detailed time chronology on the progress of the tentative approval requirements and it shall be submitted to the Planning Department no later than six (6) months from that date of the extension approval.

MICHAEL A. DAHILIG  
Interim Director of Planning

xc: CoK – Public Works Dept.  
CoK – Water Dept.  
CoK – Real Property Div. – Assessment  
State Health Dept.

*An Equal Opportunity Employer*



*Water has no substitute.....Conserve it*

August 22, 2011

Mr. Gregg Allen  
161 Wailua Road  
Kapaa, HI 96746

Dear Mr. Allen:

Subject: Water Master Plan for the Kapa'a Highlands Project on TMK: 4-3-03:001

At the Department of Water, Water Board July 28<sup>th</sup> 2011 meeting, via Managers Report 12-10, in response to your letters of April 22, 2011 and May 11, 2011, accepted the proposed exchange of source for storage on a dollar for dollar basis. This acceptance is based on your commitment to proceed with zoning changes in your development to match the county zoning. That zoning change requires affordable housing in certain portions of your proposed development.

This acceptance is based on building permits and County water meter service not being issued if the source and storage requirements have not been completed as of the date of requested building permit approval. We ask that you submit a proposed draft of an agreement to memorialize this action. We would expect that this agreement runs with the land.

If you have any questions, please contact Mr. Gregg Fujikawa at (808) 245-5416.

Sincerely,

David R. Craddick, P.E.  
Manager and Chief Engineer

GF/WE:bdm  
Bill/Gregg Allen Response Letter/July Board Mtg.

**Bernard P. Carvalho, Jr.**  
Mayor



**Gary K. Heu**  
Managing Director

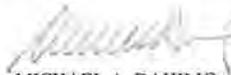
**PLANNING DEPARTMENT**  
**County of Kaua'i, State of Hawai'i**  
4444 Rice Street, Suite A-473, Lihu'e, Hawai'i 96766  
TEL (808) 241-4050 FAX (808) 241-6699

**Michael A. Dahilig**  
Director of Planning

**Dee M. Crowell**  
Deputy Director of Planning

Also, please be advised that recent court decisions and legislation have had an impact on HRS Ch. 343 triggers. You may want to consult other state and county agencies that deal with land development to discuss any change in their particular requirements.

If you have any questions, please feel free to call me, or Deputy Director Dee Crowell at (808)241-4050, or email [dcrowell@kauai.gov](mailto:dcrowell@kauai.gov).



**MICHAEL A. DAHILIG**  
Planning Director

4 March 2011

Agor Architecture, LLC  
424 Ena Road, Suite 206A  
Honolulu, HI 96815

Re: **Kapa'a Highlands Phase II**  
Petition for District Boundary Amendment  
TMK: 4-4-03: 01 Por.

Dear Mr. Agor:

Mahalo, for providing information to us on your proposed project. In reviewing your Draft EA and Petition, we note that you propose to apply to the State Land Use Commission to redesignate approximately 97 acres of land, from the Agriculture State Land Use District to the Urban State Land Use District. The proposed area is located adjacent to, and south and east of the existing Kapa'a Middle School.

The area is located in the Agriculture Zoning District. From a map and text review of the 2000 General Plan, we note that the area was redesignated from Agricultural to Urban Center and Residential Community. It appears that the 97 acres is located totally within the General Plan Urban Center area. Because of the conceptual nature of your submittal, we cannot locate the exact area of your project on our General Plan Map. However, General Plan designations do allow for some flexibility in interpretation and we may be able to make minor adjustments. Be aware that the Land Use Commission will require a metes and bounds description of the area you propose to redesignate.

Therefore, because your proposed project appears to be in conformance with the General Plan of the County of Kaua'i, and HRS Ch. 343 is not triggered by any requirements of the Planning Department. We have no comments to offer on the particulars of your project at this time.

*An Equal Opportunity Employer*

Bernard P. Carvalho, Jr.  
Mayor



Gary K. Heu  
Managing Director

OFFICE OF THE MAYOR  
County of Kaua'i, State of Hawai'i  
4444 Rice Street, Suite 235, Lihue, Hawai'i 96766  
TEL (808) 241-4900 FAX (808) 241-6877

March 1, 2011

Mr. Greg Allen  
161 Wailua Road  
Kapa'a, Hawai'i 96746

Dear Greg:

Allow me to extend my deepest Mahalo and congratulations for the recent dedication of the Kapa'a solar project. This is such a huge accomplishment and will benefit Kaua'i for many years to come. I know you played a significant role in its development and hope that you know we are very grateful for your efforts.

I'm also hopeful your plans for additional housing for Kapa'a will move forward expeditiously, as this project could also provide many benefits such as affordable housing and community facility assets – especially for the nearby schools.

Best wishes, Greg, for continued success and Mahalo again for your contribution to Kaua'i's renewable energy future!

Sincerely,

A handwritten signature in black ink, appearing to read "Bernard P. Carvalho, Jr.", written over a horizontal line.

Bernard P. Carvalho, Jr.  
Mayor

*An Equal Opportunity Employer*

Bernard P. Carvalho, Jr.  
Mayor



Gary K. Heu  
Managing Director

OFFICE OF THE MAYOR  
County of Kaua'i, State of Hawai'i  
4444 Rice Street, Suite 235, Lihue, Hawai'i 96766  
TEL (808) 241-4900 FAX (808) 241-6877

December 9, 2010

Vladimir P. Devens, Chairperson  
Land Use Commission  
Department of Business, Economic Development, and Tourism  
State of Hawai'i  
P.O. Box 2359  
Honolulu, Hawai'i 96804-2359

Re: Petition to amend the Land Use Boundary of certain lands situated at Kapa'a, Island of Kaua'i, State of Hawai'i, consisting of 97 acres from the Agriculture and Rural District to the Urban District, Tax Map Key No. (4) 4-3-03: 001. Kapa'a Highlands, Three Stooges, LLC.

Dear Chairperson Devens:

Thank you for the opportunity to offer my support for the amendment of 97 acres in the Urban State Land Use District.

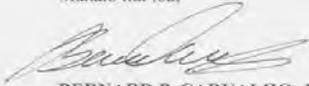
The Petitioners, Three Stooges, LLC, have continued to work directly with various County departments to ensure this development project follows all County ordinance requirements and mitigates any adverse impacts during construction.

The proposed amendment will provide 231 affordable housing units in a manner consistent with the County of Kaua'i's General Plan. The development will provide single and multi-family housing as well as various public facilities to support its close proximity to Kapa'a Middle School and the urban areas of Kapa'a town.

Furthermore, Petitioners are dedicated to creating a multi-use development that serves the best interest of its surrounding community. This is consistent with the smart, responsible growth that I envision for the island of Kaua'i, to create communities where families can live, work and play.

For these aforementioned reasons, I support the petition to amend the land of 97 acres to the Urban District.

Mahalo nui loa,



**BERNARD P. CARVALHO, JR.**  
Mayor, County of Kauai

LINDA LINGLE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
KAPAA DISTRICT  
1420 KALEI DRUMMOND STREET  
KAPAA, HAWAII 96761

MICHAEL D. FORMBY  
INTERIM DIRECTOR

Deputy Directors  
FRANCIS PAUL KEENO  
JERO A. SUMARA

IN REPLY REFER TO

HWY-K 4.100528

November 3, 2010

Vladimir P. Devens, Chairperson  
Land Use Commission  
Department of Business, Economic Development, and Tourism  
State of Hawaii  
P.O. Box 2359  
Honolulu, Hawaii 96804-2359

Dear Chairperson Devens:

Subject: Petition to amend the Land Use Boundary of certain lands situated at Kapaa, Island of Kauai, State of Hawaii, consisting of 97 acres from the Agriculture and Rural District, to the Urban District, Tax Map Key No. (4) 4-3-03: 001  
Kapaa Highlands  
Three Stooges, LLC

We are writing in general support of the Kapaa Highlands petition to amend 97 acres in Kapaa to the Urban District. The proposed amendment is for the development of 231 affordable housing units. The Department of Transportation is generally supportive of petitions that will provide affordable housing units in a manner consistent with the Kauai County General Plan.

We have met with the Petitioners, Three Stooges LLC, and we will work with them to ensure that any traffic impacts from the project are analyzed and effectively mitigated

If you have any questions, please call me at 241-3006.

Sincerely,



**RAYMOND J. MC CORMICK, P.E.**  
District Engineer

SMI:JI  
cc: Ron Agor

LINDA LINGLE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

June 28, 2010

LOG NO: 2010.2441  
DOC NO: 1006MV50

LAURA H. THELEN  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI  
FIRST DEPUTY

KEN C. KAWAHARA  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONSERVATION  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
BUREAU  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

Bernard P. Carvalho, Jr.  
Mayor

Gary K. Heu  
Administrative Assistant

March 2, 2010

Mr. Greg Allen  
161 Wailua Road  
Kapa'a, HI 96746



KAUAI COUNTY HOUSING AGENCY  
Pi'ikoi Building 4444 Rice Street Suite 330  
Lihue Hawaii 96766

Eugene K. Jimenez  
Housing Director

COPY

Greg Allen, Kapaa Highlands Inc.  
161 Wailua Road  
Kapaa, HI 96746

**SUBJECT: Historic Preservation Review-  
Consultation Letter on TMK [4]-4-3-003:001, Kapa'a Kauai**

Thank you for the opportunity to provide a current determination letter on the property with TMK# [4]-4-3-003:001. According to our records, there has not been an Archaeological Inventory Survey (AIS) of this property. In addition, Archaeological Inventory Surveys of nearby properties (TMK [4]-4-3-003:004 and TMK [4]-4-3-003:005) recorded multiple historic properties (SHPD Log No. 2008.1916). However, aerial photos indicate that this property was previously cultivated with sugar cane, which may have destructive implications for pre and post-contact Native Hawaiian sites within the project area. However, current aerial photos indicate the presence of potentially historic irrigation features as well as terrain that may not have been subject to intensive cultivation.

The historic preservation requirements for any proposed action within this project area would vary depending on the extent of the action's impact on the parcel. If the action were to take place on previously cultivated land the only historic preservation requirement would be to document the irrigation features. However, if the action takes place in a part of the property that was not cultivated an Archaeological Inventory of that area may be required. It would be highly beneficial for all proposed actions to have an Archeological Inventory Survey for the entire property in order to document the presence or absence of historic sites in this parcel.

Please call Mike Vitousek at (808) 692-8024 if you have any questions or concerns regarding this letter.

Aloha,

Nancy McMahon, Deputy SHPO/State Archaeologist  
and Historic Preservation Manager

**SUBJECT:** In the Matter of the Petition of KAPA'A HIGHLANDS, THREE STOOGES, LLC, to Amend the Land Use District Boundary of Certain Lands Situated at Kapa'a, Island of Kaua'i, State of Hawai'i, Consisting of 97 Acres from the Agriculture and Rural District, To the Urban District, TAX MAP KEY NO. (4) 4-3-03: 01 (por.)

Dear Mr. Allen,

Thank you for the opportunity to review your preliminary Petition for District Boundary Amendment of 97 acres into the Urban State Land Use District. We are aware that a portion of TMK (4) 4-3-03:01 has been designated Urban Center by the Kaua'i County General Plan since the 1980's. The property is contiguous to and in close proximity to the coastal urban areas of Kapa'a Town, yet sits at a higher elevation and abuts the Kapa'a Middle School. The Petitioner proposes to develop single and multi-family housing as well as public facilities on the redistricted land. For the foregoing reasons, we support the petition to amend the land into the Urban District.

Please be advised that under current law, at the time of zoning amendment, the project area will be subject to Ordinance No. 860, the Housing Policy for the County of Kaua'i. The Ordinance requires the development of workforce housing targeted to Kaua'i residents earning from up to 80% to 140% of the Kaua'i Median Household Income. Ordinance No. 860 requires the fee-simple sale of workforce housing equivalent to thirty (30%) of the market units, which may be reduced to a minimum of fifteen percent (15%) through the use of incentives. We anticipate that the subject project would comply with all County ordinance requirements, and that our comments will be sought in the Land Use Commission's formal petition review.

Sincerely,

EUGENE K. JIMENEZ  
Housing Director

cc: Ron Agor, AIA; Imai Aiu, Planning



BERNARD P. CARVALHO JR.  
MAYOR

GARY K. HEU  
ADMINISTRATIVE ASSISTANT



COUNTY OF KAUAI  
PLANNING DEPARTMENT  
4444 RICE STREET  
KAPULE BUILDING, SUITE A473  
LIHUE, KAUAI, HAWAII 96766-1326

TELEPHONE: (808) 241-4050 FAX: (808) 241-6699

COPY

IAN K. COSTA  
DIRECTOR OF PLANNING

IMAICALANI P. AIU  
DEPUTY DIRECTOR OF PLANNING

BERNARD P. CARVALHO, JR.  
MAYOR

GARY K. HEU  
ADMINISTRATIVE ASSISTANT



AN EQUAL OPPORTUNITY EMPLOYER  
COUNTY OF KAUAI  
DEPARTMENT OF PUBLIC WORKS  
4444 RICE STREET  
MO'IKEHA BUILDING, SUITE 275  
LIHUE, KAUAI, HAWAII 96766-1340

December 22, 2009

DONALD M. FUJIMOTO  
COUNTY ENGINEER  
TELEPHONE 241-4992

EDMOND P.K. RENAUD  
DEPUTY COUNTY ENGINEER  
TELEPHONE 241-4992

January 5, 2010

To: Ransom A.K. Piltz, Chairperson  
Department of Business, Economic Development & Tourism  
State of Hawaii  
P.O. Box 2359  
Honolulu, Hawaii 96804-2359

Subject: Petition to amend the Land Use District boundary of certain lands situated at Kapa'a, Island of Kaua'i, State of Hawaii, consisting of 97 acres from the Agriculture and Rural District, to the Urban District, Tax Map Key no. (4)4-3-03:01. Kapa'a Highlands, Three Stooges LLC

Aloha Chair Piltz,

We are writing in general support of Three stooges LLC's petition to amend 97 acres in Kapa'a to the Urban district. The proposed amendment is in conformance with the County of Kaua'i's General Plan and will provide 231 units of affordable housing. Affordable housing remains an acute need on Kaua'i, even with a falling real estate market and as such the County is generally supportive of any petition that proposes additional affordable housing, particularly when contiguous to developed urban areas, infrastructure and consistent with our General Plan.

Sincerely,

IAN K. COSTA

Planning Director, County of Kaua'i

CC: Ron Agor

Mr. Greg Allen  
161 Wailua Road  
Kapa'a, Hawaii 96746

SUBJECT: PROPOSED KAPA'A HIGHLANDS RESIDENTIAL DEVELOPMENT

Dear Mr. Allen:

We acknowledge receipt of your email dated September 24, 2009 for the proposed project and offer the following comments:

1. The proposed project will be connected to the Wailua Wastewater Treatment Plant (WWTP) via a connection to the County's Wailua-Kapa'a sewer system in the vicinity of Olohena Road. The on-site and any necessary off-site extension of a sewer collection system will need to be designed and constructed as part of the development, and may either be a privately owned and operated collection system, or may be designed and constructed with the intent to convey the new collection system to the County. In either case, the system should be designed and constructed pursuant to County standards.
2. The concept plan map submitted does not show proposed sewer utility lines. All appurtenant sewer collection system improvements necessary to serve the development will be designed and installed by the developer. As such, sewer connection charges (SCC) will be waived as provided by the County's sewer ordinance.
3. Based on the proposed 769 single-family and multi-family residential units to be developed, at the current rate of \$3,900.00 per unit, the Wastewater Treatment Capacity Assessment (WTCA) is in the amount of \$2,999,100.00. The WTCA shall be paid prior to any final subdivision or building permit approvals.
4. Please note that a preliminary engineering report (PER) is required to evaluate the adequacy of the existing and proposed sewer collection system and treatment plant capacity. The PER shall be submitted for our review and approval. The PER should include sufficient detail to allow the County to verify that the proposed sewer system will comply with County Standards, identify the anticipated flow to the County's

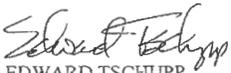
Mr. Greg Allen  
December 22, 2009  
Page No. 2

sewer system, and to evaluate whether improvements to the existing County sewer system will be needed to serve the development. In the event the project will be developed in phases, please indicate the approximate schedule for phasing of the project, to allow the County to identify impacts from the project on the County's wastewater system, including the flow projections for the Wailua WWTP.

5. Prior to start of any sewer system construction, plans need to be submitted for our review for compliance with sewer design standards.
6. Depending on the extent of necessary improvements to the County's wastewater system, applications for sewer service by others, and project phasing and build-out flows to the Wailua WWTP, there may need to be improvements at the WWTP prior to the County having adequate capacity for the full build-out of the project.

Should you have questions, please contact Valentino Reyna at (808) 241-4083.

Very truly yours,

  
EDWARD TSCHUPP  
Chief, Wastewater Management Division

CONCUR:

  
DONALD M. FUJIMOTO  
County Engineer

VR

cc: Engineering Division  
Planning Department

---

## GAllen

**From:** Tadani, Curtis [ctadani@kiuc.coop]  
**Sent:** Thursday, September 06, 2007 9:44 AM  
**To:** gallen@harbormall.net  
**Cc:** Pascual, Ferdinand  
**Subject:** Kapaa Highlands

Hi Greg,

I got your message and the plans that you brought in were already approved and signed off by us on June 27, 2005 so as far as we're concerned, it should be okay. But if you need to do anything different that will affect the electrical plans, than you should revise them and resubmit them to us for further review. Let me know if anything happens after your Planning Commission meeting next week that will affect the design of the subdivision and more so the electrical portion.

Thanks,

Curt K. Tadani  
Eastside Distribution Planner  
Kauai Island Utility Cooperative  
Ph: 246-4356  
Fax: 246-4332  
Email: [ctadani@kiuc.coop](mailto:ctadani@kiuc.coop)

ELEC  
Plans  
OK

BRYAN J. BAPTISTE  
MAYOR

IAN K. COSTA  
DIRECTOR OF PLANNING

GARY K. HEU  
ADMINISTRATIVE ASSISTANT

IMAICALANI P. AIU  
DEPUTY DIRECTOR OF PLANNING

COUNTY OF KAUAI  
PLANNING DEPARTMENT  
4444 RICE STREET  
KAPULE BUILDING, SUITE A473  
LIHUE, KAUAI, HAWAII 96786-1326  
TEL (808) 241-6677 FAX (808) 241-6609

May 29, 2007

Max Graham, Jr.  
Belles Graham  
Proudfoot & Wilson  
4334 Rice Street, Suite 202  
Lihue, Kauai HI 96766

SUBJECT: TMK: 4-3-003:001  
Kapa'a and Waipouli, Kauai

In response to your letter dated April 16, 2007 concerning the Kapa'a and Waipouli property Tax Map Key (TMK) 4-3-003:001, the subject property is approximately 163.125 acres in size. The State Land Use Commission (SLUC) designates the entire 163.125 acres of the subject property as Agriculture. The County General Plan designates approximately 97.654 acres Urban-Center, 33.685 acres Open, and 31.787 Agriculture. The Comprehensive Zoning Ordinance has the property zoned approximately 127.305 acres Agriculture (A) and 35.820 acres Open (O).

Please understand that the contents of this letter reflect the regulations and/or requirements that are currently in effect and being administered by this Department. These regulations are subject to change. Additionally, we recommend that you also check with other governmental agencies which may administer regulations and requirements that relate to development on this property and/or the proposed use.

Attached is a copy of a map showing the SLUC District boundaries on the subject property.

Should you have any questions, please contact Ka'ama Hull of my staff at 241-6677.

Sincerely,  
  
IAN K. COSTA  
Director of Planning

Attached.

AN EQUAL OPPORTUNITY EMPLOYER

2-16-2010 8:54AM FROM BUSSHARD/BRUNSTEIN 808 245 8929

P. 2

Dec-19-99 12:40P GREG KAMM

1 808 7421751

P. 02

12/18/99

SELWAGE J. CAYetano  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
Kahala Annex Building, Room 565  
801 Kamehameha Boulevard  
Kapolei, Hawaii 96707

TIMOTHY E. JOHNS, CHAIRPERSON  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCES MANAGEMENT

DEPUTIES  
JANET L. RAWELD  
LUNEL NISHIOKA

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

December 14, 1999

Mr. Greg Kamm  
P.O. Box 1200  
Koloa, HI 96756

LOG NO: 24572  
DOC NO: 9912NM02

Dear Mr. Kamm:

SUBJECT: Chapter 6E-42, Historic Preservation Review --  
Subdivision Permit Application S-99-45 (Silagi Family Trust  
and Hillside Corp. Center L.L.C.)  
TMK: 4-3-03: 01 por  
Kapa'a, Kawaihau, Kaua'i

Thank you for submitting the 1975 air photo of the above subject parcels. We agree that the land has been extensively altered by cane cultivation and filling. Therefore, we now believe that this project will have "no effect" on significant historic sites.

If you have any questions, please call Nancy McMahon at 742-7033.

Aloha,

  
DON HIBBARD, Administrator  
State Historic Preservation Division

NM:lm

c: D. Crowell, Planning Department County of Kauai

From: [Heidi\\_Meeker/FacilDev/HIDOE@notes.k12.hi.us](mailto:Heidi_Meeker/FacilDev/HIDOE@notes.k12.hi.us)  
[mailto:[Heidi\\_Meeker/FacilDev/HIDOE@notes.k12.hi.us](mailto:Heidi_Meeker/FacilDev/HIDOE@notes.k12.hi.us)]  
Sent: Wednesday, April 25, 2012 11:24 AM  
To: [PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
Subject: Kapaa Highlands II - Draft Language in EA

Heidi Meeker/FacilDev/HIDOE

To: Jeremy Kwock/FacilDev/HIDOE@HIDOE,

cc

04/25/2012 10:40 AM

Subject: Kapaa Highlands II - Draft Language in EA [Link](#)

Hello Peter,

I appreciate the opportunity to review the education section of the DEA for Kapaa Highlands.

1. Publication of our worksheet

We didn't have a problem with responding to your specific request for a hypothetical impact worksheet, but the sheet itself was marked for discussion purposes only. We have a real problem with the publication of an impact fee work sheet for an impact fee district that doesn't exist, with no current plans to proposed one. The sheet doesn't serve any real purpose for Kapaa Highlands and could be grossly misinterpreted if it was applied to other proposed projects.

2. There's no impact district

Your narrative never states in plain language that there is no school impact fee district in Kapaa, or any where else on the island. The conclusion seems to be buried: we will not be asking the Kapaa Highlands project for any contributions or fees at this point in time. We do not have any current plans to propose an impact district in Kapaa. However, it is possible that a future impact district may cover Kapaa. In that event, Kapaa Highlands may be required to pay impact fees, based on the fee schedule established for the district.

3. Capacity figure

We would prefer that the capacity figures you use be labeled "Classroom Utilization Report 2007-2008" and "CUR 07-08". The annual Classroom Utilization Report was not strictly an inventory of classroom space, it relied on other data such as faculty and staff counts.

We don't have a problem with your estimated student count, but would like the Student Generation Rate to be identified as an estimated Kapaa-area-only SGR.

We don't have a problem with your general assessment that there is sufficient capacity in the Kapaa schools at this point in time to accommodate the students who will reside in the Highlands project.

Please get back to me if you have questions.

Heidi Meeker - [heidi\\_meeker@notes.k12.hi.us](mailto:heidi_meeker@notes.k12.hi.us)  
Planning Section  
Department of Education/Facilities Development Branch  
Kalani High School TB1B  
4680 Kalaniana'ole Highway  
Honolulu, 96821  
Ph.808-377-8301

Exhibit O

Kaua'i County Planning Commission  
Tentative Subdivision Approval for HoKua Farm Lots  
June 19, 2014

Jan Kimura  
Chair

Angela Anderson  
Vice-Chair

Hartwell Blake  
John Isobe  
Wayne Katayama  
Sean Mahoney  
Amy Mendonca  
Members



PLANNING COMMISSION  
County of Kaua'i, State of Hawai'i  
4444 Rice Street  
Kapule Building, Suite A-473  
Lihu'e, Hawai'i 96766-1326  
TEL (808) 241-4050 FAX (808) 241-6699

Michael A. Dahilig  
Clerk of the Commission

JUN 19 2014

Mr. Brian M. Hennessy  
HONUA ENGINEERING, INC.  
Ching Young Center, Suite C7  
P.O. Box 851  
Hanalei, Hawai'i 96714

Subject: Hokua Farm Lots, being the Subdivision of Parcel 1 into Lots 1 to 6 inclusive and designating Easements "AU-1", "AU-2", "D-1", and "W-1", being a portion of Grant 5226 to Rufus P. Spalding at Kapa'a, Kaua'i, Hawai'i. (S-2014-02, HG Kauai Joint Ventures LLC)

Dear Mr. Hennessy,

This letter memorializes the action taken by the Kaua'i Planning Commission effective JUNE 10, 2014 concerning **TENTATIVE APPROVAL** of the above subject application. Final subdivision map approval, per your consent, is subject to the following conditions:

1. Requirements of the Planning Department:

- a. An updated preliminary title report for the existing lot shall be submitted to the Planning Department for review.
- b. All existing and proposed easements shall be identified in the deed descriptions of affected lots and shown on the final subdivision map. Draft copies of the deed descriptions shall be submitted to the Planning Department for review and approval.
- c. Pursuant to section 9-3.8(b) of the Subdivision Ordinance, Kaua'i County Code (1987), the applicant shall submit to the Planning Department an electronic record (digitized format) of the final subdivision map(s) on disk for record keeping purposes prior to final subdivision approval.

*An Equal Opportunity Employer*

V:\2014 Master Files\Regulatory\Subdivisions\S-2014-2\Tentative Approval\Tentative Approval Letter\TA Letter- 6.10.14 KE HG Kauai Joint Ventures LLC.docx

rec'd 6/21/14  
JTB #5117

- d. The following fees shall be paid to the County of Kaua'i:
- 1) Park Dedication fee: \$900.00
  - 2) Environmental Impact Assessment fee: \$1,250.00
- e. A future road widening reserve shall be established along the frontage of Oloheha Road and Kapa'a By-Pass Road which shall be subject to the specifications of the Public Works Department for a major street. There shall be no new structures permitted within the reserve, and any new structures should be setback from the reserve. The reserve along with its restrictions shall be incorporated into the deed descriptions of the affected lots, draft copies of which shall be submitted to the Planning Department for review and approval.
- f. Prior to final subdivision approval, the subdivider shall delineate the Class "B" classified lands on the final subdivision map. In addition and pursuant to Act 199, Session Laws of Hawai'i, 1976, the applicant shall enter into an agreement with the County to incorporate agricultural restrictions into the instruments of conveyance for those lots which contain the Class "A" and/or "B" soils.
- g. The Applicant is advised that uses on the newly-created lots shall be limited to those listed as permissible uses within the "A" Agricultural District in the State Land Use Commission Rules and Regulations. Dwellings on the lot shall mean a single-family dwelling located on and used in connection with a farm where agriculture activity provides income to the family occupying the dwelling. These restrictions shall be included in the covenants for the proposed lots, draft copies of which shall be submitted to the Planning Department for review and approval.
- h. Prior to final subdivision approval, the Applicant shall submit to the Planning Department a density breakdown for each lot which will be subject to review and approval by the Department. These restrictions shall be included in the covenants and deed descriptions of the proposed lots, draft copies of which shall be submitted to the Planning Department for review and approval. The Planning Department reserves the right to impose additional conditions relating to this matter while in the process of resolving this condition.
- i. The pole sections of the double flag lots shall be designated as common access/utility easements in favor of each other and shall be incorporated into the deed descriptions of the affected lots (Lot 4 and Lot 5), draft copies of which shall be submitted to the Planning Department for review and approval.
- j. The subdivider shall resolve with the Planning and Public Works Departments the following:
- 1) Participation in the upgrading of the intersection of 'Oloheha Road, Ka'apuni and Kaehulua Roads by providing necessary lands to accommodate the future improvements.
  - 2) Limiting vehicular access points onto 'Oloheha Road.

*An Equal Opportunity Employer*

- 3) Establishing a road reserve within the project area in order to accommodate future construction of interior roadway system that would allow a connection for 'Oloheha Road to the Kapa'a By-Pass Road and relieve traffic off 'Oloheha Road.

The Planning Department reserves the right to impose additional conditions relating to this matter while in the process of resolving this condition.

- k. The Applicant shall prepare and obtain construction plan approvals for necessary road, water, drainage, electrical and telephone utilities and facilities, and either construct the same or post a surety bond for completion.
- l. In order to ensure that the subdivision and development of property complies with the land use requirements contained in Chapter 205 of the Hawai'i Revised Statutes ("HRS"), the following matter shall be resolved prior to final subdivision approval:
- (1) The Applicant shall provide the following documents to the Subdivision Committee of the Planning Commission ("Subdivision Committee") for its review and approval:
    - (A) An Agriculture Master Plan shall describe the proposed agricultural uses of the property, the marketing and business plans associated with such activities, and the manner in which the agricultural and related uses on the property will comply with HRS Chapter 205.
    - (B) A map of the property showing the proposed location of: Agricultural Activities; Building Areas; and Agricultural Easements.
    - (C) A Declaration of Conditions, Covenants and Restrictions ("Restrictive Covenants") which will be recorded in the Bureau of Conveyances of the State of Hawai'i ("Bureau"), which will encumber and run with the property, and which will provide and require: that the owners of the lots in the subdivision ("Subdivision Lots") shall comply with the Agricultural Plan and the provisions of HRS Chapter 205; that the owners of all of the Subdivision Lots shall be members in an association ("Association") which will have the power and duty to enforce the Restrictive Covenants; that the Association shall file periodic reports (as determined by the Planning Department) with the Planning Department verifying compliance with the Agricultural Master Plan; and that the Agricultural Master Plan shall not be amended without prior approval of the Planning Department.
    - (D) An Agricultural Subdivision Agreement which will be recorded in the Bureau, run with and encumber the property, and which will provide and require: that each Subdivision Lot owner shall indemnify, defend and hold the County harmless from any claims arising out of the failure of the Subdivision Lot owner to comply with the Agricultural Master Plan and/or HRS Chapter 205; and that in the

*An Equal Opportunity Employer*

event of a Subdivision Lot owner's noncompliance with the Agricultural Master Plan and/or HRS Chapter 205 as determined by the Planning Department, the County and the State of Hawai'i shall have the right to refuse to grant any permits or approvals for uses or development on any Subdivision Lot affected by such noncompliance unless and until the noncompliance is cured, as determined by the Planning Department.

- m. The subdivider shall resolve with the Planning Department the provision of public access within the subdivision. The applicant shall propose an access plan for the review and approval of the Planning and Public Works Departments. Additionally, due to the farming activities, the subdivider shall work with the Planning Department on establishing a public access control system.

Proper documents shall be prepared and ready for execution prior to final subdivision approval. The Planning Department reserves the right to impose additional conditions relating to this matter while in the process of resolving this condition.

2. Requirements of the Department of Public Works:

DRAINAGE

- a. The subject subdivision abuts a natural unnamed drainage way on the West for which a detailed flood study has not been incorporated with the Flood Insurance Rate Maps (FIRM). Several natural drainage valleys or drainage swales traverses through and along the property. The natural drainage water courses will collect and concentrate storm flows through the site. A drainage study and provisions need to be established to prevent structures from being built in flood prone areas and to preserve the function and capacity of the natural water courses.

The subdivision and subsequent development of residences and other impermeable surfacing will increase storm water flowage. A drainage study needs to be made to evaluate the impacts of the increased storm runoffs. Measures to keep flow rates to predevelopment conditions is required.

- b. Flood studies need to include the existing bridge at the Kapa'a By Pass Road whether the bridge is adequate to convey storm flows without overtopping the Kapaa By Pass Road.
- c. The flood zoning, FIRM panel no. 204F and the date of the FIRM November 26, 2010 needs to be labeled on the final maps as well as the determined flood prone areas with base flood elevations. The applicant and future owners shall be advised that construction of new structures in flood prone areas presents flood risks and associated flood problems.

*An Equal Opportunity Employer*

ROAD

- d. The street name labeling for *Opala Road* needs to be amended to "**Malu Road**". The Kapa'a By Pass Road traverses through the proposed Lot 6. We recommend that the Kapa'a By Pass Road be named to facilitate house addressing assignment.
- e. The subject subdivision abuts the Olohena Road on the North. Olohena Road has a right of way width of 40 feet and an average pavement width of 20 feet. The pavement width is adequate for two way passenger vehicular type traffic. The right of way width is inadequate for a major collector street classification (60 feet right of way). We recommend a road reserve be established along Olohena Road or lands be dedicated to the County as well as improvements to Olohena Road to facilitate Safe Route to School and Complete Streets facilities.
- f. Access along Olohena Road **must** be restricted. Access for Lots 1, 2 and 3 **shall** be restricted to the pole section for Lots 4 and 5. Easement "AU-1" for roadway and utility purposes shall be restricted to the pole section for Lots 4 and 5. Comments should be solicited from the State Department of Transportation whether access would be allowed for Lot 6 from the Kapa'a By Pass Road.

OTHERS

- g. Complete Streets and Safe Route to School design principles needs to be incorporated with the subdivision improvements to Olohena Road. Complete Streets and Safe Route to School features include interconnected sustainable transportation networks providing opportunities for all modes of travel to and from neighborhood destination points for users of all ages and abilities. Comments should be solicited from the County's Transportation Planner.

3. Requirements of the Department of Water:

- a. The subdivider shall pay the Department of Water, a Facilities Reserve Charge of \$23,000 (5 lots at \$4,600 per lot). The subdivider shall pay any rate increase and/or applicable charges in effect at the time of receipt.
- b. The subdivider shall prepare and get Department of Water's approval on construction drawings for necessary water system facilities and either construct said facilities or post a performance bond for construction. These facilities shall also include:
  - 1) Additional source facilities. The Applicant may wait until others (including the Department of Water) to construct additional source for this area.
  - 2) The domestic service connection.
- c. Locate and show all existing water meter/s (with appropriate water meter number) on the tentative subdivision map for the Department of Water's review and approval. Also identify the proposed subdivision lot that the existing water meter/s will be assigned to. The DOW comments may change depending on the approved tentative map.

*An Equal Opportunity Employer*

4. Requirements of the State Health Department:

- a. The existing individual wastewater system can continue to serve the existing building. However, wastewater generated from any additional dwelling units and other buildings shall be disposed of in wastewater systems that meet the wastewater rules in effect at the time of building permit application.
- b. Noise will be generated when construction occurs after Lots 1 through 6 are subdivided, shall not exceed the applicable maximum permissible sound levels as stated in Title 11, Hawaii Administrative Rules (HAR), Chapter 11-46, entitled "Community Noise Control" unless a noise permit is obtained from the State Department of Health (DOH).
- c. Temporary fugitive dust emissions could be emitted when/if construction activities occur after Lots 1 through 6 are subdivided. At that time, in accordance with Title 11, HAR, Chapter 11-60.1, entitled "Air Pollution Control", effective measures for air pollution control shall be provided to minimize or prevent any fugitive dust emissions caused by the construction work from impacting the surrounding areas. This includes the off-site roadways used to enter / exit the project. The control measures include but are not limited to the use of water wagons, sprinkler systems, dust fences, etc.
- d. In accordance with Title 11, HAR, Chapter 11-58.1, entitled "Solid Waste Management Control", the construction waste that is generated when/if the subdivided lots are developed shall be either recycled or disposed of at a solid waste disposal facility that complies with the DOH. The open burning of any of these wastes on or off site is prohibited.
- e. Any project and its potential impacts to State waters must meet the following criteria:
  - 1) Anti-degradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
  - 2) Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
  - 3) Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
- f. Please call the Army Corps of Engineers at (808) 438-9258 to see if this project requires a Department of the Army (DA) permit. Permits may be required for work performed in, over, and under navigable waters of the United States. Projects requiring a DA permit also require a Section 401 Water Quality Certification (WQC) from our office.
- g. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters

(HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

- 1) Storm water 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).
  - 2) Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the start of the construction activities.**
  - 3) Treated effluent from leaking underground storage tank remedial activities.
  - 4) Once through cooling water less than one (1) million gallons per day.
  - 5) Hydro-testing water.
  - 6) Construction dewatering effluent.
  - 7) Treated effluent from petroleum bulk stations and terminals.
  - 8) Treated effluent from well drilling activities.
  - 9) Treated effluent from recycled water distribution systems.
  - 10) Storm water from a small municipal separate storm sewer system.
  - 11) Circulation water from decorative ponds or tanks.
- h. You must submit a separate NOI form for each type of discharge at least 30 days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 before to the start of construction activities.
  - i. For types of wastewater not listed in Item 3 above or wastewater discharging into Class 1 or Class AA waters, you must obtain an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 days before the commencement of the discharge.
  - j. You must also submit a copy of the NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or

demonstrate to the satisfaction of the CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.

- k. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with the water quality requirements contained in HAR, Chapter 11-54 and/or permitting requirements, specified in HAR Chapter 11-55 may be subject to penalties of \$25,000 per day per violation.

5. Requirements of the Housing Agency:

- a. Chapter 7A of the Kaua'i County Code, 1987, as amended, is applicable to the proposed subdivision, pursuant to Section 7A-1.4(c)(1).

Prior to final subdivision approval, the Applicant shall resolve the workforce housing assessment and shall execute a Workforce Housing Agreement with the Kaua'i County Housing Agency, as to the method of meeting the workforce housing requirement pursuant to Chapter 7A. The executed agreement shall be recorded on the deed of the project properties concurrent with final subdivision approval.

The Kaua'i County Housing Agency reserves the right to change this determination if the petition or application changes from the above, or if the project incorporates or becomes part of a larger residential or resort project, such that provisions of Kaua'i County Code, Section 7A-1.4 become applicable.

6. Requirements of the Department of Wastewater:

- a. The proposed subdivision is near the County's sewer service area. If sewer service is needed, the Applicant shall apply for County sewer service and shall be responsible for design and construction of all infrastructure necessary to connect to the County sewer and shall be responsible for payment of all applicable fees.

7. Requirements of the State Historic Preservation Division (SHPD):

- a. Pursuant to Hawaii Administrative Rules §13-284 we request an **archaeological inventory survey** be conducted by a qualified archaeologist in order to adequately determine the potential impacts of this subdivision on both surface and subsurface historic properties. We look forward to the opportunity to review the archaeological report prior to commencing further on the subdivision application. We recommend the final subdivision approval be deferred until the archaeological inventory survey report has been completed and appropriate mitigation measures/plans are in place.

*An Equal Opportunity Employer*

- b. As recommended by the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources (DLNR), in the event that historic resources, including human skeletal remains are identified during routine construction activities, all work needs to cease in the immediate vicinity of the find, and the finds need to be protected from additional disturbance, and the State Historic Preservation Division, Kaua'i section, needs to be contacted immediately at (808)692-8015.

8. The Applicant is advised that prior to and/or during construction and use additional conditions may be imposed by government agencies. Should this occur, the Applicant shall resolve these conditions with the respective agency(ies).

Sincerely Yours,



MICHAEL A. DAHLIG  
Clerk, Kaua'i Planning Commission

- xc: COK Public Works Dept.  
COK Water Dept.  
COK Real Property – Assessment Div.  
State Dept. of Health  
State Historic Preservation Dept.

*An Equal Opportunity Employer*

**Comments and Responses**

**To EIS Preparation Notice**

**Peter T Young**

---

**From:** Allan Rachap <allanjudy@gmail.com>  
**Sent:** Tuesday, January 20, 2015 7:09 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.

Here are the the top 3 reasons HoKua Place is a terrible idea and should NOT be permitted

- 1) The Kauai Long-Range Land Transportation Implementation Plan, Table ES-6 of 1997 must be completed before any new development occurs in the Kapa'a-Wailua area.
- 2) Adding an additional estimated 1600 vehicles from this proposed subdivision onto Kuhio Highway with the already permitted three hotels in the Wailua-Kapaa Corridor will cause unprecedented traffic, jeopardizing the safety of residents trying to reach the airport, hospital, medical, dental and business appointments.
- 3) "Affordable Housing" as described in the EIS is not really affordable for most Kauai residents in today's economy.

