Introduction

There is an 'Olelo No'eau (Hawaiian saying) that describes how ancient Hawaiians approached education.

I ka hale no pau ke a'o ana.
Instructions are completed at home. (Pukui, 1175, p.128)

"Do all your teaching at home." This 'Olelo No'eau was first uttered by Pupukea, half-brother of Lonoikamakahiki, when his instructor advised him as they were preparing for battle. The instructors’ teaching was all done at home; from then on the warrior chief was on his own. It has also directed towards parents who noisily scold their children in public.

The Hawaiian people who taught one another through their family relationship had a unique and one of a kind approach to teaching. They used "kaona" in their style of teaching which is to include hidden meanings in their lessons. This report includes such a style in its use of 'olelo no'eau to demonstrate a unique approach and deeper meaning to one's learning. The limited amount of information and resources for this report required much "kaona" in order to create a window into the past.

Traditional Educational Models

Traditionally, ali'i (the chiefs) children were taught and trained by specialists or kahuna (priests) either at home or at court. Kamehameha, for example, underwent a demanding system of training for the first seven years of his life in the court of Alapa'i'ui, and then was specially trained by the famed warrior chief Kekuhaupō. Kamehameha's instructions included such things as oratory, astronomy, geography, myths and rituals, military tactics, fishing and canoeing. Each high chief or chiefly family furnished and managed the education of its own children. The most powerful and prosperous, who had access to the greatest number of best qualified specialist-teachers, would have provided their children the best education. But all chiefs, whatever their economic or political circumstances, attached high priority to the proper education and training of their offspring and potential successors. For power and knowledge were synonymous in the world of the ali'i.

In the home of the maka tīnana (commoners), education for the young were placed upon the shoulders of the kūpuna (grandparents) and mākua (parents). The education by their family members were the equivalent of today's home study programs except the curriculum might have been centered on the bare essentials of survival in life. Whenever available, some of the children might have had the privilege of studying with a specialist.

Ku i ka māna.
Like the one from whom he received what he learned. (Pukui, 1875, p.202)

Said of a child who behaves like those who reared him. Māna is food masticated by an elder and conveyed to the mouth of a small child. The haumāna (pupil) receives knowledge from the mouth of his teacher.

Periodically, villages had talented artisans who opened their teaching to those who lived in the neighborhood. Such was the case of one of my hula teachers whose curriculum philosophy was: hula is everything we see, feel, touch, taste, hear and smell. In short, her teachings embodied lessons of life embedded in the art form of Hawaiian dance which required discipline and training in order to become proficient in the motions, storyline and background of each of the mele hula (dance number).

O ke kahua mamua, mahope ke kūkulu.
The site first, then the building.
Learn all you can, then practice. (Pukui, 2459, p.268)

When the student was ready, they were taught the kaona (hidden meaning) of the words, motions and the theme of the song. Everything my teacher shared came from her kumu hula (hula teacher) who passed down the knowledge from her teacher and so on.
Words can heal; words can destroy. (Pukui, 1191, p.129)

Meanwhile, the sacred queen Keopuolani in her later years became weaker and therefore decided to return to the island of her birth. On May 30, 1823, upon the ship Cleopatra, Queen Keopuolani, her mate Hoapili, Reverend Stewart and Reverend Richards with their wives, Tau’a with his wife Tau’awahine, Betsy Stockton, a negro helper, Mr. Loomis, the native assistant William Kamahoulu and two hundred Hawaiians, among them many lesser chiefs sailed back to the capital at Lahaina, Maui.

During the very few years that she had left to live, she spent much of her free time studying the paipala (scriptures) with Tau’a the Tahitian. Before she left this earth, one of her last requests was to be baptized which she accomplished on September 23, 1823 and became one of the first native Hawaiians to become a Christian. This action taken by the Queen opened the doors for the Missionaries to work with the entire nation of Hawaiians.

The Beginning of Educational Institutions in Hawai‘i

Between the missionaries and the government, hundreds of schools, though fairly primitive, had been organized throughout the islands. The entire adult Hawaiian population of 37,000 by 1828 had been to school to learn reading and writing. Even the chiefs had attended such schools. As the adult educational movement had subsided in the 1830s, the missionaries turned their attention to educating the ali‘i’s children by starting the Chiefs’ Children’s School. The conversion of Queen Keopuolani gave the missionaries an easier access to the hearts of the Hawaiian people. They followed up with a longer lasting plan hoping for the same positive effect by creating an exclusive school just for the Hawaiian children of a select number of chiefs.

Doors opened on the first morning of June 13, 1839 to brothers Moses Kekūānōa, Lot Kamahēna and Alexander Liholiho and sister Pauahi. Other chiefly family members included William Charles Lunaliio and through the course of the next ten years, other well-known ali‘i joined this exclusive list of ali‘i students such as Victoria Kamakaulu, Emma Rooke, Lydia Kamaka‘eha (Lili‘uokalani), David Kalākaua, Peter Young Kaeo, Abigail Mahefa, Jane Leeau, Elizabeth Kekaianiu, Polly Pauina and John Pitt Kina’u. The students ranged from ages two to eleven and differed widely in their behavior and attitudes.

I ka ʻolelo no ke ʻālakaʻi, i ka ʻolelo no ka make.
Life is in speech; death is in speech.
Nevertheless, they all had one common bond and that was their genealogical sanctity and *mana* (power) as ali'i-born.

The above students did not represent all the ali'i children in the Hawaiian Islands but from their ranks would come all the kings and queens between 1835 and the fall of the monarchy in 1893. Between the years of 1849 – 1850, the school prepared to close down completely and the students who were boarding at the school all this time returned home to their parents.

E ho‘oki i ka ho‘ina wale o ho‘ino ia mai ke ke. One should never go home without (some knowledge) lest his teacher be criticized. (Pukui, 291, p. 36)

Meanwhile, Public Education was started formally in the year 1846 by the passing of the Public Education Act of October 15, 1840. The interpretation of nineteenth century educational statistics is sometimes made difficult by the lack of a clear distinction between public and private school systems. Initially, all public schools were classified as either Protestant or Catholic, depending on their sponsorship and student body. Later reports classified schools as “common” (usually elementary subjects taught, tuition-free, in the Hawaiian language) and “select” (involving more advanced courses, instruction in English, and tuition charges). The select schools included both government English and independent (private) schools. Many in the latter group received governmental subsidies until 1888 when government support of such schools was abolished and government English schools were made tuition-free.

Compulsory enrollment ages were established initially as four to fourteen years, these were set at six to sixteen in 1859, six to fifteen in 1865, six to fourteen in 1923, six to sixteen in 1937, and six to eighteen in 1965.

O ke‘ia ke kukui pio ‘ole i ka makani o Kawa‘ula. “This is the torch that the winds of Kawa‘ula cannot extinguish.” (Malo, 2)

Secondary education during the monarchy was limited and left largely to government-subsidized private schools. Lahainaluna School, established by the missionaries in 1831 and transferred to government control in 1849, was described as a high school but in reality served as a normal and trade school with most of its coursework at elementary level. Secondary students attended Punahou (opened 1842) and other private institutions.

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Mākena School

Mākena School in the shupua’a of Honua‘ula was created along with other rural schools to assist in the education of children in isolated areas. The modest school was basically self-contained in one building the site of a thousand (1,000) square feet located approximately in the district called South Maluaka. The total enrollment fluctuated as families moved off the island or simply mauka (upcountry) to Ulupalakua where they had another school house. In fact, upon closing, a bus had to shuttle the remaining seventeen Mākena School students up to Ulupalakua School. Although the building does not exist today, Mākena resident Kupuna Edward Quai Ying Chang and I drove to the location where the school once existed south of the Mākena Prince Hotel. The closest landmark in present times is the parking lot for Maluaka Park. When we visited the area, Kupuna Edward Chang told stories of his childhood days reminiscing for a fleeting moment of his neighborhood friends and family playing together in the close proximity of the school. Although he personally did not attend the school since it had already closed down by the time he had reached school age, he still had vivid memories of the location of the aged school at South Maluaka, in its crumpled conditions with its remnants lying on the ground. His father and many of his uncles and aunties from a family of fourteen attended the school. I only experienced looking at the general location now over run by kiawe trees as Kupuna Chang and I walked through the area.

Another explanation for the location of the old Mākena school comes from Kupuna Leslie Kuloloio. He says it was close to where Auntie Mary Poepeo’s house was located. He goes on to say that there was a road mauka (upcountry) of the existing Mākena Road now in remnants is the King’s Trail in front of the Maui Prince Hotel close to the ocean.

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Mākena Chant
Kaupoua pū ke au willau ma Ōla'i,
Lele a wawalo na 'Alalakeiki i ke kai o
Ānehe.
Pahohipi na weke 'ula o Āpuakehau,
Hi'iolani o Ka'alaminikau i
Keawalaiamau,
Mākena wale na imu i a o Awalolu me
na palani,
Hūna na ko'a o 'Alai i ke kai
popolohua ho'i o Kanaloa.

Sea currents at Ōla'i are interwoven,
Crying, reverberating in the Ānehe sea,
The weke'ula of Āpuakehau are
uneasy
When Ka'alaminikau sleeps at
Keawalaiamau
Fish traps of Awalolu abundant only
with palani
'Alai's ko'a hidden in the deep sea of
Kanaloa p. 2 Nā Wahi Kapu o Maui

The short ancient chant above provides a brief description of the
natural playground of the students
who attended the Mākena School. The
explanation of their extra-curricular
activities by several of the
interviewees point out key landmarks
next to the school which is cited in
the chant above.