Allan Rachap  
Koloa, HI

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Allan Rechap  
allanjudy@gamil.com

**Subject:** Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Rechap:

Thank you for your email on January 20, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Consistency with the Kauai Long-Range Land Transportation Plan
- Impacts on Traffic
- Neighboring Development
- Affordable Housing

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

**From:** silverslev@cox.net  
**Sent:** Monday, January 19, 2015 8:56 AM  
**To:** info@hookuleana.com  
**Subject:** We OPPOSE the Hokua Place Development

To whom it may concern,  
Before this development moves forward, I would like to make sure that many issues are addressed. This project will affect the entire east coast of Kauai in a very negative way. I ask that all issues be considered BEFORE this project is given the green light. My family and I absolutely OPPOSE this project and ask that all thought be given to the immense impact it will have on our "jewel" of an island.

These are the issues that must be addressed before this project moves forward:

INFRASTRUCTURE must be addressed, updated and in place as per Table ES-6 Kauai Long-Range Land Transportation Implementation Plan, developed in 1997 with deadlines for completion in 2000 and 2006 for Kapa'a. As outlined, they all relate to widening roads in the area of the proposed zoning change from Agricultural to Urban Residential. None of these have occurred.

There have been major changes in the proposed area since this EIS was published in Oct, 2013, such as: more population arriving as tourists and real estate buyers due to the economic recovery; 3 more hotels, already pre-approved, are being developed in the near future, resulting in an additional approximately 1600 more vehicles on a daily basis in the Wailua/Kapa'a corridor.

The petitioners claim that there are no known developments in the area that will be affecting additional traffic on the roads to be used by this proposed zoning change. In fact, the Kulana Subdivision on Oloheha Road will add many more vehicles traveling west and east to and from Kapa'a, passing the property in question.

Only 30 % of the approximately 800 residential and farm lots will be considered to be "affordable" housing. Is this in proportion to what is actually needed?

The main road thru the proposed Hokua Place exits on the west side onto Oloheha Road, immediately adjacent to the Kapa'a Middle School Parking lot. From early morning, sometimes in darkness, and mid afternoon, the vehicles in this area to drop off or pick up students creates a large traffic problem coming from Wailua Homesteads, Kapahi and from Kapa'a. Students must walk along Oloheha Road and/or cross it to get to the school at this point to exit or enter the cars parked along the roadside.

This area has a blind intersection of 3 intersecting roads, (Kaapuni, Kaehula and Oloheha) including a steep grade immediately west of the school and the proposed road leading in and out of the proposed sub division. The representative for this project recognizes that this may present a dangerous situation and has indicated at a public community meeting that a Round-A-Bout may solve this problem. However, for those who know the actual terrain of this area, a Round-A-Bout could not be safely and successfully constructed anywhere near a steep incline, i.e. Oloheha Road. The EIS states that complete streets and safe routes to school design principles need to be addressed, page ??.

Retail stores and a community swimming pool (funded by Kauai tax payers) are projected for this subdivision. Therefore, far more traffic than indicated will be entering and exiting at all hours of the day and evening that may not include any bona-fide residents of the subdivision.

The applicants have not addressed the issue of construction waste and additional amounts of personal trash that will be generated from multi hundred residences. The Kauai landfill is already full, with no indication that a projected one will be built in the near future or within the expected start-up date of the proposed project.

Storm run off water from the projected hard surface areas will find the natural valley drainage areas allowing water to drain down onto the bypass road and across into private property and homes below the subdivision, causing possible floods. This has not been addressed in the EIS.

We question whether or not the current Lydgate Sewage Treatment plant can adequately handle human waste from an additional nearly 800 residential units, several retail stores and a swimming pool facility?

If the Kauai Department of Water does not accept the applicant's offer to donate water from its well, for what ever reason, can the DOW guarantee that enough water will be available to all residences, stores and a swimming pool from the only source now available, a tank on Kaapuni Road? If additional well(s) must be drilled by the DOW, who will bare this expense?

The applicant has stated at a public community meeting that schools in the Kapa'a area have plenty of room for new students. This is not a true fact. Any public school teacher in any of the Kapa'a schools can verify that classrooms are now at or over capacity.

Reference:  
Hokua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement

Mahalo nui loa for these considerations, Andrea Slevin PO Box 223875 Princeville, HI 96722

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Andrea Slevin  
silverslev@cox.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Slevin:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Consistency with the Kauai Long-Range Land Transportation Plan
- Impacts on Traffic
- Neighboring Development
- Affordable Housing
- Pedestrian Safety
- Landfill Capacity
- Storm Water Runoff
- Sewage Treatment Capacity
- Water Availability
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

## Comments on the EISPN re Up-Zoning: Agriculture to Urban – Hokua Place Subdivision, 800 houses

News of the proposed re-zoning application has spread across Kaua'i rapidly, causing widespread concern and a strong negative reaction. People are wondering whether the concept of agricultural land is now being abandoned in favor of profit for developers. Although there may be a few who will benefit financially, the resounding response of the residents of the island is: NO. WE DO NOT WANT THIS DEVELOPMENT. We feel that it will bring our traffic to a standstill, endanger our children as they travel to and from school, place an immense burden on an inadequate infrastructure, damage our economy, and irrevocably damage our quality of life. We appeal to the Land Use Commission to refuse the application to change the zoning of 97 acres of land adjacent to the Kapa'a Middle School from Agricultural to Urban Residential.

We are particularly concerned about the following issues:

- The project would result in severe road congestion that would have an enormous impact on the lives of residents, who are already finding it increasingly difficult to travel between the North Shore and Lihue, as well as on tourism. The inevitable long traffic delays resulting from the proposed development would make Kaua'i very much less attractive to tourists, who would find it very difficult to move around the island. Existing traffic studies are inadequate and out of date due to the growing pressure on the road system. Most significantly, the plans for road widening dating back to 1997 have not been implemented.
- The risks to the students at Kapa'a Middle School are unacceptably high. Not only is there already a problem for parents in dropping off and picking up students, but there is a risk for students safety, with students walking or riding bikes along Olohena Road or crossing it to get to the school. Moreover, the middle school is already full to its capacity, and a large additional influx of students could easily undermine the quality of education or leave some children without education.
- The infrastructure required to support the proposed development is inadequate. We do not have the landfill capacity to handle large amounts of construction waste and personal waste from the projected new homes. Drainage is inadequate to handle the run off from the projected hard surface areas. There is a real question as to whether the Lydgate Sewage Treatment plant could adequately handle the human waste from an additional nearly 800 residential units and associated developments. There is a question about the availability of water for the proposed residences.

In summary, this project will bring profit to developers but will severely damage the economy and quality of life of the island of Kaua'i. It will significantly weaken the concept of agricultural land, which has been fundamental to the historical development of the island. For all these reasons, the community strongly opposes it.

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Anne Thurston  
athurston@irmt.org

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Thurston:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Impacts on Traffic
- Neighboring Development
- Pedestrian Safety
- Landfill Capacity
- Storm Water Runoff
- Sewage Treatment Capacity
- Water Availability
- School Capacity
- Loss of agriculture land

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

**Peter T Young**

---

**From:** Anne Walton <annehugginswalton@gmail.com>  
**Sent:** Sunday, January 18, 2015 6:32 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokuia Place EISPN Comments  
**Attachments:** Letter tp Land Use Commission.docx

Dear Land Use Commission,

As a full time resident of Kauai, I am very concerned about the proposed Hokuia Place Development that will add some 800 dwelling units in Kapaa. I currently live in Wailua Homesteads and already the traffic congestion in Kapaa is near gridlock for much of the work day. At the present time, we have to plan our day in order to avoid going through Kapaa between 10:00 A.M. and 6:30 P.M. During these times, the traffic congestion is so bad that it takes 25 minutes to drive from the Public Library in Old Kapaa, to the 580 (Kuamoo Rd.) Intersection, a distance of less than 3 miles.

I am not against development per se. But before development is approved, the roads, drainage, sewage and refuse infrastructure need to be updated in order to handle the substantially greater capacity.

In particular, I am concerned about the impact of this development on the following areas:

1) **Impact on Traffic** - It's my understanding that the traffic plans developed in 1997 have not been completed. Since that time, the Kapaa area has grown exponentially. New long term long term plans have to be developed before any new development is approved. Areas of concern are not just the traffic problems on the main highway but also, along the Kapaa bypass and Olohena Rd.

2) **Other Land Development** - with the addition of proposed new development at Coco Palms and Coconut Beach resort and Coconut Plantation, it's expected that an additional 1800 vehicles will be added to the traffic load along the Kapaa/Wailua corridor. Has anyone considered how this is going to work in light of the current gridlock that already exists in Kapaa from 10:00 A.M. to 6:30 P.M. every day?

3) **Other Infrastructure Concerns:**

a. Impact on Kapaa Middle School.

b. Impact on storm drainage

c. Impact on land fill and recycling centers

d. Impact on the land from sewage and septic systems

4) **Impact on Retail Business and Tourism** - Already the traffic is so bad that many people are avoiding Kapaa retail businesses and finding ways to do their shopping on other parts of the Island. What effect to you think it has on vacationers who come here and find they have to spend an hour in traffic just to buy groceries??

5) **Impact on Quality of Life** - The beauty of Kauai, and one of the main reasons people want to visit our Island, is to enjoy the rural lifestyle and to get away from the stress of urban living. Already in parts of the Island, we have ruined this benefit. Are we going to continue down this path until Kauai is simply no longer a pleasant place to visit?

In my opinion, the EISPN should not be improved until ALL the impacts on our community can be thoroughly studied and addressed.

Furthermore, the loss of agriculture land to residential development on Kauai represents a loss of a way of life, loss of the aesthetic value of this special place and the loss of future opportunities for agricultural-based livelihoods, food security and self-sufficiency for Kauai. This is our home and we don't want to loose the rural character of Kauai.

Thank you for considering my comments.

Best regards,

Anne Walton

444-A Puuopae Road

Kapaa, HI 96746

# Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Anne Walton  
annehugginswalton@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Walton:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Other Land Development
- Other Infrastructure Concerns
- Impact on Retail Business and Tourism
- Impact on Quality of Life
- Loss of Agriculture Land

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

## Peter T Young

**From:** Ashina Sunshina <ashinasunshina@gmail.com>  
**Sent:** Thursday, January 22, 2015 10:33 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** I OPPOSE the Hokua Place development

Aloha,

News of the proposed re-zoning application has spread across Kaua'i rapidly, causing widespread concern and a strong negative reaction. People are wondering whether the concept of agricultural land is now being abandoned in favor of profit for developers. Although there may be a few who will benefit financially, the resounding response of the residents of the island is: NO. WE DO NOT WANT THIS DEVELOPMENT. We feel that it will bring our traffic to a standstill, endanger our children as they travel to and from school, place an immense burden on an inadequate infrastructure, damage our economy, and irrevocably damage our quality of life. We appeal to the Land Use Commission to refuse the application to change the zoning of 97 acres of land adjacent to the Kapa'a Middle School from Agricultural to Urban Residential.

We are particularly concerned about the following issues:

- The project would result in severe road congestion that would have an enormous impact on the lives of residents, who are already finding it increasingly difficult to travel between the North Shore and Lihue, as well as on tourism. The inevitable long traffic delays would make Kaua'i very much less attractive to tourists, who would find it very difficult to move around the island. Existing traffic studies are inadequate and out of date due to the growing pressure on the road system. Most significantly, the plans for road widening dating back to 1997 have not been implemented.
- The risks to the students at Kapa'a Middle School are unacceptably high. Not only is there already a problem for parents in dropping off and picking up students, but there is a risk for students safety, with students walking or riding bikes along Olohena Road or crossing it to get to the school. Moreover, the middle school is already at capacity, and a large additional influx of students could easily undermine the quality of education or leave some children without education.
- The infrastructure required to support the proposed development is inadequate. We do not have the landfill capacity to handle large amounts of construction waste and personal waste from the projected new homes. Drainage is inadequate to handle the run off from the projected hard surface areas. There is a real question as to whether the Lydgate Sewage Treatment plant could adequately handle the human waste from an additional nearly 800 residential units and associated developments. There is a question about the availability of water for the proposed residences.

In summary, this project will bring profit to developers but will severely damage the economy and quality of life of the island of Kaua'i. It will significantly weaken the concept of agricultural land, which has been fundamental to the historical development of the island. For all these reasons, the community strongly opposes it.

**I oppose the Hokua Place development until all the concerns mentioned herein are fully and publicly addressed, and that there needs to be more public community meetings with the State and County agencies involved to confirm that proper action/decisions are being made.**

Mahalo,  
Ashina Ashina  
6540 Olohena Road  
Kapaa

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Ashina Sunshina  
ashinasunshina@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Sunshina:

Thank you for your email on January 22, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Impacts on Traffic
- Neighboring Development
- Pedestrian Safety
- Landfill Capacity
- Storm Water Runoff
- Sewage Treatment Capacity
- Water Availability
- School Capacity
- Loss of agriculture land

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

From: Bart Walton [<mailto:bartwalton@hotmail.com>]  
Sent: Monday, January 12, 2015 10:06 AM  
To: [luc@dbedt.hawaii.gov](mailto:luc@dbedt.hawaii.gov); [info@hookuleana.com](mailto:info@hookuleana.com)  
Subject: Hokua Place EISPN Comments

Dear Land Use Commission,

As a full time resident of Kauai, I am very concerned about the proposed Hokua Place Development that will add some 800 dwelling units in Kapaa. I currently live in Wailua Homesteads and already the traffic congestion in Kapaa is near gridlock for much of the work day. At the present time, we have to plan our day in order to avoid going through Kapaa between 10:00 A.M. and 6:30 P.M. During these times, the traffic congestion is so bad that it takes 25 minutes to drive from the Public Library in Old Kapaa, to the 580 (Kuamoo Rd.) Intersection, a distance of less than 3 miles.

I am not against development per se. But before development is approved, the roads, drainage, sewage and refuse infrastructure need to be updated in order to handle the substantially greater capacity.

In particular, I am concerned about the impact of this development on the following areas:

1) **Impact on Traffic** - It's my understanding that the traffic plans developed in 1997 have not been completed. Since that time, the Kapaa area has grown exponentially. New long term long term plans have to be developed before any new development is approved. Areas of concern are not just the traffic problems on the main highway but also, along the Kapaa bypass and Olohena Rd.

2) **Other Land Development** - with the addition of proposed new development at Coco Palms and Coconut Beach resort and Coconut Plantation, it's expected that an additional 1800 vehicles will be added to the traffic load along the Kapaa/Wailua corridor. Has anyone considered how this is going to work in light of the current gridlock that already exists in Kapaa from 10:00 A.M. to 6:30 P.M. every day?

3) **Other Infrastructure Concerns:**

- a. Impact on Kapaa Middle School.
- b. Impact on storm drainage
- c. Impact on land fill and recycling centers
- d. Impact on the land from sewage and septic systems

4) **Impact on Retail Business and Tourism** - Already the traffic is so bad that many people are avoiding Kapaa retail businesses and finding ways to do their shopping on other parts of the Island. What effect do you think it has on vacationers who come here and find they have to spend an hour in traffic just to buy groceries??

Do well by doing good.

5) **Impact on Quality of Life** - The beauty of Kauai, and one of the main reasons people want to visit our Island, is to enjoy the rural lifestyle and to get away from the stress of urban living. Already in parts of the Island, we have ruined this benefit. Are we going to continue down this path until Kauai is simply no longer a pleasant place to visit?

In my opinion, the EISPN should not be improved until ALL the impacts on our community can be thoroughly studied and addressed.

Thank you for considering my comments.

Bart Walton  
808-346-9330

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Bart Walton  
bartwalton@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Walton:

Thank you for your email on January 12, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion
- Roads, Drainage, Sewage and Refuse Infrastructure Needs
- Impacts on Traffic
- Other Land Development
- Other Infrastructure Concerns
- Impact on Retail Business and Tourism
- Impact on Quality of Life

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

---

**From:** airbilly@hawaii.rr.com  
**Sent:** Wednesday, January 14, 2015 3:05 PM  
**To:** luc@dbedt.hawaii.gov; info@Hookuleana.com  
**Subject:** Hokua Place

I don't think this development fits in at this time.

One thing for certain is our present infrastructure can't accommodate it.

Please kill this.

Aloha,  
Bill Doherty  
Kapaa

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Bill Doherty  
airbilly@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Doherty:

Thank you for your email on January 14, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Present Infrastructure

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

## Peter T Young

---

**From:** bdwoods44@yahoo.com  
**Sent:** Friday, January 23, 2015 1:18 PM  
**To:** info@hookuleana.com  
**Cc:** dmoriki@thegardenisland.com  
**Subject:** MORE TRAFFIC IN KAPAA?!

Aloha,

It is unacceptable to place more development/traffic into the Kapaa area before major infrastructure is done. Please get serious about the problem!!

We who live and work in the Kapaa area are already heavily burdened with traffic that causes horrible delays of up to an hour one way during the heavy traffic of the early and later part of the day. To allow building of another 800 house development without the infrastructure to support it and create an unrealistic high level of traffic gridlock is a serious error in judgement on the part of any official involved. The studies need to be updated and some common sense needs to be used. The Kauai Long-Range Land Transportation Implementation Plan developed in 1997 (updated 9/14) for EXTENSIVE ROAD WIDENING in the areas affected by the proposed zoning change, HAS NOT met its 2000 and 2006 deadlines for Kapaa. Therefore, the plan implementation will not serve the needs of Hokua Place's 1600+ addition vehicle load in a timely fashion. The EISPN does not address that overdue road widening has to be completed BEFORE granting Hokua Place any further permits. The developers must pay for the infrastructure necessary to serve the development...we tax payers and our local government should not be burdened with that bill!!!

There is no justification for allowing this plan to go forward until after the infrastructure is already in place to handle the existing needs of the community and any additional load. Our traffic since the tourism has returned to Kauai is unbearable already. Also, there are several (3) hotels soon to add to the traffic in Kapaa, there are also the issues of storm water runoff and contamination, sewage!! (can it smell any worse in Wailua and at the Lydgate treatment plant? Are we going to "overflow" and have "sewage beach" biohazard signs on our beaches like what happens in California?), what about even more household waste in the overloaded landfill...

Another very serious concern: As a medical professional with years of experience in a major trauma hospital, I can tell you without reservation, that the amount of time for transport of an injured or critically ill patient is the #1 factor is survival and recovery. Gridlock of traffic causes death and advanced injury in patients that would otherwise have survived and recovered well. Imagine how you would feel if you or your loved ones die or are harmed because of lack of adequate roads and horrible gridlocked traffic. Are you willing to accept that your choices to go forward without proper and safe infrastructure can and will lead to the death and injury of many people? What about the legal liability? Those who wrongfully allow such things to happen should be and may be open to legal action, class action lawsuits, etc, from families that lose loved ones, once it is proven that there was error in judgement...(easy to do in this case with all the documentation).

Further, please use foresight: Why do we get so much money (BILLIONS of dollars) from tourism? Because we are the "Garden Island" not the overdeveloped polluted Maui island. Do we really want Kauai to become like Maui? Tourists from all over the world talk about how happy they are that Kauai isn't developed like Maui and Oahu.

There is always talk about "progress" by short sighted people and how you "can't stop progress" so I ask you to consider very carefully:

PROGRESS TOWARD WHAT???

Progressing toward overdevelopment that destroys what Kauai is most loved and world famous for??? Is that progress to you? The island fathers took steps long ago to make sure we didn't lose the beauty and majesty of Kauai...please think about what we risk losing and do the right thing. Stop this nonsense before it is too late. Stop foolish actions now that will cause worse problems later.

Respectfully...a voice of reason, with Aloha,

Brett D. Woods RN

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Brett Woods  
bdwoods44@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Woods:

Thank you for your email on January 23, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Impacts on Traffic
- The Kauai Long-Range Land Transportation Implementation Plan
- Transport of injured or critically ill patients
- Tourism

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

## Peter T Young

**From:** Carmen <carmentina@hotmail.com>  
**Sent:** Sunday, January 18, 2015 1:42 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Stop Hokua - keep Kauai country

Respected Land Use Commission,  
Please think LONG AND HARD before changing the lives of Kauai residents irreversibly.  
Please read this letter of complaints before our lives, as Kapaa residents, become similar to those of big cities.  
Mahalo in advance for your care and time.

- 1) The Kauai Long-Range Land Transportation Implementation Plan, Table ES-6 of 1997 must be completed before any new development occurs in the Kapa'a-Wailua area.
- 2) Adding an additional estimated 1600 vehicles from this proposed subdivision onto Kuhio Highway with the already permitted three hotels in the Kapa'a-Wailua corridor will cause unprecedented traffic, jeopardizing the safety of residents trying to reach the airport, hospital, medical, dental and business appointments.
- 3) "Affordable Housing" as described in the EIS is not really affordable for most Kaua'i residents in today's economy.
- 4) Access into and from Hokua Place at the Kapa'a Middle School on Olohena Road, will jeopardize the safety of school children and parents twice daily.
- 5) Construction noise, dust and daily confusion will greatly affect the safety and learning abilities of the students at the Kapa'a Middle School for many years.
- 6) Construction waste, adequate sewage treatment, storm run off and a sufficient clean water supply have not been adequately addressed by the applicants.

Carmen

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Carmen  
carmentina@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Carmen:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts on Traffic
- Affordable Housing
- Access Into and From HoKua Place
- Construction Impacts on Kapa'a Middle School
- Construction Waste, Adequate Sewage Treatment, Storm Runoff and Sufficient Clean Water Supply

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** CAR/RAR <atip@hawaii.rr.com>  
**Sent:** Wednesday, January 21, 2015 8:26 PM  
**To:** info@hookuleana.com  
**Subject:** Hokua Place EISPN comments from Carol Ridgley

Please say NO to Greg Allen's proposed Hokua Place in Kapaa, Kauai. I live above the proposed development. It is logical and simple. No new roads are being developed for this or any new housing projects. We own a towing company.

The current traffic takes us longer to reach the vehicle disabled on the road and longer to tow from point A to point B. We have no new roads to use to help with the traffic. Just as my one letter could make a difference, as one vote could make a difference, just one NO to ONE development CAN MAKE A DIFFERENCE.

Please do not approve a change in zoning to urban.

Carol Ridgley  
Kapaa, Kauai

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Carol Ridgley  
atip@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Ridgley:

Thank you for your email on January 21, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Road Infrastructure
- Impacts on Traffic

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

### Peter T Young

**From:** Carrigan Curtis <carrigan@carrigancurtis.com>  
**Sent:** Sunday, January 18, 2015 9:23 AM  
**To:** info@hookuleana.com; luc@dbedt.hawaii.gov  
**Subject:** Hokua Place EISPN Comments

To: Land Use Commission:

#### **Re: Public Comment Period for EISPN re Up-zoning: Agriculture to Urban- Hokua Place Subdivision, 800 houses**

I have recently become a resident of Kauai, living in Kilauea. I am very concerned about this proposed development.

About a week or so ago, it took me 75 minutes to drive from Kapaa on the Kuhio highway South to Costco in Lihue. Most of my time was spent just getting through Kapaa.

And a week before I spent 20 minutes on the Kapaa bypass just getting to the round-about, and past it at 3pm in the afternoon. I have been visiting Kauai for many years before moving here and this is the worst traffic I have ever experienced.

Add 800 minimum, and much more likely another 1600 cars due to this new proposed development coming down Olohena and it will surely create an enormous problem at the round-about causing increased congestion on the bypass and at the intersection of Kukui Street and the highway at the traffic light.

The planned development at the Coco Palms that intends to create a parking area off of Haleiilo will create congestion at the intersection of Haleiilo and the highway even more. Turning right to go to Lihue will be impossible. And turning left to go north will be impossible either on the bypass or driving through town.

It is my understanding that "The Kauai Long-Range Land Transportation Implementation Plan" which was created back in 1997 has not yet met its 2000 and 2006 deadlines for Kapaa. Yet the The EISPN does not address that overdue road widening has to be completed before Hokua Place is granted any further permits. This situation is definitely putting the cart before the horse.

What is the point of doing extensive study and then not actualizing the action plans that come out of that study?

Meanwhile the EISPN traffic study that was developed in 2013 has already become outdated!

Due to the very good news of economic recovery, we have had an influx of visitors this last year. And what about the Coco Palms, Coconut Beach Resort and Coconut Plantation resorts development plans for the Wailua Corridor. An additional 1800 vehicles are anticipated to accompany this development. As if that is not enough, not mentioned in the EISPN are stores and another community swimming pool - does Kapaa really need two community swimming pools?? - by Hokua place to further congest the already too small congested roundabout and entry way into the Kuhio Highway.

I am particularly concerned about this entry: E. p15, O 1. "Impacts of Closing Kapaa Bypass" Does this mean there are plans to close the bypass, temporarily or permanently? The bypass is the only saving grace for the levels of congestion we already have.

I understand the importance of maintaining a thriving economy here on Kauai. But bigger is not always better. Managed growth control is even more important than growth. There are many communities that have realized this. Some because of the way nature itself locks the living area in so that it just can't keep expanding. But others have managed to see and implement managed growth that keeps sustainability in mind as a priority and not as something one just gives lip service to.

These are decisions that need to be well thought out before they are made. Because after they are implemented there is no turning back.

And what about overstressing the already near capacity landfill situation? And the terrible sewage smells already coming from Lydgate sewage treatment and the junction of Haleilio at the Kuhio Highway. I have to make sure the air circulates from within my car when I am stopped at that light on Haleilio for the putrid smell that is often filling the air there now. What do you suppose the Coco Palms tourists who are driving from their proposed parking area off of Haleilio will have to say about that horrid smell???

When the Kuhio Highway floods after big storms because water run off has never really been addressed and the road is closed, how will this huge planned influx of cars add to the problem of getting our valuable tourists, not to mention ourselves, from here to there?

Until the infrastructure for road use and traffic, waste management, water run off, and all the sustainability concerns that I haven't even thought to address here can handle the development we already have it is not acceptable to allow new large developments to be permitted.

Please do not be swayed by the costly lobbying of these development companies. Please put the people of Kauai and our lifestyle first and foremost in your decision making. And before any permitting is granted that clearly will make things worse for us please resolve to take a deeper and more sustainable look at addressing the above stated existing problems we have on Kauai.

The proposed Hokua Place subdivision will be disruptive our rural life style as well as to visitors who choose Kauai because of its relaxed pace & natural environment. The EIS PN should include social, environmental, emotional and community impacts before it goes any further.

Thank you so much for your time and consideration

Carrigan

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**

1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Carrigan Curtis  
carrigan@carrigancurtis.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Carrigan Curtis:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Neighboring Development
- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts of Closing Kapaa Bypass
- Landfill Capacity
- Sewage Capacity
- Storm Runoff
- Infrastructure for Road Use and Traffic, Waste Management and Water Runoff
- Sustainability

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Charles Grotsky <kauaiphototropic@yahoo.com>  
**Sent:** Monday, January 19, 2015 5:31 PM  
**To:** info@hookuleana.com  
**Subject:** Hokuia Place Subdivision Development

I am opposed to changing the zoning of 97 acres from Agricultural to Urban Residential next to Kapa'a Middle School and Olohena Road and Kapa'a Bypass Road until all the concerns mentioned herein are fully and publicly addressed, and that there needs to be more public community meetings with the State and County agencies involved to confirm that proper action/decisions are being made.

Charles Grotsky  
Kauai, Hawaii  
823-0585

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Charles Grotsky  
kauaiphototropic@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Grotsky:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed the need for more community meetings with State and County agencies.

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Iao <helloiao@yahoo.com>  
**Sent:** Tuesday, January 20, 2015 3:20 PM  
**To:** info@hookuleana.com  
**Subject:** Rezoning Application

Sent from my iPhone

News of the proposed re-zoning application has spread across Kaua'i rapidly, causing widespread concern and a strong negative reaction. People are wondering whether the concept of agricultural land is now being abandoned in favor of profit for developers. Although there may be a few who will benefit financially, the resounding response of the residents of the island is: NO. WE DO NOT WANT THIS DEVELOPMENT. We feel that it will bring our traffic to a standstill, endanger our children as they travel to and from school, place an immense burden on an inadequate infrastructure, damage our economy, and irrevocably damage our quality of life. We appeal to the Land Use Commission to refuse the application to change the zoning of 97 acres of land adjacent to the Kapa'a Middle School from Agricultural to Urban Residential.

We are particularly concerned about the following issues:

- The project would result in severe road congestion that would have an enormous impact on the lives of residents, who are already finding it increasingly difficult to travel between the North Shore and Lihue, as well as on tourism. The inevitable long traffic delays would make Kaua'i very much less attractive to tourists, who would find it very difficult to move around the island. Existing traffic studies are inadequate and out of date due to the growing pressure on the road system. Most significantly, the plans for road widening dating back to 1997 have not been implemented.
- The risks to the students at Kapa'a Middle School are unacceptably high. Not only is there already a problem for parents in dropping off and picking up students, but there is a risk for students safety, with students walking or riding bikes along Olohena Road or crossing it to get to the school. Moreover, the middle school is already at capacity, and a large additional influx of students could easily undermine the quality of education or leave some children without education.
- The infrastructure required to support the proposed development is inadequate. We do not have the landfill capacity to handle large amounts of construction waste and personal waste from the projected new homes. Drainage is inadequate to handle the run off from the projected hard surface areas. There is a real question as to whether the Lydgate Sewage Treatment plant could adequately handle the human waste from an additional nearly 800 residential units and associated developments. There is a question about the availability of water for the proposed residences.

In summary, this project will bring profit to developers but will severely damage the economy and quality of life of the island of Kaua'i. It will significantly weaken the concept of agricultural land, which has been fundamental to the historical development of the island. For all these reasons, the community strongly opposes it.

I am a Anahola, Kauai resident and registered voter and I oppose thi development.

In Concern,  
Cheeah Fairoh

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Cheeah Fairoh  
helloiao@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Fairoh:

Thank you for your email on January 20, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Impacts on Traffic
- Neighboring Development
- Pedestrian Safety
- Landfill Capacity
- Storm Water Runoff
- Sewage Treatment Capacity
- Water Availability
- School Capacity
- Loss of agriculture land

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Claudia Herfurt <claudia@kauaistyle.com>  
**Sent:** Friday, January 16, 2015 8:08 AM  
**To:** info@hookuleana.com  
**Subject:** Hokua Place Subdivision

Aloha,

please stop this thoughtless development and realize that Kauai is not for sale and is already loosing visitor appeal because of traffic congestion, lack of infrastructure, and the loss of our rural lifestyle. The County is already compromised in taking care of this island, so what would it be like to keep adding more subdivisions and more hotels and resorts? The required EISAPN should include all the emotional and community impacts before it goes any further.

Self-sufficiency is more important for an island like Kauai in the middle of the Pacific than urban development. I already avoid driving to Lihue to avoid getting stuck in traffic, and I have missed appointments and flights because of congestion and traffic accidents. Kauai simply is not set up to be another Maui.

Sincerely,  
Claudia Herfurt  
Hanalei

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Claudia Herfurt  
claudia@kauaistyle.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Herfurt:

Thank you for your email on January 16, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Lack of Infrastructure
- Loss of Rural Lifestyle
- Self-sufficiency

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Bruce and Cynthia Welti  
6201 C Kawaihau Rd  
Kapaa, HI 96746  
822-0050

January 20, 2015

Hawaii State Land Use Commission  
RE: Hokua Project Environmental Impact Statement Preparation Notice

Dear Commissioners:

We are writing concerning the proposed Hokua development in Kapaa. While we appreciate the value of economic development, we are seriously concerned about the traffic impacts.

We recently moved back to the island after living in Seattle for the last 12 years. During that time we have come over at least once a year, and it was easy to notice as the traffic situation got steadily worse to the point of significantly impacting the quality of life here in Kapaa. The mid-day slowdown has gradually grown to extend through the whole town. The impact isn't only on the drivers – your experience as a pedestrian is worse when every time you want to cross the street there is a solid line of cars. Contra-flow was an innovative addition to really change the morning traffic. Likewise the traffic circle was a welcome help. Until last year you could count on the bypass as a way to get to Lihue with little slowdown. Now there are times when things come to a complete halt and there aren't alternatives.

For example, last Wednesday we were down in Wailua and came up the highway to go to the farmer's market at 4 pm. Traffic was so backed up we parked on Kukui street near Hoku Foods and walked. Cars were at a standstill in all directions, with cars trying to get to the field for the market, cars trying to get out of the field, cars and buses trying to come down from the Middle School, and the roundabout was seemingly frozen up. Fortunately by walking we were able to get through and realized we needed to stay down in town for another hour until things cleared up. Then on Friday afternoon we hit another major jam. We left for Lihue from the recycling center at 4:20, planning to go by the Humane Society before going to a play in Puhi. We got on the bypass road and had only gone about a half mile before coming to traffic completely stopped. We gave up on the Humane Society, turned around and waited in Kapaa until 5:50, at which time we felt we needed to leave to make the play at 7 pm. Traffic inched along, often coming to a complete stop until we were past Kuamoo Road.

The situation is no good for residents and visitors alike. Adding more cars without improving traffic flow is really a ridiculous idea.

Sincerely,

Bruce and Cynthia Welti  
Kapaa Residents

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Bruce Welti and Mrs. Cynthia Welti  
6201 C Kawaihau Road  
Kapaa, HI 96746

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Mr. and Mrs. Welti:

Thank you for your letter dated January 20, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Impacts on Pedestrians

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

**Peter T Young**

---

**From:** Danny Hashimoto <dakinedanny@yahoo.com>  
**Sent:** Sunday, January 18, 2015 12:44 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Re. Public Comment for EISPN for Hokua Place, Kapa'a

The below letter is being emailed simultaneously to:

1. **Land Use Commission:** email address [luc@dbedt.hawaii.gov](mailto:luc@dbedt.hawaii.gov)
2. **The Kailua company** that did the EISPN study [info@hookuleana.com](mailto:info@hookuleana.com)

**Re. Public comment for EISPN**

I am a resident of Kaua'i for the past 66 years, living primarily in the Wailua Houselots/Homesteads area. I am very concerned about this proposed development, Hokua Place in Kapa'a. There are a number of concerns, and traffic congestion is among the largest. Expanding the "picture" to include additional traffic flows (additional to that of Hokua Place) from the new hotel resorts in the area, including the upcoming redevelopment of the Coco Palms Hotel, which will undoubtedly add substantial vehicular flow to both Kuhio Hwy. as well as the Kapa'a Bypass which fronts the subject development, Hokua Place, potentially to the point of unacceptable levels. Terms such as "gridlock" only begin to describe potential horrendous conditions. Well over 2000 vehicles will be added to the traffic pattern in the area between the Wailua River Bridge area (Kuhio Hwy./Kuamo'o Road) and the heart of Kapa'a Town (near the junction of Olohena Road and Kuhio Hwy.) which again, will include the Kapa'a Bypass itself.

Thus, the traffic congestion at peak times at these key junctions and locations will likely become unacceptable according to the current A-F rating standards in effect.

With regard to the traffic analysis for the subject development, I do not necessarily believe that Road A will mitigate very much of the traffic congestion near the development. While relieving some of the congestion at the turnabout in the mornings for those driving to work Southbound, there'll still be some Northbound traffic (exiting Road A and turning left onto the Bypass) heading toward the turnabout during peak hours and thus that area will still be congested.

Further, it is my understanding that "The Kauai Long-Range Land Transportation Implementation Plan" which was created back in 1997 has not yet met its 2000 and 2006 deadlines for Kapa'a. Yet the The EISPN does not address that overdue road widening has to be completed before Hokua Place is granted any further permits. Why is this?

What is the point of doing an extensive study and then not actualizing the action plans that come out of that study? Hokua Place has been in the works for many years now so why hasn't the Plan referred to above been fully actualized or at least made noticeable progress? Meanwhile the EISPN traffic study that was developed in 2013 for the subject development has already become outdated in my opinion.

Due to the very good news of economic recovery, we have had an influx of visitors this last year, 2014...thus, more traffic! And specifically, as generally alluded to above, the Coco Palms Hotel, Coconut Beach Resort and Coconut Plantation resorts development plans for the Wailua Corridor, a huge amount of traffic will be added to the area. From the Coco Palms alone, an additional 1800 vehicles are anticipated to accompany their development.

The waste treatment issue is huge. No details need to be mentioned other than to ask if the facilities can really accommodate the substantial increase in "flow" from all the new developments, not just that of the subject development. The public needs to see a complete updated wastewater treatment plan incorporating all of the development referred to herein.

Until the infrastructure for road use and traffic flow, waste management, water run off (from the subject development), and all other relevant concerns are fully addressed and acted upon (not just lip service) it is UNCONSCIONABLE AND WRONG to allow new large developments such as Hokua Place to be permitted and approved.

Sincerely,

Danny Hashimoto

=====

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Danny Hashimoto  
dakinedanny@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Hashimoto:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion and Impacts
- Neighboring Development
- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Sewage Capacity
- Infrastructure for Road Use and Traffic Flow, Waste Management and Water Runoff

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** David H. Dinner <gentlewave@hawaii.rr.com>  
**Sent:** Sunday, January 18, 2015 1:59 PM  
**To:** info@hookuleana.com  
**Subject:** Hokua Place Subdivision

Dear Land Use Commission

In my 14 years on Kauai, I've seen one project after another worm its way through our political structure until now we are on the brink of gridlock in the town of Kapaa. I've read talking points about why the Hokua Place Subdivision should not be allowed. These items are so self evident that one must wonder how the project could possibly pass. Yet, haven't we seen it before? The Superferry, The Coconuts projects, Longs Drugs are all examples of developments that threaten to destroy the essential nature of Kauai and yet they passed despite the objection of huge resistance from the community.

So, let's be clear. This decision about HoKua Place Subdivision Development is not about talking points. It is about whether our vision of Kauai as a community is one that drives the island to more and more development until we arrive at a completely unsustainable environment or one that creates a vision of function and esthetics that is consistent with the highest quality experience for both residents and visitors alike. Kauai is dying before our eyes and you have the power to help reverse the direction of its demise. Please do not support the HoKua Place Subdivision. Mahalo.

Aloha,  
David Dinner  
Kilauea, HI

Sent from my iPad with Aloha

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. David H. Dinner  
gentlewave@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Hashimoto:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Increased Development

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

**From:** David Sutton [malamaourworld@gmail.com]  
**Sent:** Monday, January 19, 2015 10:39 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement

To Whom It May Concern,

If you allow this request for zoning change and resulting development, you will be burying Kapa'a and much of Kaua'i in an unbearable traffic snarl for residents and visitors alike. There is no way around this. Please do not be fooled.

Please save our towns from this over development and preserve our ag land as the law intended.

Mahalo,

David H Sutton=

Do well by doing good.

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. David Sutton  
malamaourworld@gamil.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Sutton:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Loss of Agriculture Land

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** DJ Star <djandstevestarc@gmail.com>  
**Sent:** Tuesday, January 20, 2015 11:11 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place EISPN Comments

Aloha,

I have lived in Moloaa for 24 years. I had an emergency situation and was got caught in bumper to bumper crawl traffic on the way to the emergency room. The stress of trying to get me to the hospital almost gave my husband a heart attack. This is not quality of life, it's dangerous.

Please stop the growth until the traffic problem is addressed.

In gratitude,  
DJ Star

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. DJ Star  
djandstevest@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Star:

Thank you for your email on January 20, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Emergency transport of injured or critically ill patients

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** Dorothy Perry <dorothy.perry@hawaiiantel.net>  
**Sent:** Wednesday, January 14, 2015 8:13 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hooku Place Eispn comment

Aloha,

Please do not allow one more development to pass through your department that will further erode our quality of life here on Kauai. The east side traffic is a mess now and it will get much worse if you allow this to go through. We all know this as we drive in this mess frequently. I cannot imagine what it is like for people who have to commute to work through this daily.

We will begin to see road rage incidents, if you further this situation and it will become harder and harder for those of us who live here.

Mahalo for your hard work,

Dottie and Dick perry

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mrs. Dottie Perry and Mr. Dick Perry  
dorothy.perry@hawaiiintel.net

Ms. Elizabeth Midwikis and Mr. Vance Collins  
emidwikis@sbcglobal.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. and Mrs. Perry:

Dear Ms. Midwikis and Mr. Collins:

Thank you for your email on January 14, 2015 regarding HoKua Place.

Thank you for your email on January 17, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion and Impacts

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

- Land Use District Change
- Traffic
- Water and Waste Treatment
- Landfill Capacity
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Sincerely,

Peter T. Young

Peter T. Young

Peter T Young

**From:** elizabeth midwikis <emidwikis@sbcglobal.net>  
**Sent:** Saturday, January 17, 2015 12:05 PM  
**To:** luc@dbedt.hawaii.gov  
**Cc:** info@hookuleana.com  
**Subject:** hokua place plan for kauai

please do not change the land zoning from ag to urban for the development of hokua place in kauai / as a resident of kauai I have grave concerns about traffic, water and waste treatment, over filling the landfill, overfilled schools.... etc....

thank you for your consideration vance collins and elizabeth midwikis



United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Pacific Islands Fish and Wildlife Office  
300 Ala Moana Boulevard, Room 3-122  
Honolulu, Hawaii 96850

JAN 16 2015

In Reply Refer To:  
2015-TA-0102

Peter T. Young  
Hookuleana LLC  
1539 Kanapuu Drive  
Kailua, Hawaii 96734

Subject: Technical Assistance for the Proposed HoKua Place Project, Kauai

Dear Mr. Young:

The U.S. Fish and Wildlife Service (Service) received your letter, dated December 17, 2014, requesting our comments on the Environmental Impact Statement Preparation Notice (EISPN) for the proposed HoKua Place housing development on the island of Kauai. HG Kauai Joint Venture, LLC proposes to develop a mix of 86 single-family and 683 multi-family units, affordable housing residential units, park and open space area, and commercial areas including associated infrastructure (transportation and water/wastewater improvements). The development will be located on approximately 97 acres of a larger 163 acre parcel (TMK 4-3-003:001) adjacent to Olohena Road in Kapaa. We offer the following comments to assist you in the preparation of the draft Environmental Impact Statement (EIS). Our comments are provided under the authorities of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C 1531 *et seq.*).

We reviewed the information you provided and pertinent information in our files, including data compiled by the Hawaii Biodiversity and Mapping Program, as it pertains to federally listed species and designated critical habitat. The following species are known to occur or transit through the proposed project area: the endangered Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*), Hawaiian moorhen (*Gallinula chloropus sandvicensis*), Hawaiian coot (*Fulica ulai*), Hawaiian duck (*Anas wyvilliana*) (hereafter collectively referred to as Hawaiian waterbirds); the endangered Hawaiian goose (*Branta sandvicensis*); the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*); and the endangered Hawaiian petrel (*Pterodroma sandwichensis*), the threatened Newell's shearwater (*Puffinus auricularis newelli*), and a candidate for listing the band-rumped storm-petrel (*Oceanodroma castro*) (hereafter collectively referred to as seabirds). There is no designated critical habitat within the vicinity of the proposed project area. We provide the following recommendations to avoid and minimize project impacts to listed species and candidate species.

#### *Hawaiian Waterbirds*

Our information suggests that your project may result in standing water or creation of open water, thus attracting Hawaiian waterbirds to the site. In particular, the Hawaiian stilt is known to nest in sub-optimal locations (e.g., any ponding water) if water is present. Hawaiian waterbirds attracted to sub-optimal habitat may suffer adverse impacts, such as predation and reduced reproductive success, and thus the project may create an attractive nuisance. Additional details on the proposed site preparation and grading activities is necessary to assess potential impacts to Hawaiian waterbirds. We suggest the draft EIS provide this additional information and outline measures to avoid and minimize potential impacts. Therefore, we recommend you work with our office during project planning so that we may assist you in developing measures to avoid and minimize impacts to Hawaiian waterbirds.

#### *Hawaiian Goose*

In order to avoid impacts to Hawaiian geese, we recommend a biologist familiar with the nesting behavior of the Hawaiian goose survey the area prior to the initiation of any work, or after any subsequent delay in work of three or more days (during which birds may attempt nesting). If a nest is discovered, work should cease immediately and our office should be contacted for further guidance. Furthermore, all on-site project personnel should be apprised that Hawaiian geese may be in the vicinity of the project at any time during the year. If a Hawaiian goose (or geese) appears within 100 feet of ongoing work, all activity should be temporarily suspended until the Hawaiian goose (or geese) leaves the area of its own accord.

#### *Hawaiian Hoary Bat*

The Hawaiian hoary bat roosts in both exotic and native woody vegetation and, while foraging, will leave young unattended in "nursery" trees and shrubs when they forage. If trees or shrubs suitable for bat roosting are cleared during the breeding season, there is a risk that young bats could inadvertently be harmed or killed. Site clearing should be timed to avoid disturbance to Hawaiian hoary bats in the project area.

The EISPN states that the project will adhere to the measure mitigation measure of not clearing woody vegetation greater than 15 feet between June 1 and September 15. The EISPN also describes an alternative mitigation measure of "reviewing areas" scheduled for removal with vegetation greater than 15 by a qualified land manager, biologist, or forester prior to removal, and notifying the Service if a bat is found in the trees scheduled for removal. The Service appreciates your efforts to minimize impacts to the bat. However, as currently written, we are concerned that the proposed alternative protocol is insufficient to assure impacts to the bat would be minimized. We are concerned with the effectiveness of reviewing areas to confirm that juvenile bats are not present in or near trees prior to or during clearing operations. To minimize impacts to the endangered Hawaiian hoary bat, we recommend adherence to our guidance that woody plants greater than 15 feet tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15).

#### *Seabirds*

Seabirds, including the Newell's shearwater, Hawaiian petrel, and band-rumped storm petrel fly at night and are attracted to artificially-lighted areas resulting in disorientation and subsequent fallout due to exhaustion. Seabirds are also susceptible to collision with objects that protrude above the vegetation layer, such as utility lines, guy-wires, and communication towers. Additionally, once grounded, they are vulnerable to predators and are often struck by vehicles along roadways.

We understand the exterior lights installed in conjunction with the proposed project, including streetlights, will be shielded. To further reduce potential impacts to seabirds, we recommend the following minimization measures be incorporated into your project description:

- Construction activities should only occur during daylight hours. Any increase in the use of nighttime lighting, particularly during peak fallout period (September 15 through December 15), could result in additional seabird injury or mortality.
- If housing development lights cannot be eliminated due to safety or security concerns, then they should be positioned low to the ground, be motion-triggered, and be shielded and/or full cut-off. Effective light shields should be completely opaque, sufficiently large, and positioned so that the bulb is only visible from below.

The draft EIS should examine potential impacts to the Newell's shearwater, Hawaiian petrel, and band-rumped storm petrel that may occur as a result of construction and the operational use exterior lights associated with the proposed project.

Utility poles and overhead lines may constitute a collision hazard for seabirds as they traverse between the ocean and their breeding colonies. Additional information on the design of the proposed utility system for the development, including the number of utility poles, length of powerline, configuration of powerlines, and height of utility poles and overhead powerlines, in the area is necessary to assess the potential impacts to seabirds. We suggest the draft EIS provide this additional information as well as determine whether undergrounding power lines in the proposed development area is feasible to avoid impacts to seabirds. If it is not feasible to underground power lines or install power lines at or below the vegetation layer, other measures to minimize the potential for seabird collision should be analyzed in the draft EIS (e.g., vertical versus horizontal arrays, etc.).

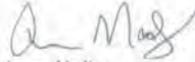
If it is determined that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may assist you with the ESA compliance. Additionally, we recommend you incorporate the attached best management practices into your project description to avoid and minimize impacts to water resources that have the potential to occur during water and wastewater system improvements.

Peter T. Young

4

We appreciate your efforts to conserve endangered species. Please contact Adam Griesemer, Endangered Species Biologist (phone: 808-285-8261, email: adam\_griesemer@fws.gov) should you have any questions pertaining to this response.

Sincerely,



Aaron Nadig  
Island Team Manager  
Oahu, Kauai, North Western Hawaiian  
Islands, and American Samoa

#### U.S. Fish and Wildlife Service Recommended Standard Best Management Practices

The U.S. Fish and Wildlife Service (USFWS) recommends the following measures to be incorporated into project planning to avoid or minimize impacts to fish and wildlife resources. Best Management Practices (BMPs) include the incorporation of procedures or materials that may be used to reduce either direct or indirect negative impacts to aquatic habitats that result from project construction-related activities. These BMPs are recommended in addition to, and do not over-ride any terms, conditions, or other recommendations prepared by the USFWS, other federal, state or local agencies. If you have questions concerning these BMPs, please contact the USFWS Aquatic Ecosystems Conservation Program at 808-792-9400.

1. Authorized dredging and filling-related activities that may result in the temporary or permanent loss of aquatic habitats should be designed to avoid indirect, negative impacts to aquatic habitats beyond the planned project area.
2. Dredging/filling in the marine environment should be scheduled to avoid coral spawning and recruitment periods, and sea turtle nesting and hatching periods. Because these periods are variable throughout the Pacific islands, we recommend contacting the relevant local, state, or federal fish and wildlife resource agency for site specific guidance.
3. Turbidity and siltation from project-related work should be minimized and contained within the project area by silt containment devices and curtailing work during flooding or adverse tidal and weather conditions. BMPs should be maintained for the life of the construction period until turbidity and siltation within the project area is stabilized. All project construction-related debris and sediment containment devices should be removed and disposed of at an approved site.
4. All project construction-related materials and equipment (dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment should be inspected for pollutants including, but not limited to: marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities should not result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP - see <http://www.haccp-nrm.org/Wizard/default.asp>) can help to prevent attraction and introduction of non-native species.
5. Project construction-related materials (fill, revetment rock, pipe, etc.) should not be stockpiled in, or in close proximity to aquatic habitats and should be protected from erosion (e.g., with filter fabric, etc.), to prevent materials from being carried into waters by wind, rain, or high surf.
6. Fueling of project-related vehicles and equipment should take place away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project should be developed. The plan should be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of accidental petroleum releases.
7. All deliberately exposed soil or under-layer materials used in the project near water should be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non-invasive vegetation matting, hydro-seeding, etc.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Aaron Nadig, Island Team Manager  
US Fish and Wildlife Service  
Oahu, Kauai, North Western Hawaiian Islands and American Samoa  
Pacific Islands Fish and Wildlife Office  
300 Ala Moana Boulevard, Room 3-122  
Honolulu, Hawaii 96850

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place  
2015-TA-0102

Dear Mr. Nadig:

Thank you for your letter dated January 16, 2015 regarding HoKua Place.

We have forwarded your letter to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter. Thank you for your comments.

Sincerely,

Peter T. Young

### Peter T Young

**From:** Forest Shomer [ziraat@olympus.net]  
**Sent:** Thursday, January 22, 2015 3:43 PM  
**To:** luc@dbedt.hawaii.gov  
**Cc:** info@hookuleana.com  
**Subject:** Hokua Place EISPN Comments

Commissioners:

The proposal for enormous development at Hokua Place is alarming. It implies traffic gridlock at any number of choke points in the limited road system.

Gridlock already occurs at times, on an everyday basis, between the Wailua River Bridge and the northern end of the bypass road. Adding thousands of vehicle trips per day, which is inevitable if Hokua Place is built as proposed, would leave all residents and visitors north of the Wailua extremely vulnerable in time-sensitive situations----ranging from commuters arriving late to work, students late to school, parents late returning from work to retrieve their keiki after school or post-school activities; to even more urgent situations such as arriving at the airport for a once-a-day flight somewhere, to emergencies like driving to Wilcox. Police, fire, ambulance--all emergency service vehicles are equally susceptible to this gridlock. Many more people are riding the Kauai buses each day, but buses too cannot proceed on a gridlocked road.

The combination of Hokua Place, and a reopened Coco Palms resort, each generating hundreds of vehicle trips per hour throughout the day, would be a 'perfect storm' rendering the northern half of the island a less desirable, or just plain undesirable place from which to come and go. The impact on tourism would be unavoidable--word travels fast among travelers these days. We surely don't want large numbers of visitors having negative experiences such as missed flights due solely to inadequate ground transportation!

If one accepts the premise that *some* development is going to occur at Hokua Place, and that Coco Palms will be adding its big share in generating traffic before very long, the County must anticipate and prepare by improving and expanding the road system. The cost of those improvements could and should be partly borne by those benefiting from these two developments, rather than merely free-loading their vehicle trips into the already burdened system.

I call upon the County to **begin the improvement process by re-routing Kuhio Highway mauka the Coco Palms. There needs to be a new 4-lane bypass extension from the south end of the current bypass, to behind instead of in front of Coco Palms, and south via a new crossing of the Wailua, reconnecting to 3-lane Kuhio south of the Wailua.**

The benefits of such a improvement include:

- increased highway capacity at its main choke point
- removal of the existing lanes south of the Shell station, to reconnect Coco Palms with the beach and to quiet the shoreline from the steady traffic roar
- an opportunity to replace or upgrade the existing sewage facility
- improved access to the Wailua house lots area
- resolution of the traffic congestion where the existing bypass traffic has to merge into the single southbound lane of Kuhio
- a river crossing less susceptible to tsunami damage--which has the potential to sever traffic between the North and East shores!

Lastly: the chance to create a truly vibrant Historic Park district at the mouth of the Wailua River, an honoring of the sacredness of the location.

It wouldn't take Hokua Place to make such a road improvement/relocation worthwhile--but with Hokua Place, it would make such changes urgent and essential.

Please look for ways to get started on highway upgrades now, before rather than after any large development. Sincerely,

Forest Shomer  
[ziraat@olympus.net](mailto:ziraat@olympus.net)

PO Box 301  
Kapaa

Do well by doing good.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Forest Shomer  
ziraat@olympus.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Shomer:

Thank you for your email on January 22, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Impacts on Traffic
- Transport of injured or critically ill patients
- Emergency service response
- Neighboring Development
- Tourism

It also expressed the need for highway upgrades including a Kūhio Highway Bypass Extension.

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

### Peter T Young

**From:** francesco.garripoli@gmail.com on behalf of Francesco Garripoli  
<francesco@wujitech.com>  
**Sent:** Saturday, January 17, 2015 5:06 PM  
**To:** luc@dbedt.hawaii.gov  
**Cc:** info@hookuleana.com  
**Subject:** Hokua Place EISPN Comments

Aloha!

I know you are receiving many email regarding the new proposed development called Hokua Place... So i will not burden you with redundancy... but simply make my statement as a concerned property owner who drives past the Middle School and uses the Bypass daily...

I am VERY concerned about this development proposal and feel it would be extremely detrimental to life on Kaua'i... the life we have all worked hard to preserve...

I pray that the EIS is updated and CAREFULLY reviewed as anyone like me knows that without major infrastructure changes, this Hokua Place development will be a disaster. I want to keep Kaua'i the beautiful place it is now.

Mahalo...

Peace,

Francesco

**Francesco Garri Garripoli 盖瑞**

[WujiTech.com](http://WujiTech.com)  
Founder & CTO



[www.WujiProductions.com](http://www.WujiProductions.com)  
[www.KahunaValley.org](http://www.KahunaValley.org)

Thanks for supporting our non-profit Kahuna Valley organization, dedicated to empowering and educating our youth in the areas of health and well being...

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Francesco Garripoli  
francesco.garripoli@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Garripoli:

Thank you for your email on January 17, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Quality of Life on Kauai
- Infrastructure Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** Fred Wells [fred@anuenue.com]  
**Sent:** Wednesday, January 21, 2015 3:01 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** HoKua Place

RE: HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement

Why must we sacrifice what little agricultural is left in Kapaa for more housing development when there is no apparent need? The nearby large Kulana development with all roads and water in place is still not able to find tenants after many years. And the new development where the former Green's Nursery was located still sits empty. Where are the jobs in the Kapaa area for 800 new families. And there is no room in the schools. The State would have to build additional rooms for the three schools.

A major issue is the inability of the roads to carry anymore traffic. Twice daily a dozen or so busses and many private vehicles travel to the Middle School adjacent to the planned development bringing children from the entire north and east sides, while those who live nearby walk by the roads to their homes. It is well known that the traffic on Kuhio Highway between Kapaa and Wailua is at a standstill. The so-called Kapaa Bypass is just as bad. The traffic circle no longer functions when all four entrances are backed up preventing any movement on or off. In a crisis emergency vehicles could never get through since there is no road shoulder space.

The recent new designation of most of the Kapaa-Wailua corridor as being in the ocean hazard zone must be considered. If the area is hit by a powerful surge that might wipe out all businesses and even the Wailua River bridges, this population and the entire area north would be cut off from the airport, the harbor that brings in food and supplies, and our major hospital.

So the question is not just about building more houses, but one of major impact to the lives and welfare of a large population of the island.

Mahalo,  
Dr. Frederick Wells  
6163 Waipouli Rd.  
Kapaa, HI 96746

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Fred Wells  
fred@anuenue.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Wells:

Thank you for your email on January 21, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Loss of agriculture land
- Impacts on school capacity
- Infrastructure
- Impacts on Traffic
- Emergency services response

You also expressed concern that the Kappa-Wailua corridor has been designated as being within an ocean hazard zone.

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

### Peter T Young

**From:** Gabriela Taylor <gabriela@keapana.net>  
**Sent:** Sunday, January 18, 2015 4:10 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** comments: Hokua Place EISPN

To: LUC Re: comments/Hokua Pl. EISPN From: GABRIELA TAYLOR 5620 KEAPANA RD, KAPAA, HI 96746 808 823-9013

### INFRASTRUCTURE FIRST : (Development Later)

**1. Roads and Traffic — Everyone from the no. to east shores of Kauai is complaining daily about he traffic from Hell- read on !**

#### My recent driving experiences:

- 1. Jan. 13**, 3pm Kuhio St, west bound, backed up in both directions and creeping from Kuhio highway all the way through the roundabout to the middle School, took me 35 min. to get past middle school- in both directions.
- 2. Jan. 15**, 1 pm going no. on Kuhio Highway from so. exit of ByPass rd to Hauaala Rd traffic backed and creeping, took me 48 minutes. We can't navigate these small roads with any more traffic and stay sane. Traffic from 3 new hotels in Wailua will be and adding Hokua will be intolerable!

#### MY comments re lack of road infrastructure & traffic studies in EISPN

**A The Kauai Long-Range Land Transportation Implementation Plan** developed in 1997 & updated 9/14 for extensive road widening in the areas affected by the proposed zoning change, has not met its 2000 and 2006 deadlines for Kapaa. Therefore, the multi-billion plan implementation will not serve the needs of Hokua Place's 1600 addition vehicle load in a timely fashion. The EISPN does not address that overdue, road widening has to be completed before Hokua Place is granted any further permits.

**B. . Traffic studies need to be updated/repeated for the new DraftEIS.** There have been major changes since the EISPN traffic study was performed in 2013. 1. More traffic is jamming the roads since the influx of Visitors last year, due to the Economic Recovery. 2. Three additional permitted hotels, Coco palms, Coconut Beach Resort and Coconut Plantation resort, counting tourist and staff, will pour an additional 1800 vehicles onto Kuhio Highway in the Wailua corridor. 3. Also, not mentioned in the EISPN, is that the proposed Stores and community swimming pool by Hokua Place will bring additional traffic to the area next to Kapaa Middle School and impact the Roundabout, as well as Olohena Rd. traffic.

**Exhibit H pages 6 & 7. Existing Levels of Service Table 3:** Traffic going east onto Kuhio Highway from Kukui St. at stoplight in downtown Kapaa. is given a B rating ( Scale A-F), the study needs to be re-thought with the load from the school as well as that from Hokua Place

likely creating backup going through beyond the Roundabout. This study must be repeated in the morning when school starts and again in the afternoon when it lets out. Then add the Hokua Place traffic (see my recent experience re this rd. above)

**Table 4:** Kapaa Roundabout at Olohena Rd. is given a grade E noting that “The east-bound approach is near capacity during the morning peak hour. Since that is recognized, please add the Hokua traffic and you have grid-lock. Not acceptable.

**Table 5:** Kuhio Highway at So. End of Bypass Rd. got an F.(failure) rating.

No surprise there. And the Hokua commute traffic to Lihue will add several hundred vehicles to that mess. Why is it not mentioned that traffic is backed up frequently from the Kuamoo Rd light to Kapaa downtown? How can anyone fathom traffic from the 3 new hotels previously mentioned, as well as that from the 800 houses from Hokua Place added to the mess we already have? I ask the LUC to consider the traffic problems we have now, multiply that by 10 and imagine the current one hour wait many have endured driving through Kapaa downtown/Wailua now —doubled.

**C. How does the increased traffic on Olohena Rd.coming from Hokua western exit impact the Middle School?** Dangerous for Kids dropped off, kids walking, kids riding bikes? Have “Complete Streets and Safe Route to School” design principles been incorporated? The middle school is up to capacity. Where will all kids from Hokua Place go?

**D. p15, O 1. “Impacts of Closing Kapaa Bypass”**

The study says that such closing, “would force that traffic to use Kuhio Highway....was noted that Kuhio highway is congested, especially in the afternoon with very slow speeds and long delays.....” “ It’s good the study acknowledged the problems, but what do they mean by “Closing the Bypass”, temporary due to accident or permanent closure? Is there a threat to close the Bypass? If so, that is another reason that this project can’t proceed.

**Other Infrastructure to Consider**

1. Drainage from storm runoff on the hard surfaces created in development needs to be re – examined do to elevation steep slope of land in the project. Detailed flood studies and Flood Insurance Rate Maps need to be done according to comments from Dept of Public Works. Is the Kapaa Bypass bridge flow capacity adequate?
2. The ADA requirement for public roadway, sidewalk and bike path can not be more than a 6% grade. Will that be provided in the project?
3. Over stressing our already near capacity Landfills with construction waste and resident generated trash must be addressed too.
5. Can the Lydgate Sewage treatment plant, which smells bad now, handle the 3 proposed/permitted hotels as well as the 800 Hokua Place dwellings?

**Conclusion:** The proposed Hokua Place subdivision will be disruptive our rural life style as well as to visitors who choose Kauai because of its relaxed pace & natural environment.

The DraftEIS should include include social, emotional and community impacts before it goes any further. And I hope that all the testimony/comments you receive will convince you that this is not the right place or time for this development. **No** on Rezoning this parcel from Ag to Urban!

-----  
Read Gabriela's Book -

"Geckos & Other Guests: Tales of a Kaua'i Bed & Breakfast"

web site: <http://www.napalipress.com/>

buy at Amazon: [http://www.amazon.com/Geckos-Other-GuestsTalesBreakfast/dp/1885129149/ref=sr\\_1\\_1/104-38695969207135ie=UTF8&s=books&qid=1182560125&sr=8-1](http://www.amazon.com/Geckos-Other-GuestsTalesBreakfast/dp/1885129149/ref=sr_1_1/104-38695969207135ie=UTF8&s=books&qid=1182560125&sr=8-1)

Gabriela Taylor  
[gabriela@keapana.net](mailto:gabriela@keapana.net)

*People Don't Stop Playing Because They Grow Old*

*They Grow Old Because They Stop Playing*

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Gabriela Taylor  
gabriela@keapana.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Taylor:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Roads and Traffic
- Lack of Road Infrastructure
- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Traffic Studies
- Neighboring Development
- Capacity of Schools
- Pedestrian Safety
- Impacts of Closing Kapaa Bypass
- Storm Runoff
- ADA Requirements
- Landfill Capacity
- Sewage Treatment Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** George Hoffberg <kauaigeo@gmail.com>  
**Sent:** Sunday, January 18, 2015 9:18 PM  
**To:** info@hookuleana.com  
**Subject:** 800 home development in kapaa

wake up and smell the exhaust.  
implement the 2000 and 2006 plan1st

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapuu Drive  
Kailua, Hawaii 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. George Hoffberg  
kauaigeo@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Hoffberg:

Thank you for your email on January 18, 2015 regarding the HoKua Place EISPN.

The HoKua Place property is designated as an "Urban Center" by both the Kaua'i General Plan and the Kapa'a Town Development Plan. This project seeks to fill the housing needs of Kapa'a within the Urban Center, consistent with these local plans.

The traffic impact of the proposed project was assessed by analyzing changes in traffic volumes at the study intersections and changes on the level-of-service. The HoKua Place developer has prepared and updated several traffic impact assessments and is working with the State and County to address community traffic concerns. Transportation improvements will include an intersection on Kapa'a Bypass Road, bus stops, sidewalks, and bike and walking paths to the existing Kapa'a Middle School.

The forthcoming draft Environmental Impact Statement (DEIS), will include a Traffic Impact Assessment which will include current and anticipated traffic levels as well as planned improvements to the areas transportation system.

Sincerely,

Peter T. Young

**Daniel E. Orodenker**  
**Land Use Commission**  
**235 S. Beretania St. Suite 406**  
**Honolulu, Hawaii 96813**

**Daniel Orodenker**

**Re: Comments on**

- A) Docket No. Aii-791 HG Kauai Joint Venture (HoKua Place)**
- B) Environmental Impact Statement Preparation Notice (EISPN)**
- C) Proposed HoKua Place Project**
- D) Kapa'a, Kawaihau, Kaua'i, Hawai'i**

[HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.](#)

**LET'S BE CLEAR, THIS PROJECT IS NOT SUSTAINABLE.**

**What's the first law of sustainability? You've heard thousands of people talking endlessly about sustainability; did they ever tell you the first law? Here it is: **population growth and/or growth in the rates of consumption of resources cannot be sustained****

**The EIS must look at:**

**Normally Significant Impacts:**

- A) Induced population growth or concentration.**
- B) Substantially increase traffic or ambient noise**
- C) This traffic will have substantial adverse effects on human beings now living on Kauai.**
- D) Impacts which are cumulatively considerable, when viewed in conjunction with the effects of other past, present and probable future projects. The project's contribution must be significant, but need not itself constitute a substantial percentage of the entire cumulative impact.**

**Do well by doing good.**

**Project Alternatives:**

- A) Must discuss both mitigation and alternatives to the proposed project.
- B) The Project is the project not a alternative
- C) Each alt. must be described in sufficient detail to permit comparison with the proposed project
- D) The EIS should focus on alternatives, capable of “substantially lessening “ adverse environmental effects

**Info not adequate or dated (OLD)**

- A) Traffic
- B) Water
- C) Storm Water
- D) Sewage
- E) Resident and Comical generated trash . Yard waste
- F) ADA, do all walks and paths, meet requirement?
- G) Project Roads, especially the main road though the project
- H) Show a complete North/South circulation plan
- I) How does the transportation plan and it’s mitigation promote resiliency for the community.
- J) Connectivity to old town

Traffic is the major issue, and the project should not go forward until the infrastructure is in place to take the traffic from this project and all other known projects. We can document the discussion for the construction of the Kapaa

relief route between Kapule Highway and Kapaa Stream all the way back to 1973. 42 years of growth without the relief route, it’s time has come

- 1) Kapaa, Wailua Development Plan 1973 Bill# 304 (As Amended) Ordinance # 304
- 2) Kauai Long Range Land Transportation Plan 1997
- 3) Kauai General Plan (KGP) Ordinance # 753 adopting the KGP was approved by County Council on Nov. 29, 2000
- 4) Federal-Aid Highway 2035 Transportation Plan

Three pages

[luc@dbedt.hawaii.gov](mailto:luc@dbedt.hawaii.gov)

[info@hookuleana.com](mailto:info@hookuleana.com)

Thank You

Ken Taylor

taylor021@hawaii.rr.com

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Harry Guiremand  
harry.guiremand@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Woods:

Thank you for your email on January 21, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Impacts on Traffic
- Tourism

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** Jane Sezak [jsezak@hotmail.com]  
**Sent:** Monday, January 19, 2015 9:17 AM  
**To:** info@hookuleana.com  
**Subject:** Reasons for Opposition to Hokua Place development plans

1/19/2015

Aloha,

I oppose the Hokua Place development subdivision plans in Kapa. The primary reason I am against this development is traffic. It often takes me an hour to go through Kapaa town to Coco Palms traffic light. I like to shop at Safeway, Papayas and Foodland and often have to turn around and forgo shopping plans as I do not have the time to be stuck in traffic. I can't imagine what traffic will be like if Hokua Place is developed, not to mention the planned addition of more hotels, Coco Palms etc. I have lived on Kauai since 1986 and have never seen traffic so consistently snarled as in the past years, and it is only getting worse. There is no plan I am aware of to alleviate this problem.

I understand the need for housing, as many dear friends have had to leave island due to lack of affordable housing and people looking for rentals have to pay more than half their monthly paycheck for a place to live. These problems are staggering with no easy solutions. Since hotels are not at maximum capacity it seems the county could focus more on affordable housing and allowing bed and breakfasts to be easier for residents to operate. The county of Kauai seems to be on a "growth at all costs" pathway and this is not sustainable especially without awareness of the consequences of these decisions.

There needs to be more public testimony, environmental impact studies and creative problem solving, thinking outside the box, before any new development is approved.

Thank you for your time and consideration.

Sincerely,

Jane Sezak

# Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapuu Drive  
Kailua, Hawaii 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Jane Sezak  
jsezak@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Ms. Sezak:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Neighboring Development
- Affordable Housing

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

## Peter T Young

**From:** Joan Levy <kauaimermaid@me.com>  
**Sent:** Saturday, January 17, 2015 8:51 PM  
**To:** info@hookuleana.com  
**Subject:** Public Comment Period for EISP re Up-zoning: Agriculture to Urban- Hokua Place Subdivision, 800 houses

To: The Kailua Company

Re: Public Comment Period for EISP re Up-zoning: Agriculture to Urban- Hokua Place Subdivision, 800 houses

I am a resident of Kauai for the past 22 years, living in the Wailua houselots area for the past 11 years. I am very concerned about this proposed development.

About a week or so ago, it took me 35 minutes to drive from the traffic light at Haleilio along the Kuhio highway North to a location near the Kauai product fair. At 2:30pm in the afternoon. This normally takes 5-10 minutes.

On Wednesday, 1/14, I took the bypass north at about 3:10pm and traffic was backed up further than ever before. It took 30 minutes to get from the beginning of the bypass to the roundabout. This normally takes 5 minutes. It was a market day and so of course there was traffic for that reason, but in all the 11 years I've been heading on this route to the market at that same time more or less, never before has it been so backed up.

Add 800 min and much more likely another 1600 cars due to this new proposed development coming down Oloheua will surely create an enormous problem at the round about causing increased congestion on the bypass and at the intersection of Kukui Street and the highway at the traffic light.

I live off of Haleilio in the Houselots. The planned development at the Coco Palms that intends to create a parking area off of Haleilio will congest the intersection of Haleilio and the highway even more. Turning right to go to Lihue will be impossible. And turning left to go north will be impossible either on the bypass or driving through town.

It is my understanding that "The Kauai Long-Range Land Transportation Implementation Plan" which was created back in 1997 has not yet met its 2000 and 2006 deadlines for Kapaa. Yet the EISP does not address that overdue road widening has to be completed before Hokua Place is granted any further permits. Can you not see that the cart is being put first before the horse???

What is the point of doing extensive study and then not actualizing the action plans that come out of that study?

Meanwhile the EISP traffic study that was developed in 2013 has already become outdated!

Due to the very good news of economic recovery, we have had an influx of visitors this last year. And what about the Coco Palms, Coconut Beach Resort and Coconut Plantation resorts development plans for the Wailua Corridor. An additional 1800 vehicles are anticipated to accompany this development. As if that is not enough, not mentioned in the EISP are stores and another community swimming pool - does Kapaa really need two community swimming pools?? - by Hokua place to further congest the already too small congested roundabout and entry way into the Kuhio Highway.

I am particularly concerned about this entry: E. p15, O 1. "Impacts of Closing Kapaa Bypass" Does this mean there are plans to close the bypass, temporarily or permanently? The bypass is the only saving grace for the levels of congestion we already have.

With all due respect, this all makes me wonder if the people making these decisions ever get in their cars and drive along these routes themselves!

I understand the importance of maintaining a thriving economy here on Kauai. But bigger is not always better. Managed growth control is even more important than growth. There are many communities that have realized this. Some because of the way nature itself locks the living area in so that it just can't keep expanding. But others have managed to see and implement managed growth that keeps sustainability in mind as a priority and not as something one just gives lip service to.

These are decisions that need to be well thought out before they are made. Because after they are implemented there is no turning back.

If I wanted to live on Oahu or Maui, I would have moved there. Bought my house there. Built my business there. I chose Kauai because of the rural life style, the open vistas to undeveloped nature, and the small town quality of the rural life style that clearly separates Kauai from these other very developed places in Hawaii.

And what about overstressing the already near capacity landfill situation? And the terrible sewage smells already coming from Lydgate sewage treatment and the junction of Haleiilo at the Kuhio Highway. I have to make sure the air circulates from within my car when I am stopped at that light on Haleiilo for the putrid smell that is often filling the air there now. What do you suppose the Coco Palms tourists who are driving from their proposed parking area off of Haleiilo will have to say about that horrid smell???

When the Kuhio Highway floods after big storms because water run off has never really been addressed and the road is closed, how will this huge planned influx of cars add to the problem of getting our valuable tourists, not to mention ourselves, from here to there?

Until the infrastructure for road use and traffic, waste management, water run off, and all the sustainability concerns that I haven't even thought to address here can handle the development we already have it is UNCONSCIONABLE AND WRONG to allow new large developments to be permitted.

I know the developers are chomping at the bit! Why not, it is only about money in their pockets to them. They bring in their own workers (rather than use our local building trade people), they do their thing, and they leave the island with all the money they made. And they leave us to deal with all the problems that we are left with.

Do not be swayed by their costly lobbying and whatever else it is that they do. Please put the people of Kauai and our lifestyle first and foremost in your decision making. And before any permitting is granted that clearly will make things worse for us (but not for the developers) please resolve to take a deeper and more sustainable look at addressing the above stated existing problems we have on Kauai.

Let's put the horse before the cart, ok?

Very Sincerely and very Concerned,

Joan Levy,  
Kapaa resident  
808-822-5488  
[joan@joanlevy.com](mailto:joan@joanlevy.com)

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](mailto:peter.t.young@skype.com)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Ms. Joan Levy  
[joan@joanlevy.com](mailto:joan@joanlevy.com)

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Ms. Levy:

Thank you for your email on January 17, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Neighboring Development
- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts of Closing Kapaa Bypass
- Rural Lifestyle
- Landfill Capacity
- Sewage Capacity
- Storm Runoff
- Infrastructure for Road Use and Traffic, Waste Management and Water Runoff
- Sustainability

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Joanna Vorgeas <jvorgeas@gmail.com>  
**Sent:** Tuesday, January 20, 2015 7:30 AM  
**To:** info@hookuleana.com  
**Subject:** Kauai Development

I **oppose** the Hokua Place development until all the concerns mentioned herein are fully and publicly addressed, and that there needs to be more public community meetings with the State and County agencies involved to confirm that proper action/decisions are being made.

I have been a visitor to Kauai for many years, my brother lives on Kauai. Last Feb. 2014, I was trying to get to the Waialua homesteads area, and literally had to turn around because of the immense traffic, in the middle of the day on the 2 roads in question!....I thought about the heavy tourists times of the year: What tourist would want to drive on these beautiful roads, with this much traffic?....If the proposed construction ensues, there will be devastating results for future 'visitors', not to mention the Kauai students trying to focus on 'learning' with so much invasive noise, dust, etc, from this proposed project. There must be a more logical solution to this very real 'congestion problem. I am very concerned for all of us who want to continue our 'easy going, no stress' Kauai visits, and for the Kauai residents, who are already facing ridiculous amounts of traffic, on Olohena Road, and the Kapa'a Bypass Road everyday.

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Joanna Vorgeas  
jvorgeas@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Ms. Vorgeas:

Thank you for your email on January 20, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Impacts on Road Infrastructure
- Impacts on Tourism

You also expressed the need for more public community meetings with State and County agencies reading the project.

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

**From:** John Harder [dumpdoctor@gmail.com]  
**Sent:** Thursday, January 22, 2015 12:19 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Cc:** Gabriela Taylor; kenneth Taylor; Pat Gegen  
**Subject:** Hokua Place EISPN Comments

**Hokua Place EISPN Comments**

[luc@dbedt.hawaii.gov](mailto:luc@dbedt.hawaii.gov) / [info@hookuleana.com](mailto:info@hookuleana.com)

Aloha, Please insure that the following questions and concerns are addressed in the Hokua Place EIS.

Where does the development propose access to the bypass highway, and what are the anticipated traffic impacts on rush hour traffic? Will the highway need to be widened?

What will be the proposed development's impact on traffic at the southern end of the bypass (the intersection with Kūhi'ō Hwy) at the evening rush hour?

What will be the combined impact of the proposed development and the proposed hotel / condo development in the Wailua / Waipoli area on traffic on Kūhi'ō Hwy from the Bypass intersection to the Kuamoo intersection?

Where exactly will the proposed commercial center be located, what will be its access to either Olohena Rd or the bypass highway, and what would be the proposed impacts?

What will be the traffic impact of the development on the Kuhio Hwy and Kukui Kukui St intersection? It is already difficult to turn left on to the Hwy.

What will be the traffic impact of the development on the Lehua merge heading north?

What will be the development's impact on local schools?

Will there be a plan to reduce the impacts of construction waste generated during development? Will contractors be required to develop specific waste reduction and diversion plans?

What will be the impact of the development on current waste generation? Will the development provide (or require the provision of) adequate space for recycling (especially in the multi-family units)?

How will Sewage be managed? How will any sewage line link up with the existing system? If septic tanks are proposed, what will be the impact on water quality?

What will be the effect of the development on surrounding agricultural uses. Will development increase the pressure for development of the land Makai of the bypass hwy?

What will be the costs of these impacts on local taxpayers (infrastructure, time lost, health & safety, etc)?

Mahalo  
John Harder  
PO Box 272  
4085 Kealia Rd  
Anahola, HI 96703  
808-823-6995

**John Harder, aka the Dumpdoctor**

*If you're not for ZERO Waste, how much Waste ARE you for?*

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](mailto:peter.t.young@hookuleana.com)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Mr. John Harder  
[dumpdoctor@gmail.com](mailto:dumpdoctor@gmail.com)

**Subject:** Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Harder:

Thank you for your email on January 22, 2015 regarding HoKua Place.

We have forwarded your comments to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter.

Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

**From:** jonathan.jay [jikaui@gmail.com]  
**Sent:** Thursday, January 22, 2015 3:21 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Cc:** Ken Taylor; brucesiv@hawaii.rr.com  
**Subject:** REFERENCE: HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.

Aloha.

At a community meeting in regard to this project, a number of issues, concerns, questions, and requests were identified. On behalf of the east-side members present, I am submitting a summary of the points raised:

First and foremost, we request a two week extension be made for comments on the 400+ page document released in the middle of the holiday season at the end of last year. Because of the turbulent holiday season and all the responsibilities they entail: **chanuka, christmas, kwanza**, new years, etc, 1/2 of the 30 day comment period evaporated in the blink of an eye. To read **thru** the document and make cogent analysis takes time, which is why 30 are mandated. However, these 30 days are not like other 30 day periods throughout the year. 2 additional weeks would allow for for an actual 30 days worth of review to be actually available.

Comments, Concerns and Questions:

1) ownership:

can the developer show clear title and/or royal patents to this property? If clear and legal ownership of the property can not be demonstrated, it is inappropriate to respond to any requests from the developer.

2) road congestion/ auto traffic:

Of course this is a concern, and has been in this region for the last 30 years. Many plans have been made to upgrade the transportation infrastructure going back to at least the general plan of 1978, state 2000 DOT and many others, which have largely remained undone. We request that until the previously identified transportation infrastructure upgrades are completed, that no change in zoning be allowed. Transportation infrastructure needs based on existing allowable development capacity never took into consideration this newly proposed large-scale density at this location.

Until long existing needs unmet needs are met, we request no additional density be approved.

3) waste:

how will the waste from 2k people in this proposed high-density development be treated? the existing waste-treatment facility near **lydgate** is over-capacity. Existing fecal/bacterial levels in the local waterways is far above allowable health levels.

We request that until existing conditions are brought with allowable health levels that requests for additional zoning density be denied.

4) pedestrian/school children access:

the existing pedestrian access up the hill from the roundabout to the school is inadequate and dangerous for school children walking to school. The road bed is situated toward the edge of the hillside such that before the children approach the school, room for the walkway on the north side of Oloheua road is squeezed out, and an unsafe crossing must be made at the curve of the road with low line of sight visibility. If the road was re-aligned and moved closer in to the school, the children would be able to safely walk all the way to the school, and then cross safely at a controlled intersection on a straight section of road directly in front of the school.