To begin, 'Alalakeiki is the
name of the channel between Kaho'olawe and Maui sometimes referred to as the
Ānehe Sea. This is the channel that King Kamehameha the Great and his 10,000
canoes landed on the beaches from Keone'oi to Olowalu when they invaded
Maui in the 1800's. Maui's Pu'u 'Ola'i Hill served as a guidepost from Hawai'i to
Maui through the rough 'Alemanu'ula Channel leading into the calmer 'Alalakeiki
Channel where the Mākena School students played. Pu'u 'Ola'i also served as the
host for the radio station to get better communications with the incoming planes.
Sometimes the students were found at Āpuakehau, the hau groves where the
schools of the favorite weke'ula fish congregated. It was also the religious site
where the congregation gathered to worship at Keawalai Church. At times,
even Ka'alaminikau the famous shark god of Mākena came swimming close to
the ko'a (fish shrine) of 'Alai and there they found an abundance of palani
(surgeon fish). The lokai'a (fishpond) right outside the church grounds made it
very convenient for the community to catch their fish nearby and for the children
of Mākena School to learn about the traditions of their people. The children also
had the opportunity to learn about their fellow classmates and their families such as
the upcoming mo'olelo (story).

When Mākena was densely populated, all the people were Protestants.
The church was still used in 1959 by the local Kukahiko family and surrounding
residents. During that time, the church met for services once a month with 69
year old John Kukahiko conducting.

The first John Kukahiko lived during the time of the whaling era between
1822 to 1859. It was said that he had mana (power) to calm the ocean water no
matter how rough. Thus he served to guide the whalers into the bay...for when
he stepped into the ocean, the waters became calm. (Sterling, 230)

John Kukahiko and his family believed in taking care of sharks, which in
turn, protected the Kukahikos. Even now, members of the Kukahiko family have
no fear of danger in the water.

'AI a mano, 'a'oe, nana i kumu pali.
When the shark eats, he never troubles to look toward the foot of the cliff.
(Pukui, 64, p.10)

Said of a person who eats voraciously with no thought of those who
provided the food, shows no appreciation for what has been done for him, nor
has a care for the morrow.

There were three different teachers that taught at Mākena School at
different time periods during the duration of its existence. Their names were
Mrs. Ogilvy who was the first followed by Joseph Lee and finally Ida
Kapohokimoheva. The latter seemed to be 95 year old Sam Chang's favorite
teacher at Mākena School while Mrs. Ogilvy was the one that Dad Kulolii
spoke about the most. Eddie Chang's father also taught at the same time as well as
other adult help.

Teaching during that time must have been very challenging at Mākena
School for many reasons starting with lack of instructional materials such as
books, school supplies, limited classroom space, chairs and desks, etc and a wide
range of student ages. At times, students only spoke Hawaiian or Chinese which
made teaching more challenging.

The instructors who were effective took advantage of the natural
educational setting that surrounded them. The students learned science, botany
and other educational disciplines by having them do hands-on activities such as
planting sweet potato and other food items. They were taught to fish from guest
speakers who were usually part of their 'ohana. It was a struggle the interviewees said but many success stories have come out of the school.

The Mākena Ahupua'a Report show that Mākena School was usually near the bottom of the list in enrollment numbers. In 1914 during the break of World War I, the School showed 24 students enrolled compared to 146 at Keokea, 82 at Kaupo, 71 at Kīhei, and 22 at Ulupalakua. (Maui News 14 Nov 1914). Ten years later, Mākena's School enrollment was 22, (smallest on Maui), compared to 143 at Keōkea, 23 at Kula Sanitorium and 79 in Kīhei. The largest single school enrollment at that time was 885 students at Paia School. Ranked second was Pu'unēnē at 853 (Maui News 15 Sept 1926).

As mentioned earlier, Mākena School was closed in 1930 and the remaining 17 students were transported to Ulupalakua. Ulupalakua School played an important role in the history and economy of the Kula area as well as Mākena.

Although Mākena was an isolated community in a rural district with very limited contact with the outside world due to a lack of transformational roadways to Mākena, students like Kupuna Sam Chang were able to receive enough educational information from Mākena School to meet the minimum requirements to attend Kamehameha Schools, O'ahu where he graduated along with many of his peers with a high school diploma. Leslie Kuloloio says that his father was very proud of the fact that he completed the fourth grade at Mākena School. Caroline Delima also attended the Mākena School and we are happy to provide a picture of her in this report. Although Mākena School had a short life from around 1906 till 1930, its existence contributed to the education and success of people that we know and probably many more that we don't know.

Here is a list of family names that had parents or children that resided in Mākena and possibly attended Mākena School:

From Sam Chang born May 1911
Chang, Robert, Ernest and Sam
Hapakuka, James

From Eddie Chang
Pini Poepeo
Kealoha'a'na
Delima, Caroline
Makaiwa
Kukahiko
Lono
Chang

From Ka'ano'i Lee
Poepeo
Kukahiko
Wilmington, Annie
Poepeo, Daniel

From Leslie Kuloloio
Kukahiko
Aweloa
Kealohaaina
Lono, Bula
Wilcox
Delima, Abner

From Mahuka, Ke'eo Honua'ula Report
Lono
Katipalauli
Lonokailua
Poepeo
Summary

In summary, Kimokeo Kapahulehua and Keli'i Tau'a found this research to be very challenging due to the lack of written information from school and state institutions along with libraries, archives, Bishop Museum and the Maui Mission Home Society. On the other hand, researching Makena School was a very rewarding experience for us. We have found that many of our knowledgeable kupuna are passing away rapidly which compels us both to quicken our pace to capture the knowledge they possess. Each opportunity we have to speak with the kupuna regarding their memories of Hawai'i nei we are inspired to ho'omau (continue) our research efforts to document our culture. For those kupuna and makua who have contributed to this report and the culture of Hawai'i nei, we send out our heart-felt mahalo and aloha. E ulu e ola mau na hana a pau o Hana Pono (Let it live, let it grow all the works of Hana Pono).

BIBLIOGRAPHY


Interviews:
Chang, Edward
Chang, Samuel
Delima-Lee, K'a'anohi
Kuloloio, Leslie
Other spoken to about Makena:
Campbell, Luaena
Keala, David
Kai'okamalie, Kevin Mahoalani
Piltz, Ransom


Lahainaluna High School Staff. 150th Anniversary Commemorative Book, 1831.


Puku'i, Mary Kawena. 'Olelo No'eu: Hawaiian Proverbs and Poetical Sayings, 1983.

Puku'i, Mary Kawena, Elbert, Samuel H. and Mo'okini, Esther T. Place Names of Hawai'i: University of Hawai'i Press, Honolulu, Hawai'i, 1974.
Interview: Eddie Chang
By Keli'i Tau'a/ Kimokeo Kapahulehua
October 9, 2006

Interviewers= KT/KK and Consultant=C

KK- Okay, so you were saying; who was born in 19-
C- Oh, Sam's Kenneth's father, he was born in 1911.
KK- And so the pictures that I'm taking are all your uncles and aunts?
C- Yeah.
KK- Every one of them?
C- Every one of them, yeah. My father had 14 brothers and sisters and I think this gathering was when one of my-- the youngest from the family had passed away.
KK- Where was other pictures of Sam?
C- Oh, this one was Kukahiko reunion one. This one might be a little more room we got.
Where was he, here.
KK- Who's he sitting next to?
C- Over here is Delima, Carolyn Delima.
KK- Carolyn?
C- Delima.
KK- Is she the mother of Abner?
C- The wife of Abner.
KK- She passed away?
C- No, she's still living.
KK- Abner the son?
C- Abner the husband passed- Oh the son! The mother of Abner, yeah this is the mother. Yeah, yeah.
KK- So she has Alzheimer’s?
C- Yeah.
KK- Yeah because I interviewed the two daughters. I interviewed the one that works for Kahoolawe.
C- Kahoolawe, yeah Carol.
KK- Yeah, so she mentioned of....
C- Carol’s about my sister’s age, I think, she’s on the younger side of me just like Abner the brother is.
KK- Yeah, 40’s mid-40’s late 40’s. So did Kea say anything about the school?
C- Oh, we never talked about the school, I don’t believe. We did, just in passing but I can drive you up there and show you about where the school was located. Yeah.
KK- I would love to take a picture there. In fact I was going to ask you if we can go there, so.
C- Oh, okay.
KK- As you can see, you know just to get you folk’s feelings on the questions we’re asking is important but pictures’ worth a thousand words. So even if there isn’t anything there what I was thinking of how I want to develop it is; where is it according to where the hotel and you know, where other buildings are.
C- Oh, it’s in the vicinity. Yeah, you know where George Ferreira’s stable used to be? It’s just Keoneo’lo side of that. In fact, it’s right behind Everett’s development, mauka side.
KK- So, there’s no landmarks that would indicate, um?
C- You know, when I was a kid the building was all dilapidated already, you know and as far as I can remember (I was born 32) and probably from six to eight years old you know I can remember. But somewhere before World War II, I was, you know, 7-8 years old; I was 9 years old when World War II came out. So, which was in 1941?
KK- So, World War II was in 1941 or ‘42.
C- Yeah, at that point in time was all dilapidated already.
KK- But it closed down in 1930, according to the reports.
C- There about’s, yeah.
KK- So, at that time the report said they closed down and they moved the last remaining 17 student’s up to Ulupalakua. So, in your mind’s eye, can you give me some dimensions? It was only one room, right?
C- It looked small. It looked the size of my garage. Maybe it was a thousand square feet, there about’s.
KK- So, I’m assuming that they had from kindergarten all the way, whatever the age group of the kids.
C- Yeah, yeah, yeah.
KK- So the teacher had to really be creative on the curriculum on what they wanted to teach.
C- I don’t know. You know I went through a three-room school myself.
KK- And where was that?
C- Ulupalakua, yeah because Makena School had already closed, yeah. And of course, this was World War II already, you know and at that point in time a lot of the houses on the beach side had been bulldozed or blasted or taken down because of the war. And they put fencing and barbed wire and all that kind of stuff.

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over there. Right now there's the Makua'i and the King houses over there. But the Makua is the Kings family and the King bought a partial of the same lot from long ago. Then across from where the Garcia's live there was nobody there.