If the developer is earnest about working in partnership with the community to meet the community's needs while profiting from enhanced development this zoning request will allow, they will demonstrate this good faith by completing this pedestrian improvement adjacent to the parcel before receiving a zoning change.

We request that no zoning change be allowed until such conditions are met.

5) poorly designed dangerous intersection north of project:

At the junction of Oloheua, Kaapuni and Keahulua roads, the intersection was never properly designed or engineered to provide safe transit by automobile, cyclists, or pedestrians.

If the developer is serious about working in good faith with the community to meet community needs while pursuing a healthy profit resulting from a change in zoning from ag to urban, the developer will demonstrate this good faith by completing these upgrades before receiving a zoning change.

We request that no zoning change be allowed until such conditions are met.

6) cycle upgrades consistent with state cycle master plan:

adjacent along the parcel in question, Oloheua road is intended to be made cycle friendly by introducing signage and re-engineering/broadening the shoulders of the road to allow safe passage for cyclists.

If the developer is serious about working in good faith to meet the communities needs while pursuing profit from development consistent with a change in zoning from Ag to Urban, the developer will demonstrate this good faith by making the upgrades adjacent to the entirety of the parcel in question, in this case from the traffic circle up to Oloheua bridge #1 at the western edge of the parcel.

We request that no zoning change be allowed until such conditions are met.

7) improving general road alignment:

adjacent to the parcel in question, the existing roadbed curves and twists in numerous locations obscuring line of sight for drivers in both directions and increasing the danger of travel for all users of the road. Where possible, we request the developer agree to cede portions of the periphery of the parcel in question such that road alignments can be straightened, turning radius can be increased, and generally lines of sight be improved and

extended to enhance safety for all road users including autos, cyclists, and pedestrians.

If the developer is serious about working in good faith with the community to meet community needs while pursuing a healthy profit made possible from a change in zoning from "Ag" to "Urban", the developer will demonstrate this good faith by completing these upgrades before receiving a zoning change.

We request that no zoning change be allowed until such conditions are met.

Mahalo for your attentive reading and consideration of the points raised here.

Respectfully,

jonathan.jay  
Ken Taylor  
James Alalem  
Tommy Makanani  
Jerry Pacheco  
Bruce Smalling

--

**me ke aloha,**  
**jonathan.jay**

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Jonathan Jay  
jjkauai@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Jay:

Thank you for your email on January 22, 2015 regarding HoKua Place.

We have forwarded your comments to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter.

We have continued to receive comments on the EISPN through February 2015.

Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

**From:** Jonathan McRoberts <jonathanmcroberts4@gmail.com>  
**Sent:** Wednesday, January 14, 2015 3:30 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place EISPN comments

I am a 65 year old resident of Kilauea. I moved to Kauai in 1996 after living on Oahu for 18 years. I left my home in Manoa because traffic became so bad that I could no longer get to the beach after work because it took over an hour to go the 4 miles from my home to the South Shore Beaches. On the weekends, the trip to the North shore, that in 1979 took an hour, became a two hour slog, with most of the time spent just getting through the Honolulu corridor. Now I am afraid the same thing is about to happen on Kauai.

The rezoning of the land in the area behind and below Kapa'a Middle School to allow the Hokua Place Development would be a serious mistake for the future of the area and all points North. The resulting traffic snarl would be a nightmare. By itself it is a bad idea, but in combination with two resorts planned behind Coconut Market Place, plus the reopening of Coco Palms, it becomes an absolutely ridiculous idea.

Not only will it create a daily nightmare for the current residents of the area, it will deter tourists from coming to Kauai. Tourists will miss flights and find themselves stuck in traffic jams instead of seeing the island. If more housing needs to be built, it should be South of the Wailua Bridge.

My own opinion is that we need to limit growth, not encourage it. If there must be growth, it should be through increased density in areas of employment that allow residents to get around without cars. We do not need another commuter suburb that feeds into a traffic pattern that is already overcapacity.

Jonathan McRoberts  
2214 Liliuokalani Street  
Kilauea, HI 96753

808-652-6863

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Jonathan McRoberts  
jonathanmcroberts4@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. McRoberts:

Thank you for your email on January 14, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Neighboring Development

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** Joni Benton <halawaihale42@hawaii.rr.com>  
**Sent:** Friday, January 16, 2015 9:33 PM  
**To:** luc@dbedt.hawaii.gov  
**Cc:** info@hookuleana.com  
**Subject:** proposed development

I am writing as a home owner in the Wailua Houselots neighborhood. At present, we are subject to heavy traffic at our stop light (only outlet to the main highway) as well as more and more frequent odorous smells at that light (highway and Hale Ilio) emanating from the sewage management spot on that corner. traffic is backed up from 3:30pm to 6:00 pm (and sometimes later) nearly every day from the Wailua Bridge to the town of Kapaa. Often, the bypass road is similarly congested. Until such time as these issues have been addressed, it seems premature to pursue further development in the Wailua-Kapaa area of the island. Quality of life and the health of current residents must be taken into account.

Thank you,

Joni Lesser-Benton M.S.W., L.C.S.W.  
Halawai Counseling  
[halawaihale42@hawaii.rr.com](mailto:halawaihale42@hawaii.rr.com)

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Joni Benton  
halawaihale42@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Benton:

Thank you for your email on January 16, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Sewage Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** joy blais [joyblais@yahoo.com]  
**Sent:** Monday, January 19, 2015 9:05 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Re: Hokua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.

Aloha,

I am a 17 year resident of Kauai writing in opposition to the proposed Hokua Place subdivision, as it currently stands, for the following reasons:

- 1) Traffic is already too congested in the area. Infrastructure to support this new population is not yet in place. No new development should occur until this problem is addressed.
- 2) Safeguards must be put in place to insure the development will benefit the current residents. All housing built should be made affordable to current lower income residents and the subdivision should not be used to attract new population to the island solely for profit.

In short, our island has limited resources and must be preserved. Once we have overdeveloped this island there is no going back. All efforts should be focused on improving the lives of the current residents who are committed to Kauai and to the community.

Excessive traffic, as we have seen recently, makes it near impossible to get through the Kapaa-Wailua area in a timely manner. In addition to being annoying, it also has far reaching implications for business, education, and health.

There is a strong need here for affordable housing as many hard working kanaka and long time residents are homeless, living in outdoor structures, carpools or cramped apartments with their entire families. Development that supports narrowing the gap between the upper and lower class on this island is badly needed and should be the reason for any new development. Big profit should not be the guiding force.

As usual, the biggest threat to our island lifestyle is the high desirability of living here. We should be very prudent about preserving the beauty of Kauai and the relaxed lifestyle that makes our island a popular tourist location since our economy depends on it.

Please take all this into serious consideration when moving forward with plans for this proposed project.

Thank you very much,

Joy

Joy Blais  
310 Makani Rd  
Kapaa, HI 96746

Do well by doing good.

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Joy Blais  
joyblais@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Blais:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Infrastructure Capacity
- Affordable Housing

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

**Peter T Young**

**From:** Judie Lundborg Hoepfner <judie@aloha.net>  
**Sent:** Thursday, January 22, 2015 10:12 PM  
**To:** info@hookuleana.com  
**Subject:** Hokua EISPN

Infrastructure First : (Development Later)

Aloha,

I am testifying that adding 800 more vehicles to Kapaa area roads is beyond reasonable. Even with the by-pass road, it can easily take an hour to get through Kapaa. Please DO NOT allow this subdivision to move forward until the traffic issues in Kapaa are addressed.

Mahalo,

Judie Hoepfner  
639-0212

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Judie Hoepfner  
judie@aloha.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Hoepfner:

Thank you for your email on January 22, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Road Infrastructure Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

## Peter T Young

**From:** Spirit Feathers Pattee [spiritfeathers13@msn.com]  
**Sent:** Monday, January 19, 2015 7:59 AM  
**To:** uc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Re-Zoning - Hokua Place Subdivision

### Agriculture to Urban – Hokua Place Subdivision, 800 houses

I DO NOT WANT THIS DEVELOPMENT. I feel that it will bring our traffic to a standstill, endanger our children as they travel to and from school, place an immense burden on an inadequate infrastructure, damage our economy, and irrevocably damage our quality of life. I appeal to the Land Use Commission to **refuse the application to change the zoning of 97 acres of land adjacent to the Kapa'a Middle School from Agricultural to Urban Residential.**

- The project would result in severe road congestion that would have an enormous impact on the lives of residents, who are already finding it increasingly difficult to travel between the North Shore and Lihue, as well as on tourism. The inevitable long traffic delays would make Kaua'i very much less attractive to tourists, who would find it very difficult to move around the island. Existing traffic studies are inadequate and out of date due to the growing pressure on the road system. Most significantly, the plans for road widening dating back to 1997 have not been implemented.
- 
- The middle school is already at capacity, and a large additional influx of students could easily undermine the quality of education.
- 
- The infrastructure required to support the proposed development is **inadequate**. We do not have the landfill capacity to handle large amounts of construction waste and personal waste from the projected new homes. Drainage is inadequate to handle the run off from the projected hard surface areas (more concrete on our land??). There is a real question as to whether the Lydgate Sewage Treatment plant could adequately handle the human waste from an additional nearly 800 residential units and associated developments. There is a question about the availability of water for the proposed residences.
- 

In summary, this project will bring **profit to developers** but will severely **damage the economy and quality of life of the island** of Kaua'i. It will significantly weaken the concept of agricultural land, which has been fundamental to the historical development of the island. For all these reasons, the community strongly opposes it.

**Please remember this Island is 22 miles by 33 miles and is trying to handle 60,000 people every day already. Please think this proposed RE-ZONING thru very carefully.... It is in no way a win-win situation for you, me, your family, our Island residents, or mahiini.**

Judy Pattee, Reiki Master  
Kapahi, Kauai

*E Ho`o Maluhia me ka Honua – May Peace Prevail on Earth*

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Judy Pattee  
Spiritfeathers13@msn.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Pattee:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Pedestrian Safety
- School Capacity
- Inadequate Infrastructure
- Landfill Capacity
- Drainage
- Wastewater Treatment Facility Capacity
- Availability of Water

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** Kabir Helminski <khelminski@aol.com>  
**Sent:** Tuesday, January 20, 2015 7:48 AM  
**To:** info@hookuleana.com  
**Subject:** Hokua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.

PLEASE, PLEASE, DO NOT LET THIS DEVELOPMENT HAPPEN. IT WILL CAUSE IMMENSE TRAFFIC AND OTHER PROBLEMS.

ED HELMINSKI PRINCEVILLE

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



---

### Peter T Young

**From:** kastoll@hawaiiantel.net  
**Sent:** Monday, January 19, 2015 10:19 PM  
**To:** info@hookuleana.com  
**Subject:** UNACCEPTIBLE!

Mr. Ed Helminski  
khelminski@aol.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Helminski:

Thank you for your email on January 20, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on traffic.

The draft Environmental Impact Statement (DEIS) for the project will address this issues. Thank you for your comments.

Sincerely,

A handwritten signature in black ink that reads "Peter T. Young".

Peter T. Young

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Karin Stoll  
kastoll@hawaiiintel.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Stoll:

Thank you for your email on January 19, 2015 regarding HoKua Place.

The draft Environmental Impact Statement (DEIS) for the project will address issues raised in the EISPN comment period. Thank you for your email.

Sincerely,

Peter T. Young

---

**Peter T Young**

**From:** Kauailady1@aol.com  
**Sent:** Wednesday, January 14, 2015 7:24 AM  
**To:** info@hookuleana.com  
**Subject:** (no subject)

kealea area fronting beach had water cores taken for new route from north to south. as one day it will flood from raising ocean. very soon. already.

they also took core samples at alakai swamp which may have most likely caused tons of water to dump into waialua why the river is so poluted it's a crime. it's also a crime this outpoor was only twice mentioned ... went to wildlife preserve to get the straight story. it breached twice.

this over 4th July weekend. the pollution is unmentionable.

kauailady1

help our kauai ... stop raising buildings those people will be dead soon so help kauai now.

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Kauailady1@aol.com

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Kauailady1:

Thank you for your email on January 14, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Storm Runoff
- Pollution

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

**Bernard P. Carvalho, Jr.**  
Mayor

**Nadine K. Nakamura**  
Managing Director



**DEPARTMENT OF PUBLIC WORKS**  
County of Kaua'i, State of Hawai'i  
4444 Rice Street, Suite 275, Lihue, Hawai'i 96766  
TEL (808) 241-4992 FAX (808) 241-6604

**Larry Dill, P.E.**  
County Engineer

**Lyle Tabata**  
Deputy County Engineer

February 4, 2015

Mr. Peter Young, President  
Ho'okuleana LLC  
1539 Kanapu'u  
Kailua, Hawai'i 96734

SUBJECT: HoKua Place - Environmental Impact Statement Preparation Notice (EISP)  
Ho'okuleana, LLC - Petitioner  
TMK: (4) 4-3-03: Por. 001  
Kapa'a, Kawaihau District, Island of Kaua'i PW 12.14.084

Dear Mr. Young:

The Engineering Division of the Department of Public Works received the subject EISP on December 17, 2014. We appreciate the opportunity to review the EISP and offer these general comments:

1. The Kaua'i County Council has adopted a resolution establishing a *Complete Streets Policy*. Therefore, *Complete Streets* design principles will need to be incorporated in this project. *Complete Streets* features include interconnected sustainable street networks providing opportunities for all modes of travel to and from neighborhood and nearby destinations. Street layout and design shall provide connectivity with ample space for pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities. We recommend that you work with our office as you finalize the street network and street cross sections for the project. The preliminary street layout shows many cul-de-sacs and dead end streets. We recommend that dead end streets be avoided as much as possible in the design of this project. In addition, where streets do not connect (for example due to concerns about access control and intersection proximity on major streets and collector streets), we recommend that pathway connections be provided for pedestrians and bicyclists. For this project, it is especially important that pedestrian and bicycle connections be provided from all residential areas of the development to Kapa'a Middle School.
2. A Traffic Impact Assessment Report (TIAR) is included as part of the EISP. We would appreciate the opportunity to review the TIAR prior to it being finalized, in order to provide more detailed comments. We have the following initial comments regarding the TIAR and the discussion of traffic issues in the EISP:

*An Equal Opportunity Employer*

- a. There are a number of typographical errors in the traffic section of the EISPN (Section 4.9), including misspelled and incorrect road names, incomplete sentences, and other errors.
- b. We recommend that the revised TIAR analyze the intersection of Kuhio Highway and Lehua Street since this intersection will likely receive more northbound traffic than the Kuhio Highway and Kukui Street intersection.
- c. We recommend that the revised TIAR analyze the intersection of Olohena Road and Lehua Street since this intersection will receive a fair amount of additional traffic.
- d. The EISPN suggests speed control measures along Road "A" through the project area. Road "A" is an important connection that will alleviate congestion in other areas; as such it will need to be constructed as a collector street. The use of four-way stops or typical residential street speed humps would not be appropriate as speed control on a collector street. We recognize the need to reduce speeds on this roadway and we recommend that the applicant work with us to identify appropriate speed control measures for a collector street, possibly including speed tables or raised medians.
- e. The EISPN includes discussion of a letter from the Hawaii Department of Transportation that suggests that a left turn storage lane from the Kapa'a Bypass into Road "A" could be deferred. We disagree and recommend that this left turn lane be included as part of the project development. In addition, the TIAR assumes that there will be no traffic making the southbound left turn from Road "A" to the Kapa'a Bypass. We do not agree with this assumption. The EISPN indicates an estimated level of service of D for the southbound left and right turn movements, even with this assumption of no southbound left turns. We suspect that the addition of southbound left turns at this intersection will have a negative effect on the delay and level of service. This may warrant additional mitigating measures, such as separate southbound left and right turn lanes, or a possible roundabout at this intersection. Lastly, the AM Peak analysis in the TIAR for this intersection appears to incorrectly assign the volumes for the westbound through movement to the westbound right turn movement.
- f. The EISPN and TIAR show the proposed location of the intersection of Olohena Road and Road "A" as being approximately adjacent to the property line of Kapa'a Middle School. We are concerned about the close proximity of this full movement intersection to the school. In addition, this intersection would be about 800 feet from the intersection of Olohena Road and Ka'apuni Road, an existing intersection with unusual geometry. The TIAR shows that the small amount of project-generated traffic at the intersection of Olohena Road and Ka'apuni Road intersection does not significantly worsen delay or level of service. However, we are concerned with the safety of this intersection due to the increase in traffic and the unusual geometry. We recommend that the TIAR evaluate realigning Road A

- to connect to Olohena Road at Kaapuni Road, with the possible installation of a roundabout.
3. Pre-development drainage flow volumes and drainage flow patterns must be maintained. The applicant is required to address any increase in storm water runoff generated from the proposed improvements and mitigate drainage impacts in compliance with the County's Storm Water Runoff System Manual. No additional storm water runoff is allowed to adversely impact natural drainage ways, streams, or downstream properties. The Preliminary Engineering Report – Drainage Improvements for Kapa'a Highlands – Phase II as Exhibit F does not provide sufficient information to analyze the impacts of storm water runoff from the proposed development.

Thank you for providing this opportunity for consultation on this pending project. We look forward to receipt of the Draft Environmental Impact Statement. If you have any questions or need additional information, please contact me at (808) 241-4891 or Stanford Iwamoto at (808) 241-4896.

Very truly yours,



MICHAEL MOULE, P.E.  
Chief, Engineering Division

SI/MM

Copies to: DPW-Design & Permitting  
Larry Dill, County Engineer

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Michael Moule, P.E.  
Chief, Engineering Division  
Department of Public Works  
County of Kaua'i, State of Hawai'i  
4444 Rice Street, Suite 275  
Lihue, Hawai'i 96766

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Mr. Moule:

Thank you for your letter dated February 4, 2015 regarding HoKua Place.

We have forwarded your letter to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

**Bernard P. Carvalho, Jr.**  
Mayor

**Nadine K. Nakamura**  
Managing Director



**TRANSPORTATION AGENCY**  
County of Kaua'i, State of Hawai'i  
3220 Ho'olalo Street, Lihue, Hawai'i 96766  
TEL (808) 246-8110 FAX (808) 241-6417

**Celia M. Mahikoa**  
Executive on Transportation

January 5, 2015

Mr. Peter T. Young  
Ho'okuleana LLC  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734

Dear Mr. Young,

The County of Kaua'i, Transportation Agency appreciates the opportunity to comment on the proposed Ho'okuleana Project in respect to our area of concern. We look forward to participating in the review of the development plans as they progress along. At this early stage we have a few general comments in relation to the operation of the public transit system and the proposed Ho'okuleana Development that have been bullet pointed below:

- ❖ Please be aware of and integrate the concepts of the KMLTP (Kaua'i Multi-Modal Land Transportation Plan). A full copy that was adopted by the County Council can be found at <http://www.movekauai.net> in the library section under Council adopted version.
- ❖ Please be aware of and integrate the concepts of the County Bus Stop Design Guidelines. A PDF copy can be requested by submitting a request to: [jlee@kauai.gov](mailto:jlee@kauai.gov).
- ❖ We are requesting to become a consulted party for this development plan.

If you have any questions or comments, please feel free to contact us. Mahalo for the ongoing support of The Kaua'i Bus.

Sincerely,

Celia Mahikoa  
Executive on Transportation

An Equal Opportunity Employer

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



*Water has no substitute.....Conserve it*

January 26, 2015

UID #682

Ms. Celia Mahikoa, Executive on Transportation  
Transportation Agency  
County of Kauai  
3220 Ho'olako Street  
Lihu'e, HI 96766

Mr. Peter T. Young  
Ho'okuleana LLC  
1539 Kanapu'u Drive  
Kailua, HI 96734

Dear Mr. Young:

**Subject:** Environmental Impact Statement for the Hokua Project (Formerly Referred to as Kapaa Highlands), TMK: 4-3-03:001 por, Kapaa, Kauai

This is in regard to your letter dated December 17, 2014. We have no objections to the proposed Environmental Impact Statement. The following are our comments to the subject Environmental Impact Statement for the Hokua Project (formerly referred to as Kapaa Highlands).

Water service will be limited to the existing water meters serving this parcel. Any actual subdivision or development of this area will be dependent on the adequacy of the source, storage, and transmission facilities existing at that time. At the present time, the existing source and storage facilities are not adequate for the proposed project which includes 16 single family residential units (SFR) for Phase 1; 86 SFR, 683 multifamily residential units (MFR), parks, church, and commercial development for Phase 2.

Prior to the Department of Water (DOW) recommending building permit or water service approval, the applicant will be required to:

1. Prepare and receive DOW's approval of a Water Master Plan for full development of the area.
2. Submit a formal request for water service. The applicant shall describe the proposed water meter use. For non-residential use, the applicant shall submit detailed water demand calculations, along with the proposed water meter size, to the DOW for review and approval. DOW conditions for approval may change based on the approved water demands and use.
3. Prepare and receive DOW's approval of construction drawings for the necessary water system facilities and construct said facilities as required in the approved water master plan for the proposed project.
4. Pay the applicable charges in effect at the time of payment to the DOW. At the present time, these charges include the Facilities Reserve Charge (FRC). FRC offsets may apply for source, storage, and transmission facilities that qualify for offsets, in accordance with the DOW's Rules and Regulations.
5. Receive a "Certification of Completion" notice for the construction of necessary water system facilities from the DOW.

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Mahikoa:

Thank you for your letter dated January 5, 2015, in which you offered comments on the EISPN.

We will review the Kauai Multi-Modal Land Transportation Plan as well as the County Bus Stop Design Guidelines, and incorporate relevant information into the Draft Environmental Impact Statement (DEIS).

We also acknowledge your request to become a consulted party for the HoKua project.

We appreciate your participation in the environmental review process.

Sincerely,

Peter T. Young

Do well by doing good.

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Edward Doi  
Water Resources and Planning Division  
Department of Water  
County of Kaua'i  
4398 Pua Loke Street  
Lihue, Hawai'i 96766

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Doi:

Thank you for your letter dated January 26, 2015 regarding HoKua Place.

We have forwarded your letter to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter. Thank you for your comments.

Sincerely,

Peter T. Young

Mr. Peter T. Young  
Ho'okuleana LLC  
Subject: Environmental Impact Statement for the Hokua Project (Formerly Referred to as  
Kapaa Highlands), TMK: 4-3-03:001 por, Kapaa, Kauai  
January 26, 2015  
Page 2

All conditions stated above are subject to the Rules and Regulations of the DOW as amended or as will be amended.

If you have any questions concerning the construction drawings, please contact Mr. Roman Silvestre at (808) 245-5412. For questions concerning the Certification of Completion, please contact Mr. Dustin Moises at (808) 245-5459. For other questions, please contact Ms. Regina Flores at (808) 245-5418.

Sincerely,

Edward Doi  
Water Resources and Planning Division

RP:lon  
4-3-03-001por, T-16717, Hokua Project EIS, Young

Daniel E. Orodenker  
Land Use Commission  
235 S. Beretania St. Suite 406  
Honolulu, Hawaii 96813

Daniel Orodenker

Re: Comments on

- A) Docket No. Aii-791 HG Kauai Joint Venture (HoKua Place)
- B) Environmental Impact Statement Preparation Notice (EISPN)
- C) Proposed HoKua Place Project
- D) Kapa'a, Kawaihau, Kaua'i, Hawai'i

HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.

**LET'S BE CLEAR, THIS PROJECT IS NOT SUSTAINABLE.**

What's the first law of sustainability? You've heard thousands of people talking endlessly about sustainability; did they ever tell you the first law? Here it is: **population growth and/or growth in the rates of consumption of resources cannot be sustained**

The EIS must look at:

Normally Significant Impacts:

- A) Induced population growth or concentration.
- B) Substantially increase traffic or ambient noise
- C) This traffic will have substantial adverse effects on human beings now living on Kauai.
- D) Impacts which are cumulatively considerable, when viewed in conjunction with the effects of other past, present and probable future projects. The project's contribution must be significant, but need not itself constitute a substantial percentage of the entire cumulative impact.

Project Alternatives:

- A) Must discuss both mitigation and alternatives to the proposed project.
- B) The Project is the project not a alternative
- C) Each alt. must be described in sufficient detail to permit comparison with the proposed project
- D) The EIS should focus on alternatives, capable of "substantially lessening " adverse environmental effects

Info not adequate or dated (OLD)

- A) Traffic
- B) Water
- C) Storm Water
- D) Sewage
- E) Resident and Comical generated trash . Yard waste
- F) ADA, do all walks and paths, meet requirement?
- G) Project Roads, especially the main road though the project
- H) Show a complete North/South circulation plan
- I) How does the transportation plan and it's mitigation promote resiliency for the community.
- J) Connectivity to old town

Traffic is the major issue, and the project should not go forward until the infrastructure is in place to take the traffic from this project and all other known projects. We can document the discussion for the construction of the Kapaa

relief route between Kapule Highway and Kapaa Stream all the way back to 1973. 42 years of growth without the relief route, it's time has come

- 1) Kapaa, Wailua Development Plan 1973 Bill# 304 (As Amended) Ordinance # 304
- 2) Kauai Long Range Land Transportation Plan 1997
- 3) Kauai General Plan (KGP) Ordinance # 753 adopting the KGP was approved by County Council on Nov. 29, 2000
- 4) Federal-Aid Highway 2035 Transportation Plan

Three pages

[luc@dbedt.hawaii.gov](mailto:luc@dbedt.hawaii.gov)

[info@hookuleana.com](mailto:info@hookuleana.com)

Thank You

Ken Taylor

taylor021@hawaii.rr.com

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young

1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Ken Taylor  
taylor021@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Taylor:

Thank you for your email on January 21, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion
- Environmental Impacts

You also noted the need to address "Normally Significant Impacts" and Project Alternatives as well as the need to expand on a variety of issues not adequately addressed in the EISPN.

The draft Environmental Impact Statement (DEIS) for the project will address and expand on these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

**Peter T Young**

---

**From:** Kim Morris [kimmerlyzimmer@yahoo.com]  
**Sent:** Monday, January 19, 2015 9:59 AM  
**To:** info@hookuleana.com  
**Subject:** Zoning Proposal

HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.

Hello, I am a regular visitor to Kauai and usually stay in Kapa'a. I am very concerned about the proposal to change the zoning of 97 acres from Agricultural to Urban Residential.

Please do not approve this proposal for the sake of both traffic congestion (I probably will stop coming to Kauai if approved) and also the Environmental impact of such change in policy.

Thank you for your consideration of these concerns.

Kim Morris, Langleys, WA

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Kim Morris  
kimberlyzimmer@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Morris:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion
- Environmental Impacts

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

**From:** Kirby Guyer [hoomaha@aloha.net]  
**Sent:** Monday, January 19, 2015 1:04 PM  
**To:** info@hookuleana.com  
**Subject:** Need infrastructure

LONG LIST WITH MORE INFORMATION:

INFRASTRUCTURE must be addressed, updated and in place as per Table ES-6 Kauai Long-Range Land Transportation Implementation Plan, developed in 1997 with deadlines for completion in 2000 and 2006 for Kapa'a. As outlined, they all relate to widening roads in the area of the proposed zoning change from Agricultural to Urban Residential. None of these have occurred.

There have been major changes in the proposed area since this EIS was published in Oct, 2013, such as: more population arriving as tourists and real estate buyers due to the economic recovery; 3 more hotels, already pre-approved, are being developed in the near future, resulting in an additional approximately 1600 more vehicles on a daily basis in the Wailua/Kapa'a corridor.

The petitioners claim that there are no known developments in the area that will be affecting additional traffic on the roads to be used by this proposed zoning change. In fact, the Kulana Subdivision on Olohehena Road will add many more vehicles traveling west and east to and from Kapa'a, passing the property in question.

Only 30 % of the approximately 800 residential and farm lots will be considered to be "affordable" housing. Is this in proportion to what is actually needed?

The main road thru the proposed Hokua Place exits on the west side onto Olohehena Road, immediately adjacent to the Kapa'a Middle School Parking lot. From early morning, sometimes in darkness, and mid afternoon, the vehicles in this area to drop off or pick up students creates a large traffic problem coming from Wailua Homesteads, Kapahi and from Kapa'a. Students must walk along Olohehena Road and/or cross it to get to the school at this point to exit or enter the cars parked along the roadside.

This area has a blind intersection of 3 intersecting roads, (Kaaupuni, Kaehula and Olohehena) including a steep grade immediately west of the school and the proposed road leading in and out of the proposed sub division. The representative for this project recognizes that this may present a dangerous situation and has indicated at a public community meeting that a Round-A-Bout may solve this problem. However, for those who know the actual terrain of this area, a Round-A-Bout could not be safely and successfully constructed anywhere near a steep incline, i.e. Olohehena Road. The EIS states that complete streets and safe routes to school design principles need to be addressed, page ??.

Retail stores and a community swimming pool (funded by Kauai tax payers) are projected for this subdivision. Therefore, far more traffic than indicated will be entering and exiting at all hours of the day and evening that may not include any bona-fide residents of the subdivision.

The applicants have not addressed the issue of construction waste and additional amounts of personal trash that will be generated from multi hundred residences. The Kauai landfill is already full, with no indication that a projected one will be built in the near future or within the expected start-up date of the proposed project.

Storm run off water from the projected hard surface areas will find the natural valley drainage areas allowing water to drain down onto the bypass road and across into private property and homes below the subdivision, causing possible floods. This has not been addressed in the EIS.

We question whether or not the current Lydgate Sewage Treatment plant can adequately handle human waste from an additional nearly 800 residential units, several retail stores and a swimming pool facility?

If the Kauai Department of Water does not accept the applicant's offer to donate water from its well, for what ever reason, can the DOW guarantee that enough water will be available to all residences, stores and a swimming pool from the only source now available, a tank on Kaaupuni Road? If additional well(s) must be drilled by the DOW, who will bare this expense?

The applicant has stated at a public community meeting that schools in the Kapa'a area have plenty of room for new students. This is not a true fact. Any public school teacher in any of the Kapa'a schools can verify that classrooms are now at or over capacity.

Kirby B. Guyer  
--  
Hale Ho o Maha B & B  
P.O. Box 82  
7083 Hanalei Rd  
Hanalei, Kauai, HI 96714  
800-851-0291 Toll Free  
808-826-7083 Kauai/Hawaii  
808-826-7084 Fax  
<http://www.halemahi.com> WEBSITE

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Kirby Guyer  
hoomaha@aloha.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Guyer:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts on Traffic
- Neighboring Development
- Affordable Housing
- Access Into and From HoKua Place
- Pedestrian Safety
- Construction Waste, Adequate Sewage Treatment, Storm Runoff and Sufficient Water Supply
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

**From:** L Osterer <losterer@hotmail.com>  
**Sent:** Sunday, January 18, 2015 11:51 PM  
**To:** info@hookuleana.com  
**Subject:** EISPN comments for proposed Hokua Place Subdivision and zoning change

Kauai is respected by residents and tourists alike for its rural, less developed terrain. Planners are now ignoring the "slow growth" concepts that were supposed to be carried forth by county officials. Instead they seem to be looking for more tax revenue from developed parcels, ignoring the long term effects for tourism, the main source of income.

Traffic congestion does not serve businesses and discourages everyone from going anywhere. A simple drive from the south shore to shop in Kapaa now takes an hour instead of 1/2 that because there is always road construction somewhere along the way. For traveling to the north shore, you have to plan on 2 hours for commute traffic or construction. Tourists are turned off when stuck in traffic, miss a tour, golf tee off or restaurant. Residents learn to go out less. Why must Kauai always be 20 years behind correcting traffic flow? And why aren't developers paying the real cost of providing infrastructure, that is roads, schools, waste disposal, public services such as police. These are all indirect costs that the taxpayer bears, while developers make all the money. We cannot put real expenses off to the future in this economy. A valid EISPN should study the whole picture.

We the public are stuck with the results when there is inadequate future planning, or plans are not completed. For example at the Safeway/Foodland area congestion, a vehicular bridge between shopping centers and secondary road entrance/exits could alleviate lengthy Kuhio highway back-ups. Clearly existing congestion needs to be addressed adequately before more is added. This includes road widening, specified in the 1997 Kauai Long-Range Land Transportation Implementation Plan, still incomplete. The Wailua bypass and Kuhio Highway through Kapaa are already saturated and will not adequately handle the added traffic for 3 new hotels planned. Please determine if the new hotels or anyone else is building any new septic processing plants. Evidently the current operation of the Wailua septic plant is marginal and not likely to handle increased capacity. Also, the schools need expansion to serve the families of the subdivision. So, neither the subdivision or the hotels should proceed without extensive commitments to improve roads, schools, and septic service IN ADVANCE.

Specifically, traffic/infrastructure studies need to be updated to incorporate the 3 new hotel effects on the Wailua corridor. Solutions should be found to avoid closing of the Wailua bypass. The current Kapaa Roundabout at Olohena Rd roundabout needs to be further addressed for saturation at school access hours before planning for the increase from Hokua Place. Adequate foot/bike paths and pedestrian safety measures need to be incorporated to provide safe routes for students in and around this area.

Once plans incorporate all of the public requirements, bonds need to be required to insure their completion. This should be required by law to protect the taxpayers, who otherwise end up with decades of inconvenience and cost to remedy it.

Thank you for your consideration,  
L. Osterer, Koloa, HI.

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



L. Osterer  
losterer@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear L. Osterer:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Neighboring Development
- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Sewage Capacity
- School Capacity
- Wailua Bypass
- Kapaa Roundabout at Olohena
- Pedestrian Safety

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** laurel francis <lafxoxo@yahoo.com>  
**Sent:** Monday, January 19, 2015 5:19 PM  
**To:** info@hookuleana.com  
**Subject:** ag land!

Note I totally oppose changing agricultural land into urban development in this Kappa area! Sincerely, Laurel Francis, Kilauea resident.....

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Laurel Francis  
lafxoxo@yhao.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Francis:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns regarding the reclassification of land from agriculture to urban.

The draft Environmental Impact Statement (DEIS) for the project will address this issue further. Thank you for your comment.

Sincerely,

Peter T. Young

**Peter T Young**

**From:** Laurel Quarton [laurelq@hawaiiintel.net]  
**Sent:** Monday, January 19, 2015 3:35 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place

It is unfortunate that Hokua Place project, which has the potential to contribute funds and impetus to affordable housing and community building, is the straw to break our backs. The three other high impact hotel projects along Kuhio Highway in the Kapaa corridor have already been approved with little if any remediation provided for infrastructure relief and improvement. At the same time they provide nothing for the county besides tourist dollars which don't equitably serve community interests. Without these three projects already in the works it is possible that HoKua Place might have worked out. In addition to those three, Hokua Place is unacceptable. Please seriously consider the below quick and long summaries of concerns.

The below list is a quick summary of essential requirements before Hokua Place can be considered acceptable.

- 1) The Kauai Long-Range Land Transportation Implementation Plan, Table ES-6 of 1997 must be completed before any new development occurs in the Kapa'a-Wailua area.
- 2) Adding an additional estimated 1600 vehicles from this proposed subdivision onto Kuhio Highway with the already permitted three hotels in the Wailua-Kapaa Corridor will cause unprecedented traffic, jeopardizing the safety of residents trying to reach the airport, hospital, medical, dental and business appointments. NOT TO MENTION DURING NATURAL DISASTER EVACUATIONS.
- 3) "Affordable Housing" as described in the EIS is not really affordable for most Kauai residents in today's economy.
- 4) Access into and from HoKua Place at the Kapa'a Middle School on Olohehena Road, will jeopardize the safety of school children and parents twice daily.
- 5) Construction noise, dust and daily confusion will greatly affect the safety and learning abilities of the students at the Kapa'a Middle School for many years.
- 6) Construction waste, adequate sewage treatment, storm run off and a sufficient clean water supply have not been adequately addressed by the applicants.

**LONG LIST WITH MORE INFORMATION:**

INFRASTRUCTURE must be addressed, updated and in place as per Table ES-6 Kauai Long-Range Land Transportation Implementation Plan, developed in 1997 with deadlines for completion in 2000 and 2006 for Kapa'a. As outlined, they all relate to widening roads in the area of the proposed zoning change from Agricultural to Urban Residential. None of these have occurred.

There have been major changes in the proposed area since this EIS was published in Oct, 2013, such as: more population arriving as tourists and real estate buyers due to the economic recovery; 3 more hotels, already pre-approved, are being developed in the near future, resulting in an additional approximately 1600 more vehicles on a daily basis in the Kapa'a-Wailua corridor.

The petitioners claim that there are no known developments in the area that will be affecting additional traffic on the roads to be used by this proposed zoning change. In fact, the Kulana Subdivision on Olohehena Road will add many more vehicles traveling west and east to and from Kapa'a, passing the property in question.

Only 30 % of the approximately 800 residential and farm lots will be considered to be "affordable" housing. Is this in proportion to what is actually needed?

The main road through the proposed Hokua Place development exits on the west side onto Olohehena Road, immediately adjacent to the Kapa'a Middle School Parking lot. From early morning, sometimes in darkness, and mid afternoon, the vehicles in this area arriving to drop off or pick up students creates a large traffic problem coming from Wailua Homesteads, Kapahi and from Kapa'a. Students must walk along Olohehena Road and/or cross it to get to the school at this point to exit or enter the cars parked along Olohehena Road.

This area has a blind intersection of three intersecting roads, (Ka'apuni, Kaehula and Olohehena) including a steep grade immediately west of the school and the proposed road leading in and out of the proposed subdivision. The representative for this project recognizes that this may present a dangerous situation and has indicated at a public community meeting that a roundabout may solve this problem. However, for those who know the actual terrain of this area, a roundabout could not be safely and successfully constructed and implemented anywhere near a steep incline, i.e. Olohehena Road. The EIS states that complete streets and safe routes to school design principles need to be addressed, page ??.

Retail stores and a community swimming pool (funded by Kaua'i taxpayers) are projected for this subdivision. Therefore, more traffic than indicated by the plan will be entering and exiting at all hours of the day and evening that would be over and above that from within Hokua Place.

The applicants have not addressed the issue of construction waste and additional amounts of personal trash that will be generated from multi hundred residences. The Kauai landfill is already full, with no indication that a projected one will be built in the near future or within the expected start-up date of the proposed project.

Storm runoff water from the projected hard surface areas will find the natural valley drainage areas allowing water to drain down onto the bypass road and across into private property and homes below the subdivision, causing possible floods. This has not been addressed in the EIS.

We question whether or not the current Lydgate Sewage Treatment plant can adequately handle human waste from an additional nearly 800 residential units, several retail stores and a swimming pool facility?

If the Kaua'i Department of Water does not accept the applicant's offer to donate water from its well, for what ever reason, can the DOW guarantee that enough water will be available to all residences, stores and a swimming pool from the only source now available, a tank on Ka'apuni Road? If additional well(s) must be drilled by the DOW, who will bear this expense?

The applicant has stated at a public community meeting that schools in the Kapa'a area have plenty of room for new students. This is not true. Any public school teacher in any of the Kapa'a schools can verify that classrooms are now at or over capacity.

Aloha,

Laurie Quarton, Kapaa

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Laurel Quarton  
laurel@hawaiiintel.net

**Subject:** Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Ms. Quarton:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts on Traffic
- Affordable Housing
- Access Into and From HoKua Place
- Construction Impacts on Kapa'a Middle School
- Construction Waste, Adequate Sewage Treatment, Storm Runoff and Sufficient Clean Water Supply
- Neighboring Development
- Pedestrian Safety
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

---

**From:** Linda Garrett <kapaaqueen@hawaii.rr.com>  
**Sent:** Wednesday, January 14, 2015 12:46 PM  
**To:** luc@dbedt.hawaii.gov  
**Cc:** info@hookuleana.com  
**Subject:** Hokuia Place EISPN Comments

Aloha Hawaii State Land Use Commission:

I am writing in opposition to a large development plan called Hokuia Place, proposed by Mr. Greg Allen, in Kapaa, Hawaii.

This particular area is currently zoned for ag land and asking that this area be rezoned to urban zoning. Really? 800 new homes in that area. The traffic on this island has already affected our quality of life.

I believe the prudent position on this item is to fix the roads on this island before adding additional housing to an area that traffic is already impossible to traverse.

I for one will continue to protest this zoning change.

Linda Garrett  
4707 Iwaena Rd.  
Kapaa, HI 96746

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Linda Garrett  
kapaaqueen@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Garrett:

Thank you for your email on January 14, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Reclassification of Agriculture Land
- Impacts on Traffic

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**From:** Loren Kohnfelder <[loren.kohnfelder@gmail.com](mailto:loren.kohnfelder@gmail.com)>  
**Date:** December 28, 2014 at 7:13:30 AM HST  
**To:** Bill Buley <[bbuley@thegardenisland.com](mailto:bbuley@thegardenisland.com)>  
**Cc:** Darin Moriki <[DMoriki@thegardenisland.com](mailto:DMoriki@thegardenisland.com)>  
**Subject:** Correction: **HoKua Place talks grow heated**

The lot size numbers in the recent article do not add up that I can figure.

Article: HoKua Place talks grow heated  
[http://thegardenisland.com/news/local/hokua-place-talks-grow-heated/article\\_328cd1e6-8e5a-11e4-bb1c-f7826e2c845d.html](http://thegardenisland.com/news/local/hokua-place-talks-grow-heated/article_328cd1e6-8e5a-11e4-bb1c-f7826e2c845d.html)

It says, "As HoKua Place is currently proposed, about 97 acres of the development will be set aside for 683 multi-family units ranging from 7,500- to 10,000-square-feet, and 86 single-family lots ranging in size from 1- to 5-acre parcels."

Even at the minimum 7500 sq ft size, 683 lots is over 117 acres, not 97.

683	lots
7500	sq ft
117.6	acre
43,560	sq ft per acre

Presumably the 86 larger lots are separate, still using the minimum 1 acre size ( $97 + 86 = 183$ ) is more than the stated 163 acre total project size. So I suspect something is off with these numbers.

Hope this helps. Thanks for covering these important community events.

/Loren Kohnfelder  
Kalaheo

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](mailto:peter.t.young@hookuleana.com)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Ms. Loren Kohnfelder  
[loren.kohnfelder@gmail.com](mailto:loren.kohnfelder@gmail.com)

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Kohnfelder:

Thank you for your comment in an e-mail dated December 28, 2014 to the Garden Island regarding their December 28, 2014 article on HoKua Place. Your email was forwarded to me.

You raised concern about the land available for the respective uses as reported in the Garden Island for the HoKua Place project. Unfortunately, the Garden Island transposed the acreage of the parcels and thus, printed the wrong information in their news story.

The EISPN for HoKua Place states, "Approximately 97-acres will be subdivided into single family lots ranging from 7,500 to 10,000 square feet and multifamily lots from 1-acre to 5-acre parcels. A total of 683-multi-family units and 86-single family lots and homes are planned", page 12.

We apologize for the confusion this created and appreciate your participation in the environmental review process.

Sincerely,

Peter T. Young

Do well by doing good.

**Peter T Young**

---

**From:** Kolea [marciharter@gmail.com]  
**Sent:** Monday, January 19, 2015 2:02 PM  
**To:** info@hookuleana.com  
**Subject:** Kapaa proposal

Greetings,

I am a resident of Anahola. I have seen the traffic increase every year since I have lived in my house on Kuhio highway. I now seriously consider whether I need to go to Lihue as the traffic in Kapaa is unbearable. I do not see how in any reasonable frame of mind additional development of this size could even be considered for this area of the island with the infrastructure so inadequate. Certainly the interests of the residents of the east side are not being considered. Who interests are being considered?

We live on an island with very special qualities. However, pressure from additional development coming from developers is only going to continue and increase. I do think in the past the pressure has worked. How many developments have been turned down? It is past time to consider the long range implications of the decisions that are being made as to building on Kaua'i.

Infrastructure first, including roads, walking and bike paths so we don't have to only rely on cars to travel safely, mixed use development so residents don't have to go long distances for jobs, planning for green buildings and communities. All the information is there to plan for proper and sustainable development, but this proposal is not safe for students or residents, not sustainable, not in the interests of the residents of the east side.

Marcia Harter  
Anahola, HI=

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Marcia Harter  
marciharter@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Harter:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Neighboring Development
- Infrastructure Concerns
- Planning for Green Buildings and Communities

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

---

**Peter T Young**

---

**From:** Maren Orion [marenorion@hotmail.com]  
**Sent:** Monday, January 19, 2015 8:48 AM  
**To:** info@hookuleana.com  
**Subject:** FW: Kapa'a proposed subdivision

---

**From:** marenorion@hotmail.com  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Kapa'a proposed subdivision  
**Date:** Sun, 18 Jan 2015 12:51:52 -1000

---

[Aloha Folks... Here are some very good reasons not to allow the proposed subdivision mauka of Kapa'a to happen at this time. These issues need to be addressed and solved before this is allowed. Who actually owns this land anyway?](#)

[Sincerely, Maren Orion Oppenheimer, Kilauea](#)

**SHORT LIST:**

- 1) The Kauai Long-Range Land Transportation Implementation Plan, Table ES-6 of 1997 must be completed before any new development occurs in the Kapa'a-Wailua area.
- 2) Adding an additional estimated 1600 vehicles from this proposed subdivision onto Kuhio Highway with the already permitted three hotels in the Wailua-Kapaa Corridor will cause unprecedented traffic, jeopardizing the safety of residents trying to reach the airport, hospital, medical, dental and business appointments.
- 3) "Affordable Housing" as described in the EIS is not really affordable for most Kauai residents in today's economy.
- 4) Access into and from HoKua Place at the Kapa'a Middle School on Olohehena Road, will jeopardize the safety of school children and parents twice daily.
- 5) Construction noise, dust and daily confusion will greatly affect the safety and learning abilities of the students at the Kapa'a Middle School for many years.
- 6) Construction waste, adequate sewage treatment, storm run off and a sufficient clean water supply have not been adequately addressed by the applicants.

**LONG LIST WITH MORE INFORMATION:**

INFRASTRUCTURE must be addressed, updated and in place as per Table ES-6 Kauai Long-Range Land Transportation Implementation Plan, developed in 1997 with deadlines for completion in 2000 and 2006 for Kapa'a. As outlined, they all relate to widening roads in the area of the proposed zoning change from Agricultural to Urban Residential. None of these have occurred.

There have been major changes in the proposed area since this EIS was published in Oct, 2013, such as: more population arriving as tourists and real estate buyers due to the economic recovery; 3 more hotels, already pre-approved, are being developed in the near future, resulting in an additional approximately 1600 more vehicles on a daily basis in the Wailua/Kapa'a corridor.

The petitioners claim that there are no known developments in the area that will be affecting additional traffic on the roads to be used by this proposed zoning change. In fact, the Kulana Subdivision on Olohehena Road will add many more vehicles traveling west and east to and from Kapa'a, passing the property in question.

Only 30 % of the approximately 800 residential and farm lots will be considered to be "affordable" housing. Is this in proportion to what is actually needed?

The main road thru the proposed Hokua Place exits on the west side onto Olohehena Road, immediately adjacent to the Kapa'a Middle School Parking lot. From early morning, sometimes in darkness, and mid afternoon, the vehicles in this area to drop off or pick up students creates a large traffic problem coming from Wailua Homesteads, Kapahi and from Kapa'a. Students must walk along Olohehena Road and/or cross it to get to the school at this point to exit or enter the cars parked along the roadside.

This area has a blind intersection of 3 intersecting roads, (Kaapuni, Kaehula and Olohehena) including a steep grade immediately west of the school and the proposed road leading in and out of the proposed sub division. The representative for this project recognizes that this may present a dangerous situation and has indicated at a public community meeting that a Round-A-Bout may solve this problem. However, for those who know the actual terrain of this area, a Round-A-Bout could not be safely and successfully constructed anywhere near a steep incline, i.e. Olohehena Road. The EIS states that complete streets and safe routes to school design principles need to be addressed, page ??.

Retail stores and a community swimming pool (funded by Kauai tax payers) are projected for this subdivision. Therefore, far more traffic than indicated will be entering and exiting at all hours of the day and evening that may not include any bona-fide residents of the subdivision.

The applicants have not addressed the issue of construction waste and additional amounts of personal trash that will be generated from multi hundred residences. The Kauai landfill is already full, with no indication that a projected one will be built in the near future or within the expected start-up date of the proposed project.

Storm run off water from the projected hard surface areas will find the natural valley drainage areas allowing water to drain down onto the bypass road and across into private property and homes below the subdivision, causing possible floods. This has not been addressed in the EIS.

We question whether or not the current Lydgate Sewage Treatment plant can adequately handle human waste from an additional nearly 800 residential units, several retail stores and a swimming pool facility?

If the Kauai Department of Water does not accept the applicant's offer to donate water from its well, for what ever reason, can the DOW guarantee that enough water will be available to all residences, stores and a swimming pool from the only source now available, a tank on Kaapuni Road? If additional well(s) must be drilled by the DOW, who will bare this expense?

The applicant has stated at a public community meeting that schools in the Kapa'a area have plenty of room for new students. This is not a true fact. Any public school teacher in any of the Kapa'a schools can verify that classrooms are now at or over capacity.

- 
- [Privacy & cookies](#)
  - [Developers](#)
  - [English \(United States\)](#)

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Maren Orion Oppenheimer  
marenorion@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Oppenheimer:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts on Traffic
- Affordable Housing
- Access Into and From HoKua Place
- Construction Impacts on Kapa'a Middle School
- Construction Waste, Adequate Sewage Treatment, Storm Runoff and Sufficient Clean Water Supply
- Neighboring Development
- Pedestrian Safety
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

From: Margery Freeman [<mailto:freemanmargery@gmail.com>]  
Sent: Friday, January 09, 2015 9:43 AM  
To: [PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
Subject: Hokua Place

Mr. Peter Young and others.

I have a single question about the EISPN on Kapaa Highlands development. The most important thing to include is exactly how the traffic will go in and out of the project. Not just that it will connect with the bypass road but details on how many cars per hour and how many at peak times. How those cars will join Kuhio Hwy., which is already backed up for a good part of the day. We need to know the number of cars now and the number when the Highlands building is complete and occupied. And we need to know details on your transportation plan.

Thanks,  
Marge Freeman - Kapaa

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Margery Freeman  
freemanmargery@gamil.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Freeman:

Thank you for your email on January 9, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Traffic into and out of HoKua Place
- Road Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

## Peter T Young

**From:** Marj Dente [mdente@hawaii.rr.com]  
**Sent:** Monday, January 19, 2015 9:39 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** HoKua Place Sect 343-5e HRS Preparation Notice, EIS

ATTENTION: LAND USE COMMISSION AND HOKUA LAND DEVELOPERS  
RE: HoKua Place Sect 343-5e, HRS Preparation Notice, Environmental Impact Statement

As a resident landowner for over 25 years, and dependent on the efficient use of Kuhio Highway in the Kapa'a - Wailua Corridor on a daily basis, I am writing to oppose any land rezone of what is now called HoKua Place in Kapa'a. Absolutely NO zoning changes should ever occur to change the zoning of this property into Urban Residential, for any amount of density, as the infrastructure of this area can and will not support such a change.

I urge you to NOT support this zoning change. My concerns and comments are as follows:

Infrastructure must be addressed, updated and in place as per Table ES-6 Kauai Long-Range Land Transportation Implementation Plan, developed in 1997 with deadlines for completion in 2000 and 2006 for Kapa'a. As outlined, they all relate to widening roads in the area of the proposed zoning change from Agricultural to Urban Residential. None of these have occurred.

There have been major changes in the proposed area since this EIS was published in Oct, 2013, such as: more population arriving as tourists and real estate buyers due to the economic recovery; 3 more hotels, already pre-approved, are being developed in the near future, resulting in an additional approximately 1600 more vehicles on a daily basis in the Wailua/Kapa'a corridor.

The petitioners claim that there are no known developments in the area that will be affecting additional traffic on the roads to be used by this proposed zoning change. In fact, the Kulana Subdivision on Olohehena Road will add many more vehicles traveling west and east to and from Kapa'a, passing the property in question.

Only 30 % of the approximately 800 residential and farm lots will be considered to be "affordable" housing. Is this in proportion to what is actually needed?

The main road thru the proposed Hokua Place exits on the west side onto Olohehena Road, immediately adjacent to the Kapa'a Middle School Parking lot. From early morning, sometimes in darkness, and mid afternoon, the vehicles in this area to drop off or pick up students creates a large traffic problem coming from Wailua Homesteads, Kapahi and from Kapa'a. Students must walk along Olohehena Road and/or cross it to get to the school at this point to exit or enter the cars parked along the roadside.

This area has a blind intersection of 3 intersecting roads, (Kaapuni, Kaehula and Olohehena) including a steep grade immediately west of the school and the proposed road leading in and out of the proposed sub division. The representative for this project recognizes that this may present a dangerous situation and has indicated at a public community meeting that a Round-A-Bout may solve this problem. However, for those who know the actual terrain of this area, a Round-A-Bout could not be safely and successfully constructed anywhere near a steep incline, i.e. Olohehena Road. The EIS states that complete streets and safe routes to school design principles need to be addressed, page ??.

Retail stores and a community swimming pool (funded by Kauai tax payers) are projected for this subdivision. Therefore, far more traffic than indicated will be entering and exiting at all hours of the day and evening that may not include any bona-fide residents of the subdivision.

The applicants have not addressed the issue of construction waste and additional amounts of personal trash that will be generated from multi hundred residences. The Kauai landfill is already full, with no indication that a projected one will be built in the near future or within the expected start-up date of the proposed project.

Storm run off water from the projected hard surface areas will find the natural valley drainage areas allowing water to drain down onto the bypass road and across into private property and homes below the subdivision, causing possible floods. This has not been addressed in the EIS.

We question whether or not the current Lydgate Sewage Treatment plant can adequately handle human waste from an additional nearby 800 residential units, several retail stores and a swimming pool facility?

If the Kauai Department of Water does not accept the applicant's offer to donate water from its well, for what ever reason, can the DOW guarantee that enough water will be available to all residences, stores and a swimming pool from the only source now available, a tank on Kaapuni Road? If additional well(s) must be drilled by the DOW, who will bear this expense?

The applicant has stated at a public community meeting that schools in the Kapa'a area have plenty of room for new students. This is not a true fact. Any public school teacher in any of the Kapa'a schools can verify that classrooms are now at or over capacity.

Thank you for consideration of my request.

Marjorie Dente, 6335 Waipouli Road, Unit B, Kapa'a, HI 96746

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Marjorie Dente  
mdente@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Dente:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts on Traffic
- Affordable Housing
- Access Into and From HoKua Place
- Construction Impacts on Kapa'a Middle School
- Construction Waste, Adequate Sewage Treatment, Storm Runoff and Sufficient Clean Water Supply
- Neighboring Development
- Pedestrian Safety
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

### Peter T Young

**From:** M.Mulhall <mmulhall@hawaii.rr.com>  
**Sent:** Saturday, January 24, 2015 10:30 PM  
**To:** info@Hookuleana.com  
**Subject:** Please re-think LOCATION of HoKua development

To the directors of HoKua housing development:

Please re-think the LOCATION of the planned development in Kapaa. Yes, we need more housing, but the chosen location in Kapaa would be disastrous.

Traffic in Kapaa is horrendous NOW. HoKua Place is planned in an area where the traffic is already bad and will be unbearable with so many additional units of housing added. On the mainland, planners prepare for three vehicles per planned home. Here on Kauai – on my street – a more realistic figure is five to six vehicles per dwelling, This includes the pickup trucks, boat trailers, boats, etc. that many families need. Realistically, almost 2,000 housing units will mean close to 10,000 more vehicles on Kauai's roads- and in Kapaa.

The bypass road will not mitigate the traffic problems in Kapaa. It does not do that NOW.

In addition, any citizen who must drive past the Wailua Waste Treatment facility and the pump station at Haleliio Rd. and the highway is very much aware that the Wailua Waste Water Treatment plant is NOT adequate to handle what we have now, let alone additional development.

Please use common sense and develop the infrastructure needed BEFORE building this housing.  
Mahalo,  
Mary Mulhall

P.S. A suggestion: a far more reasonable location for development is the area along Ahukini Road between Lihue Airport and Walmart's property. That area is flat (a win for developers) closer to Lihue (a win for commuters) and in a location close to schools, Wilcox Hospital, and work locations for hundreds of workers (a win for the children, workers and families). The shorter distances to be traveled for work, school, shopping etc. will mean less wear and tear on the roads, a win for the Department of Transportation, too.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Mary Mulhall  
mmulhall@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Mulhall:

Thank you for your email on January 24, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Infrastructure
- Adequate Sewage Treatment

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

### Peter T Young

**From:** meg schofield <megschofield@yahoo.com>  
**Sent:** Tuesday, January 13, 2015 12:42 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place EISPN Comments

To Whom It may Concern,

Thank you for taking comments from the public regarding the proposed change in zoning, (agricultural to urban), which would allow plans for Hokua Place, an 800-house subdivision and additional commercial district to proceed.

While I understand that Kauai is deficient in housing availability, especially affordable housing, I am deeply concerned that the existing infrastructure in the proposed subdivision area is NOT by any means adequate at this time to allow such a development to occur.

We live off of Hauiki Road and in the past several years we have witnessed increasing traffic jams and gridlock that have literally caused us to have to abandon journeys to Lihue for work, appointments, services, shopping etc. We already have a serious traffic problem without the addition of 1600 cars coming and going from Hokua Place, let alone three newly permitted hotels in the Kapaa/Wailua corridor.

The Kauai Long-Range Land Transportation Implementation Plan's 2000 and 2006 targets for Kapaa have not been met, and so it is unfathomable that development on the scale being proposed could be seriously considered until road widening and alternative transportation options have been put in place. In the 2013 existing traffic study, Kuhio Highway at the South end of the Bypass Rd. got an 'F' (failure) rating. The Hokua commute traffic to Lihue would add several hundred vehicles to that mess.

While traffic and transportation issues top the list of inadequate existing infrastructure, the proposed development raises two additional serious public health concerns: over stressing our already near capacity landfills with construction waste and resident generated trash, and proper waste water treatment facilities.

This represents a significant and unacceptable threat to the Kauai rural lifestyle and quality of life, which is what attracts people to the island in the first place.

The proposed Hokua Place subdivision will be disruptive our rural life style as well as to visitors who choose Kauai because of its relaxed pace & natural environment. The EIS PN should include include social, emotional and community impacts before it goes any further.

Thank you for considering this input.

Sincerely,  
Meg Schofield  
5879 Kini Place  
Kapaa, HI 96746

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Meg Schofield  
megschofield@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Schofield:

Thank you for your email on January 13, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure Capacity
- Impacts on Traffic
- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Landfill Capacity
- Wastewater Treatment Facilities

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

A handwritten signature in black ink that reads "Peter T. Young". The signature is stylized and written in cursive.

Peter T. Young

**Peter T Young**

---

**From:** Michael Goodwin <goodwinkip@gmail.com>  
**Sent:** Sunday, January 18, 2015 6:43 PM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place Subdiv. zone change

I attended the developer's presentation at Kapa'a Neighborhood Ass'n meeting. The developer said there is ample capacity at the Lidgate waste treatment plant for his development. At least two and probably three resort developments are in line ahead of him. It's only fair that the state must address this before allowing any zoning change. This is but one of several infrastructure needs that have to be addressed for development to go forward. The developers, not the taxpayers, must pay the costs.

In addition:

- 1) The Kauai Long-Range Land Transportation Implementation Plan, Table ES-6 of 1997 must be completed before any new development occurs in the Kapa'a-Wailua area.
- 2) Adding an additional estimated 1600 vehicles from this proposed subdivision onto Kuhio Highway with the already permitted three hotels in the Wailua-Kapaa Corridor will cause unprecedented traffic, jeopardizing the safety of residents trying to reach the airport, hospital, medical, dental and business appointments.
- 3) "Affordable Housing" as described in the EIS is not really affordable for most Kauai residents in today's economy.
- 4) Access into and from HoKua Place at the Kapa'a Middle School on Olohena Road, will jeopardize the safety of school children and parents twice daily.
- 5) Construction noise, dust and daily confusion will greatly affect the safety and learning abilities of the students at the Kapa'a Middle School for many years.
- 6) Construction waste, adequate sewage treatment, storm run off and a sufficient clean water supply have not been adequately addressed by the applicants.

With regards,  
Michael K Goodwin  
6296Q Olohena Road  
Kapa'a

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Michael Goodwin  
goodwinkip@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Goodwin:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Waste Treatment Plant Capacity
- Infrastructure Needs
- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts on Traffic
- Affordable Housing
- Access Into and From HoKua Place
- Construction Impacts on Kapa'a Middle School
- Construction Waste, Adequate Sewage Treatment, Storm Runoff and Sufficient Clean Water Supply

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Michael Schwartz <mschwart@uw.edu>  
**Sent:** Sunday, January 18, 2015 5:34 PM  
**To:** info@hookuleana.com  
**Subject:** REFERENCE: HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.

Dear Sir

I'm writing to protest plans for the planned HoKua Place Subdivision Development in Kapa'a. Congestion is already excessive in Kapa'a and this would undoubtedly worsen with the major influx of residents resulting from this development.

Sincerely

Michael W. Schwartz, MD  
3556 Moloa'a Rd  
Kilauea, HI

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Michael Schwartz  
mschwart@uw.edu

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Schwartz:

Thank you for your email on January 18, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

From: mira [<mailto:mirasharan@pacific.net>]  
Sent: Sunday, January 11, 2015 7:53 PM  
To: [info@hookuleana.com](mailto:info@hookuleana.com)  
Subject: Hokua Place EISPN

Aloha,

As a resident of Kapaa I have major concerns about this proposed 800 house subdivision.

As all residents and visitors know the traffic jam that occurs daily going and coming thru Kapaa causes delays up to 1 hour just to get from one side to another. I have been in that jam many many times.

How will 800 cars + households with two cars...manage to get to their houses, to work or just to town? The traffic is a major problem already.

The present studies and guides to meet the present need for alternate ways to get through Kapaa have not been met. WE need to make this a major consideration BEFORE more houses and cars are added.

Thank you for your attention,

Mira Walker

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young@hookuleana.com](mailto:peter.t.young@hookuleana.com)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Ms. Mira Walker  
[mirasharan@pacific.net](mailto:mirasharan@pacific.net)

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Walker:

Thank you for your email on January 11, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Transportation Alternatives

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

**Peter T Young**

---

**From:** Molly McKenzie <molly@molly-design.ca>  
**Sent:** Monday, January 19, 2015 7:23 AM  
**To:** info@hookuleana.com  
**Subject:** Hokua Development

I oppose the Hokua Place development until all the concerns are fully and publicly addressed. There needs to be more public community meetings with the State and County agencies involved to confirm that proper action/decisions are being made.

My major concern is the infrastructure in the Kapaa area does not support this dense development.

Please do the right thing.

Sincerely,

Molly McKenzie

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Molly McKenzie  
molly@molly-design.ca

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. McKenzie:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure Capacity
- Community Consultation on Actions and Decisions

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Jeff Miller <sandcastle1@hawaiiintel.net>  
**Sent:** Wednesday, January 14, 2015 4:43 PM  
**To:** luc@dbedt.hawaii.gov  
**Cc:** info@hookuleana.com  
**Subject:** Hokua place eispn comments

To whom it may concern,

Please reconsider your plan for this development. We are already almost grid locked through town. After the proper solution to traffic is solved then it would make sense to build a new neighborhood. Thank you, Mrs. Miller

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mrs. Miller  
sandcastle1@hawaiiintel.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mrs. Miller:

Thank you for your email on January 14, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impact on Traffic

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Sea & Bill Peterson <seabillpeterson@gmail.com>  
**Sent:** Thursday, January 15, 2015 7:48 AM  
**To:** info@Hookuleana.com  
**Subject:** Question re: HoKua Place proposal

Dear Mr. Young,

My husband and I live not far from the **proposed** HoKua Place development in Kapa'a on Kauai and are very concerned about traffic congestion and safety on the Kapaa Bypass Road and at the intersection of Olohena Road and the Kapaa Bypass Road.

Sometimes the roads are so congested that traffic is at a standstill in the traffic circle and traffic on the bypass connecting to Kuhio Hwy is back up all the way to the traffic circle at Olohena. These roads have even been rated "F" because of this.

I was wondering if you know of plans to address and remedy the congestion before considering adding a 760 unit housing complex to the area as proposed by HoKua Place, HG Kaua'i Joint Venture.

I would appreciate a response.

Mahalo.

Aloha,  
Mrs. Peterson  
Teacher

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mrs. Peterson  
seabillpeterson@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mrs. Peterson:

Thank you for your email on January 15, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion
- Traffic Safety

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

**From:** Pamella DeFrancis [pamellahd@yahoo.com]  
**Sent:** Wednesday, January 21, 2015 9:48 AM  
**To:** info@hookuleana.com  
**Subject:** Hokua Place

This list of concerns is circulating. Not everyone will respond to you but this list is out there to many voters. Having attended many Lihue planning meetings and a few Kapaa meetings I can honestly support these requests. I have lived in six other developing communities during my life. NONE of them allowed subdivision development before all infrastructure was completed. Only Kauai allows this in my experience. You and I are suffering and certainly our children will. Pay attention to true needs and proper planning before jumping to profit mongers. Again, I support these concerns, especially the ones addressing plans already on the books and in need of updating and completion.

**SHORT LIST:**

- 1) The Kauai Long-Range Land Transportation Implementation Plan, Table ES-6 of 1997 must be completed before any new development occurs in the Kapa'a-Wailua area.
- 2) Adding an additional estimated 1600 vehicles from this proposed subdivision onto Kuhio Highway with the already permitted three hotels in the Wailua-Kapaa Corridor will cause unprecedented traffic, jeopardizing the safety of residents trying to reach the airport, hospital, medical, dental and business appointments.
- 3) "Affordable Housing" as described in the EIS is not really affordable for most Kauai residents in today's economy.
- 4) Access into and from Hokua Place at the Kapa'a Middle School on Olohena Road, will jeopardize the safety of school children and parents twice daily.
- 5) Construction noise, dust and daily confusion will greatly affect the safety and learning abilities of the students at the Kapa'a Middle School for many years.
- 6) Construction waste, adequate sewage treatment, storm run off and a sufficient clean water supply have not been adequately addressed by the applicants.

**LONG LIST WITH MORE INFORMATION:**

INFRASTRUCTURE must be addressed, updated and in place as per Table ES-6 Kauai Long-Range Land Transportation Implementation Plan, developed in 1997 with deadlines for completion in 2000 and 2006 for Kapa'a. As outlined, they all relate to widening roads in the area of the proposed zoning change from Agricultural to Urban Residential. None of these have occurred.

There have been major changes in the proposed area since this EIS was published in Oct, 2013, such as: more population arriving as tourists and real estate buyers due to the economic recovery; 3 more hotels, already pre-approved, are being developed in the near future, resulting in an additional approximately 1600 more vehicles on a daily basis in the Wailua/Kapa'a corridor.

The petitioners claim that there are no known developments in the area that will be affecting additional traffic on the roads to be used by this proposed zoning change. In fact, the Kulana Subdivision on Olohena Road will add many more vehicles traveling west and east to and from Kapa'a, passing the property in question.

Only 30 % of the approximately 800 residential and farm lots will be considered to be "affordable" housing. Is this in proportion to what is actually needed?

The main road thru the proposed Hokua Place exits on the west side onto Olohena Road, immediately adjacent to the Kapa'a Middle School Parking lot. From early morning, sometimes in darkness, and mid afternoon, the vehicles in this area to drop off or pick up students creates a large traffic problem coming from Wailua Homesteads, Kapahi and from Kapa'a. Students must walk along Olohena Road and/or cross it to get to the school at this point to exit or enter the cars parked along the roadside.

This area has a blind intersection of 3 intersecting roads, (Kaapuni, Kaehula and Olohena) including a steep grade immediately west of the school and the proposed road leading in and out of the proposed sub division. The representative for this project recognizes that this may present a dangerous situation and has indicated at a public community meeting that a Round-A-Bout may solve this problem. However, for those who know the actual terrain of this area, a Round-A-Bout could not be safely and successfully constructed anywhere near a steep incline, i.e. Olohena Road. The EIS states that complete streets and safe routes to school design principles need to be addressed, page ??.

Retail stores and a community swimming pool (funded by Kauai tax payers) are projected for this subdivision. Therefore, far more traffic than indicated will be entering and exiting at all hours of the day and evening that may not include any bona-fide residents of the subdivision.

The applicants have not addressed the issue of construction waste and additional amounts of personal trash that will be generated from multi hundred residences. The Kauai landfill is already full, with no indication that a projected one will be built in the near future or within the expected start-up date of the proposed project.

Storm run off water from the projected hard surface areas will find the natural valley drainage areas allowing water to drain down onto the bypass road and across into private property and homes below the subdivision, causing possible floods. This has not been addressed in the EIS.

We question whether or not the current Lydgate Sewage Treatment plant can adequately handle human waste from an additional nearly 800 residential units, several retail stores and a swimming pool facility?

If the Kauai Department of Water does not accept the applicant's offer to donate water from its well, for what ever reason, can the DOW guarantee that enough water will be available to all residences, stores and a swimming pool from the only source now available, a tank on Kaapuni Road? If additional well(s) must be drilled by the DOW, who will bare this expense?

The applicant has stated at a public community meeting that schools in the Kapa'a area have plenty of room for new students. This is not a true fact. Any public school teacher in any of the Kapa'a schools can verify that classrooms are now at or over capacity.

Aloha nui,

Pamella DeFrancis

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Pamella DeFrancis  
pamellahd@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. DeFrancis:

Thank you for your email on January 21, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts on Traffic
- Affordable Housing
- Access Into and From HoKua Place
- Construction Impacts on Kapa'a Middle School
- Construction Waste, Adequate Sewage Treatment, Storm Runoff and Sufficient Clean Water Supply
- Neighboring Development
- Pedestrian Safety
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

---

**From:** John and Patricia <howardsendus@gmail.com>  
**Sent:** Friday, January 16, 2015 2:33 PM  
**To:** info@hookuleana.com  
**Subject:** Hokua Place

I suspect you know that this will be a strong 'NO' vote on the proposed change to the zoning along what is now the Kapa'a bypass road in order to build on the state land there.  
I suspect that no one from your organization has attempted to drive from Kapa'a into Lihue in recent weeks? If substantial research were to be a part of this proposal, it would quickly become obvious that there is already traffic overload through that corridor. Recently, it was impossible to get onto the bypass road or the highway because traffic was at a standstill...all this without adding more housing units in the area.

Please look very carefully into all the facts of this proposal and, having done so, I suspect that a 'no' vote would be a no-brainer!

Respectfully yours  
Patricia Howard

Sent from my iPad

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Patricia Howard  
howardsendus@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Howard:

Thank you for your email on January 16, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** peppy1007b@gmail.com  
**Sent:** Monday, January 19, 2015 10:28 AM  
**To:** info@hookuleana.com

I oppose Hoku Place Development as a new resident of Kauai.

Sent from Windows Mail

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**

1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Peppy1007b@gmail.com

Subject:Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Peppy1007b:

Thank you for your email on January 19, 2015 regarding HoKua Place.

The draft Environmental Impact Statement (DEIS) for the project will address issues raised in the EISPN comment letters. Thank you for your comments.

Sincerely,

A handwritten signature in black ink that reads "Peter T. Young". The signature is written in a cursive style.

Peter T. Young

**Do well by doing good.**

To: Land Use Commission January 19, 2015  
From: Puanani Rogers, Ho'okipa Network - Kauai

COMMENTS IN REFERENCE TO: HOKUA PLACE, SECTION 343-5E HRS  
PREPERATION NOTICE, ENVIRONMENTAL IMPACT STATEMENT

I humbly petition this body to please consider placing a delay on this huge project in my ahupua'a of Kapa'a. My ohana lives and works in this area and we as well as our neighbors in the community are concerned about the negative and cumulative impacts this project's expansiveness and sees this as a threat to our lives. It would better serve our community, in my opinion, if it was downsized.

Our concerns include:  
INFRASTRUCTURE must be addressed, updated and in place as per Table ES-6 Kauai Long-Range Land Transportation Implementation Plan, developed in 1997 with deadlines for completion in 2000 and 2006 for Kapa'a. As outlined, they all relate to widening roads in the area of the proposed zoning change from Agricultural to Urban Residential. None of these have occurred.

There have been major changes in the proposed area since this EIS was published in Oct, 2013, such as: more population arriving as tourists and real estate buyers due to the economic recovery; 3 more hotels, already pre-approved, are being developed in the near future, resulting in an additional approximately 1600 more vehicles on a daily basis in the Wailua/Kapa'a corridor.

The petitioners claim that there are no known developments in the area that will be affecting additional traffic on the roads to be used by this proposed zoning change. In fact, the Kulana Subdivision on Olohena Road will add many more vehicles traveling west and east to and from Kapa'a, passing the property in question.

Only 30 % of the approximately 800 residential and farm lots will be considered to be "affordable" housing. Is this in proportion to what is actually needed?

The main road thru the proposed Hokua Place exits on the west side onto Olohena Road, immediately adjacent to the Kapa'a Middle School Parking lot. From early morning, sometimes in darkness, and mid afternoon, the vehicles in this area to drop off or pick up students creates a large traffic problem coming from Wailua Homesteads, Kapahi and from Kapa'a. Students must walk along Olohena Road and/or cross it to get to the school at this point to exit or enter the cars parked along the roadside.

This area has a blind intersection of 3 intersecting roads, (Kaapuni, Kaehula and Olohena) including a steep grade immediately west of the school and the proposed road leading in and out of the proposed sub division. The representative for this project recognizes that this may present a dangerous

situation and has indicated at a public community meeting that a Round-A-Bout may solve this problem. However, for those who know the actual terrain of this area, a Round-A-Bout could not be safely and successfully constructed anywhere near a steep incline, i.e. Olohena Road. The EIS states that complete streets and safe routes to school design principles need to be addressed.

Retail stores and a community swimming pool (funded by Kauai tax payers) are projected for this subdivision. Therefore, far more traffic than indicated will be entering and exiting at all hours of the day and evening that may not include any bona-fide residents of the subdivision.

The applicants have not addressed the issue of construction waste and additional amounts of personal trash that will be generated from multi hundred residences. The Kauai landfill is already full, with no indication that a projected one will be built in the near future or within the expected start-up date of the proposed project.

Storm run off water from the projected hard surface areas will find the natural valley drainage areas allowing water to drain down onto the bypass road and across into private property and homes below the subdivision, causing possible floods. This has not been addressed in the EIS.

We question whether or not the current Lydgate Sewage Treatment plant can adequately handle human waste from an additional nearly 800 residential units, several retail stores and a swimming pool facility?

If the Kauai Department of Water does not accept the applicant's offer to donate water from its well, for what ever reason, can the DOW guarantee that enough water will be available to all residences, stores and a swimming pool from the only source now available, a tank on Kaapuni Road? If additional well(s) must be drilled by the DOW, who will bare this expense?

The applicant has stated at a public community meeting that schools in the Kapa'a area have plenty of room for new students. This is not a true fact. Any public school teacher in any of the Kapa'a schools can verify that classrooms are now at or over capacity.

Respectfully submitted,  
Puanani Rogers, Director  
Ho'okipa Network – Kauai  
Ahupua'a o Kapa'a, Puna Moku  
Kingdom of Hawai'i  
(808) 652-1249

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Pualani Rodgers  
Puanani Rogers, Director  
Ho'okipa Network – Kauai  
Ahupua'a o Kapa'a, Puna Moku  
Kingdom of Hawai'i

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Rodgers:

Thank you for your letter dated January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Impacts on Traffic
- Kauai Long-Range Land Transportation Implementation Plan
- Neighboring Development
- Affordable Housing
- Pedestrian Safety
- Landfill Capacity
- Storm Water Runoff
- Sewage Treatment Capacity
- Water Availability
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter T. Young".

Peter T. Young

Do well by doing good.

**Peter T Young**

---

**From:** Richard Diamond <kauaimuse@gmail.com>  
**Sent:** Thursday, January 22, 2015 4:28 PM  
**To:** info@hookuleana.com  
**Subject:** Agriculture to Urban – Hokua Place Subdivision, 800 houses

Agriculture to Urban – Hokua Place Subdivision, 800 houses

News of the proposed re-zoning application has spread across Kaua'i rapidly, causing widespread concern and a strong negative reaction. People are wondering whether the concept of agricultural land is now being abandoned in favor of profit for developers. Although there may be a few who will benefit financially, the resounding response of the residents of the island is: NO. WE DO NOT WANT THIS DEVELOPMENT.

We feel that it will bring our traffic to a standstill, endanger our children as they travel to and from school, place an immense burden on an inadequate infrastructure, damage our economy, and irrevocably damage our quality of life. We appeal to the Land Use Commission to refuse the application to change the zoning of 97 acres of land adjacent to the Kapa'a Middle School from Agricultural to Urban Residential.

The proposed Hokua Place subdivision will be disruptive our rural life style as well as to visitors who choose Kauai because of its relaxed pace & natural environment. The EISPN should include include social, emotional and community impacts before it goes any further.

Thank you for your attention to this, as well as to all the many others who have written to you.

Sincerely,

Richard Moll  
P.O. Box 113  
Kapaa, HI 96746

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Richard Moll  
kauaimuse@gmail.com

**Subject:** Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Moll:

Thank you for your email on January 22, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure
- Impacts on Traffic
- Neighboring Development
- Pedestrian Safety
- Quality of Life
- Loss of agriculture land

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Robert Rowny [oz77@hawaiiintel.net]  
**Sent:** Thursday, January 15, 2015 8:57 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place EISPN comments!

To Whom It May Concern, We have lived in Kapahi for over 25 years. We do not want Hokua Place to be able to change the zoning from ag land to urban zoning. Over the past few years, the daily traffic in Kapaa is already a nightmare, with seemingly no solutions from the County. This will create a complete shutdown in Kapaa traffic, with the added (1600) cars from this urban subdivision. Locals & tourists will continue to be frustrated, miss their flights @ the airport, & road rage will only increase. PLEASE, respect the wishes of constituents that have enjoyed Kauai for years & want to continue living here. Sincerely, Robert Rowny & Diane Blaize

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Robert Rowny and Ms. Diane Blaize  
oz77@hawaiiintel.net

Subject:Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Rowny and Ms. Blaize:

Thank you for your email on January 15, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Reclassification of Agriculture Land
- Traffic Congestion

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

---

**From:** robin yost <rbnyost@yahoo.com>  
**Sent:** Friday, January 16, 2015 7:11 PM  
**To:** info@hookuleana.com  
**Subject:** Hokua Place, Kappa, Kauai

Aloha,

I am writing to you in regards to the development plan of Hokua Place, in Kapaa, Kauai. Please do NOT change the zoning of the agricultural land, to urban, for these developers.

There are too many infrastructural problems for the residents and visitors of Kauai, that have yet to be taken care of. Traffic is a HUGE issue. Everyday, I sit in my car for as much as 30-40 minutes, driving only 5 miles; either to get to work, or home. This particular area is already very congested---especially before and when the kids are out of school.

And of the schools in this area here; they are already overcrowded. The developers want to build 800 homes for families... no room at the schools....

Also, our over-stressed landfill is close to fill-capacity---no room for all the tons of construction waste....

I've been to meetings with the developer.....this plan is not for the residents, as the "affordable housing" is not affordable to local people here. Water and waste concerns, too, as the treatment facility is very far from this area; and when you drive by this treatment site, the odors are atrocious.

Please, please, please, keep this land in ag. For the sake of Kauai's future.

Thank you,  
Robin Yost  
Kapaa, Kauai

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Robin Yost  
rbnyost@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Yost:

Thank you for your email on January 16, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Infrastructure Capacity
- Impact on Traffic
- School Capacity
- Landfill Capacity
- Affordable Housing
- Water
- Wastewater Treatment Facilities
- Loss of Agriculture Land

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

**From:** Sharon Goodwin [sharonmokihana@gmail.com]  
**Sent:** Thursday, January 22, 2015 9:02 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com; Sharon Goodwin  
**Subject:** HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement

Dear Members, Land Use Commission and  
Members, Hookuleana EIS Co.,

I attended Mr Greg Allen's presentation of HoKua Place at the Wailua-Kapa'a Businessperson's Assoc meeting 12-27-14.

Mr. Allen consistently referred to Kapa'a town as a "City" and an "Urban" area. I understand he wishes to change zoning from Agricultural to Urban Residential. Having lived in Wailua Homestead the past 8 years I can say assuredly Kapa'a is Rural, and a Town.