KK- So, we're talking about...
C- We're talking the 30's.
KK- But the Garcia's the coach from Baldwin? Sam Garcia and...
C- Yeah, yeah but when I was a kid they did not live there. They moved to Makena somewhere 1950 or later.
KK- Okay.
C- Okay but next to the Garcia's; mauka side of the road where there's a beach that Kepa was studying, in front of that beach was a place called David Lolo's house. And Lolo lived there, he was alive when I was a kid. And then next to Lolo's house (this was moving very close to where Prince Hotel is now) was one of my aunt's, Mary Aweloa lived there. And then right past her house was a coconut grove (I'm not sure what the name of the coconut grove was, it must've had a name, but was a real grove that you could see was planted and etc.) and uh, during World War II most of that grove was destroyed. They built an army camp there. So, now if you go past that the grove would've been right about where the hotel is. See, about where the hotel is you notice there's a drop-off? The beach road is more low than the other road and somewhere in there was where this grove was. And then you move up further and there was (past Mary Aweloa's house) there was a Baldwin Beach house; Edward Baldwin from Ulupalakua Ranch had a beach house on the beach side. And the people that used to work for him was, I think was Pini Poepeo, Pini Poepeo, I think, at this point of time had retired. He was a Ulupalakua Ranch, I understand, number one slaughter man (he killed cows and stuff and butcher) and they gave him a place to stay. And according to my father, right where the school was Ulupalakua Ranch gave Pini Poepeo something like twenty acres.

KK- Wow.
C- And within this twenty acres is where the school used to be, okay. And then further up had another family, a Gillis family, heh, I think that was Poepeo also but she went by a different name last name. Her name was Kealoha (area that's all I can tell you at this point in time. And then you went further down, about where Pu'ula'i is. Puuola'i used to have one uh, tower's, beacon tower's. You remember that at all? No. The beacon towers were put up right after World War II to create a signal source for planes to fly their signal beam to fly on from the mainland. Evidently there were several of them; one on Maui and one on Big Island and one on Honolulu and they used this to triangulate you know, the beam to the planes, the one that the planes would fly on. Past, now- the Delina's lived Keeneo'i side of Puuola'i. Just before you drop down was where this beacon area used to be. And then past that, where Sunny Vick lived, nobody lived there just before you you go over the hill, uh, Maka'iwa used to live there. He also was a local fishermen. In fact, Maka'iwa had one son that was a real good golfer but by this time, by this time he had already moved to Honolulu (the son die) but Makaiwa stayed there and the son was the one that played Gene Littler in the US Amateur Championship. But he lost and Gene Littler won. And let's see, past Maka'iwa there were houses they were all vacant. They were kinds dilapidated and broken down. And then you come down to

Keeneo'i; Keeneo'i had, when I was a kid, had two houses and both of them were leased by haole. One was a Foster Robinson and every once and a while a guy named Jack Brown used to lease it. But most of the people I mentioned are from around World War II, 1940, thereafter; just before the war.
KK- So we don't know if they were here to here to attend Makena School then?
C- Oh, no they were all attending Ulupalakua by then, yeah.
KK- By 1930.
C- Yeah, yeah.
KK- But that's quite a few families.
C- Yeah, my father said there was a lot more people when he was young because at that point in time majority of-not majority but a large portion of the Kapohikienawa family used to spend a lot of time down Makena. But when I was born they just had a beach house, in a sense.
KK- So the purpose of the school, I was told, was to accommodate the cowboys. Did you hear any different then why Makena School was built? Because it seemed like the population was so small, you know, why a school out here?
C- I would guess that probably when the school was in its first time my father and them were going there it was, it probably had 3 times the number of people in this area, you know. Because, you know, my father's family is 14 people. You know, of course not all of them went to that school because some of them were too young to go to that school. Uh, Makena Landing, the Kukahiko family themselves, the Lono's, the Poepoe's and probably had a lot more visitation from the cowboys. But I wouldn't say that school was built for the cowboys. You know if anything it was built for the local people- the Makena people. Because at that time... You know it's so funny saying Makena used to have it's own post office. Yeah, when the Makena Post Office closed they moved it to Ulupalakua and guess what name they gave it? Makena Post Office.
KK- (laughing) So you know where that location is?
C- Yeah, yeah.
KK- So can we go over there and just take the picture of that location?
C- Well, my grandfather used to be the postmaster. This guy here. And I'm not too sure where that- I can tell you about where it was. You see when I was a kid he closed his store. I was a year old when he passed away.
KK- So, because he had a store there it was convenient to have the post office.
C- Yeah, because pretty typical thing, yeah...
KK- 'Who's this?' I might as well take this.
C- That's his wife. That's his mother. You have to remember sometime about when that school was there, Ulupalakua was shipping cattle out of Makena Landing. You know, at first I think there was Lahaina and Makena that was shipping produce and everything out of it. And then somewhere later they were no longer shipping produce it was mostly cows because I think, you know, this is about the gold-rush days, Makena was strong in shipping that stuff out but then when that dwindled down (you know I wish I could put a date on then Makena Landing was formed, but I cannot you know, I'm just old enough to see the remnants, (laughing) But now how active it was because when I came along Makena Landing was no longer used as a transporting area. Papihi, where they shipped the cows, they did not used Makena Landing at all and there were no
C. My great-grandmother was a very strong person, her. You know at about the time I was brought up.
KK- This was?
C. Tutu Ha'ocha'e. She was living by herself and she kept herself very active (of course family would come down and visit her and keep up with her) but you know all the property we got came through her. She kept track of it, you know. And although we're from the country (and I cannot compare how the city folks live from the country folks; I consider myself country folks and all my relatives) and you know there wasn't an idle time on their hands. They were hard workers and I think they not only used their hands, they used their, you know.
KK- They just had to be creative and establish the legacy they left because they didn't have the modern tools that we have.
C. No, no.
KK- When did the Tavares' move in this area?
C. Uh, you know you have to ask Tony; I'm not sure. It was after I left, was after I graduated high school, because I know where Sonny's house is there was nobody there. But I understand that Sonny has ohana (or Sonny's mother) has ohana that comes from pretty close to where his house is.
KK- Yeah, I gotta go back to him.
C. Because you know, this place is loaded with small kaleana's all over the place and if you look at the number of kaleana's, I showed you that big map that showed all the kaleana's, yeah? Was loaded.
KK- Amazing, it's too bad the family doesn't do diligence in genealogy.
C. Well, I guess that's kinda unfortunate between measles epidemics and World War II and man's modernization. A lot of people moved out from the area's, you know, where there was Kaupo, Kahakulua, Makena, you know, that's considered pretty rural because we don't have water over here.
KK- You know what I'm amazed about, when I'm trying to talk to people who reside here; they continue bringing up Kahakulua. I'm amazed that, you know if I go back period of time, travel was very hard but why Makena to Kahakulua?
C. I think it's not so much Makena to Kahakulua, it's more Kaupo to Kahakulua. There's a lot of people from Kaupo.
KK- That's what I mean. Why Kahakulua?
C. Yeah, yeah, I don't know there's some connection between some families in Kahakulua and some families in Kaupo, you know. Makena was just along the way so.... (Laughing) but it's true because of the Ulupalakua connection. Ulupalakua had a lot of cowboys from Makena and cowboys from Kaupo.
KK- So, if we go back and, what you mentioned of residence in Makena; they were either fisherman or cowboys?
C- Or farmers.
KK- What kind of farming?
C- Hogs. My father was a hog farmer.
KK- Ahh....
C- And they might have even been involved in this potato farming, I don't know of a person that was involved with potato farming that was a long time ago, that was in the
1830’s, you know. But the potato farming was done between here and Ulupalakua, you know and patches of land that had a lot of dirt.

KK- So, first sweet potato and then after Irish potato because of the demand on the West Coast; so that’s created another reason to bring in Orientals who enjoyed becoming farmers, right? They still exist up Kula, the Oriental-Japanese.

C- Yeah, but I think most of those farmers came in for sugar cane. You know, the Chinese especially and they wanted to become independent and move up to where they could do some farming.

KK- So the farming we’re talking about was mainly by Hawaiian’s then, the potato?

C- Here, this one here, yeah. If you hear about Nolan, Talbot and Wilcox; they were the one’s that were probably hiring Hawaiians to do the potato farming. Because, you go through Makena, Prince Makena Resort area and you see what archeologists Aki Sinoto says are probably storage areas for potatoes. And they’re not very big they’re like 35x30, you know, small area with a wall that high and they probably put one shade over it to keep the stuff from spoiling.

KK- Yeah we went through those tours to give us an update on that. So, when you folks were younger’s you folks casually went by just look at the ruins, there was nothing else there in terms of the school (Makena School) and that store was also gone by then; by the time you were.....

C- It still had the remnants. In fact was during my time that my father moved the store. My father really didn’t move the store until some time during World War II. He tore it down and saved the good lumber and put an addition to the family house.

KK- What was the reason for the movement of the store?

C- Uh, nobody was- the store was no longer active, we had closed it down, yeah.

KK- Because during the shipping time I would suspect a lot of reason to get supplies and stuff.

C- Yeah, back then it was good reason to have a store but now its years later, yeah. The harbor was no longer active and they only intermittently shipped cows from there.

KK- So, outside of the school; outside of the store; outside of the post office; There was no reason for any other buildings to be here, in Makena where we’re talking about. That was it?

C- The only gathering place there was, was the church.

KK- But when was the church built?

C- 1830’s. And from what I understand that’s how long it’s been active but that building was built in 1830’s what the church is now.

KK- Keawalai.

C- Yeah, Keawalai, but before that was a church but, you know, had coconut roof or stuff like that.

KK- There was another name for the church, yeah?

C- I don’t know.

KK- I can’t think of any other questions.

C- Well, we could take a ride down then and I could show you about where that place is.

KK- Where the school and where the post office and where the store was. Okay. But I don’t want to waste your time, but one more question: We never talk to the kupuna that was coming down the Kaupo area was helping build this; you remember that man?

C- Oh, Charlie Aki.

KK- Charlie Aki, is there any number I could get?

C- Oh, I probably got his number someplace. Yeah, Charlie lives in Hawaiian Homestead land in Waiehu.

KK- Yeah.

C- We call him Aki but his real name is Kahaleauki.

KK- He doesn’t have anyplace to go now his project is finished.