The Kaua'i Long-Range Land Transportation Implementation Plan, Table ES-6 of 1997 needs completion before new development occurs in Kapa'a-Wailua. This relates to road-widening in areas of proposed zoning change from Agricultural to Urban Residential. This has not yet happened.

Kaua'i Island's infrastructure is seriously lacking. We have sewage problems. Will HoKua Place have a waste-water treatment plant? For 750+ dwellings that must be a minimum requirement. For effluent to travel to Lydgate Sewage plant (Mr Allen informs us) seems foolhardy to me. Residents that possess out-dated cesspools are soon being made to install septic systems upon their sale; therefore I think HoKua Place should take care of its own waste. Already the waste-water collection station at corner of Kuhio-Hale'ili'o emits gases of odoriferous stink each day so as to curtail my visits to Kinipopo Shopping Village. How do you think Kinipopo Village business owners feel?

While on the topic of waste, there will be large amounts of garbage/trash deposited in our landfill daily from 750+ dwellings, plus construction debris from each of those dwellings. We have landfill problems. The current landfill is running out of space, a future one not yet designated; Kaua'i Island is quite finite.

There is another development, Kulana Subdivision, on Olohena Rd near the proposed HoKua Pl. I believe Kulana is zoned for 104 homes all of which will simply further impact waste-water collection, our landfill and traffic.

How many cars/trucks/recreational vehicles will 750+ new dwellings put forth on Kauai's roads/off roads? Good question. 3 adults purchased the home next to mine; 3 adults own 3 separate cars. Kaua'i is only 35 miles across! We are experiencing big traffic problems in Kapa'a already--snarls sometimes taking 10-15 minutes to creep along 3 blocks!

The main road of HoKua Pl is designed to exit West on to Olohena Rd adjacent to Kapa'a Middle School's parking lot. Perhaps design planners saw that as being the ONLY place a road connecting Olohena and the existing Bypass Rd could be placed. My feeling at viewing the concept map is "Yikes...poor road placement...too close to School." Students arriving and leaving School, those walking and being driven cannot help but create traffic at their "stopping" points. And since the proposed HoKua Bypass Rd is a public road, all travelers on it will add to the School traffic mayhem. Located nearby on Olohena is a 3-way road inter- section in which drivers on Ka'apuni have a blind roadway to their Right. Drivers on Olohena must negotiate a steep upward incline. This is vital infrastructure to resolve well before HoKua Pl is even up for consideration.

Can the Dept of Water, County of Kaua'i deliver with assurance all waters residents of 750+ dwellings think they need and deserve? Clean water is an issue of great concern Island-wide.

Mr Allen says the Kapa'a Schools are under-populated and can easily provide spaces for HoKua's residents' children. A Kapa'a High School employee told me classes at her School are adequately filled presently.

I think the HoKua Place concept plan for 750+ dwellings is a huge stretch of the human imagination. It would seem that families would be packed inside of dwellings on relatively small lots. Wouldn't it be great to have each family occupy an acre? Then each family could really live! And it would be magnanimous to make certain AT LEAST 30% of those acre parcels would be sold to low income/affordable housing qualifiers. Many Kaua'i families cannot afford even "affordable housing".

I cannot envision a development of such enormous density, one that would result in major infrastructure stresses, as what is being shown in the HoKua Place Concept Plan map.

Sharon Goodwin, Wailua Homestead  
PO Box 446  
Kapa'a, HI 96746  
808-822-7646 H.

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Sharon Goodwin  
sharonmokihana@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Ms. Goodwin:

Thank you for your email on January 22, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Consistency with the Kauai Long-Range Land Transportation Implementation Plan
- Impacts on Traffic
- Affordable Housing
- Access Into and From HoKua Place
- Construction Waste, Adequate Sewage Treatment, and Sufficient Clean Water Supply
- Neighboring Development
- Pedestrian Safety
- School Capacity

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

---

**From:** Shosannah Chantara <chantara@hawaii.rr.com>  
**Sent:** Monday, January 19, 2015 11:25 PM  
**To:** info@hookuleana.com  
**Subject:** REFERENCE: HoKua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement.

To whom it may concern,

I am writing in opposition to the planned subdivision on Hokua place, Kapaa. The roads through Kapaa are already seriously congested, and new hotel projects affecting the area are already in the pipeline. Adding 800 additional dwelling units without first addressing road infrastructure and improving public transportation options is a serious mistake which will not only inconvenience, but also endanger Kauai's residents and visitors.

It is not common to spend over an hour in traffic between Kapaa and Lihue. Accidents, which are of course more frequent on overcrowded roads, result in massive back ups and sometimes road closures which leave people stranded on either side of the scene. How much worse will the situation be with 1600 more vehicles trying to make use of the same overcrowded roads?

The best way to begin addressing road congestion would be to increase mass transit opportunities, making them more viable for Kauai residents and visitors. Surely this would also be important for anyone interested in affordable housing units. Among the needed improvements: more frequent bus runs, expanded hours daily, additional stops and/or shuttle buses for rural areas, commuter parking options.

There have been discussions of a relief route going back decades. This too should be addressed before any new project is approved.

I also oppose the redesignation of agricultural land for this development. This is not appropriate for Kauai or compatible with the rural lifestyle that is cherished here.

Sincerely,

Shosannah Chantara

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Shosannah Chantara  
chantara@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Chantara:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Road Infrastructure
- Reclassification of agricultural land to urban

You also suggested addressing mass transit opportunities for Kauai residents and visitors.

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** Sid and LeAnn Jackson <sjackson23@hawaii.rr.com>  
**Sent:** Wednesday, January 21, 2015 10:08 PM  
**To:** info@Hookuleana.com  
**Cc:** luc@dbedt.hawaii.gov; Gallen@harbormall.net  
**Subject:** KAUAI (HRS 343) HoKua Place EISPN

Comments:

1. We are concerned that the traffic statistics used in this EIS are seriously outdated in 2015. East Kaua'i has had long delays in scheduled road improvements since the 2010-2011 period due to budget problems. For example, the 2010 survey of the Bypass Road is low, since considerably more traffic is now diverted to the Bypass in an attempt to avoid the daily delays of both north and south traffic on Kuhio Highway.
2. The suggestion that residents in the project will be able to shop in Kapa'a without driving, should include where residents will be able to shop. Businesses in the area are predominantly oriented to tourists, not residents.

Thank you,

Sid and LeAnn Jackson

[sjackson23@hawaii.rr.com](mailto:sjackson23@hawaii.rr.com)  
808-821-2837

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Sid Jackson and Mrs. LeAnn Jackson  
sjackson23@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. and Mrs. Jackson:

Thank you for your email on January 21, 2015 regarding HoKua Place.

Your email expressed concerns reading the traffic data included in the EISPN and also asked for more information regarding resident shopping opportunities.

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

DAVID Y. IGE  
GOVERNOR  
BRIGADIER GENERAL (H) ARTHUR J. LOGAN  
DIRECTOR OF EMERGENCY MANAGEMENT



STATE OF HAWAII  
DEPARTMENT OF DEFENSE  
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE / EMERGENCY MANAGEMENT  
3948 DIAMOND HEAD ROAD  
HONOLULU, HAWAII 96816-4495

DOUG MAYNE  
ADMINISTRATOR OF EMERGENCY MANAGEMENT

PHONE (808) 733-4300  
FAX (808) 733-4281

January 12, 2015

Mr. Peter T. Young  
President  
Ho'okuleana LLC,  
1539 Kanapū'u Drive  
Kailua, Hawaii 96734

Dear Mr. Young:

Environmental Impact Statement Preparation Notice (EISPN)  
Proposed HoKua Place Project,  
Kapa'a, Kawaihau, Kaua'i, Hawai'i

Thank you for the opportunity to comment on the subject project.

After reviewing the map included for this project, we have determined that there is a need for siren coverage. We request that a 121 db(c) omni-directional siren be installed within the 3.1 acres designated for the proposed park area below Kapa'a Middle School. This will ensure siren coverage for the proposed project area.

The proposed multi-family and mixed-use development will increase the residential population in an area with limited safe room options. As a result, we strongly recommend incorporation of hardening measures for safe rooms within planned residential facilities, and the hardening of proposed community facilities so as to withstand high-wind and other events.

If you have any questions please contact Ms. Havinne Okamura, Hazard Mitigation Planner, at 733-4300, extension 556.

Sincerely,

DOUG MAYNE  
Administrator of Emergency Management

c: Mark Marshall, Kaua'i Civil Defense Agency

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapū'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Doug Mayne, Administrator  
Emergency Management  
Department of Defense  
State of Hawaii  
3949 Diamond Head Road  
Honolulu, HI 96816

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Mayne:

Thank you for your letter dated January 12, 2015, offering comments on the HoKua Place project.

We will work with you and the Kaua'i Civil Defense Agency on siren coverage. Specific home design and construction are not known at this time; we will take your recommendations into consideration as we move forward.

We appreciate your participation in the environmental review process.

Sincerely,

Peter T. Young

Do well by doing good.

DAVID Y. JOE  
GOVERNOR



DOUGLAS MURDOCK  
COMPTROLLER

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)1002.5

JAN 12 2015

Mr. Peter T. Young, President  
Hookuleana LLC  
1539 Kanapuu Drive  
Kailua, Hawaii 96734

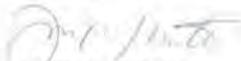
Dear Mr. Young:

Subject: Hokua Place Project  
Kapaa Highlands  
Island of Kauai  
TMK: (4)4-03-003:01

Thank you for the opportunity to provide comments for the subject project. This project does not impact any of the Department of Accounting and General Services' projects or existing facilities in this area, and we have no comments to offer at this time.

If you have any questions, you may call Mr. Alva Nakamura of the Planning Branch at 586-0488.

Sincerely,

  
JAMES K. KURATA  
Public Works Administrator

AN:mio

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapuu Drive  
Kailua, Hawaii 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. James K. Kurata, Administrator  
Public Works  
Department of Accounting and General Services  
State of Hawaii  
P.O. Box 119  
Honolulu, HI 96810

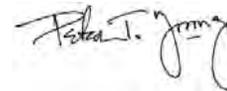
Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Kurata:

Thank you for your letter dated January 12, 2015, in which you note, "This project does not impact any of the Department of Accounting and General Services' projects or existing facilities in this area, and we have no comments to offer at this time."

We appreciate your participation in the environmental review process.

Sincerely,



Peter T. Young

Do well by doing good.

DAVID Y. IGE  
GOVERNOR



STATE OF HAWAII  
DEPARTMENT OF HUMAN SERVICES  
Benefit, Employment & Support Services Division  
820 Mililani Street, Suite 606  
Honolulu, Hawaii 96813

December 26, 2014

BARBARA A. YAMASHITA  
DIRECTOR

Refer to 14-0821

Peter T. Young  
Ho'okuleana LLC  
1539 Kanapu'u Drive  
Kailua, Hawaii 96834

Subject: Hokua Place Project  
Formerly Referred to as Kapa'a Highlands  
Island of Kauai, Hawaii  
Environmental Impact Statement Preparation Notice (EISPN)  
(4) 4-3-03: por 01 (portion in the Kawaihau District)

Dear Mr. Young:

Thank you for your letter dated December 17, 2014, that requests the Department of Human Services (DHS) comment on the Environmental Impact Statement Preparation Notice (EISPN) for your review.

The DHS has reviewed the EISPN CD on the proposed Hokua Place project. Please be advised there are several family child care homes as well as a group child care facility in the vicinity that may be impacted by the construction of the project.

If you have any questions or need further information, please contact Ms. Jill Arizumi, Child Care Program Specialist, at (808) 586-5240.

Sincerely,

Scott Nakasone  
Assistant Division Administrator

c: Barbara A. Yamashita, DHS Director

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Scott Nakasone, Assistant Division Administrator  
Department of Human Services  
Benefit, Employment & Support Services Division  
State of Hawaii  
820 Mililani Street, Suite 606  
Honolulu, HI 96813

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Nakasone:

Thank you for your letter dated December 26, 2014 (14-0821) in which you commented on existing family child care homes and a group child care facility in the vicinity of the project.

We will consider your comments and concerns as we evaluate impacts in the preparation of the Draft Environmental Impact Statement (DEIS) for HoKua Place.

We appreciate your participation in the environmental review process.

Sincerely,

Peter T. Young

Do well by doing good.

DAVID IGE  
GOVERNOR



DWIGHT TAKAMINE  
DIRECTOR

JADE T. BUTAY  
DEPUTY DIRECTOR

STATE OF HAWAII  
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS  
830 PUNCHBOWL STREET, ROOM 321  
HONOLULU, HAWAII 96813  
www.hawaii.gov/labor  
Phone: (808) 586-8844/Fax: (808) 586-9099

December 22, 2014

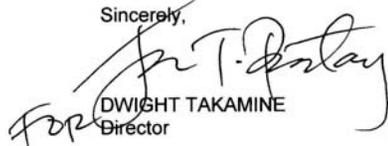
Peter T. Young  
President  
Hookuleana LLC  
1539 Kanapuu Drive  
Kailua, Hawaii 96734

Dear Mr. Peter T. Young:

This is in response to your request for comments dated December 14, 2014 on the Environment Impact Statement Preparation Notice for the HoKua Place project located Kawaihau District in the Kawaihau District on Hawaii island.

The Department of Labor and Industrial Relations has no comments, and we foresee no impact on our existing or proposed programs. Should you have any questions, please call me at (808) 586-8844.

Sincerely,

  
DWIGHT TAKAMINE  
Director

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapuu Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Elizabeth Kim, Director  
Department of Labor and Industrial Relations  
State of Hawaii  
830 Punchbowl Street, Room 321  
Honolulu, HI 96813

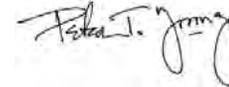
Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Kim:

Thank you for the letter from former Director Mr. Dwight Takamine dated December 22, 2014, in which he noted that the Department of Labor and Industrial Relations, "has no comments, and we foresee no impacts on our existing or proposed programs."

We appreciate your participation in the environmental review process.

Sincerely,



Peter T. Young

Do well by doing good.



DAVID V. RICE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

January 21, 2015

CARLY S. CHANG  
ACTING CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
FIRST DEPUTY  
WILLIAM M. TAM  
DEPUTY DEPUTY DIRECTOR, WATER  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF PLANNING  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES DEVELOPMENT  
ENGINEERING  
HISTORY AND HERITAGE  
HISTORIC PRESERVATION  
KAWAIIAN ISLAND RESOURCES COMMISSION  
LAND  
STATE PARKS



DAVID V. RICE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

December 18, 2014

MEMORANDUM

WILLIAM J. LUI, JR.  
DIRECTOR  
COMMISSION ON WATER RESOURCE MANAGEMENT  
JESSE K. NOBLE  
DEPUTY DIRECTOR  
WILLIAM M. TAM  
DEPUTY DEPUTY DIRECTOR, WATER  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF PLANNING  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES DEVELOPMENT  
ENGINEERING  
HISTORY AND HERITAGE  
HISTORIC PRESERVATION  
KAWAIIAN ISLAND RESOURCES COMMISSION  
LAND  
STATE PARKS

2014 DEC 24 PM 1:39  
RECEIVED  
LAND DIVISION

Ho'okuleana LLC  
Attn: Peter T. Young, President  
1539 Kanapu'u Drive  
Kailua, HI 96734

via email: [info@Hookuleana.com](mailto:info@Hookuleana.com)

Dear Mr. Young,

SUBJECT: Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa`a Highlands)

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from (1) Land Division – Kauai District; (2) Division of Boating & Ocean Recreation; (3) Division of State Parks; (4) Commission on Water Resource Management; and (5) Engineering Division. No other comments were received as of our suspense date. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at 587-0439. Thank you.

Sincerely,

Russell Y. Tsuji  
Land Administrator

Enclosure(s)

TO:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - ~~Other District~~ *Kauai*
- Historic Preservation

FROM:

Russell Y. Tsuji, Land Administrator

SUBJECT:

Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa`a Highlands)

LOCATION:

"Situated at (4) 4-3-03: por 01 (portion) in the Kawaihau District on the island of Kauai"

APPLICANT:

HG Kauai Joint Venture, by its consultant, Ho'okuleana LLC

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document which can be found here:

1. Go to: <https://sp01.ld.dlnr.hawaii.gov/LD>
2. Login: Username: LD\Visitor Password: Opa\$\$word0 (first and last characters are zeros)
3. Click on: Requests for Comments. Click on the subject file "Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa`a Highlands)", then click on "Files" and "Download a copy". (Any issues accessing the document should be directed to Jonathan Real, Applications/Systems Analyst at 587-0427 or [Jonathan.C.Real@hawaii.gov](mailto:Jonathan.C.Real@hawaii.gov))

Please submit any comments by **January 20, 2015**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:   
Print Name: MARVIN MUI  
Date: Dec. 22, 2014

RECEIVED  
DLNR KOLA 2014

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

December 18, 2014

MEMORANDUM

WILLIAM J. AHA, JR.  
GOVERNOR  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSIONER OF LAND AND NATURAL RESOURCES  
JESSIE K. SHUKI  
DIRECTOR  
WILLIAM M. TAM  
DIRECTOR FOR WATER  
STATE RESOURCES  
BOARD AND ECONOMIC DEVELOPMENT  
HONOLULU, HAWAII  
COMMISSIONER OF WATER RESOURCE MANAGEMENT  
TERRANCE W. ANDERSON  
LANDS  
COMMISSIONER AND SUPERVISOR OF LAND AND NATURAL RESOURCES  
TERRANCE W. ANDERSON  
DIRECTOR OF HISTORIC PRESERVATION  
LANDS  
SARAH W. ANDERSON  
COMMISSIONER  
LANDS  
STATE PARKS

RECEIVED  
LAND DIVISION  
2014 DEC 23 PM 1:51

TO: **DLNR Agencies:**  
 Div. of Aquatic Resources  
 Div. of Boating & Ocean Recreation  
 Engineering Division  
 Div. of Forestry & Wildlife  
 Div. of State Parks  
 Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division – Oahu District  
 Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator  
SUBJECT: Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)  
LOCATION: "Situated at (4) 4-3-03: por 01 (portion) in the Kawaihau District on the island of Kauai"  
APPLICANT: HG Kauai Joint Venture, by its consultant, Ho'okuleana LLC

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document which can be found here:

1. Go to: <https://sp01.ld.dlnr.hawaii.gov/LD>
2. Login: Username: LD\Visitor Password: 0pa\$\$word0 (first and last characters are zeros)
3. Click on: Requests for Comments. Click on the subject file "Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)", then click on "Files" and "Download a copy". (Any issues accessing the document should be directed to Jonathan Real, Applications/Systems Analyst at 587-0427 or [Jonathan.C.Real@hawaii.gov](mailto:Jonathan.C.Real@hawaii.gov))

Please submit any comments by **January 20, 2015**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments  We have no objections.  
 We have no comments.  
 Comments are attached.

Signed: [Signature]  
Print Name: Edward R. Odenwood  
Date: 12/22/14

RECEIVED  
DEC 19 11:51 AM '14

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

December 18, 2014

MEMORANDUM

WILLIAM J. AHA, JR.  
GOVERNOR  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSIONER OF LAND AND NATURAL RESOURCES  
JESSIE K. SHUKI  
DIRECTOR  
WILLIAM M. TAM  
DIRECTOR FOR WATER  
STATE RESOURCES  
BOARD AND ECONOMIC DEVELOPMENT  
HONOLULU, HAWAII  
COMMISSIONER OF WATER RESOURCE MANAGEMENT  
TERRANCE W. ANDERSON  
LANDS  
COMMISSIONER AND SUPERVISOR OF LAND AND NATURAL RESOURCES  
TERRANCE W. ANDERSON  
DIRECTOR OF HISTORIC PRESERVATION  
LANDS  
SARAH W. ANDERSON  
COMMISSIONER  
LANDS  
STATE PARKS

RECEIVED  
STATE PARKS  
14 DEC 19 11:42  
DEPT OF LAND & NATURAL RESOURCES

TO: **DLNR Agencies:**  
 Div. of Aquatic Resources  
 Div. of Boating & Ocean Recreation  
 Engineering Division  
 Div. of Forestry & Wildlife  
 Div. of State Parks  
 Commission on Water Resource Management  
 Office of Conservation & Coastal Lands  
 Land Division – Oahu District  
 Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator  
SUBJECT: Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)  
LOCATION: "Situated at (4) 4-3-03: por 01 (portion) in the Kawaihau District on the island of Kauai"  
APPLICANT: HG Kauai Joint Venture, by its consultant, Ho'okuleana LLC

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document which can be found here:

1. Go to: <https://sp01.ld.dlnr.hawaii.gov/LD>
2. Login: Username: LD\Visitor Password: 0pa\$\$word0 (first and last characters are zeros)
3. Click on: Requests for Comments. Click on the subject file "Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)", then click on "Files" and "Download a copy". (Any issues accessing the document should be directed to Jonathan Real, Applications/Systems Analyst at 587-0427 or [Jonathan.C.Real@hawaii.gov](mailto:Jonathan.C.Real@hawaii.gov))

Please submit any comments by **January 20, 2015**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments  We have no objections.  
 We have no comments.  
 Comments are attached.

Signed: [Signature]  
Print Name: Edward R. Odenwood  
Date: 12/22/14

56411

DEC 20 PM 1:40



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

December 31, 2014

WILLIAM J. AILA, Jr.  
CHAIRPERSON

DENISE ANTOLINI  
KAMANA BEAMER  
MICHAEL G. BUCK  
MILTON D. PAVAO  
VIRGINIA PRESSLER, M.D.  
JONATHAN STARR

WILLIAM M. TAM  
DEPUTY DIRECTOR

RE: RD-4105.2

TO: Russell Tsuji, Administrator  
Land Division

FROM: William M. Tam, Deputy Director *WMT*  
Commission on Water Resource Management

SUBJECT: Environmental Impact Statement Preparation Notice (EISP) for the HoKua Place project (formerly referred to as Kapa'a Highlands), Kauai

FILE NO.:  
TMK NO.: (4) 4-3-003:001 (por.)

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at <http://www.hawaii.gov/dlnr/cwrm>.

Our comments related to water resources are checked off below.

- 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of fixtures certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense/>.
- 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <http://hawaii.gov/dbedt/czm/initiative/lid.php>.
- 6. We recommend the use of alternative water sources, wherever practicable.
- 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at <http://energy.hawaii.gov/green-business-program>

DRF-IA 03/20/2013

Russell Tsuji, Administrator  
Page 2  
December 31, 2014

- 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at [http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH\\_Irrigation\\_Conservation\\_BMPs.pdf](http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf)
- 9. There may be 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.

Permits required by CWRM:

Additional information and forms are available at [http://hawaii.gov/dlnr/cwrm/info\\_permits.htm](http://hawaii.gov/dlnr/cwrm/info_permits.htm).

- 10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.
- 11. A Well Construction Permit(s) is (are) required before any well construction work begins.
- 12. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- 13. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- 14. Ground water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- 15. A Stream Channel Alteration Permit(s) is (are) required before any alteration(s) can be made to the bed and/or banks of a stream channel.
- 16. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is (are) constructed or altered.
- 17. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- 18. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

OTHER:  
The average day demand for Phase 2, broken down on page 73, is consistent with the Domestic Consumption Guidelines in the County Water System Standards. While a breakdown for Phase 1 average day demand is provided on page 81, the summary table on page 71 shows a different average day demand.

If there are any questions, please contact Lenore Ohye at 587-0216.

DRF-IA 06/19/2008

DAVID Y. HUI  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

December 18, 2014

MEMORANDUM

WILLIAM J. ALA, JR.  
DIRECTOR  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
JESSA K. NAHEKI  
DEPUTY DIRECTOR  
WILLIAM M. TAM  
DEPUTY DIRECTOR FOR WATER  
SERVING MEMBERS  
HAWAIIAN STATE ENGINEERING  
BOARD OF ENGINEERS AND SURVEYORS  
COMMISSION ON WATER RESOURCES MANAGEMENT  
CONSULTATION AND ANALYSIS OF LANDS  
CONSERVATION AND RESTORATION  
PLANNING  
DESIGN AND CONSTRUCTION  
RECORDS MANAGEMENT  
KAWAIIAN STATE ARCHIVES AND LIBRARIES  
STATE PARKS

14 DEC 18 PM 03:03 BPR/REVIEW  
LAND DIVISION  
2015 JAN 20 AM 10:56  
DEPT. OF LAND & NATURAL RESOURCES  
HONOLULU, HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

LD/ Russell Y. Tsuji  
REF: EISPN for the HoKua Place Project (formerly referred to as Kapa'a Highlands)  
Kauai.009

COMMENTS

- (X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The National Flood Insurance Program (NFIP) does not regulate developments within Zone X.
- ( ) Please take note that the project site according to the Flood Insurance Rate Map (FIRM), is located in Zone \_\_\_\_.
- ( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is \_\_\_\_.
- ( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- ( ) Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
- ( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.
- ( ) Mr. Carolyn Cortez at (808) 270-7253 of the County of Maui, Department of Planning.
- ( ) Mr. Stanford Iwamoto at (808) 241-4896 of the County of Kauai, Department of Public Works.

- ( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
- ( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.
- ( ) Additional Comments: \_\_\_\_\_
- ( ) Other: \_\_\_\_\_

Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: Carty S. Chang  
CARTY S. CHANG, CHIEF ENGINEER  
Date: 1/16/15

TO: FR

DLNR Agencies:

- X Div. of Aquatic Resources
- X Div. of Boating & Ocean Recreation
- X Engineering Division
- X Div. of Forestry & Wildlife
- X Div. of State Parks
- X Commission on Water Resource Management
- X Office of Conservation & Coastal Lands
- X Land Division - Oahu District
- X Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator  
SUBJECT: Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)  
LOCATION: "Sited at (4) 4-3-03: por 01 (portion) in the Kawaihau District on the island of Kauai"  
APPLICANT: HG Kauai Joint Venture, by its consultant, Ho'okuleana LLC

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document which can be found here:

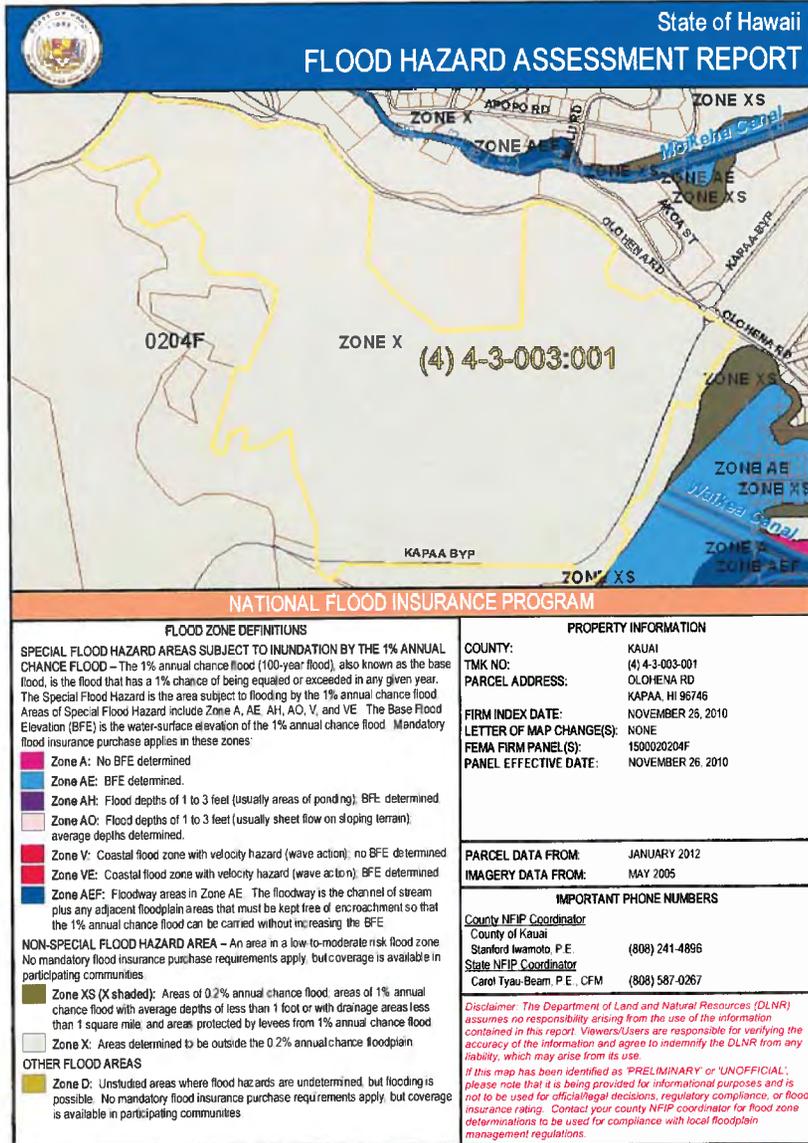
1. Go to: <https://sp01.ld.dlnr.hawaii.gov/LD>
2. Login: Username: LD\Visitor Password: 0pa\$\$word0 (first and last characters are zeros)
3. Click on: Requests for Comments. Click on the subject file "Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)", then click on "Files" and "Download a copy". (Any issues accessing the document should be directed to Jonathan Real, Applications/Systems Analyst at 587-0427 or [Jonathan.C.Real@hawaii.gov](mailto:Jonathan.C.Real@hawaii.gov))

Please submit any comments by **January 20, 2015**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

- ( ) We have no objections.
- ( ) We have no comments.
- (X) Comments are attached.

Signed: Carty S. Chang  
Print Name: Carty S. Chang, Chief Engineer  
Date: 1/16/15



## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Russell Tsuji, Land Administrator  
State of Hawai'i  
Department of Land and Natural Resources  
PO Box 621  
Honolulu, Hawai'i 96809

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Mr. Tsuji:

Thank you for your letter dated January 21, 2015 regarding HoKua Place.

We have forwarded comments, included in your letter, from the various divisions to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

DAVID V. ICE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

February 23, 2015

CARTY S. CHANG  
NUTRIAL CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
DANIEL S. QUINN  
NUTRIAL FIRST DEPUTY  
W. BOY HARDO  
ACTING DEPUTY DIRECTOR - WATER  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONSERVATION  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND COASTAL LANDS  
DEPARTMENT  
FORESTRY AND WILDLIFE  
LITHIUM/PERFLUORATED  
KAWAIAU JOINT VENTURE  
LAND  
STATE PARKS

Ho'okuleana LLC  
Attn: Peter T. Young, President  
1539 Kanapu'u Drive  
Kailua, HI 96734

via email: [info@Hookuleana.com](mailto:info@Hookuleana.com)

Dear Mr. Young,

SUBJECT: Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)

Thank you for the opportunity to review and comment on the subject matter. In addition to the comments sent to you dated January 21, 2015, enclosed are additional comments from the Division of Aquatic Resources on the subject matter. Should you have any questions, please feel free to call Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Sincerely,

Russell Y. Tsuji  
Land Administrator

Enclosure(s)

DAVID V. ICE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

December 18, 2014

MEMORANDUM

TO:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division - Oahu District
- Historic Preservation

FROM:

Russell Y. Tsuji, Land Administrator

SUBJECT:

Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)

LOCATION:

"Situated at (4) 4-3-03: por 01 (portion) in the Kawaihau District on the island of Kauai"

APPLICANT:

HG Kauai Joint Venture, by its consultant, Ho'okuleana LLC

Transmitted for your review and comment on the above-referenced document. We would appreciate your comments on this document which can be found here:

1. Go to: <https://sp01.ld.dlnr.hawaii.gov/LD>
2. Login: Username: LD\Visitor Password: 0pa\$\$word0 (first and last characters are zeros)
3. Click on: Requests for Comments. Click on the subject file "Environmental Impact Statement Preparation Notice (EISPN) for the HoKua Place project (formerly referred to as Kapa'a Highlands)", then click on "Files" and "Download a copy". (Any issues accessing the document should be directed to Jonathan Real, Applications/Systems Analyst at 587-0427 or [Jonathan.C.Real@hawaii.gov](mailto:Jonathan.C.Real@hawaii.gov))

Please submit any comments by **January 20, 2015**. If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Supervising Land Agent Steve Molmen at (808) 587-0439. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached. *AM*

Signed:   
Print Name: Carty S. Chang  
Date: 2/19/15

WILLIAM LAHA, JR.  
DIRECTOR  
WILLIAM LAHA, JR.  
DIRECTOR  
JESSE K. SMITH  
FIRST DEPUTY  
WILLIAM LAHA, JR.  
DIRECTOR  
JESSE K. SMITH  
FIRST DEPUTY  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONSERVATION  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND COASTAL LANDS  
DEPARTMENT  
FORESTRY AND WILDLIFE  
LITHIUM/PERFLUORATED  
KAWAIAU JOINT VENTURE  
LAND  
STATE PARKS



DAR #5046

JK  
BK  
GH  
MF

DAVID Y. IGE  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

CARLY S. CHANG  
ACTING CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
(MANAGING THE WATER RESOURCE MANAGEMENT)

DANIEL S. QUINN  
DEPUTY CHAIRPERSON

W. ROY HARDY  
ACTING DEPUTY CHAIRPERSON - WATER

AGRICULTURE  
WATER AND OCEAN REGULATION  
BOARD OF SUPERVISORS  
COMMISSION ON WATER RESOURCES MANAGEMENT  
CONSERVATION AND CAPITAL LAND  
CONSERVATION AND RESOURCES PROGRAMS  
SUPPORTING  
FOREST AND WILDLIFE  
HAWAIIAN FOREST RESTORATION  
KAWAIAHAU BEACH RESERVE COORDINATOR  
LAND  
STATEFARM

Date: 02-02-15  
DAR #5046

MEMORANDUM

TO: Carly S. Chang, Acting Chairperson, BLNR  
DATE: 2/19/15  
FROM: Katie Nalesere, Education Specialist  
Jo-Anne Kushima, Aquatic Biologist  
Mike Fujimoto, Aquatic Biologist  
Brian Kanenaka, Aquatic Biologist  
Glenn Higashi, Aquatic Biologist  
SUBJECT: HoKua Place Environmental Impact Statement Preparation Notice (EISPN)

Comment	Date Request	Receipt	Referral	Due Date
	12-18-14	12-19-14	12-29-14	01-20-15

Requested by: DLNR/Land Division (Russell Tsuji)  
Steve Moleman, Supervising Land Agent

Summary of Proposed Project

Title: EISPN for HoKua Project  
Project by: HG Kauai Joint Venture  
Ho'okuleana LLC, Consultant  
Location: Kawaiahu District  
TMK (4) 4-3-03: por 01

Brief Description:

HoKua Place is a 97 acre residential, commercial, and infrastructure development that proposes to fill the housing needs of Kapa'a within its Urban Center and that is consistent with the Kauai General Plan and local planning. The project proposes to be a sustainable community, preserving the rural-like character of Kapa'a while meeting its growing housing needs. 683 multi-family and 86 single affordable family homes are planned along with 14.3 acres of open space, and a 3.1 acre park adjacent to the existing Kapa'a Middle School.

A stream within the HoKua Farm Lots flows from north to south along the western boundary of HoKua Place. The path of the stream passes under a bridge on the By-Pass Road at the southwest corner of the property, and empties into the Waikaea drainage canal about 800 ft. downstream from the property. The Waikaea Canal is a regulated fishing area managed by on Kauai. HoKua Place is committed to keeping the flow of the stream consistent to prevent potential health and mosquito problems associated with streams when not flowing naturally.

The Applicant proposes to adhere to applicable laws to minimize soil movement, erosion and compaction during the various phases of the project. Additionally

A Preliminary Report has been prepared and a detailed drainage and erosion mitigation plan will be prepared and submitted to the County Engineer for approval during the design and development stages. The Applicant proposes to provide major drainage improvements in connection with development of the property. Multiple detention ponds are being proposed for the property, catch basins, drainage pipes and culverts to be utilized for directing run off to major drainage areas on the property are also being proposed.

The EIS submitted for review and comments states that the proposed drainage system for the project will be designed to minimize impacts to the near shore coastal waters. Additionally, water quality treatment and detention basins will be built to prevent runoff and sedimentation from impacting groundwater resources. The Applicant proposes to use BMPs to maintain storm and surface-water runoff and that the BMPs will be designed to prevent violations of State water quality standards.

Comments:

DAR recommends BMPs be implemented during all phases of project development to assure minimizing/eliminating negative impacts resulting from construction debris, petroleum products and/or other toxic pollutants entering into the nearby bodies of water as a result of run-off.

DAR also recommends maintaining public access in and out of the Waikaea Fishing Area so that the fishing public continues to have access to resources in the fishing area.

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plans, DAR requests the opportunity to review and comment on those changes.

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Russell Tsuji, Land Administrator  
State of Hawai'i  
Department of Land and Natural Resources  
PO Box 621  
Honolulu, Hawai'i 96809

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Tsuji:

Thank you for your letter dated February 23, 2015 regarding HoKua Place.

We have forwarded comments from the Division of Aquatic Resources to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter. Thank you for your comments.

Sincerely,

Peter T. Young

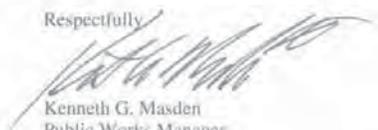
Do well by doing good.



Mr. Peter T. Young  
January 15, 2015  
Page 2

If you have any questions, please call Heidi Meeker of the Facilities Development Branch at 377-8301.

Respectfully

  
Kenneth G. Masden  
Public Works Manager  
Planning Section

Attachment

KGM:jmb

NEIL ABERCROMBIE  
GOVERNOR



KATHRYN S. MATAYOSHI  
SUPERINTENDENT

STATE OF HAWAII  
DEPARTMENT OF EDUCATION

P.O. BOX 2360  
HONOLULU, HAWAII 96804

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

August 13, 2012

Mr. Peter T. Young  
Ho'okuleana LLC  
25 Kane'ohē Bay Drive, Suite 212  
Kailua, Hawai'i 96734

Dear Mr. Young:

The Department of Education (DOE) has reviewed the preliminary copy of the Draft Environmental Assessment (DEA) for the Kapa'a Highlands II project in Kapa'a, Kauai.

There has been no change in the DOE's position that there is sufficient student capacity in the existing Kapa'a schools to accommodate the students who will eventually live in the Highlands project.

The DOE is concerned that there is no acknowledgement in the DEA or the accompanying traffic analysis of the existing traffic entering and exiting the Kapa'a Middle School campus. Most of the several hundred cars counted in either direction on Oloheha Road, west of the Kapa'a Bypass, were school related traffic.

The DEA must identify the school's driveways and the distance between the nearest school driveway and the proposed Road A's intersection with Oloheha Road. A suggested left turn lane on Oloheha for cars to turn left on to Road A could conflict with the right and left turns made from the campus on to Oloheha.

It was also unclear how many project-related driveways there would be on Oloheha, to serve the 16 Phase I agricultural lots.

The DOE acknowledges the advice in the traffic analysis that intersections into and out of the subdivisions should provide pedestrian crosswalks. Kapa'a Middle School estimates that currently 20 to 30 students walk to and from the campus.

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

**Phillip Rowell and Associates**

47-272 O'olu'olu Street, Kaneohe, Hawaii 96744 Phone: (808) 233-8200 FAX: (808) 234-4175 Email: [phillip@rowell.com](mailto:phillip@rowell.com)

August 31, 2012

Mr. Greg Allen  
Kapa'a Highlands II  
Three Stooges, LLC  
161 Wailua Road  
Kapa'a, Hawaii 96746

Re: **Response to DOE Comments**  
**Kapa'a Highlands**  
**TMK: (4) 4-3-031, portion**  
**Kapa'a, Kauai, Hawaii**

Dear Greg:

The following are my responses to DOE comments dated August 13, 2012.

1. Paragraph 3

School was in session during the traffic counts. Therefore, school traffic is included in the counts and the level-of-service analyses.

2. Paragraph 4

Based on the subdivision plan provided and an aerial photograph of the school area along Olohena Road, I estimate that the centerline of Road A will be approximately 350 feet west of the west edge of the school's driveway.