C- Ah, he’s still feeling around. He get a place in Kaupo. I understand there’s an apprentice building a house at Hawaiian Homestead Kula and he going probably go up there and help. He’s in his 80’s.

KK- I don’t think I have your age in our recording. How old are you?

C- I’m seventy four.

KK- And your wife?

C- She’s seventy two.

KK- Both healthy as ever.

C- Reasonably so, yeah.

KK- What is the secret of keeping healthy?

C- Go sleep early! (Laughter) Work hard, eat good and go sleep. I don’t know, maybe genes. Don’t pick up too many bad habits, keep it clean you know.

KK- So, we go get ready, we go.

C- Yeah, you bring the candle from one end that’s the thing, yeah.

KK- If you’d like a copy of this we can run one for you.

C- Okay, my daughter would probably like one.

KK- Okay, we’ll do that.

C- Okay, where we came from that was Ulupalakua Road (where the Chang property was) we come around now it’s Makena Landing. About where that RV place is, right in that general area; used to be a slaughter house for Ulupalakua Ranch. This was way before I was born, though. And that slaughter house eventually moved out to Kanahana and then up to Ulupalakua.

KK- So Kanahana was a real important spot. I mean, Kupuna I talk to, that name always comes up.

C- Yeah.

KK- So what was at Kanahana that was so important?

C- Well, number one it was good fishing grounds and had a lot of kuleana lots in there but at one point in time my father says if you go down there, there’s concrete remnants right on the beach.

KK- Okay.

C- Was also the other slaughter house. So, if you’re- if you look at your book map and you say, “okay this is Ke’e.” And you picture in here which, I show you what I’m talking about. Ulupalakua Road separates Ke’e from Papa’ani, okay. There’s Ke’e, yeah. This is Makena Landing. Papa’ani is where that road is, Ulupalakua Road is, yeah. And then right below where the Kukahiko place is it still is uh.....

KK- Papa’ani.

C- Papa’ani, yeah, and then where I live they got marked Po’olenalena, uh there’s supposedly another Keahou here. But anyway, if you look through here you’ll also see some other names. Apuakeha is where the church is. Apuakeha is we drive down there so you can see it. And this is Papipi. You see where that stone wall is and the building
sitting right in the middle of that walled area? That’s where they used to put the pipi and then they drove the pipi out in that opening-out into the ocean. So all the pictures you see about the old cowboy days you see Puola’s hill in the background, right. This is where.
KK- Right, right. Yeah, now I see the connection.
C- You know, you were kind of asking how many people and how they associated and the distance they have to travel to the school, etc. You see right across there?
KK- Mm mmm.
C- Where that lone kiawe tree is and that nice green what you call. To the right of that, that green place you see the thing you see right on the beach is a Aupakehau, that’s the Hau tree. I going park. And just in front the Hau tree is a fish pond.
KK- Oh, what was the name of the fish pond?
C- I don’t know. So you see where this rock our cropping in the middle of the ocean is? My old folks called it Makolea. We think the real name is Kolea but they call it Makolea; the place used to be loaded with bird dropoos when I was a kid. You know the piever, yeah.
KK- Right.
C- And then the next point between those two points is Keawali'i Bay and that’s where the church is. And where you see the green stuff, the green lawn, that’s basically where Kapohokimeowa estate was. We’re going to pass that pretty soon. And then you see the sand stretch over there, that’s in front of the Prince Hotel, yeah. The far sand stretch is where the Baldwin beach house used to be.
KK- Okay.
C- And then when we drive up there you can see the dead end of the road and this road used to run all the way through, in front of Prince. Well, just behind (you see where the golf fairway is?) behind but across the road is where the school used to be. So you look in terms of distance, it’s really not that far.
KK- Yeah. So, I’m assuming they walked the distance.
C- Yeah, most likely. See when I was a kid I seen a lot of old shacks along the beach, nobody lived in ’em anymore, you know. This was before the days where water was piped in. Very few houses down here had water piped in.
KK- So the cistern was an important water supply?
C- Yeah but that cistern was to feed only us because we had animals to feed, yeah. And they had some big water tanks that Ulupalakua had put in and the County system had put in to store water to supply this area. They also stored water for the water trucks in this area because between here and Ulupalakua was a lot of water trucks.
KK- Did you folks put in the cistern?
C- That cistern we put in ourselves, yeah. Okay, we go drive down some more. See, my grandfather, he purchased the store from a guy named Kahu Lee. The store used to be in that about this vicinity. After he bought it they moved the store up onto that hill, where I told you between here and where it finally ended up. And then several years later moved it to where I showed you earlier. The way we got that property is we exchanged it with Ulupalakua Ranch for some other property up in Ulupalakua. There’s Keawali'i Church.
KK- So we don’t know the year of this?
C- 1832, yeah.
KK- 1832? When we come back then we just go take the picture then.
KK- That’s why Aupakehau?

C- I going park over here so you can go take a picture of the church sign.
KK- Can you stand next to the sign?
C- That one there or this one here?
KK- This one’s bigger. So the school closed down 1830 was the school.
C- Supposedly, when you look in the old maps they have a school; they used to evidently have a school inside the old church, before that one opened.
KK- I didn’t take the Makena School yet, yeah?
C- No, we’re not there yet. All I was doing was showing you; in your map you got a Aupakehau and you know where we came down by the Papa’sainu that’s where the Chang property and the Ulupalakua Road is? And they’re good reference points, yeah because if you’re familiar with it you can see them from several places.
C- That thing must be feed by some brackish water, you know, the root system is in. I mean we’re not very high of a sea level now and then you go low tide you see water running all over the beach, you know, from the mountain. And then you look at how big this tree is it’s probably being fed by, you know, underground water.
KK- You got any info on Makena School?
KK- That’s what we’re doing, we’re researching.
C- All I going show him is where the school used to be because the school was closed by the time I was around. The school is actually just past George Ferrier’s old stable grounds, makaha side of the road.

C- So that’s where we going go, we going the other side of Prince Hotel.
KK- So what Kahu was saying was so true. People-no respect.
C- No.
KK- That’s not just haole, that’s local people as well.
C- You know people at the beach they used to let people come down with BB guns and pellet guns and they shooting towards the road and guess what else they’re shooting? All my fruits, they use it for target practice. So I go down the beach and then the parents say, “Nah, my kid get more common sense then that,” they shooting bottles.” And guess where the bottles was, the bottles was sitting on the stone wall on my property. “Oh, you own that place, oh I never knew.” I know you no own ’em, gotta be somebody else’s right? Amazing.
KK- So how many keiki you have?
C- I have five keiki.
KK- Every one is living off now?
C- Uh, yeah. We got one in the Big Island, two in Honolulu, and two in the mainland.
KK- Everyone has a family?
C- Ah, yes.
KK- None of them have a desire to come back?
C- Actually the one’s in the mainland, they all want to come back. The one’s in Honolulu, they’re pretty settled over there. But my number two daughter, when she retires she wants to come Maui.
KK- What is she doing abroad?
C- She teaches in Honolulu and then her husband is in the National Guard. Guess what? He’s not even 50 and he’s going to retire. But you know you serve so many years in the
Interview: Samuel Chang

By Keli'i Tau'a' Kimokeo Kapahulehua
October 9, 2006

Interviewers= KT/KK and Consultant=C

KK- Me, I'm Kimokeo Kapahulehua. This is Kalima Kaohelaulii'i and this is Johnathan Iiha. But they're from here, they're from Hau'ula.
C- Oh, yeah.
KK- But we were referred to you by Eddie Boy.
C- Eddie Boy, okay.
KK- Because we're doing a cultural research on Makena School.
C- And when we were talking to Eddie Boy, Eddie Boy said, "Oh my father went to that school." And then I said, "Oh, your father went there, so what about your father, he had any other?" Yeah, he said you and is that Kenneth or Earnest or Frank?
C- Earnest.
KK- Earnest, your brother?
C- Yeah, Earnest. He just passed away.
KK- He just passed away.
C- And the twin.
KK- Oh, yeah, and one guy in Maui wants me to say hello to you. His name is Merrill, Merrill Tau'a. He was Kenny boy's classmate at Kanehameha (your son).
C- Oh! I remember him now, I remember him.
C- Uh, yes but I've been retired from the temple after 25 years, eh. But I've been a Boy Scout leader since 1939, over 65 years. That's my kuleana.

KK- Boy Scouts?

C- Boy Scout moment, yeah.

KK- So when was the first time, you-1911 you born, what month was that?

C- May.-May 10th.

KK- Oh, you just had one birthday?

C- Oh yeah, six months ago.

KK- Six months ago and where was that, you born?

C- Makena, Maui.

KK- Makena, Maui. In the hospital or one clinic or....

C- Well, there's sixteen of us and all were born at home.

KK- Born at home.

C- In Makena, except my sister Dorothy. Tutu Miloa, that's my Tutu Ha'aha'a's sister, Aweoa, she was the mid-wife. And what you call, have you met the Peters family?

KK- Oh, Peters, Peters, yeah.

C- That tutu Miloa's ohana.

KK- And so what year was that Makena School built?

C- Uh, it was built way before my time and I don't remember that.

KK- So what year you went to Makena School?

C- 1918.

KK- And that school was just one building?

C- Yeah. Its amazing one building where Maui Prince is that's where the school was; one classroom.

KK- And you were 1918, what grade was that?

C- I was maybe first grade.

KK- First grade, so when you was over there first grade, how many people had with you?

C- Well, let me explain to you as far as I can remember. Here are the families: the Chang family, Samuel, me, Robin and Earnest (three of us); then Hapakoina, James; Kuloloia, William and Wally these two are famous men William was a Aloha Week King for Oahu one year and Wally was Aloha Week King for Maui. These two are pretty close, we grew up together.

KK- Kuloloia?

C- Kuloloia, yeah Kuloloia.

KK- So that was Uncle Les' father, Les Kuloloia?

C- Les Kuloloia, his father was Wally.

KK- Wally, so it's Kuloloia, not Kuloloia?

C- Kuloloia, yeah, that's the way I pronounce it, I don't know. Then: Awea, Daniel; Keil't'a'Henry; Lono, Nancy and David; and Charles Aina. Now there's a few more that I don't remember.

KK- These are all the classmates?

C- All those were in the school at that time. Kindergarten- no, no more kindergarten; first grade, second, third, fourth, and fifth.

KK- All in one building.

C- All in one building.

KK- So those were the students over there at that time?
C - At that time that I remember but the same age was Papa, William and Wally. I really don’t remember all the children but these are the families.....

KK - Was going that school at that time.
C - Yeah, the families in Makena was: Awelo'a's, Kukahiko (the main one Kukahiko), Changs, Lono (Tutu Kapahu them).
KK - Any of these are still around?
C - Oh, Wally just passed away, Ernie just passed away (papa was good cowboy for Ulupalakua Ranch); Wally gone; Daniel gone; Henry gone; all gone already except me now.
KK - All gone except you. Wow, so you were there from 19.....
C - Well actually from 1918 to fifth grade. That school you go over there, only one teacher, so you go fifth grade you stay there. So your next move is move Ulupalakua to be a cowboy but I was lucky that my Auntie Hattie and Uncle Mahone (from Puunene) they took care me three years for go Puunene School. Then from Puunene, I went to Kamehameha.

KK - Oh, so you went fifth grade in Makena School?
C - Yeah.
KK - 1924, and after that you went to Puunene and Puunene to eighth grade and then pau eighth grade you went to Kamehameha.
C - Yeah, in 19......

KK - So who was the principle for Makena School?
C - I’ll give it to you when we come.

KK - So all that guys went to school Makena, yeah. Then after Makena you guys had to go to Puunene.
C - Yeah, for me. I’m the only one had a chance to go leave Makena from our school.

KK - Oh yeah, and what is who was your teacher at Makena?
C - Okay, let me give you the history. The teacher’s were: My first teacher Mr. Ogilvy was haleole and he was all right; then the next teacher was Joseph Lee, he was okay; but the one I was closest too was Ida Kapohokimowea, you know that name Kapohokimowea?

KK - That’s a long name.

C - Kapohokimowea, that’s a well known family known in Kula. He was a principle for Kula School and he had a nice place. He had a favorite son (I forget the name) but his son Duke became an engineer then he married my cousin Emma Lou.

KK - Oh, and so you know, when you at Makena School, that many teachers teach all you guys in one room or all different years?
C - No, Mr. Ogilvy was one year, Joseph Lee was one or two years and Ida was my last teacher. But they only stayed, I don’t know how long they stayed, I forget now.

KK - What time did school start?
C - Oh, eight o’clock in the morning.

KK - And what time pau?
C - Two o’clock.

KK - And what about the food? You folks bring your own food?
C - Well, no more lunch, no more lunch. And what we would eat lantana berries and white Panini’s for lunch.

KK - Oh, that’s your guys lunch?
KK- Oh, the one like this with the arm?
C- Yeah you sit on the chair and over here you have the arm.
KK- One small desk; eh; and who provided the pencil and paper?
C- I think we, the family supply their own, was simple. The school wasn't; I really don't remember what I learned.
KK- Oh at the school?
C- Yeah, I mean.
KK- How long the school was in business? What time they went close the school?
C- Pardon me?
KK- What year the school finish?
C- Oh, now the families got smaller and smaller so they closed Makena School then my brother Eddie (Eddie Boy's father) became a- he went to Lahainaluna where he was a teacher. Now Ernie closed Makena School he had a bus (maybe about 6-8 people from Makena) and he would take them to Ulupalakua.
KK- Oh, for school.
C- Yeah, and the family had a house in Ulupalakua, he would stay over there and work on the farm up there and then pas school he bring the kids in.
KK- You know what year that they closed the school?
C- I was in Kamehameha at that time, or after. I'm not sure but it was during my brother Ernie's time.
KK- And then tho, what was I going to say. What kind of activities did you guys have in the school? What kind of, no activities?
C- Oh, not much.
KK- Oh, yeah?
C-That one, we had big place to play but here's the school and outside there's a big water tank. And the War years we planted sweet potato and wha big kind. It was sandy soil so sweet potato loves the sand and by that tank when water came from Olinda; way, from Olinda come makawao, from Kula come down.
KK- So these are the students that went go school with you, yeah? And the student is, family, was Samuel, Robert and Ernest.
C- That was my family.
KK- You guys had how many in the family, you said 18?
C- We have sixteen, I'm number eight.
KK- You're number eight? So tell us about the sixteen. Only the three went school over there?
C- No the others were pas already.
KK- Oh, you were the youngest.
C- Yeah, I'm number eight and before me, I really don't know. They went to Makena School but I really don't know.
KK- Oh, but you know all your brother and sisters names?
C- Yeah.
KK- Who's the oldest?
C- Okay, Chinan, my oldest brother. He was a good brother.
KK- Chinan?

C- Yeah, then my sister Annie; Annie, she passed away when she was young. Then, my sister Iene, my sister Daisy, and my brother Eddie, my sister Annie, my sister Lily, and me.
KK- You is number eight yeah?
C- Yes. Number eight but I'm the third son. Then come me, then Robert, then Earnest, then David, then they had one baby boy. One baby boy died at birth, the baby after Ka'ana. You know, David he died in Makena; his son stays in Makena; Steven, you know him? Then David, then the baby that died, then my sister Dorothy, then my brother Phillip then Dorothy, then the twins Pake and Haole.
KK- Pake and Haole? What their name was?
C- Frank was number fifteen and Saul number sixteen.
KK- Sixteen, so that's sixteen kids; Frank and Saul, the twins. C- Twins, yes. Saul, we call him haole; and Pake is fifteen. Pake is still living and....
KK- Pake, where he stay?
C- He's at _____ camp.
KK- Is he older than you or younger than you?
C- No he's number fifteen.
KK- Oh, the younger one, you number eight. So are you the oldest around now.
C- Oh, yeah. Only two of us left.
KK- Okay so, Pake and you?
C- Yeah, so Earnest, we're having his funeral on the 18th.
KK- Of this month?
C- Yeah, yeah, he died.
KK- When did Uncle Earnest passed away, just recently?
C- About a week ago.
KK- About a week ago, Eddie Boy coming?
C- What? Oh, no I think he'll be cremated and only a family get together. So, I no think so anybody coming down. Only me and his family, that's all they want. That's what they said. But my brother Earnest, he was going Kamehameha Schools, he got kicked out. But that boy, he work 46 years at Ewa Plantation. He became the superintendent of all the crops.
KK- So, what year you left Maui?
C- I left Maui in 1927 to go Kamehameha.
KK- Oh, long time. And you stayed out from Maui and never come back?
C- Yeah, so I've been here all the time. So that's why only once and a while I go home, you see. Now if I go home now, everything is closed now. Here I would go to Keawalai Church for my spiritual and I would go to the grave for my love. And I would go to the Hale Kukakahiko for peace. Have you been there?
KK- By Hale Kukakahiko; The new one?
C- Yeah.
KK- Yeah.
C- Well, that house if you have interfere with me; if you enter the house, pas. Just like that, it's peace. I mean you just feel the peace. No more boo, hoo, nice.
KK- Yeah I would see Eddie Boy making house. And then you know Norma Lei?
C- Norma Lei, yeah.
KK- Norma Lei's son is Charlie.

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C- Yeah, Charlie yeah, he's a builder, yeah.

KK- From Kentucky, he's a builder. So, he build canoes with us.

C- Oh, is that right. Are you a canoe man too?

KK- Yeah, so we always paddle the canoe by Hale Kukahiko; go to Melokini and Kahoolawe.

C- Can you remember Tutu had two daughters; my mother and Hahali'iili'. Now, Aunty Hahaliili (she was married to Uncle Kimo) had Abby Alderstrong, then had Hattie Pitz.

KK- Oh yeah, you know Randosam?

C- Yeah, Randosam is my nephew.

KK- So Randosam, we talked to him too.

C- Yeah, Randosam is my closest relative. He's Aunty Hahaliili'iili'ili's grandson. And then, you know, Lisa Awai, the Awai family?

KK- Yeah, I know they get plenty.

C- There's plenty, they got five boys; they're good singers.

KK- Um, Uncle Boogie Lu'uwai.

C- Oh, Uncle Boogie come from Tutu Ane.

KK- And the Bobby, Uncle Bobby the Kalawaia.

C- Now let me explain to you, of the girls Ohai family: Tutu Maloa, Tutu Momona, Tutu Haehae, and one more sister. And of the boys: Tutu Kapahu, Tutu La'uwai, Tutu Kahau and one more I don't know. Now all the Kukahiko boys (as far as I know) dropped Kukahiko then Tutu Kapahu that Delima you know Caroline Delima.

KK- Oh, you know Caroline stay, yeah.

C- Yeah, yeah she's still living.

KK- She went- her mom went to that school.

C- Oh, yeah, she was younger than me.

KK- Yeah, she went to that school.

C- Yeah, she went Makena,yeah.

KK- We was looking for her picture. Do you have a picture of Makena School? You guys took picture of Makena School?

C- Oh no, not me.

KK- Was that a territorial school, government school or church school?

C- Oh, no. It was a public school.

KK- Public school by the territory. So the territory would have a record of this school; Territory of Hawaii.

C- Yeah, yeah. That was a public school, yeah. That time hard get private school on Maui.

KK- What about the lua? Where the lua was in the school? You had lua? A'ole pilikia?

C- I think it was without, I don't know. I forget, that's a tough question.

KK- Tough question, that's okay, it's all good.

C- One thing about my childhood days, what I remember most: I had my own horse, see. And cousin and I would take our horse out for a swim.

KK- In Makena?

C- In Papipi.

KK- Where's Papipi.

C- Here's the village, then there's a little- Ulupalakua Ranch you bring the cattle down and stop 'em over here then they have a little (oh, what you call) fence, they would be in the...

KK- Corral.

C- Corral, yeah. Then they would have two, the best two cowboys and the two strongest horses they would rope the cattle in there and pass the rope to the cowboy and he would take the cow to the boat.