As shown in Table 7 of the TIAR, the queue analysis estimated at the westbound to southbound 95<sup>th</sup> percentile queue would be 2 vehicles during the morning peak hour and 3 vehicles during the afternoon peak hour. The left turn storage lane should therefore be long enough to accommodate three vehicles, or 75 feet. Allowing a 150-foot long taper, a minimum total distance of 225 feet between the intersections is required. Therefore, there is sufficient length to accommodate the left turn lane and taper and leave sufficient length for left turns from the school's driveway.

3. Paragraph 5

All driveways to the Ag lots will be west of Road A and therefore have no impact on traffic operations at the intersection of Olohena Road and Road A or Olohena Road and the school's driveway.

4. Paragraph 6

No response required.

If you have any questions, please call.

Very truly yours,  
**PHILLIP ROWELL AND ASSOCIATES**



Phillip J. Rowell, P.E.  
Principal



RE: DOE letter  
Heidi Meeker to: PeterYoung

08/31/2012 01:46 PM

Peter, Thank you for sending Mr. Rowell's response to our letter. I have two quick comments.  
1) Paragraph 3. Our concern is that the DEA and the traffic analysis did not identify the traffic entering and exiting the Middle school campus. We think that on a daily basis several hundred cars do not currently drive west completely past the campus on Olohena. We think a more detailed description of the traffic flow is needed.

2) Paragraph 5. We asked how many project related driveways there would be on Olohena.

Heidi Meeker - [heidi\\_meeker@notes.k12.hi.us](mailto:heidi_meeker@notes.k12.hi.us)  
Planning Section  
Department of Education/Facilities Development Branch  
Kalanii High School TB1B  
4680 Kalaniana'ole Highway  
Honolulu, 96821  
Ph.808-377-8301

"Peter T Young" Heidi:

08/31/2012 11:53:08 AM

From: "Peter T Young" <[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)>  
To: Heidi\_Meeker/FacDev/HIDOE<[Heidi\\_Meeker/FacDev/HIDOE@notes.k12.hi.us](mailto:Heidi_Meeker/FacDev/HIDOE@notes.k12.hi.us)>.  
Date: 08/31/2012 11:53 AM  
Subject: RE: DOE letter

Heidi:

Here is a response from the folks that did the traffic analysis. Does this address your concerns?

Thanks,  
Peter.

Peter T. Young, President  
Ho'okuleana LLC  
*... to take responsibility ...*

25 Kane'ohē Bay Drive, Suite 212  
Kailua, Hawai'i 96734

(808) 254-2223 (O'ahu)  
(808) 329-4447 (Big Island)  
(808) 226-3567 (Cell Phone)

[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)

*Do well by doing good.*

 Save paper, save money - you may not need to print this e-mail.

From: Heidi\_Meeker/FacDev/HIDOE@notes.k12.hi.us [  
mailto:Heidi\_Meeker/FacDev/HIDOE@notes.k12.hi.us]  
Sent: Tuesday, August 14, 2012 8:28 AM  
To: PeterYoung@Hookuleana.com

**From:** [Heidi Meeker/FacilDev/HIDOE@notes.k12.hi.us](mailto:Heidi_Meeker/FacilDev/HIDOE@notes.k12.hi.us)

**Date:** December 24, 2014 at 6:43:45 PM MST

**To:** [PeterYoung@hookuleana.com](mailto:PeterYoung@hookuleana.com)

**Subject:** HoKua Place

Peter, I've taken an initial look at the HoKua Place prep. notice and don't think that we have anything to add.

However, we do have a dangling issue with the need for a drain easement from Kapaa Middle into your project's property. I recall that you confirmed that the drain is there, but I suspect nothing was done about the easement. I'm attaching internal correspondence which seems to go no where.

I would appreciate if you would take a quick look and if we need to do something to initiate action from DOE's side, please let me know.

Heidi Meeker - [heidi\\_meeker@notes.k12.hi.us](mailto:heidi_meeker@notes.k12.hi.us)

Planning Section

Department of Education/Facilities Development Branch

Kalani High School TB1B

4680 Kalaniana'ole Highway

Honolulu, 96821

Ph.[808-377-8301](tel:808-377-8301)

## Ho'okuleana LLC

*... to take responsibility ...*

**Peter T. Young**

1539 Kanapu'u Drive

Kailua, Hawai'i 96734

(808) 226-3567 (Cell Phone)

[peter.t.young \(Skype\)](mailto:peter.t.young@hookuleana.com)

[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)

[www.Hookuleana.com](http://www.Hookuleana.com)



Mr. Kenneth Masden  
Public Works Manager, Planning Section  
State of Hawai'i  
Department of Education  
PO Box 2360  
Honolulu, Hawai'i 96804

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Masden:

Thank you for your letter dated January 15, 2015 regarding HoKua Place.

We have forwarded your comments to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Heidi Meeker  
Department of Education, Facilities Development Branch  
Planning Section  
State of Hawaii  
Kalani High School TB1B  
4680 Kalaniana'ole Highway  
Honolulu, HI 96821

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Meeker:

Thank you for your email dated December 24, 2014 in which you commented on the need for a drain easement from Kapaa Middle School into the subject property.

The project engineer has noted that the Kapaa Middle School drainage easement is designated on the current subdivision map as it was proposed by the DOE Kapaa Middle School construction plan. Although the outlet headwall and drain-line have been in use a number of years within the HoKua Place property, the easement (D-1) has not been formally recorded as it is not in the current title report.

We appreciate your participation in the environmental review process.

Sincerely,

Peter T. Young

Do well by doing good.

PHONE (808) 594-1888



**STATE OF HAWAII'**  
**OFFICE OF HAWAIIAN AFFAIRS**  
560 N. NIMITZ HWY., SUITE 200  
HONOLULU, HAWAII 96817

FAX (808) 594-1938

HRD14-6389B

February 11, 2015

Peter Young, President  
Ho'okuleana LLC  
1539 Kanapu'u Drive  
Kailua, HI 96734

Re: Environmental Impact Statement Preparation Notice for the HoKua Place Project  
Kapa'a Ahupua'a, Puna Moku, Kaula'i Moku  
TMK: (4) 4-3-003:001

Aloha e Peter Young:

The Office of Hawaiian Affairs (OHA) is in receipt of your December 17, 2014 letter seeking preliminary comments on the above environmental impact statement preparation notice (EISPN), on the development of the 97-acre HoKua Place project (project), previously known as Kapa'a Highlands, with a total of 683 multi-family units and 86 single-family lots. The subject property is zoned agricultural by the County of Kaula'i. A petition is being submitted to change the land use district from the Agricultural land use district to Urban district.

On July 20, 2012, a draft environmental assessment (DEA) for the Kapa'a Highlands project was submitted to OHA for review and comment. Your recent letter mentioned OHA provided a list of possible individuals to contact for knowledge of traditional cultural practices and resources, but that none knew of any historic or cultural sites for this area. Also, the cultural impact assessment of the DEA concluded there were no historic properties identified within the project area or in the vicinity. The nearest cultural sites identified were mauka of Kūhio Highway, along the coastline in the Kapa'a ahupua'a, and outside of the project area.

With a heavy load on infrastructure, OHA is concerned with the increase in traffic and how this burden will affect the community and commuters, as well as impacts to water and

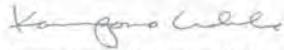
Peter T. Young  
February 11, 2015  
Page 2

sewage infrastructure that also services the ever-growing Kapa'a town. OHA looks forward to reviewing the follow-up environmental impact statement.

As this project moves forward, OHA does request assurances that should iwi kupuna or Native Hawaiian cultural deposits be identified during any ground altering activities, all work will immediately cease and the appropriate agencies, including OHA, will be contacted pursuant to applicable law.

Thank you for the opportunity to submit comments on this EISPN. Should you have any questions, please contact Kathryn Keala at (808) 594-1848 or kathyk@oha.org.

'O wau iho nō me ka 'oia 'i'o,



Kamana'opono M. Crabbe, Ph.D.  
Ka Pouhana, Chief Executive Officer

KC:kk

C: Dan Ahuna, OHA Kaua'i & Ni'ihau Trustee  
Kaliko Santos, OHA Kaua'i Community Outreach Coordinator (via email)

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Kamana'opono M. Crabbe, Ph.D.  
Ka Pouhana, Chief Executive Officer  
State of Hawai'i  
Office of Hawaiian Affairs  
560 N. Nimitz Hwy., Suite 200  
Honolulu, Hawai'i 96817

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Crabbe:

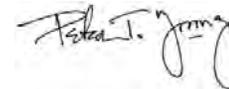
Thank you for your letter dated February 11, 2015 regarding HoKua Place.

We have forwarded your comments to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter.

As the project moves forward, should iwi kupuna or Native Hawaiian cultural deposits be identified during any ground altering activities, all work will immediately cease and the appropriate agencies, including OHA, will be contacted pursuant to applicable law.

Thank you for your comments.

Sincerely,



Peter T. Young

Do well by doing good.



**OFFICE OF PLANNING  
STATE OF HAWAII**

235 South Beretania Street, 8th Floor, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2358, Honolulu, Hawaii 96804

DAVID Y. IGE  
GOVERNOR

LEO R. ASUNCION  
ACTING DIRECTOR  
OFFICE OF PLANNING

Telephone: (808) 587-2846  
Fax: (808) 587-2824  
Web: <http://planning.hawaii.gov/>

Ref. No. P-14640

January 29, 2015

Mr. Peter T. Young, President  
Hookuleana LLC  
1539 Kanapuu Drive  
Kailua, Hawaii 96734

Dear Mr. Young:

Subject: HoKua Place  
HG Kauai Joint Venture  
Section 343-5e HRS Environmental Impact Statement Preparation Notice  
TMK: 4-3-003: por. 001  
Kawaihau District, Wailua, Kauai, Hawaii

Thank you for the opportunity to review and comment on the preparation of a Chapter 343, Hawaii Revised Statutes, Environmental Impact Statement Preparation Notice (EISPN). The 97-acre project is proposed for approximately 683 multi-family and 86 single family units including parks, and 1.4 acres of commercial use. The document also indicates that the adjacent HoKua farm lots shares some of the project infrastructure.

The Office of Planning (OP) has the following comments.

1. OP has some general comments on the document as follows:
  - a. The resolution and clarity of some of the appendices were poor. We recommend that this improve in the DEIS document. Some of the passages and letters, etc., were difficult to read. For example, the letters in the EISPN Exhibit L, Archaeological Assessment.
  - b. Each chapter, subsection and appendix in the CD should be bookmarked. On the CD at least, appendices should be full sized for readability.
  - c. Although some of the maps in the document contained a scale and legend, the maps were not uniform in this respect. Thus, all of the map exhibits throughout the document should be of high resolution, contain a legend, north arrow and scale. Also, the Petition area should be highlighted, and separated from Kapaa Highlands I.
  - d. A list of permits required should be clearly indicated.
2. OP is the lead agency for the Hawaii CZM Program. The coastal zone management area is defined as "all lands of the State and the area extending seaward from the shoreline to the

Mr. Peter T. Young  
January 29, 2015  
Page 2

limit of the State's police power and management authority, including the U.S. territorial sea" see HRS § 205A-1 (definition of "coastal zone management area").

The Draft Environmental Impact Statement (DEIS) shall include a statement in a section that addresses how the project conforms or is in conflict with state and county plans, policies, and controls. The statement should include a discussion of the proposed project's ability to meet all of the objectives and policies set forth in HRS § 205A-2. Where a conflict or inconsistency exists, the statement must describe the extent to which the applicant has reconciled its proposed action with this statute. These objectives and policies include: recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach protection, and marine resources.

3. This project may have nonpoint pollution impacts on the watershed or coastal waters. Please review the [Hawaii Watershed Guidance](#), which provides a summary and links to management measures that may be implemented to minimize coastal nonpoint pollution impact. Specifically please examine page 120 (management measure for new development). The Watershed Guidance can be viewed or downloaded from the Office of Planning website at [http://files.hawaii.gov/dbedt/op/czm/initiative/nonpoint/HI\\_Watershed\\_Guidance\\_Final.pdf](http://files.hawaii.gov/dbedt/op/czm/initiative/nonpoint/HI_Watershed_Guidance_Final.pdf).
4. The entire island of Kauai is subject to very flashy/unstable weather patterns year round. Therefore please consider utilizing OP's *Stormwater Impact Assessment* to identify and evaluate information on hydrology, stressors, sensitivity of aquatic and riparian resources, and management measures to control runoff occurrences. In particular, please examine Low-Impact Development Concepts. These concepts include decentralized micro-scale controls that infiltrate, filter, store, re-use, evaporate, and detain runoff close to its source.  
  
This guidance document will assist in integrating stormwater impact assessment within your review process. The purpose of this document is to provide guidance on assessing stormwater impacts in the planning phase of project development. The goal is to provide a suggested framework and various tools for integrating stormwater impacts assessment. Please review the Low-Impact Development Concepts listed on pages 14-16 of the *Stormwater Impact Assessment* guidance. This can be found at [http://files.hawaii.gov/dbedt/op/czm/initiative/stormwater\\_impact/final\\_stormwater\\_impact\\_assessments\\_guidance.pdf](http://files.hawaii.gov/dbedt/op/czm/initiative/stormwater_impact/final_stormwater_impact_assessments_guidance.pdf).
5. The entire site is within the State Agricultural District. The proposal will require that the Property is reclassified to the State Urban District through the Land Use Commission. OP represents the State as a mandatory party in proceedings before the Land Use Commission. In developing its position, OP evaluates whether the project meets the LUC decision-making

Mr. Peter T. Young  
January 29, 2015  
Page 3

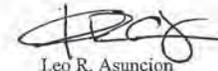
criteria in HRS § 205-17, as well as its conformance with Coastal Zone Management objectives and policies in HRS § 205-A-2.

6. Attached for your review and consideration in your environmental assessment and Petition is a document entitled "Attachment A – Issues of Concern in District Boundary Amendment Proceedings Based on LUC Decision-Making Criteria." We encourage early consultation with our office to discuss how a petition will address these issues and criteria – particularly the areas of State concern in this document and best practices that could or will be incorporated in the proposed project to address State priority guidelines for sustainability. A short list of resources related to best practices can be found at the OP website at [http://hawaii.gov/dbedt/op/land\\_use.htm](http://hawaii.gov/dbedt/op/land_use.htm).
7. 4.1.4 Potential Project Impacts in Context with Applicable Requirements & Mitigation Measures, Page 28. Hawaii HRS. Chapter 205A should be included in this list.
8. Invertebrate Survey. Page 61. The document indicates that no survey was completed, because there were no lava tubes on site, however, a survey should be conducted on the surface area of the Petition area, and included in the DEIS.
9. Botanical, Biological, Avian, and Mammal Surveys, Pages 52-61. We recommend that a definitive statement be included on the presence of any Federal or State threatened, endangered, candidate or species of concern within the Petition area.
10. Hawaiian Bat. The document indicates that a bat detector was not used to determine the presence of the endangered Hawaiian Bat. We recommend that further study be done in this area, and this should be included within the DEIS.
11. Archaeological Assessment, Exhibit L, by Nancy McMahon, M.A. and Wendy Tolleson, M.A. The EISPN did not include an Archaeological Inventory survey, because as indicated on page 29, Recommendations, "As no archaeological sites are present, there are no historic preservation concerns for the project." Thus, no further work was recommended. Letters were also included from the State Department of Land and Natural Resources, State Historic Preservation Office, however these are difficult to read.
12. Agricultural Resources. Information is included on the designations for the Land Study Bureau, but we could not locate any information on ALISH designations. If the document does not include this information, then the DEIS should include additional information on agricultural resources. Appropriate maps should also be included.
13. State Land Use (SLU) Districts. An SLU map should also be included of the area, and Petition area.

Mr. Peter T. Young  
January 29, 2015  
Page 4

Thank you for the opportunity to review this project. If you have any questions please call either Josh Hekekoa of our Coastal Zone Management Program at 587-2845 or Lorene Maki of our Land Use Division at (808) 587-2888.

Sincerely,



Leo R. Asuncion  
Acting Director

c: Land Use Commission  
Enclosure

**Attachment A**  
**Issues of Concern in District Boundary Amendment Proceedings**  
**Based on LUC Decision-Making Criteria**

The following issues are commonly discussed and analyzed for project proposals in petitions and their supporting environmental assessments (EAs) or environmental impact statements (EISs) prepared pursuant to Chapter 343, Hawai'i Revised Statutes (HRS). This list reflects the range of issues the State Land Use Commission (LUC) must take into consideration in its decision-making under Chapter 205, HRS, and Chapter 15-15, Hawai'i Administrative Rules (HAR). This list is not exhaustive or complete.

1. **Water Resources.** Groundwater and surface water resource protection and water quality are critical State issues. A thorough evaluation of these resources includes identifying and discussing: (a) estimated water demand by types of land use; (b) proposed potable and non-potable water sources to be used for the project and measures to reduce water demand and promote water reuse in the project; (c) whether the proposed project is within a designated Water Management Area; (d) the impact of the project on the sustainable yield and water quality of affected aquifers and surface water sources; (e) permits or other approvals required for proposed water source use; and (f) the consistency of the project and impact of the project in terms of proposed water use and system improvements and priorities contained in the County water use and development plan, prepared pursuant to the State Water Code, Chapter 174C, HRS.
2. **Agricultural Lands.** Article XI, Section 3, of the Hawai'i State Constitution provides that "[t]he State shall conserve and protect agricultural lands, promote diversified agriculture, increase agricultural self-sufficiency, and assure the availability of agriculturally suitable lands." Protecting agriculture is a policy objective in the Hawai'i State Plan, Chapter 226, HRS, and in the State Administration's New Day Comprehensive Plan, which is available at <http://hawaii.gov/about/a-new-day>. Agricultural activity in the vicinity of the proposed project should be identified, and the impact of urban use or conversion of project lands on existing and future agricultural use and the viability of agricultural use of adjoining agricultural lands needs to be examined. Please discuss how the proposed project meets policy objectives to promote and protect agriculture, particularly in cases where the lands have high agricultural value.
3. **Affordable Housing.** Increasing the supply of affordable housing is a critical State and County issue. Every County has an affordable housing policy and both the Hawai'i State Plan, Chapter 226, HRS, and the State Administration's New Day Comprehensive Plan identify affordable housing as a policy priority. If applicable, please discuss specifically how the proposed project will meet State and County affordable housing policy objectives, to include a discussion of how the project's proposed residential product types will be allocated among the market and various affordable housing target populations, and the expected price ranges for the different product types.
4. **Coastal Zone Management (CZM).** The Office of Planning is the lead agency for the Hawai'i CZM Program, which is a Federal-State partnership for protecting, restoring, and responsibly developing coastal communities and resources. The coastal zone is defined as all lands of the State and the area extending seaward from the shoreline to the limit of the State's police power and management authority, including the United States territorial sea (HRS § 205A-1). EA/EISs should reference this definition of the coastal zone. State agency actions must be consistent with the CZM program objectives and policies under Section 205A-2, HRS. The EA/EIS needs to discuss the project in terms of its consistency with the following CZM objective areas.
  - a. **Coastal and Ocean Resources.** The State has an interest in protecting coastal and marine ecosystems and resources, as well as coastal and marine water quality. The EA/EIS should identify any coastal and marine resources and ecosystems that may be impacted by the proposed project, and the potential for nonpoint sources of pollution from the project to adversely affect coastal and marine water quality. Project impacts on existing site and off-site

hydrology and measures to manage stormwater and runoff need to be discussed. The Office of Planning recommends the use of low impact development (LID) techniques and other best management practices (BMPs) that promote onsite infiltration and minimize runoff from storm events. More information on LID and stormwater BMPs can be found at <http://hawaii.gov/dbedt/czm/initiative/lid.php>.

- b. **Coastal and Other Hazards.** The EA/EIS should describe any hazard risks that are relevant to the site and describe the measures that are proposed to mitigate any hazard impacts, such as from tsunami, hurricane, wind, storm wave, sea level rise, flood, erosion, volcanic activity, earthquake, landslide, subsidence, and point and nonpoint source pollution. This should include a discussion of any wildfire hazard and any mitigation measures that might be required to address potential threats from wildfires.

The EA/EIS process also provides an opportunity to address the sustainability of proposed projects in terms of natural hazards and hazard mitigation, and the potential impact of climate change on the proposed project over time. To this end, OP recommends the final EA/EIS include a discussion of the proposed project with respect to the *State Multi-Hazard Mitigation Plan, 2010 Update*, adopted in September 2010, available at <http://www.sed.hawaii.gov/documents/HawaiiMultiHazardMitigationPlan2010PUBLIC.pdf>, as well as the respective County Hazard Mitigation Plan.

- c. **Coastal-dependent Uses and Beach Protection.** If the project is located on or near the coast, the EA/EIS should discuss why the proposed development needs to be located on the coast, the economic uses that will be of benefit to the State, as well as potential impacts on beach access. The discussion should identify measures to protect beach systems and ensure short- and long-term public access to beaches.
- d. **Coastal Recreational Resources.** If the project is located on the coast, the EA/EIS should include a description of recreational uses and facilities on or near the project site, and discuss how the impact of increasing users on coastal and ocean recreational resources and competing uses will be mitigated and managed during project development and buildout.
- e. **Scenic Resources.** The EA/EIS should discuss the impact of the proposed project on scenic views to and from the coast and along the coast and coastal open space, and how any impacts on these scenic and open space resources will be avoided, minimized, or mitigated.
- f. **Special Management Area (SMA) Permitting.** The SMA is defined by the Counties and includes areas in the coastal zone that are particularly sensitive so that it requires special attention. Please identify whether the proposed project is within the SMA and how SMA permitting requirements pursuant to Chapter 205A, HRS, will be satisfied.

For additional resources and information, visit <http://hawaii.gov/dbedt/czm>.

5. **Cultural, Archaeological, and Historic Resources.** Another CZM objective is to protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone that are significant in Hawaiian and American history and culture. If archaeological or historic properties or artifacts, including native Hawaiian burials, are identified in an archaeological inventory survey on the property, the EA/EIS should discuss how the petitioner has consulted with the State Historic Preservation Division (SHPD), what plans will be prepared to monitor or protect identified resources, and how the petitioner intends to comply with Chapter 6E, HRS, related to historic preservation, and the CZM objective and policies for historic resources contained in Sections 205A-2(b) and (c). SHPD has information and guidance available at <http://hawaii.gov/dlnr/hpd/hpertz.htm>.

The EA/EIS document should identify any cultural resources and cultural practices associated with the property, including visual landmarks, if applicable, and discuss the impact of the proposed project on identified cultural resources and practices as well as proposed mitigation measures. The LUC is obligated

under Article XII, Section 7 of the Hawai'i State Constitution to protect the reasonable exercise of customarily and traditionally exercised native Hawaiian rights. Thus, the LUC requires information as to the presence of cultural resources and cultural practices associated with the project site and vicinity for decision-making on petitions. The State Office of Environmental Quality Control provides guidance for preparing a cultural assessment at <http://oeqc.doh.hawaii.gov>, at "Environmental Assessment PrepKit" ([http://oeqc.doh.hawaii.gov/Shared%20Documents/Preparation\\_of\\_Hawaii\\_Environmental\\_Policy\\_Act\\_Documents/Guidance\\_on\\_Cultural\\_Impact/1997%20Cultural%20Impacts%20Guidance.pdf](http://oeqc.doh.hawaii.gov/Shared%20Documents/Preparation_of_Hawaii_Environmental_Policy_Act_Documents/Guidance_on_Cultural_Impact/1997%20Cultural%20Impacts%20Guidance.pdf))

6. **Biota.** The EA/EIS should include an inventory and assessment of flora and fauna, including invertebrates, found on or in proximity to the project site and in any lava tubes and caves on the property that are listed on the federal or State list of endangered or threatened species. Please also discuss species of concern and candidates for listing. The petitioner should consult with the Database Manager at the Hawai'i Biodiversity and Mapping Program, Center for Conservation Research and Training, University of Hawai'i, (808) 956-8094, as to the potential for the presence of rare species in the project area. The EA/EIS should discuss measures to be taken to protect rare, threatened, or endangered species or ecosystems of concern as required by law. The design of the biological survey should consider both wet and dry season observations to capture the fullest range of flora and fauna.
7. **Wastewater Treatment and Disposal.** The EA/EIS needs to identify the anticipated volume of wastewater to be generated by type of user, as well as the proposed means of wastewater treatment and disposal. A discussion of the availability of County wastewater collection and treatment capacity and its existing service levels, design capacity, and allocated capacity is also needed. The EA/EIS should also identify whether any facility improvements would be required to accommodate additional wastewater generated within the service area, including the proposed project. If a private wastewater treatment system is identified as the preferred option, the EA/EIS should discuss the type of plant to be used, permitting requirements, plans for reuse and/or disposal of treated effluent and waste solids, and how the private system will be operated and maintained.
8. **Energy Use and Impacts.** The State Hawai'i Clean Energy Initiative has adopted a goal of using efficiency and renewable energy resources to meet 70 percent of Hawai'i's energy demand by 2030, with 30 percent from efficiency measures and 40 percent from locally-generated renewable sources. The EA/EIS should quantify the projected energy requirements of the project and discuss measures to be taken to reduce energy demand, promote energy efficiency, and to promote use of alternative, renewable energy sources. Please discuss how energy efficiency and energy demand reduction, including reduced transportation energy use will be incorporated in the design of the project and identify the kinds of green building and sustainable design practices that could be used to promote energy and resource conservation in the proposed project. Please also identify any generating or transmission capacity constraints that may arise as a result of the proposed project and other projects planned for the region.
9. **Impact on State Facilities and Resources.** The EA/EIS should quantify the impacts of the proposed project on State-funded facilities, including schools, highways, harbors, and airports, and discuss these impacts in terms of existing and planned capacity of the impacted facilities. The EA/EIS should cite the mitigation measures proposed to be used in the development of the project and describe efforts to address identified State agency concerns. Regarding transportation impacts, consider project design options that limit the need to drive, including mixed land uses, compact site design, walkable neighborhoods, and providing a variety of transportation choices (e.g., biking, public transit, etc.).
10. **Conservation District.** If the proposed project is within the State Conservation District, the EA/EIS should provide an inventory of conservation resources, and discuss how the loss of these resources (habitat, watershed area, etc.) will impact the public.

11. **Conformance with County Plan Designations and Urban Growth or Rural Community Boundaries.** Act 26, Session Laws of Hawai'i 2008, reaffirmed the Land Use Commission's duty to consider any proposed reclassification with respect to the Counties' adopted general, community, or development plans. If the proposed project is not consistent with the County plans or lies outside a County urban growth or rural community boundary, the EA/EIS should provide an analysis and discussion of the following:
  - a. **Alternative Sites Considered.** Describe and discuss alternative sites that were considered for the project, and discuss why the project could not be accommodated on lands within the urban growth or rural community boundary, if the county plan delineates such boundaries, or on land already designated by the county for similar uses.
  - b. **Impact on Surrounding Lands.** Discuss what the impacts of changing the county plan designation or extending the urban growth or rural community boundary would have on the surrounding lands.
  - c. **Significant Public Benefit.** Discuss what, if any, public benefits are provided by the proposed project above that already required under existing approval and permitting requirements.
  - d. **Plan Amendment.** Provide a timeframe for application for and approval of any required plan amendment.
12. **Environmental Health Hazards.** The EA/EIS should discuss the potential for the project or project users to generate hazardous materials or release possible contaminants to the air, soil, or water, as well as measures to be taken to ensure that environmental and public health and safety will be protected during construction and after buildout. The EA/EIS should also identify and discuss any potential health and environmental threats that may be present due to site-specific contamination from past or current use. If contaminants of concern are identified for the project site, OP recommends that the petitioner consult with the State Department of Health's Hazard Evaluation and Emergency Response Office as to measures to be taken to address possible or actual contamination at the site.
13. **Solid Waste Management.** The EA/EIS should quantify the volume of solid waste likely to be generated by the project by types of users, and describe the impact the project will have on the County's existing and planned capacity for managing solid waste as represented in the County's solid waste management plan. The EA/EIS should discuss specific mitigation measures to be taken to reduce solid waste generation and ensure that recycling and reuse are incorporated within the project area by residential, commercial, and institutional users.
14. **Sustainability Analysis.** OP is implementing the sustainability elements of the State Administration's New Day Comprehensive Plan and Act 181, Session Laws of Hawai'i (SLH) 2011 (the new sustainability priority guideline of the Hawai'i State Planning Act) by asking petitioners to prepare sustainability plans for their projects in anticipation of district boundary amendment proceedings before the LUC. LUC Dockets A(6-771, DR Horton-Schuler Homes (Ho'opili) and A11-793, Castle & Cooke Homes (Koa Ridge Makai/Castle & Cooke Waiawa) provide a good point of reference for sustainability plans. The Koa Ridge Sustainability Plan and Ho'opili Sustainability Plan can be found on the LUC's web site under each respective docket's exhibits. Links to additional helpful resources can be found at the OP website at [http://lhwaii.gov/dbedt/op/land\\_use.htm](http://lhwaii.gov/dbedt/op/land_use.htm).

OP evaluates sustainability plans based on the *Healthy Community Design Smart Growth Checklist* prepared by the Hawai'i State Department of Health, Built Environment Working Group, which recommends that State and county planning departments, developers, engineers, and other professionals apply healthy built environment principles when they plan or review new

developments or redevelopments. See <http://hawaii.gov/health/environmental/env-planning/landuse/hcdchecklist.pdf>.

The *Checklist* is adapted from the *Smart Scorecard for Development Projects* (Congress for New Urbanism and the U.S./ Environmental Protection Agency, 2002) and *East Garrison Smart Growth Checklist* (Monterey, CA). The checklist applies Smart Growth principles to accomplish the following:

- Promote fitness through safe walking, biking, and other active transportation through connectivity of planned bikeways and paths with existing and adjacent networks, designing travelways that connect multiple destinations and encourage non-vehicular travel.
- Promote clean air by making transit convenient and comfortable, minimizing petroleum-fueled car and truck use, and minimizing fossil energy use.
- Promote a healthy environment by buying green products, reducing, reusing, and recycling, and minimizing waste in construction, operations, and demolition.
- Promote fitness and health by encouraging home and community gardens.

Factors to consider include Close Proximity to Existing/Future Development and Infrastructure; Site Optimization and Compactness; Mix and Balance of Uses; and Accessibility and Mobility Choices. The *Checklist* is flexible so that developers can implement what works for their particular development. It is also consistent with the objectives of Act 181, S.L.H. 2011, and can help petitioners address reasonably foreseeable impacts caused by a proposed project on areas of State concern listed under Section 205-17, HRS.

15. **Development Timetable.** The LUC requires that projects seeking reclassification be substantially completed within ten years or seek incremental approvals, pursuant to Section 15-15-50, H.A.R. The EA/EIS and/or petitioner should provide a schedule of development for each phase of the total project and a map showing the location and timing of each phase or increment of development. Regarding infrastructure (e.g., highway improvements), the petitioner should discuss how improvements will be completed to ensure that mitigation coincides with the impact created by the proposed project.

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Leo Asuncion, Acting Director  
Office of Planning  
State of Hawai'i  
PO Box 2359  
Honolulu, Hawai'i 96804

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Asuncion:

Thank you for your letter dated January 29, 2015 regarding HoKua Place.

We have forwarded your comments to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter.

Thank you for your comments.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** Susan Westmoreland <bobandsusy@hawaiiintel.net>  
**Sent:** Friday, January 23, 2015 11:38 AM  
**To:** info@hookuleana.com  
**Subject:** Hokua Place Subdivision

I'm not used to writing but this project is pure insanity.

I have lived on Kauai for 34 years and have seen a lot of changes. The worst one is the traffic and no new roads have been built except the Kapaa bypass.

What are the people making decisions for our beautiful island thinking??? The infrastructure of Kauai is not able to add more cars and people. We are not Oahu or Maui.

The only time I make doctor appointments in Lihue and plan my trips to Honolulu are before 10am. Otherwise I am late or miss my plane. Have any of you tried to go thru Kappa around 11:30am?? It is a nightmare.

Please do not allow this development to happen.

Susan Westmoreland  
Princeville  
826-4442

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Susan Westmoreland  
bobandsusy@hawaiiantel.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Westmoreland:

Thank you for your email on January 23, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion
- Road Infrastructure

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

**Peter T Young**

**From:** Sylvia Partridge <sylpartridge@yahoo.com>  
**Sent:** Wednesday, January 14, 2015 8:04 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place ESPN comments

Please say no to the zoning change request from agricultural to urban by Mr. Greg Allen and investors in Hokua Place in Kapaa. Please keep the zoning agricultural to avoid contributing to the urban gridlock traffic congestion that already exists in the area. If urban zoning is approved, 800 new homes would add 800-1600 new cars to an area that is already in gridlock at certain times of the day.

I live in Princeville and driving through the Kapaa area to get to Lihue or other places on the island can take 2 hours or more at certain times of the day (a drive that, without congestion, takes 10-15 minutes). The only other way for me to get to the rest of the island would be by boat or plane and that is not doable for me. So please consider the needs of residents of the island and keep the zoning agricultural.

Thank you.

Sylvia Partridge  
3800 Kamehameha Rd., # 22  
Princeville, HI 96722

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Sylvia Partridge  
sylpartridge@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Partridge:

Thank you for your email on January 14, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Loss of Agricultural Land
- Traffic Congestion

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

## Peter T Young

**From:** Uma Mehta [umamehta6@gmail.com]  
**Sent:** Monday, January 19, 2015 9:48 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** I oppose development!

oppose the Hokua Place development until all the concerns mentioned herein are fully and publicly addressed, and that there needs to be more public community meetings with the State and County agencies involved to confirm that proper action/decisions are being made.

Comments on the EISPN re Up-zoning:

Agriculture to Urban – Hokua Place Subdivision, 800 houses

News of the proposed re-zoning application has spread across Kaua'i rapidly, causing widespread concern and a strong negative reaction. People are wondering whether the concept of agricultural land is now being abandoned in favor of profit for developers. Although there may be a few who will benefit financially, the resounding response of the residents of the island is: NO. WE DO NOT WANT THIS DEVELOPMENT. We feel that it will bring our traffic to a standstill, endanger our children as they travel to and from school, place an immense burden on an inadequate infrastructure, damage our economy, and irrevocably damage our quality of life. We appeal to the Land Use Commission to refuse the application to change the zoning of 97 acres of land adjacent to the Kapa'a Middle School from Agricultural to Urban Residential.

We are particularly concerned about the following issues:

- The project would result in severe road congestion that would have an enormous impact on the lives of residents, who are already finding it increasingly difficult to travel between the North Shore and Lihue, as well as on tourism. The inevitable long traffic delays would make Kaua'i very much less attractive to tourists, who would find it very difficult to move around the island. Existing traffic studies are inadequate and out of date due to the growing pressure on the road system. Most significantly, the plans for road widening dating back to 1997 have not been implemented.
- The risks to the students at Kapa'a Middle School are unacceptably high. Not only is there already a problem for parents in dropping off and picking up students, but there is a risk for students safety, with students walking or riding bikes along Oloheua Road or crossing it to get to the school. Moreover, the middle school is already at capacity, and a large additional influx of students could easily undermine the quality of education or leave some children without education.
- The infrastructure required to support the proposed development is inadequate. We do not have the landfill capacity to handle large amounts of construction waste and personal waste from the projected new homes. Drainage is inadequate to handle the run off from the projected hard surface areas. There is a real question as to whether the Lydgate Sewage Treatment plant could adequately handle the human waste from an additional nearly 800 residential units and associated developments. There is a question about the availability of water for the proposed residences.

In summary, this project will bring profit to developers but will severely damage the economy and quality of life of the island of Kaua'i. It will significantly weaken the concept of agricultural land, which has been fundamental to the historical development of the island. For all these reasons, the community strongly opposes it.

thank you  
Uma Lakshmi

Do well by doing good.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



January 21, 2015

Land Use Commission  
State of Hawai'i, DBEDT  
P. O. Box 2359  
Honolulu, HI 96804-2359  
scott.derrickson@dbedt.hawaii.gov

Peter Young  
Ho'okuleana LLC  
1539 Kanapu'u Drive  
Kailua, HI 96734  
info@hookuleana.com

Greg Allen, Jr.  
HG Kaua'i Joint Venture  
161 Wailua Road  
Kapa'a, HI 96746  
gallen@harbormall.net

RE: EISPN for HoKua Place, Kapa'a - Petition for District Boundary Amendment for 97-acres from Agriculture District to Urban District, TMK (4)4-3-03:001

Thank you for referring this project to Wailua-Kapa'a Neighborhood Association (W-KNA) for pre-assessment consultation, review and comment. We also thank Mr. Greg Allen, Jr. for his presentation at our November 2014 General Meeting which was attended by 40 members of the public.

We recognize the need for affordable housing on Kaua'i and the importance of siting urban expansion adjacent to the town core. However, development is outpacing Kapa'a's roadway infrastructure. Residents and visitors are crippled by severe traffic congestion throughout the day. We are concerned that this project, when fully built-out, may contribute to this problem since timeframes for transportation remedies are uncertain.

#### Density.

The proposed density of 769 housing units on 97-acres is very high. Alternatives in project density with a reduced residential footprint may be more acceptable in light of constraints posed by current traffic conditions. It would also provide a more gradual transition to the rural environment of neighborhoods along Ka'apuni Road and in the adjacent ahupua'a of Waipouli. Therefore, we would like to see the Draft Environmental Impact Study (EIS) include:

- Three additional housing density scenarios (300, 450 and 600 units) as viable options for development, with visual configurations provided too.
- Describe in detail the cost challenges and design challenges posed by building multifamily structures on hillsides.

#### Phasing.

- Explain the relationship between Phase I-HoKua Farm Lots and Phase II-Hokua Place and describe in detail any constraints that one may have upon the other.

#### Request for Additional Maps.

To provide more clarity about the project, we would like to see the following detailed maps in the DEA:

- Topographic map to include clear elevation lines, streams, ditches, ditch intakes, diversions, tunnels and the location of the proposed well
- Existing cane haul roadways (paved and unpaved) along with the new proposed access roads
- Renderings of the multi-family housing and single family homes built on rim lots or significantly sloped topography, showing preliminary design for hillside construction
- Boundary map with all adjacent landowners and their TMK

Ms. Uma Lakshmi  
umamehta6@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Lakshmi:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Loss of Agriculture Land
- Traffic Congestion and Impacts
- Pedestrian Safety
- Sewage Capacity
- Infrastructure Capacity for Construction, Personal and Human Waste
- Drainage
- Availability of Water

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

Do well by doing good.

Serving Residents of the Kawaihau District  
"We treasure our rural community"

340 Aina Uka Street, Kapa'a, Hawai'i 96746 • 821-2837

Stream Impacts.

- Please provide the name of the stream that flows along the property boundary and empties into the Waikaea drainage canal about 800-feet downstream from HoKua Place.
- Discuss establishing a minimum instream flow standards (in coordination with COWRM) for any waterways on the property and impacts from proposed well and long-term water removal
- Identify what actions will be taken to mitigate a reduction in streamflow and enhance stream water circulation.

Inconsistent Information.

- Since so many Kapa`a Highlands documents are included in the EISPN, it would be helpful to see a list of the particular details not relevant to the HoKua Place project or highlighting any disparities.
- Exhibit N shows letters written in 2010, 2011 and 2012, from DOT District Engineer Ray McCormick, Mayor Bernard Carvalho and County Engineer Larry Dill, respectively, who voice support for 231 affordable housing units to be developed. It is unclear whether they realize that the proposed density is almost 800 units on 97-acres. This discrepancy/omission raises doubts.

County Police and Fire Public Services.

- Please describe the extent to which increased tax revenues will offset and exceed the demand for additional police and fire protection.
- Please describe roadway design requirements to be in compliance with (or greater than) County fire code requirements, particularly the roadways with cul-de-sacs.

Traffic Circulation and Congestion.

HoKua Place represents a dramatic increase in housing for East Kaua`i. Once the project is occupied, it will greatly contribute to regional traffic despite the intent to utilize multi-modal design. The 1997 Kaua`i Long-Range Land Transportation Implementation Plan has not met its 2000 and 2006 deadlines for Kapa`a roadway widening in the areas affected by the proposed zoning change.