KK- Oh, for ship 'em out.

C- Yeah. Then about half a mile out Kiluea or Honua'ula (I don't know) would there waiting for the Kula they would tie down the cow on the boat. It was good fun to watch that.

KK- Steam ship; Kiluea and what the other boat?

C- Homu'ula.

KK- Homu'ula.

C- Yeah, mostly Honua'ula, it was cattle ship, then when the boat go out they bring a sling around their oup and bring the cow up.

KK- Oh, that's by the landing, yeah? That's by Papili Beach?

C- Papipi, mean cow.

KK- Oh, Papipi where they take the...

C- There was a little sandy spot yeah. But those were the good ole days.

KK- Those were your best memories. What was the name ilio, your home?

C- My horse was Gray. So what happened (I remember this clearly) here's the road from Makena to Ulupalakua my father's store right here.

KK- What's the name of your father's store?

C- Oh, Makensi Store or Chang's Store.

KK- Chang's Store. So, you went up there to Ulupalakua?

C- Yeah but I was riding in, I wanted him to go fast so when I wack 'em he turn sharp. When he turn sharp, I hula and you know the rest. When I first got on him, no more saddle, no more bridle, I just ponuku on. If he kept going, I pua! With the rope he drag me, yeah. So he waited. Was something, I can remember him.

KK- He was waiting for you. Maka'i.

C- And nobody around, yeah.

KK- Oh, so you know, how did you- when you first started in Makena School, you guys did like a prayer or something to start school or you just. You know before they do the pledge of allegiance, yeah?

C- Yeah we had that.

KK- You pledge allegiance?

C- Yeah, I think so, yeah but I don't remember too much of that part see. It was casual.

KK- What about Hawaii Pono ?

C- No the teacher, Kapuusimahewa, she was good.

KK- So, if you was born 1911 and you went school 1916-1918; what was your thoughts about then because they just finished monarchy 1893. So, 1893 that's 7-1900 so 18 is almost 25 years later, yeah. So was still talk about the monarchy and what they did to...? C- I don't remember anything because actually I don't quite remember what happened. It went by I would go school, come back, what I learned.

KK- So, how many children you have of your own?

C- Well, Kenneth.
KK- He's here, third boy?
C- Yeah, yeah. Then twins, Warren and Winona; and Norma, Sharyn and Gaylene.
KK- Six kids.
C- One boy and five daughters but we have 18 grandchildren.
KK- Wow.
C- And eight granddaughters and all forty-five great-grandchildren now. So big ohana now.
KK- Big, of your own.
C- Yeah, yeah. So every year my wife pass away....
W- Papa, Ma ke kula o Makea, at Makea School did you learn olelo Hawaii or olelo pele kane? You learn English or Hawaiian?
C- You said Pele kane, only English, no more Hawaiian. The kids didn't know Hawaiian except Eda Kapukinahele she's pure Hawaiian. Even her, she would teach us only English. But I don't know how the teacher went teach all of us from first to fifth grade all in one room. I don't know how.
W- Wow, that's a lot of students. So how many students in one room?
C- Oh, only one room we had.
W- In the one room, how many?
C- During my time there was only about ten. Only Makea was a small village.
W- Kindergarten to fifth grade had kids.
C- No more kindergarten, just first grade.
W- Okay so first grade to fifth grade- ten students.
C- You stay over there you become a cowboys. But I went to Puunene School like I told him.
W- And when you folks went home from the school, your family speak Hawaiian with your folks, or English?
C- Oh, to my Tutu only Hawaiian; to my father is pidgin English, any kine. (laughing) But my Tutu Hahai was strong in Keawalai Church, he was the Chief.
KK- In Keawalai Church, you guys all went to Keawalai Church?
C- What?
KK- All you guys went to Keawalai Chrch?
C- Yeah, yeah I used to go church over there.
KK- Was that a school there too?
C- No, no.
KK- Just church?
C- Yes Keawalai Church, yeah? Nice, yeah?
KK- Beautiful! You know the church had Chia floor, yeah? They just changed the wood again.
C- They renovated, yeah. But using the chapel over here and the ocean right near, oh nice. You go in there, you relax, you know; beautiful feeling.
KK- Any other family over there you know on Keawalai Church?
C- What you call, Norma Lee goes.
KK- No, the one's stay buried over there. Get some people buried there.
C- Oh, but my family, we have our own graveyard by where the store was. There's a little grave; my father and mother and my grandmother and my oldest brother all over there.


KK- Where the store was, by the school? The store; Chang Store.
C- Oh, now, you can remember from Kihei Road you come over here by the road to Ulupalakua Road; that corner right at the store.
KK- Oh, at the top.
C- So, now only my...
KK- Oh, where Ulupalakua come down, to the Kehei coastline road.
C- Yeah, yeah. Ulupalakua Road is closed now. That was a big mistake. The people need to know, like I retired as a mailman.
KK- You retired.
C- Yeah, as a mailman.
KK- Was there a post office in Makea too?
C- No, I retired- No, post office up Ulupalakua.
KK- Ulupalakua. Oh, that's the same one. What was your favorite Hawaiian song you can remember then?
C- My favorite what?
KK- Hawaiian song.
C- Well, the song- I like Ekolu Mea nui
KK- singing of song Ekolu mea nui.
C- I sing you this song my favorite Kamehameha School.
Singing of song.
That my favorite song.
KK- Wow, awesome! What was your favorite food that you, when you was a young boy, that you liked eating. What's your favorite food?
C- Well, for me, right now see if I have poi and red salmon, naa.
KK- Poi and red salmon.
C- You eat poi and red salmon, you might as well go restaurant. Poi, I eat 'em all, you red salmon.
KK- You like poi?
C- Oh, poi enough.
KK- That's what you had before?
C- Well, small kid time; Now let me explain to you folks. My father is pure Chinese; we eat Chinese food. Now, all those, my cousin (Wally Williams eat chilli pepper and dry fish and poi; big stomach. So you can see the food you eat as a child makes you big. But adults who eat poi; big, strong. My brother's Robert and Phillip were adopted out, eh (hanai'd) big. The rest of us small.
Male- The one's who were hanai'd, they were raised around Hawaiian family, eh?
C- Oh, hanai'd well, not legally. See, my Tutu Hahai adopted my brother Robert and my sister Dorothy. Tutu La'ieialii adopted three boys; La'ieialii'ilii'(that's Barbara's father), and my brother Phillip and James Hapakuka. They adopted- I don't know how they took care of them, he wasn't working, he was only a fisherman. But Phillip, he was the most handsome of the family. He showed his Chinese, Haole and Hawaiian from all the kids.
KK- What was your, did you go fishing and hunting?
C- For me, I wasn't a fisherman but I loved swimming. My job was to take care paipu to after school go to run the pump, you know, and water the siffla fields for the horse.
That was my job. Actually, I wasn't a fisherman but I loved swimming, though.
KK- Who would go fish and hunt for you guys?

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C- My brother Pake.
KK- Oh, the twin, one Pake one Haole.
C- Yeah, yeah, he was the fisherman. And my brother Eddie was all around. You take my brother Eddie (Eddie Boy’s father) when he went Lahainaluna he was captain of the football team. He come home from Lahainaluna, he come build a house and he can fix the cars. He was good, brah. But he loved to argue. (Laughter)
KK- So remember him because he like argue?
C- Still, he could have been a good lawyer.
KK- So when you went to the Kukahiko family, all you guys went up; you Kenneth and all the kids?
C- Yep. Well, my family was the most as a family. When we go to Maui we went to Kihel to stay in the hotel then Gaylene hired a bus. So forty of us, more or less, almost 30, went on a bus.
KK- Chang ohana?
C- Yeah, my ohana, almost forty of us; my clan.
KK- Your immediate one.
C- Lead the bus went to Makawao, Waikika, Kula and Ulupalakua. We go Ulupalakua and we have lunch but it was from our family on a bus Gaylene’s idea was really good; we were together, you know. All of us rode the bus and I had a mike, I would sing to them and talk to them.
KK- You gave ‘em a tour.
C- Yeah, a tour, you know. But afterwards when everybody- when the bus came back Kihel, then everybody had their own rental cars, so they went their own ways. But, they paid for their own airfare but I paid for the hotel. The hotel, I forget the name; it’s a nice one, boy. Over here you go upstairs, you overlook right down to Pu‘u ‘Ola‘i I forget the name.
KK- Oh, it’s on Polo Beach.
C- No, no.
KK- Kea Lani? Kea Lani?
C- No, that was the big one. Nice hotel. It goes over here and has a clear view...
KK- Of the ocean.
C- Of the ocean from Kihel to Makena, nice. I forget the name but they enjoyed it, they really enjoyed it.
KK- Who was the principle? They had principle and teacher in the school or just teachers? Who was the principle for the school?
C- What school?
KK- Makena School.
C- Only one teacher. He was everything.
KK- Oh, he was over everything. What was his name?
C- Ogilvy. I didn’t like him. He was cruel.
KK- But you had the other teachers, he has four teachers.
C- Ogilvy, Joe Lee, and Ida; three. Yeah.
KK- But Ogilvy, how come you never like him?
C- Okay, let me explain to you. He stayed our house, yeah, and me I was kinda spoiled yeah, so I run around the house the way I like. So the first day I went school, I only

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Interview: Ka'anohi Delima Lee
By Keli'i Tau'a/Kimokeo Kapahulehua
September 27, 2006

Interviewers: KT/KK and Consultant=C

KK: I'm sitting here talking to?
C: Ka'anohi.
KK: Family name?
C: Delima, well Kukahiiko; my mom was a Kukahiiko-is a Kukahiiko. She was raised by John Kawekane Kukahiiko and Keoneel'i Kanabena in Makena. And my dad was a Delima; Wilcox-Delima from Ulupalakua.
KK: So, you folks just had a reunion.
C: Yes we did, it was fabulous!
KK: How many people come this time?
C: I'm not sure what the final count was. As far as I know it was over 400 people.
KK: That's a big reunion.
C: Yeah, it was good to see everybody.
KK: So presently you have; could you let us know what kind of degree you're holding?
C: Well, I have a degree in Sociology, actually.
KK: Okay, from?
C: From the College as Emporia, now known as Emporia State in Kansas and that's as far as my education went formal education.
KK: So what is your work now?
C: I work for the Kahoolawe Reserve Commission as the commission aide. Basically what I do is keep the calendar for the Commission and I'm the liaison between staff and the Commission. But in doing so I've been able to learn a lot on the history of Kahoolawe and Hawaii'i. And you know, Maui Nui, beginning first; finding my roots and my family roots as well in Maui Nui and has brought me home to the cultural part of my heritage, I would say that.

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KK: So, as a Kamehameha graduate (you and sister went to Kamehameha but your brother and uncle went to Lahainaluna) you grew up on Maui, in Makena.
C: In Makena, yes.
KK: Do you know of anybody else that went to either Lahainaluna or Kamehameha?
C: From Makena, when we were growing up?
KK: Yes.
C: Um, let's see. The only (well by the time I was old enough) the only other children or opio in Makena was the Poepeo's. Paul and Puni; which were keiki of George Poepeo in Makena and they went to Lahainaluna High School. The boys went; Puni I'm not sure which school she went to, I forget.
KK: So your sister went before you?
C: Yeah. She's a 1959 grad of Kamehameha Schools and I'm a 1966 grad of Kamehameha.
KK: So the fact that she went motivated you to want to go there?
C: Um, no not really, cause it didn't matter to me at that time. She went from, I think her Sophomore year, she started off as a day student. She lived with my grandmother in Kapalama while she was attending Kamehameha Schools as a day student. I went from seventh grade which was known as the preparatory department then. So, no, it was my own desire to go and I still remember the day I got the letter saying I was accepted.
KK: How was it like?
C: I was so excited.
KK: So, where were you in school at that time?
C: I was attending Kihei School because Ulupalakua School closed.
KK: So you folks were bused to Kihei School; by?
C: The parents.
KK: Okay so, they drove you. You didn't have to catch the bus because most of the time...
C: No more bus back then.
KK: Right, even then. So, the fact that you went off to college; what was the incentive to go?
C: Whoo, it was multifaceted. I was the youngest in my family and no one before me finished college. My oldest brother Ahner went to University of Hawaii on a football scholarship but he never finished. My sister went to community college, she got her certificate as a dietitian so she could be a cafeteria manager. My other two brothers went into the service after high school so with my dad it was a have to thing that one of his children have to go to college. So, it fell on me and attending Kamehameha Schools too, you get the-you realize that you need to further your education if you want to get ahead. So, that was another motivation to continue on. And to go away from Hawaii to college was a strong motivation for me because I felt I needed to know what else was out there and how better to understand and appreciate where I come from if I go somewhere else and learn how the other, the rest of the world lives, you know. Growing up in Makena, it was very- ah sheltered life- because the doors were open, we could walk around, go wherever we wanted to go without worrying about anybody attacking us or stealing us. Whatever, I mean, there was no fear and that was the good part. And that's not how it is now. So, growing up in a sheltered community I needed to broaden my horizons and that truly did broaden my horizon.

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KK- So, weren't you afraid to go so far away?
C- I was but, you know, you have to bite the bullet, so to speak, if you want to learn.
KK- Did you go by yourself?
C- Yes I did. And my flight to Honolulu, there was an attempt to hijack it to Cuba.
KK- Right off the bat!
C- Right off the bat. And then when I got to Emporia Kansas they, the college sent people to greet you and the person that greeted me was this big black football player. I was afraid but he turned out to be my best buddy. So, you know, that's how you grow; by meeting all these different people from different cultures.
KK- Yes, so the real purpose of my wanted to sit with you and with your family is to gather some information about basically life in Makena but more so in the Makena School. So, we're finding that the best we can do, if we try to attempt to get oral history documented, is secondary sources. So I would suspect that you-your sister said that both your parents went to Makena School, or just?
C- My mom. Mom because daddy grew up in Ulupalakua.
KK- Okay, so he went to school up there?
C- Mom...
KK- So did you figure out what year she attended Makena School?
C- No, I couldn't figure that out but in thinking about it, the other families that might have information (and it might be already documented in oral histories) interviews with Annie Wilmington. She's a Chang; they were the other family that was living in Makena at the time my mom was growing up. I know my daughter interviewed her whether they talked about the school or not, I'm not sure.
KK- Is she still alive?
C- No, she's passed. So, all there is of her are interviews by different people.
KK- Would you know where that would be located?
C- My daughter did an inventory survey for the Chang property there in Makena and she interviewed Aunty on that. So the report should be filed with the State Historic Preservation here on Maui. I know she turned in the report on that.
KK- Where is that located?
C- Do you know, it's on your way to Maui Memorial there's a division of Aquatic Resources on the left hand side as you go up?
KK- Okay.
C- Their office is there. I can get you the number and Melissa is the one to she has an assistant now so they could probably pull the report for you.

**end recording**

KK- So, you just gave me a name of an entire family there, which was the Poepoe's and the last living descendant that you know of is Daniel Poepoe that resides in Wainee at this time. Would be close to seventy?
C- Yeah, about there.
KK- So, because they were such a small community, you folks used to?

C- Well, we didn’t live very close together. We couldn’t go outside and say, “hey come play.” You know, it would, they would be down the road a ways.
KK- So, your sister described that the house you folks owned down there; was that your residence too?
C- No, the home that we have there in Makena now, it belonged to my dad’s side of the family. Where we grew up was right on the Keoneo’io side of Pu’uola’i.
KK- Oh.
C- That area, that is now a state park. Yeah, that was mama’s land from Grandpa Kawekane.
KK- Okay. So, from there the school was back, the Makena School.
C- From Puna’i it was more towards Kihei. If you visualize it now I think where the Dowling subdivision, area where he’s developing now. It was close to that area. It was between what was know as the Baldwin house and the Poepoe’s, it’s was in between that area there.
KK- So, presently they’re calling it Maluaka South.
C- Maluaka South, yeah, but that’s not the correct name either; I think. Because right now they’re saying Maluaka is from where what they call now Small Beach, just up from Small Beach all the way to in front of the Prince. But I don’t remember the old folks calling that beach area or that area Maluaka. I’m trying to recall what they used to call it. I keep hearing the word Kaupipi but that’s a cattle guard so...
KK- Right. So, you personally went to just holo holo at the school; not attend but you personally, you....
C- The school was not there when we were little because we went to Ulupalakua School. But there was no; we only knew about where. There was no building, even the post office I didn’t know there was a post office until I looked at the pictures and started asking questions. So as a child I never saw the school itself.
KK- So since you didn’t know about the post office, you didn’t know how the mail was delivered?
C- No. As far as I knew we got our mail from first Ulupalakua and when Ulupalakua School closed we changed to Kihei because there was no delivery to our house at that time. But I remember mom saying that she worked at the post office and I couldn’t I always thought it was at the Ulupalakua Post Office but it was actually the Makena Post Office.
KK- You know when I think about it, you folks (meaning everybody who resided down in Makena area) you talk so, I don’t have the word, like Ulupalakua was like the back yard. But there’s a distance there. Do you recall going from Makena to Ulupalakua?
C- Oh yeah.
KK- So how much time did it take you? And how did you go, car?
C- Car.
KK- So half an hour maybe, car; because I remember going from Ulupalakua down to Makena and the exit out was at the landing. Now your house is just a couple of blocks from it.
C- Yeah. It depended on how the road was. If it was in good condition; it’s the same thing driving from Makena to Kihei or Wailea.
KK- Of course when you say good condition you mean...
C- No more puka’s, no more rain...

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KK- Was all dirt.
C- Yep, was all pavement. That was Makena Road too, it was all dirt road.
KK- So, when you talk about Makena Road as we know it today (and this is 2006) it went all the way to where it goes now. Not close to the lighthouse but (what is that modern terminology they use?) where all of the kayakier's.
C- Kayaker's, yeah Ahili-Kinau Bay.
KK- But we still can see evidence of the King's Trail going through that.
C- Yeah, and there's still that strip in front of the Prince, too, that was part of the King's Trail that's maintained. And we used to ride that road not knowing it was the King's Trail.
KK- Ride that road in terms of?
C- That was part of the road.
KK- Car?
C- Yeah. Because what Makena Alamu is not the same road that we used to ride on.
KK- Maka that's why.
C- Yeah, maka. The Makena Road, or what they call the government road (because it was the government that put it in, federal government during the war time), it all followed the beach, you know the ocean side. It's a lot shorter now but yeah, the dirt road came from; was further down.
KK- I know we don't pay attention when we're young but the question I want to pose to you: Did mom ever reminisce about going to Makena School?
C- Sometimes. Well, mainly what she conveyed to us was; she's a Maneleo, she didn't learn English until she went to school. My grandma and my grandma both spoke Hawaiian only, didn't understand English at all. So for her when she went to school it was a little hard because she didn't know how to speak English. That was her biggest obstacle but she never told us as to how many she went to school with all of her cousins?
KK- Which were?
C- Which were the Chang's and the Poopoo's we considered them family as well because eventually they all intermarried, yeah. So, it was as one room, one school house school. Yeah, everything was in one class.
KK- At one time so was challenging for the teacher to teach all different levels.
C- Yeah, I guess, yeah.
KK- We interviewed Leslie Kolloilo and he gave us the name of the principle because his father went there. So, when you go back to intermarrying, you know you mentioned; Wilmington got married into the whole pig. Chang, the Kau'au'a.
C- Kau'au'a.
KK- Who is on Oahu, Waianae; Aunty Aggie Cope is connected to your ohana too. So when you think about it everybody who married in Makena was convenient to marry in their family. (Laughing) So the question becomes; was it related because of convenience and didn't have exposure to the outside world?
C- At the reunion I realized that there were several of my aunts and uncles that married each other; you know cousins married cousins. And yeah, I didn't know that until we all got together and got to meet each other and say, "hey but we're related but Uncle's married to Aunty." You know? So you don't realize these things but that was the common thing for the Hawaiians.