- Will an updated supplement to the TIAR prepared in 2011 be provided?
- Can the timeframes identified as "peak hours" in TIAR be included in the DEA narrative?
- Discuss and illustrate preliminary designs for Phase I and Phase II intersections at Olohena Road and the Bypass Road
- Describe the anticipated traffic impacts at the Kapa`a Roundabout, not in the context of closing the Bypass Road
- What plans does the project have to improve pedestrian access to Kapa`a?
- How will kids with bicycles cross the Bypass Road or navigate the Roundabout safely?
- What additional traffic congestion mitigation remedies or cost-sharing solutions can be proposed to further reduce the "E" designation to a "C or D" classification?
- Provide DOT/County timelines for road-widening improvements in the vicinity.

Runoff & Drainage (Exhibit F).

- Explain in more detail the drainage improvements, which may include drain lines, grass swales, and culverts to balance any expected increases in runoff resulting from the proposed project.
- Describe in detail how will nonpoint source pollution and urban runoff including sedimentation from weathering and erosion of the sloped topography be managed.
- What are potential impacts from "directing storm water to the nearest downstream street or natural drainageway"?
- Due to valleys and significant slopes in the topography, please describe in detail any specific mitigation measures to address erosion and flash flood hazards in these areas.

- The drainage system refers to three detention basins. These detention basins are also depicted as "Greenways" on the maps. Will these be accessible to residents? Do they pose hazards or recreational opportunities?



Preserving Views.

- Preparation of visual resources using photographic and computer rendered images that illustrate the project's visual impacts from different public vantage points along the Kapa`a Bypass Road, at the Kapa`a Roundabout, and from Olohena Road would be helpful.
- The creation of public viewpoints along the rim lot portions of the property would provide benefit to the public and enhance the desirability of this new community. Can this be provided?
- Please detail compliance with all Chapter 205A, objectives and policies related to scenic and open space resources.

Secondary and Cumulative Impacts.

Generally, new affordable housing is welcomed, however Kapa`a is facing significant growth challenges. Secondary impacts associated with HoKua Place relate principally to infrastructure, with an emphasis on traffic and the need for additional public facilities and services. Cumulative impacts relate to the potential impacts of HoKua Place in the context of two large developments approved in the immediate Kapa`a area – Coconut Beach Resort (343 units) and Coconut Plantation Village (198 units) along with pending permit approvals for the Coco Palms Resort's 350-unit hotel.

- Examine and describe any social impacts or diminished quality of life from the population growth described above
- Provide an estimated count of new student enrollment and the capacity of the public Elementary, Middle and High Schools to accommodate them?
- What are the reasonably foreseeable secondary impacts or "indirect effects" caused by this development and please identify measures to mitigate the effects.

Thank you for the opportunity to comment. We look forward to reviewing the Draft Environmental Impact Study upon its completion and request that W-KNA be provided with one copy of all future documents.

Sincerely,

Rayne Regush  
Chairperson, on behalf of the W-KNA Board

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Rayne Regush, Chairperson  
Wailua-Kapa'a Neighborhood Association  
340 Aina Uka Street  
Kapa'a, Hawai'i 96746

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Rayne:

Thank you for your letter dated January 21, 2015 regarding HoKua Place.

We have forwarded your comments to the project's appropriate sub-consultants for review. The draft Environmental Impact Statement (DEIS) for the project will address these issues and include appropriate edits based on your letter.

Thank you for your comments.

Sincerely,

Peter T. Young

## Peter T Young

**From:** Sea & Bill Peterson [seabillpeterson@gmail.com]  
**Sent:** Monday, January 19, 2015 9:58 AM  
**To:** luc@dbedt.hawaii.gov; info@hookuleana.com  
**Subject:** Hokua Place, Section 343-5e HRS Preparation Notice, Environmental Impact Statement  
**Attachments:** map5 - Medium.mov; Kapaa Bypass Traffic.jpg

To Whom It May Concern:

My wife and I live not far from the **proposed** HoKua Place development in Kapa'a on Kauai. We are very concerned about traffic congestion and safety on the Kapa'a Bypass Road and at the intersection of Olohena Road and the Kapa'a Bypass Road (See attached map).

We have attached a video taken on our iPhone of the traffic on the approximately two and a half mile stretch between the round about at Olohena to Kuhio Hwy. The attached video was taken at 3:30 pm on Wednesday afternoon during winter break when the children were out of school.

Sometimes these roads are so congested that traffic is at a standstill in the traffic circle. Traffic on the bypass connecting to Kuhio Hwy is often backed up all the way to the traffic circle at Olohena. These roads have been rated "F" because of this.

Before considering adding a 760 unit housing complex to the area as proposed by HoKua Place, HG Kauai Joint Venture, that would directly connect to these roads, the existing traffic congestion needs to be resolved.

We would appreciate a response.

Mahalo.

Aloha,  
William and Susan Peterson  
(808) 822-0163

Do well by doing good.

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. William Peterson  
seabillpeterson@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Peterson:

Thank you for your email on January 19, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Traffic Congestion
- Traffic Safety

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** kauairoostercards@gmail.com <no-reply@weebly.com>  
**Sent:** Monday, February 02, 2015 7:45 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

### Submitted Information:

#### Name

Andy Stennett

#### Email

[kauairoostercards@gmail.com](mailto:kauairoostercards@gmail.com)

#### Comment

Well planned, pleasant neighborhoods, functional neighborhoods, and affordable housing for the residents of Kauai? Wow, pleeeze bring it on. Population growth is inevitable, let's do it responsibly, efficiently and beautifully--just the way HoKua proposes.

Andy Stennett  
Lihue

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Andy Stennett  
kauairostercards@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Stennett:

Thank you for your email on February 2, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** anthonycook@hawaiiintel.net [no-reply@weebly.com]  
**Sent:** Monday, February 02, 2015 9:05 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

**Name**  
Anthony Cook

**Email**  
[anthonycook@hawaiiintel.net](mailto:anthonycook@hawaiiintel.net)

**Comment**  
It's nice to see a community designed specifically for Kauai families in location that traditionally been desirable to local residents.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Anthony Cook  
anthonycook@hawaiiantel.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Cook:

Thank you for your email on February 2, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** BRubadue@honsador.com <no-reply@weebly.com>  
**Sent:** Thursday, January 29, 2015 12:59 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Brian Rubadue

##### Email

[BRubadue@honsador.com](mailto:BRubadue@honsador.com)

##### Comment

I have always been a proponent of smart growth, and as a former Realtor, have seen the need for family homes, particularly on the east side of Kauai. Having seen the plans for this development, the traffic mitigation plans, as well as the sustainability designs for this project, I whole heartedly am in favor of allowing Hokua Place to move forward. I strongly believe that it will help to insure that our keiki will have safe places to play, and much needed housing, allowing them to be able to remain on our island home that we all love so much. Thank You, Bria Rubadue, Kapaa HI

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Brian Rubadue  
BRubadue@honsador.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Rubadue:

Thank you for your email on January 29, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** bridgetarume@gmail.com [no-reply@weebly.com]  
**Sent:** Monday, March 02, 2015 3:15 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Bridget Arume

##### Email

[bridgetarume@gmail.com](mailto:bridgetarume@gmail.com)

##### Comment

As I have listened to the presentation and seen the layout of the project I am very excited for what this will offer the Kapaa/Kauaihou community. There are so many people like my children that will be looking for homes in this part of the island. This project offers starter and larger home options with the infrastructure that supports the families living there and Kapaa town businesses. There has been a lot of listening before, during and be ready to adjust as you move forward. I have been hearing about the need and ideas put forward for this type of development from back in the mid 1990's. I'm pleased that time and wisdom has been a large part of how the layout, amenities and communities needs have been met. I am in full support of HoKua Place and encourage others that want homes for our young families to get started and others that want the feeling of cohesive community to add their letter of support. Mahalo for keeping the ideas of the past 30 years alive. I hope to see construction soon!

Do well by doing good.

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Bridget Arume  
bridgetarume@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Arume:

Thank you for your email on March 2, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

**Peter T Young**

**From:** Camascook@gmail.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 10:06 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

**Submitted Information:**

**Name**  
Camas Cook

**Email**  
[Camascook@gmail.com](mailto:Camascook@gmail.com)

**Comment**  
We need more affordable housing communities in Kapaa! I fully support the development.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Camas Cook  
camascook@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Cook:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** carume@hawaii.rr.com <no-reply@weebly.com>  
**Sent:** Tuesday, February 03, 2015 3:36 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

**Name**  
Carl Arume

**Email**  
[carume@hawaii.rr.com](mailto:carume@hawaii.rr.com)

#### Comment

There has not been a significant housing development with houses in the affordable range in a while. I hope that this subdivision will provide opportunities for people of Kauai to purchase a home. Not cheap but at least within range. So with some effort they can get own their own home. It looks like this project has been planned and planned again so it should have a good future.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Carl Arume  
carume@hawaii.rr.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Arume:

Thank you for your email on February 3, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** Caven@crdc.net <no-reply@weebly.com>  
**Sent:** Thursday, February 05, 2015 4:12 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Caven Raco

##### Email

[Caven@crdc.net](mailto:Caven@crdc.net)

##### Comment

support for more gap lots for Kauai local people.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Caven Raco  
caven@crdc.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Raco:

Thank you for your email on February 5, 2015 regarding HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** connorallen@outlook.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 12:01 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

connor allen

##### Email

[connorallen@outlook.com](mailto:connorallen@outlook.com)

##### Comment

I support this hokua place project.

Living in kauai I know that the traffic in kapaa is quite horrible, I feel glad to know that this project will help to improve the traffic.

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Connor Allen  
connorallen@outlook.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Allen:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

**Peter T Young**

**From:** kawikaball@gmail.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 7:45 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

**Submitted Information:**

**Name**  
Dave Ball

**Email**  
[kawikaball@gmail.com](mailto:kawikaball@gmail.com)

**Comment**

So long as Greg Allen is part of the Hokuaplace project it will be nothing short of honest, positive and beneficial business! Greg will enhance and benefit both the Island of Kauai and its People!  
Aloha

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Dave Ball  
kawaikaball@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Ball:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** davewilkey@yahoo.com <no-reply@weebly.com>  
**Sent:** Tuesday, February 03, 2015 8:20 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

**Name**  
David Wilkey

**Email**  
[davewilkey@yahoo.com](mailto:davewilkey@yahoo.com)

**Comment**  
I have watched this proposed development over the last 8 years and support the concept and the bypass road. Both are needed in Kapaa.

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. David Wilkey  
davewilkey@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Wilkey:

Thank you for your email on February 3, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

Mr. Frank Allen  
tony.allen2009@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Allen:

Thank you for your email on February 3, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** tony.allen2009@hotmail.com <no-reply@weebly.com>  
**Sent:** Tuesday, February 03, 2015 7:58 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**

Frank Allen

**Email**

[tony.allen2009@hotmail.com](mailto:tony.allen2009@hotmail.com)

**Comment**

This project will provide substantial employment to local residents for the construction of the residences in the project and affordable housing for local residents of the KaPala area.

If should have local support

**Peter T Young**

---

**From:** tobey@dckauai.com <no-reply@weebly.com>  
**Sent:** Sunday, February 01, 2015 6:44 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**

Gary Tobey

**Email**

[tobey@dckauai.com](mailto:tobey@dckauai.com)

**Comment**

I have been designing high end up scale homes for mostly off island owners for years, and feel this type of project is long overdue.

I see "HOKUA PLACE" as a project for the people of Kauai, a much needed housing community for those who live here now, and for newly formed local families.

I support this development for what it can, and should be, housing for Kauai.

Gary Tobey

owner, Design Concepts

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Gary Tobey  
tobey@dckauai.com

Subject: Environmental Impact Statement Preparation Notice (EISP) - HoKua Place

Dear Mr. Tobey:

Thank you for your email on February 1, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

### Peter T Young

---

**From:** go@eaglefocus.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 7:32 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

#### Submitted Information:

---

##### Name

Gordon Oswald

##### Email

[go@eaglefocus.com](mailto:go@eaglefocus.com)

##### Comment

To whom it may concern,

I've been a resident of Kapaa for 25 years and have grown to love the beauty of Kauai. There is no other place on earth like it! As a result, I've been anti-development for those who would disrupt what makes Kauai what it is. That being said, I have made a complete turn around with the proposal to build above Kapaa in a contiguous position with the already existing infrastructure of the town. Our local families desperately need housing and it's becoming critical. Hokua Place is the perfect development for the future of Kauai as we know it. I am completely behind this development and the relief it will offer to so many local families who are now forced to live 2 or 3 generations in the same house. Please approve this development, and let's only approve developments with a similar footprint in already existing townships. Hokua Place is a perfect example of a development that successfully conforms to the General Plan, and is perfectly designed to provide housing for our citizens without negatively affecting the beauty that makes Kauai the most beautiful place on earth.

Thank you for your consideration and sincerely,

Gordon Oswald  
Kapaa

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Gordon Oswald  
go@eaglefocus.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Tobey:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** gallen@harbormall.net <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 12:12 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

**Name**  
Greg Allen

**Email**  
[gallen@harbormall.net](mailto:gallen@harbormall.net)

#### Comment

This is the first residential community being built on kauai in 30 years with mixed residential types it supports the country infrastructure with water, sewer and road improvements. It is above the flood zone. The project includes affordable housing and has no environmental or archaeological issues. It is the best opportunity for development on Kauai.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Greg Allen  
gallen@harbormall.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Allen:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** Greg91366@gmail.com <no-reply@weebly.com>  
**Sent:** Wednesday, February 04, 2015 10:00 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

**Name**  
Greg Bloss

**Email**  
[Greg91366@gmail.com](mailto:Greg91366@gmail.com)

**Comment**  
We need neighborhoods like this that will provide homes for locals families with community style living as this place will be.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Greg Bloss  
greg91366@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Bloss:

Thank you for your email on February 4, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** oshens4me@yahoo.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 8:03 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Humberto Carbonell

##### Email

[oshens4me@yahoo.com](mailto:oshens4me@yahoo.com)

##### Comment

Keep the aloha going!

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Humberto Carbonell  
oshens4me@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Carbonell:

Thank you for your email on January 31, 2015 regarding HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** 58chopper1@earthlink.net <no-reply@weebly.com>  
**Sent:** Tuesday, March 03, 2015 6:21 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

len wheatley

##### Email

[58chopper1@earthlink.net](mailto:58chopper1@earthlink.net)

##### Comment

I think this subdivision will be A Great addition to Kauai . We have a shortage of Home's already . it would create jobs and Home's for the community . I am 100% all in on this project . thank you Greg . We need this

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapū'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Ien Wheatley  
58chopper1@earthlink.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Wheatley:

Thank you for your email on March 3, 2015 regarding HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** jake@sandhollowresorts.com [no-reply@weebly.com]  
**Sent:** Monday, February 09, 2015 8:00 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Jake Bracken

##### Email

[jake@sandhollowresorts.com](mailto:jake@sandhollowresorts.com)

##### Comment

I am very excited to see this project moving forward. Growth is always a tough topic, and this kind of smart planning will help to keep the community what it is today. This looks to be a very positive development for the local people of Kauai, and I am happy to lend my voice of support.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Jake Bracken  
jake@sandhollowresorts.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Bracken:

Thank you for your email on February 9, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** jlinkanation@gmail.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 8:08 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

janardan link

##### Email

[jlinkanation@gmail.com](mailto:jlinkanation@gmail.com)

##### Comment

I wish to support this movement. To the people of kauai please recognize continued growth in your community for local famalies for years to come. The world is changing and we have to keep up. This will not change our culture nor will it change our belief system. Accept change and believe in it. Change is the only constant.

Aloha,

Jlink

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Janardan Link  
jlinkanation@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Link:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** jen.e.womack@gmail.com [no-reply@weebly.com]  
**Sent:** Monday, February 02, 2015 12:54 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Jennifer Womack

##### Email

[jen.e.womack@gmail.com](mailto:jen.e.womack@gmail.com)

##### Comment

My family supports the Hokua Place development. It will provide housing for many families on our island, and will be a great addition to the neighborhood.

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Jennifer Womack  
jen.e.womack@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Womack:

Thank you for your email on February 2, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

**Peter T Young**

**From:** Jeremiah Felsen <jeremiahfelsen@gmail.com>  
**Sent:** Friday, February 13, 2015 10:10 PM  
**To:** info@hookuleana.com  
**Subject:** EISPN comments for proposed Hokua Place Subdivision and zoning change

It took me two hours to drive from Kilauea to Koloa today. There were no accidents and no traffic work going on. Sadly this is the new "norm" for rush hour traffic - with the back ups happening from Kealia Beach to Wailua then again near Kukui Grove towards Poipu turn off.

Tourists visiting from big cities don't want to vacation somewhere that reminds them of their traffic conditions back home. They come here to relax, not be stuck in traffic. They risk missing flights, dinner reservations and planned activities because of the excessive traffic. This will hurt Kauai's tourist revenue..not to mention dampening our "aloha spirit" - because we're stuck in traffic everyday and it's easy to just blame the tourists.

Let's think twice before putting in more developments when our roads already can't handle the amount of traffic they're getting now! More residential and commercial development near Kapa'a is bad for residents and for tourism/Kauai's economy. I live in Koloa and pay all my taxes.

Thanks for listening,

Jeremiah Felsen  
PO Box 1691  
Koloa, HI 96756

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Jeremiah Felsen  
jeremiahfelsen@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Felsen:

Thank you for your email on February 13, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Impacts on Traffic
- Impacts on Tourism
- Road Infrastructure

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** jamesyoun808@gmail.comk [no-reply@weebly.com]  
**Sent:** Monday, February 02, 2015 12:02 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Jimmy Youn

##### Email

[jamesyoun808@gmail.comk](mailto:jamesyoun808@gmail.comk)

##### Comment

I fully support Greg Allen's Hokua place project. Kauai is in need for a project like this. We need more housing on Kauai and this is the answer. I like the whole concept of this project-everyone benefits

Do well by doing good.

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Jimmy Youn  
jamesyoun808@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Youn:

Thank you for your email on February 2, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

## Peter T Young

**From:** joanne@harbormall.net [no-reply@weebly.com]  
**Sent:** Wednesday, March 04, 2015 9:43 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

### Submitted Information:

#### Name

Joanne Allen

#### Email

[joanne@harbormall.net](mailto:joanne@harbormall.net)

#### Comment

This letter is in support of HoKua Place. I like that it will mix homes and townhouses with parks, paths, and a small amount of general commercial. I have lived in neighborhoods like this in the past and they have that charming small town feel that will fit in nicely with down town Kapa'a. I like the sustainability that the project has with its agricultural lots, solar farm and well. It will be great to see abandoned cane fields blossom into something beautiful and useful for the people of Kauai.

As for the traffic, I am a resident of Wailua so I know firsthand how bad it is. It is good to see a development that is actually contributing to traffic solutions instead of ignoring them. There will be many traffic solutions in place before the houses are built. This development is also in line with the Kauai General Plan for the area. This land has been earmarked to be urban since the 1970s so I see no reason why it should not move forward.

My favorite part of this subdivision is how it embraces "green living". The agricultural operations already in place, the solar farm already feeding our grid, the well, the plans for parks, walking and biking paths, and the ideas I have heard about greener homes are forward looking and earth friendly. Even the variety of different sized homes placed near townhouses seem to support a sense of community and togetherness.

I hope that HoKua Place will be approved and be allowed to make the vision a reality.

Thank you,  
Joanne Allen  
March 4, 2015

Do well by doing good.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Joanne Allen  
joanne@harbormall.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Allen:

Thank you for your email on March 4, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** jbright135@gmail.com <no-reply@weebly.com>  
**Sent:** Sunday, February 01, 2015 8:15 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Justin Bright

##### Email

[jbright135@gmail.com](mailto:jbright135@gmail.com)

##### Comment

Affordable community housing is exactly what is needed for our community.

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Justin Bright  
jbright135@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Bright:

Thank you for your email on February 1, 2015 regarding HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** Peter T Young [peteryoung@hookuleana.com]  
**Sent:** Wednesday, February 04, 2015 2:47 PM  
**To:** peteryoung@hawaii.rr.com  
**Subject:** Fwd: New Form Entry: HoKua Place

----- Forwarded message -----

**From:** [Kamanaolanamahelona@gmail.com](mailto:Kamanaolanamahelona@gmail.com) <[no-reply@weebly.com](mailto:no-reply@weebly.com)>  
**Date:** Mon, Feb 2, 2015 at 1:34 PM  
**Subject:** New Form Entry: HoKua Place  
**To:** [PeterYoung@hookuleana.com](mailto:PeterYoung@hookuleana.com)

You've just received a new submission to your [HoKua Place](#).

---

### Submitted Information:

#### Name

Kamanaolana Umu

#### Email

[Kamanaolanamahelona@gmail.com](mailto:Kamanaolanamahelona@gmail.com)

#### Comment

Totally support this movement !!!

Do well by doing good.

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Kamanaolana Umu  
Kamanaolanamahelona@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Kamanaolana:

Thank you for your email on February 4, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

**Peter T Young**

**From:** karenaent@gmail.com <no-reply@weebly.com>  
**Sent:** Sunday, February 08, 2015 11:29 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

**Submitted Information:**

**Name**

Karen & Gaylord Perry

**Email**

[karenaent@gmail.com](mailto:karenaent@gmail.com)

**Comment**

Need affordable place so we can move here from the mainland.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Karen Perry  
karenaent@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Perry:

Thank you for your email on February 8, 2015 regarding HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** kana\_loa78@hotmail.com <no-reply@weebly.com>  
**Sent:** Sunday, February 08, 2015 3:33 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Kasey Sasaki

##### Email

[kana\\_loa78@hotmail.com](mailto:kana_loa78@hotmail.com)

##### Comment

I am in full support of this project. For 1, it will create more work for some people and 2, provide the housing that KAUAI so desperately needs. Myself and my family, looked for 3 years for a place that we could afford. We (a family of 3) lived in a 1 bedroom studio that became more than cramped and the condition was not the greatest as well and paying a crazy amount for rent. Having more affordable housing on this island would be the greatest thing possible for so many families like mine. Most of us living on Kauai can't afford to buy a house that cost 400k without taking the risk of our family not being able to live comfortably. Needless to say I am in full support of HoKua Place. I hope this project goes through.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Kasey Sasaki  
kana\_loa78@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Sasaki:

Thank you for your email on February 8, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** leeners@hawaiiintel.net <no-reply@weebly.com>  
**Sent:** Monday, February 02, 2015 2:20 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Kathleen Robb-Walshak

##### Email

[leeners@hawaiiintel.net](mailto:leeners@hawaiiintel.net)

##### Comment

This will definitely help the affordable housing shortage on Kauai.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Kathleen Robb-Walshak  
leeners@hawaiiintel.net

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Robb-Walshak:

Thank you for your email on February 2, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** katapia2@msn.com [no-reply@weebly.com]  
**Sent:** Wednesday, March 04, 2015 2:18 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Kathryne Tapia

##### Email

[katapia2@msn.com](mailto:katapia2@msn.com)

##### Comment

I like the fact that you have addressed the existing problems in Kapaa with a solution while at the same time creating a wonderful development for the residents of Kauai.

Do well by doing good.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Kathryn Tapia  
katapia2@msn.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Tapia:

Thank you for your email on March 4, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** kmkeawe@gmail.com [no-reply@weebly.com]  
**Sent:** Tuesday, February 03, 2015 9:57 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Kimo M Keawe

##### Email

[kmkeawe@gmail.com](mailto:kmkeawe@gmail.com)

##### Comment

This appears to be the only planned community that has been submitted for the Kapaa area in the last 30 years. It has all the features that are desired by anyone looking for a home in this area. It provides for affordable and market priced units with bike paths and a community pool facility on site. The addition of a new road within the project along with other traffic improvements planned by the DOT should lessen the concern about traffic. I support this project as it will give the future generations of home buyers an opportunity to live in a well planned environmentally sound community.

Do well by doing good.

**Ho'okuleana LLC**  
... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Kimo Keawe  
kmkeawe@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Keawe:

Thank you for your email on February 3, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

**Peter T Young**

**From:** copydoc@hotmail.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 3:34 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

**Submitted Information:**

**Name**

LeGrand Lee

**Email**

copydoc@hotmail.com

**Comment**

It's great to see someone provide solutions for Kauai's housing problems as well as other issues we are faced with thw more I look at this the more I see only positive effects.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. LeGrand Lee  
copydoc@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Lee:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** lteepeters@gmail.com <no-reply@weebly.com>  
**Sent:** Thursday, January 29, 2015 10:50 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Leonard Peters

##### Email

[lteepeters@gmail.com](mailto:lteepeters@gmail.com)

##### Comment

Kauai needs this project. Families will benefit greatly from the addition of housing that we can afford.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Leonard Peters  
lteeepeters@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Peters:

Thank you for your email on January 29, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** lynnboyer@hotmail.com <no-reply@weebly.com>  
**Sent:** Tuesday, February 10, 2015 2:00 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

**Name**  
Lynn Boyer

**Email**  
[lynnboyer@hotmail.com](mailto:lynnboyer@hotmail.com)

**Comment**  
This looks like a good project, There could be a lot of smaller retirement size homes for those looking to downsize.

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Lynn Boyer  
lynnboyer@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Boyer:

Thank you for your email on February 10, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** bartfarkle@gmail.com <no-reply@weebly.com>  
**Sent:** Monday, February 16, 2015 3:43 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Mark Holden

##### Email

[bartfarkle@gmail.com](mailto:bartfarkle@gmail.com)

##### Comment

Hokua Place is just what Kauai needs. I am always a big supporter of urban and suburban improvements. This is exactly what the people of Kauai need. Inner city improvements and new building expansion is a positive outlook for growth that Kauai can expect to expand on even further for it's people. This is a win win for everyone involved.

Thank you for your time.

M. Holden.

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapū'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Mark Holden  
bartfarkle@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Holden:

Thank you for your email on February 16, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** mslewis@hawaii.edu <no-reply@weebly.com>  
**Sent:** Wednesday, February 04, 2015 7:01 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

### Submitted Information:

#### Name

McKenna Lewis

#### Email

[mslewis@hawaii.edu](mailto:mslewis@hawaii.edu)

#### Comment

Perfectly organized for Kapa'a and provides many well thought out solutions to Kapa'a's growth. Out of the flood zone and I like that it will provide affordable housing!

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



McKenna Lewis  
mslewis@hawaii.edu

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear McKenna:

Thank you for your email on February 4, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** maria.checkley@gmail.com <no-reply@weebly.com>  
**Sent:** Wednesday, February 18, 2015 10:27 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

### Submitted Information:

#### Name

Mia Checkley

#### Email

[maria.checkley@gmail.com](mailto:maria.checkley@gmail.com)

#### Comment

I like that you are thinking of roads before homes, because I know that you know traffic is a problem. However, I think it is cool that the kids in this development could all walk to school. Build elsewhere and you have kids being bused or otherwise being transported to school and back twice a day. I like that the plan has open spaces, garden plots, parks, and a pool. One of the parks needs to have a splash pad for the little ones. :)

I am a supporter.

Mia

# Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Mia Checkley  
maria.checkley@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Checkley:

Thank you for your email on February 18, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

## Peter T Young

**From:** mike@houghtomarket.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 1:51 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

### Submitted Information:

#### Name

Mike qHough

#### Email

[mike@houghtomarket.com](mailto:mike@houghtomarket.com)

#### Comment

Aloha Greg & Peter,

Thank you for sharing your ideas for the future development of the Eastside area of Kauai.

I carefully studied the information you sent to me, as well as the info on your Website and I am of the opinion that this development can only help solve the problem of housing for our young growing families on Kauai.

I see no significant impact of the additional traffic especially with the new road from Olohena to the bypass road. I also believe that the water and sewage issues are non issues based upon your data.

I look forward to seeing the Middle school benefit from the close proximity of a heated swimming pool that they can use, especially for Swim-meets etc.

Regards

Mike Hough  
Kapaa Business Association Board Member.

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Mike Hough  
mike@houghtomarket.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Hough:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

A handwritten signature in black ink that reads "Peter T. Young". The signature is written in a cursive style with a large, stylized "Y" at the end.

Peter T. Young

February 6, 2015

Project: IN SUPPORT OF HOKUA PLACE PROJECT, Kapa'a, Kauai, Hawaii

Aloha kuaa,

My name is Milton K.C. Ching, I am of part Hawaiian Ancestry, a retired law enforcement Supervisor, a life long farmer and currently a Cultural Monitor for a local Archaeology Company. I am a resident of Kapa'a, District of Kawaihau, County of Kauai. My father, his siblings and my grand parents, formerly lived makai of this Project, on Lehua street, in the 1920's thru the 1940's.

My concerns on this project references to the possible discovery of any Archaeological and Historic sites. The discovery of Inadvertent Burials maybe encountered in any construction site during earth and ground movement. The Applicant has addressed these issues and have stated that proper protocol will be followed based upon present applicable laws of the State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division and other Government agencies.

I would like to thank the Applicant, Mr. Allen, and his team for providing the people of Kauai, an alternative to affordable housing, providing a meaningful solution to our traffic woes and provide additional services to our community in the form of a park, swimming pool, public services and projected business facilities.

Mr. Allen has addressed the issue of retaining approx. 66 acres for the continued use for agricultural purposes, thus providing a place for the local farmers to graze livestock and the growing of crops.

This Project will bring economic stability to the local economy, by way of construction jobs, new infrastructure for the County of Kauai in the form of its water system and finally an alternated road for the upper Wailua-Kapa'a community.

I humbly ask the appropriate State and County Agencies to SUPPORT the Applicant, Mr. Allen in granting his permits to allow this Project begin.

Me ka kau ha'aha'a,

Milton K.C. Ching  
5369 Kawaihau Road  
Kapa'a, Kauai, Hawaii 96746-2108  
Phone: (808) 652-0316

## Ho'okuleana LLC

... to take responsibility ...

Peter T. Young  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Milton K.C. Ching  
5369 Kawaihau Road  
Kapa'a, Hawaii  
96746-2108

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Ching:

Thank you for your letter dated February 6, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

Do well by doing good.

**Peter T Young**

---

**From:** rbjalt@yahoo.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 7:15 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**

Nina Jones

**Email**

[rbjalt@yahoo.com](mailto:rbjalt@yahoo.com)

**Comment**

The developers of this subdivision care about Kauai and have worked very hard to design a subdivision that addresses the issues and needs of the community. I am happy to support a well planned and supportive development.

**Ho'okuleana LLC**

*... to take responsibility ...*

---

**Peter T. Young**

1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](skype://peter.t.young)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Ms. Nina Jones  
[rbjalt@yahoo.com](mailto:rbjalt@yahoo.com)

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Jones:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** sheldonr001@hawaii.rr.com [no-reply@weebly.com]  
**Sent:** Monday, February 02, 2015 2:31 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**

Richard Sheldon

**Email**

[sheldonr001@hawaii.rr.com](mailto:sheldonr001@hawaii.rr.com)

**Comment**

I would like to support the residential and community development of Hokua Place in Kapaa. This development offers everything that the community has needed for the last decade. The developers have offered to include services that would benefit the entire east side community and those who would eventually live in the community. The developers desire to include land to assist with the traffic concerns as well as another road ACCESS to the Olohena area is a win-win for many using this access. While my concern has always been finding ways to alleviate major traffic concerns on Kuhio Highway, Hokua Place should not be responsible for resolving the heavy traffic concerns of this Kapaa area. This development should bring quality and affordable housing to many and is quite frankly, long overdue. Its location adjacent to, and within walking distance to the middle school will help alleviate traffic problems. I am a life long resident of the Kapaa community. I have seen this community go through economic drought and little development into an era of fast development and growth. A need exists for more housing that is affordable to meet the current demand. State and County officials need to meet their responsibility of the traffic concerns without placing more demands on developers. I humbly request you accept my support for the HoKua Place Development.

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**

1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](mailto:peter.t.young@hookuleana.com)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Mr. Richard Sheldon  
[sheldonr001@hawaii.rr.com](mailto:sheldonr001@hawaii.rr.com)

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Sheldon:

Thank you for your email on February 2, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Do well by doing good.**

**Peter T Young**

---

**From:** newbuild75@aol.com <no-reply@weebly.com>  
**Sent:** Sunday, February 01, 2015 8:30 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**  
RICK NEWTON

**Email**  
[newbuild75@aol.com](mailto:newbuild75@aol.com)

**Comment**  
Beautifully planned , well thought out , great location , low impact , enviromentally sound ,excellent views , community minded , and very much needed !let's get this approved ! Let's get started !

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](mailto:peter.t.young@hookuleana.com)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Mr. Rick Newton  
[newbuild75@aol.com](mailto:newbuild75@aol.com)

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Newton:

Thank you for your email on February 1, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** RJ Ellison <rjellison63@hotmail.com>  
**Sent:** Thursday, February 05, 2015 1:33 PM  
**To:** info@hookuleana.com  
**Subject:** project

Having affordable housing on the island sounds like a great idea to me.

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. RJ Ellison  
rjellison63@hotmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Ellison:

Thank you for your email on February 5, 2015 regarding HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** PeterYoung@Hookuleana.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 7:11 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**  
Scott Dandos

**Email**

**Comment**  
It all Looks and Sounds fantastic. A great addition to the area.

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. Scott Dandos

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Dandos:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** sonscott@hawaii.rr.com <no-reply@weebly.com>  
**Sent:** Saturday, January 31, 2015 6:55 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**  
Scott Greenleaf

**Email**  
[sonscott@hawaii.rr.com](mailto:sonscott@hawaii.rr.com)

**Comment**  
This subdivision seems to have it all. We need more affordable housing on Kauai, and this subdivision seems perfect to fit this need.

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](mailto:peter.t.young@hookuleana.com)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Mr. Scott Greenleaf  
[sonscott@hawaii.rr.com](mailto:sonscott@hawaii.rr.com)

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Greenleaf:

Thank you for your email on January 31, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** shaneknight44@gmail.com <no-reply@weebly.com>  
**Sent:** Monday, February 02, 2015 4:41 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**  
Shane Knight

**Email**  
[shaneknight44@gmail.com](mailto:shaneknight44@gmail.com)

**Comment**  
Awesome looking development! Looks well planned and thought out. Hokua Place will be a great asset for Kapaa. I can't wait to see it progress!

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](skype:peter.t.young)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Mr. Shane Knight  
[shaneknight44@gmail.com](mailto:shaneknight44@gmail.com)

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Knight:

Thank you for your email on February 2, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** scarveiro@live.com <no-reply@weebly.com>  
**Sent:** Thursday, January 29, 2015 11:31 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**  
Sheri Carveiro

**Email**  
[scarveiro@live.com](mailto:scarveiro@live.com)

**Comment**  
We need more affordable housing.....

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
[peter.t.young \(Skype\)](skype:peter.t.young)  
[PeterYoung@Hookuleana.com](mailto:PeterYoung@Hookuleana.com)  
[www.Hookuleana.com](http://www.Hookuleana.com)



Ms. Sheri Carveiro  
[scarveiro@live.com](mailto:scarveiro@live.com)

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Carveiro:

Thank you for your email on January 29, 2015 regarding HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** PeterYoung@Hookuleana.com <no-reply@weebly.com>  
**Sent:** Sunday, February 01, 2015 9:35 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**  
Tiffany Morgan

**Email**

**Comment**  
It all sounds great ! The bike paths are exciting and so important too. The single-family homing makes it more attainable for the people that it is harder to afford a place - excellent.

**Ho'okuleana LLC**  
*... to take responsibility ...*

---

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Tiffany Morgan

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Morgan:

Thank you for your email on February 1, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

**Peter T Young**

---

**From:** f4uvsn1k@gmail.com <no-reply@weebly.com>  
**Sent:** Tuesday, February 03, 2015 6:31 PM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

**Submitted Information:**

---

**Name**

TJ Richards

**Email**

[f4uvsn1k@gmail.com](mailto:f4uvsn1k@gmail.com)

**Comment**

The island of Kauai is one of the most beautiful places I have ever visited. Lush vegetation and lots of water. Right on lovely beaches. Kapa'a is a quaint little place with good people. Nestled in the Garden island is this great development with all the modern conveniences. I'm sure you will fall in love with it.

TJ

**Ho'okuleana LLC**

*... to take responsibility ...*

---

**Peter T. Young**

1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Mr. TJ Richards  
f4uvsn1k@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Mr. Richards:

Thank you for your email on February 3, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

## Ho'okuleana LLC

... to take responsibility ...

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Ursula Lamberson  
ulambeson@yahoo.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Lamberson:

Thank you for your email on February 18, 2015 in support of HoKua Place.

We will include your comments in the draft Environmental Impact Statement (DEIS) for the project.

Sincerely,

Peter T. Young

---

### Peter T Young

**From:** ulambeson@yahoo.com <no-reply@weebly.com>  
**Sent:** Wednesday, February 18, 2015 10:23 AM  
**To:** PeterYoung@Hookuleana.com  
**Subject:** New Form Entry: HoKua Place

You've just received a new submission to your [HoKua Place](#).

---

#### Submitted Information:

##### Name

Ursula Lamberson

##### Email

[ulambeson@yahoo.com](mailto:ulambeson@yahoo.com)

##### Comment

Aloha. I am in general against development and it is a reality that there are more people and more housing is needed. I support community development versus more resort development. It is necessary that we take care of our people first before we invite more tourists. Of course, infrastructure and road development must come first and it looks that your project is doing that. All in all I am in support of the development. I hope that you hold to your standards and make this as a modle of intelligent and people friendly enviroment. We certainly also need more spaces for the kids to be and play. Mahalo Keakua for offering this plan.

**Peter T Young**

**From:** Valerie Weiss <valerieweiss31@gmail.com>  
**Sent:** Tuesday, February 10, 2015 12:36 PM  
**To:** Info@Hookuleana.com  
**Subject:** HOKUA PLACE

2-10-20015

Commenting on Hokua Place EIS:

I DISAGREE with the EIS concluding that this project encourages a diverse and vibrant economy. Instead it would over burden our economy, over burden our already extreme traffic situation, over burden our East Side schools and reduce our right to expect emergency vehicles to quickly arrive at critical calls.

The property has been rightfully classified agricultural and should stay classified that way. While THE GENERAL PLAN calls for developing within designated Urban Center areas, this project will destroy what little is left of Kauai's Eastside rural character by overloading a very crowded Kapaa Town and it's environs. As a resident of the area (Wailua Homesteads specifically) I am extremely concerned about traffic on our already overloaded Kuhio Highway. We cannot avoid the current traffic situation, if we need to pass between the south and north sides of the island. The Hokua project will intensify our problems if the 97 acres and 769 new residences are developed without a new major north/south thoroughfare in place FIRST.

The HOKUA PLACE project is very poor land use. It's bad for the island as a whole. It's bad for anyone living on any side of the island who will ever need to travel the east side corridor. There was some mention that the project would support Kapaa businesses. Many us will not stop to shop in town as it is now, due to the throngs of people and traffic, only wanting to get through and get out of Kapaa Town as fast as we can. Sadly fast never happens in Kapaa and this project will make a currently bad situation intolerable.

Additionally the area already has several multiunit resorts approved which will be adding to the horrendous traffic problem. They, however, are actually in designated urban/resort areas and not requiring a loss of ag lands or change of designation.

A comment about affordable housing; There are other far less congested places for that. Our county could also entertain the possibility of purchasing and rehabbing existing properties to that end and to the betterment of our communities/neighborhoods and a positive improvement to urban blight.

A final comment about the developer saying he worked hard to buy this property; He bought the properties at ag land prices, not urban, and it needs to stay ag just as it was when he bought the parcels.

Mahalo.

Valerie Weiss  
6616 Alahahele St  
Kapaa 96746

**Ho'okuleana LLC**  
*... to take responsibility ...*

**Peter T. Young**  
1539 Kanapu'u Drive  
Kailua, Hawai'i 96734  
(808) 226-3567 (Cell Phone)  
peter.t.young (Skype)  
PeterYoung@Hookuleana.com  
www.Hookuleana.com



Ms. Valerie Weiss  
valerieweiss31@gmail.com

Subject: Environmental Impact Statement Preparation Notice (EISPN) - HoKua Place

Dear Ms. Weiss:

Thank you for your email on February 10, 2015 regarding HoKua Place.

Your email expressed concerns this development may have on the following areas:

- Economy
- Infrastructure
- Impacts on Traffic
- Emergency Response
- Neighboring Development
- School Capacity
- Loss of agriculture land

The draft Environmental Impact Statement (DEIS) for the project will address these issues. Thank you for your comments.

Sincerely,

Peter T. Young

**Do well by doing good.**