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KK- So, your folks reunion because it's so big, should have been everybody racing to get information from everybody.
C- Yeah, and David Keala is the historian or the genealogist.
KK- I should go talk to him.
C- Yeah, he should have a lot of information there. David and Florence, they are the keepers of the genealogy which I haven't sent him ours yet. There's another one, Edward Chang Jr., he's in Makena.
KK- We're interviewing him for Hono'alua and he gave us reference because his brother's on Oahu; still living: ninety years old or something.
C- Oh, Uncle Sammy, yeah.
KK- Kimokeo went there with a video but he wasn't able to make contact.
C- Yeah, Uncle Sammy, he's a joy to talk to. He has a lot of information in his archives.
KK- So, I have a question. There was a Kenny Chang.
C- Our ohana.
KK- So now Eddie Chang in Makena; Kenny Chang's father and Eddie are brother's?
C- Kenny is our generation. So his dad and Eddie boy's dad....
KK- His dad is a retired mailman.
C- Right, yeah, Eddie boy's dad the one in Makena that you talked to; his dad and Kenny's dad were brothers. That's Uncle Howard I think. I'm not sure which one of the Chang boy's it was. But yeah, they're chana as well.
C- I've come to the conclusion, although I don't want to; just gotta go Oahu for the archives and this kind of stuff.
C- I don't know if you know Kepa Maile?
KK- Yeah.
C- He does a lot; he goes to the Bishop Museum as well. I have a cousin, Kukahiko, Nanea Armstrong who's working with Aunty Pat Bacon right now. I think what they're doing is translating all the Hawaiian newspapers. So I know Kepa got a lot of information from the Bishop Museum, as well as the archives and then he even went to Boston to get information from the missionaries; log's and journal's and stuff like that. Depending on who the teacher's and the principles were (you know if they were from the missionary families) I'm sure there would be a lot of information there. But it seems like there's; you know when I first came back to Hawaii' (after being away because I married a career military, so I didn't come back to Hawaii' till the late 70's) I didn't realize that there wasn't that much information on Makena, or people were telling me that there's not much material on Makena. But after going over what Kepa has found, there's a lot of information out there, it's just you gotta know where to look.
KK- What he's doing and I guess what we're doing is what other people did for the popular areas. That's why they get more information but the isolated area's just as rich.
C- I think too, what you folks bring to; because there's a lot of archeological studies but what you folks bring to it is the cultural aspect of it and you can put together a village as close as you can to what it actually was. And there's so many sites that can tell the story there in Makena still. So like you said it's a race of time. But you know there's, I know my Aunty Annie, my Uncle Eddie, Eddie Boy's dad. Les folks, Dana Hall and them, they all interviewed these people so there's you know there's; the Hawaiian's have to stop being chief with their information. Share so that other people can bring it into context.
KK: If I might say, from my perspective in what I've seen it really behooves the people
to go to really have, for lack of a better word, the Hawaiian heart. When Kupuna feel
that, then they open. Because it's still on this grab, grab, grab and no care but; and so it's
still difficult for our Kupuna to be as open... to really want to give, as an example.
C: True.
KK: I'm going to tell you now that part of our proposal is attached that we will be giving
you a couple. So, Uncle Eddie Chang, when Kinome took his he said, "I can't believe
it. This is the first time that everybody come to me and ask me all these years for info."
But you know it's looking at how it's done to honor.
C: Yeah, and I'm surprised because my daughter does that. Whenever she interviews she
gives the information to either that person. If that person happens to pass like my Aunty
Annie did, she gave copies to her children. And my cousin thanked her for that because
he knows that his mother had given so many interviews to so many people but this is the
first one he can actually listen.
KK: So our younger people are learning the protocol on how to do this but you know it
takes life experiences and some need to go and gather information on how to do in order
to get our people's history from the oral perspective. So many people say, "Oh sad yeah,
Kupuna passed away." And my response to them is, "You didn't do anything when they
were here and you still don't do anything so don't give me this." So, it is changing but
not as we already discussed, not as fast as we need to pick up the pace. So, you know,
whatever your daughter is in need to input to what she is doing we're open to assist.
C: Yeah, cause that's her deal too because she realizes the Kupuna are going slowly (not
slowly, too fast at this point) and how important it is so I'm trying to make the connection
for her to talk to Uncle Sammy as well.
KK: I'll keep you folks updated because you folks are sining on Makena and whatever
input for her and for the family. We'd be more than happy to share. So, you know the
names; I'm glad you refreshed that David and... C: I'm trying to think who else. He could probably give you some names to because he's
more connected with the ohana yeah. But outside of the ohana it's the Kalani family.
KK: That's who I'm trying to get in--but you don't know how to get in touch with them,
yeah? I wrote a number here, Sheri- I tried to call Sheri but I don't know if she's related.
C: I don't know. I just know the house.
KK: Where is the house?
C: Right on Onehee Street. You know when you're coming on, what is that
Kamehameha Ave. wait, no Wakea. You come to the back of the shopping center, the
Kaahumanu Shopping Center to go up to the Kahului Community Center you gotta go up
Onehee.
KK: I got a favor; if you pass by try write the address down and let me know.
C: Yeah, I don't know if I can see. It's the brown house with a blue tarp on top.
(laughing)
KK: There's a description already.
C: There's no other house with--that has a roof of blue tarp. That's the Kalani family.
KK: And Robert is the oldest now?
C: Is he the oldest? I don't know.
KK: You see my nieces danced for him from way back.
C: Yeah.
KK- Right, right because they're covering it all up for development which is the case for all over Hawai'i. If you think of anything else we would appreciate you letting me know. Like I said vice versa whatever I get I would be more than happy to bring to you. So, basically what's going to happen is I'm going to transcribe it, bring it back to you and you sign a letter and you can approve it in the report. So, we're trying to get this rushed but these are important names that you provide us.
C- There would be some Japanese families that grew up in Makena.
KK- Do you know them?
C- I think my sister has a better handle on that one.
KK- If she can write them for me and let me know. Like I told you, I'm in agreement; not because they don't have to be Hawaiian to know all this Hawaiian history that they were involved in and lived.
C- And if you- well I look through all of our family pictures and there's always, not just our family in there, there's oriental in there so it's um...yeah. Even Filipino's.
KK- Can you remember any of the shipping activities that came into the Landing?
C- You know it's funny, I would almost think it stopped before I was born but for some reason I remember the cows going out to the boat at the landing. You know Ulupalakua used to do the cattle drives down there but I know for a fact that while I was growing up they used to bring them down and branded them at the Landing in that cow pen right there as you make the turn. It's now the washroom, the bathroom but there's a big rock wall and structure there that surrounds it. That used to be the cow pen. That's where they used to brand the cattle.
KK- Your question is... you breed cattle to mark that it's yours but why they branding over there if they going to ship them away?
C- No, it wasn't to ship. No. They branded it there and then they would graze down below and they would send them back up eventually. But I remember that happening but I remember seeing cattle in the ocean going to the boat.
KK- That was an experience especially if you were able to see an actual battle between a shark and a cow.
C- Oh, was there documentation of that?
KK- I think there were some pictures that I saw.
C- In Makena or somewhere else?
KK- Whenever there was that type of activity, sharks would come around.
C- Interesting because our family amakua supposedly is right there, out there in front of the point. Between there and Small Beach, in front of Puunola'i around there so that whole area was their territory.
KK- That's what I was told. Puunola'i- shark infested.
C- That was us. But we had no fear.
KK- And you guys still fish there though.
KK- I don't know about you but when I was growing up a lot of things was spooky; same with you folks?
C- Yeah because we didn't understand it but today it's not spooky. But then it was spooky.
KK- Mom and dad thought they would entertain us by spooking us with their stories.
C- It was mainly dad for us.
KK- Right. So what were some of the stories you can remember dad said?

C- His stories were always centered around the shark. He would say it's all over the place, you know, you would go in the water you would see a shark, don't worry. It's your guardian angel. He didn't say amakua, he would say guardian angel; which is pretty much the same thing but.
KK- So as far as you know there hasn't been an incident in your family that happened to a shark?
C- Well, there is a mo'o'olelo and it centers around my dad when he was fishing. Because when my dad was fishing the Akina's used to go fishing too and they had airplanes whereas my dad just spotted from the land. So this one time my dad had him and his friends were surrounding this school of fish and akina saw it too and he was going to come and try to get his share. From my understanding from what my aunty told us was that all of a sudden there were sharks in the water and they surrounded my dad and protected his catch and scared the Akina's away.
KK- Where is that?
C- It was in Keone'io.
KK- Where's that story?
C- It's not written, it's only oral.
KK- Well, you should write it.
C- But yeah, only until he was able to get his catch and then safe then they left the water and it wasn't just one shark.
KK- So the way I'm hearing and seeing you, there was competition but yet still together that we still sociable with each other; but competition. Same school there going for the same thing.
C- Yeah, yeah.
KK- Wonderful story. Any stories of night marchers on the trail?
C- I used to hear them but maybe my dad used to talk about it but not in that context as to walking on the trail because I don't ever remember hearing about the King's Trail. All I know is that my dad used to tell us that when we build our house never have two doors in a row mountain-ocean. You have to skew it so that in case it's in the wrong place that you won't have the night marchers coming to your house. Just little things like that.
KK- Did you have any personal experiences, spiritual experiences in Makena?
C- In Makena.
KK- Growing up.
C- Not that I can recall but I have recently.
KK- Here in Kahului?
C- No, not really in Makena. I always felt like I was protected and safe.
KK- This, your amakua's powerful, you're a shark.
C- And I have the name, I can't remember it, I have to go look for it but we do have the name of the shark.
KK- Your amakua, many of the different amakua sharks covered a large area.
C- Yeah, I didn't know that.
KK- That's why they're amakua, they should be like a cover. So if you remember that too, please let me know. If you forget, when I do get back with you I'm going to ask if you remember. I appreciate your time.
C- Oh, you're welcome.
Interview: Leslie Kuloloio

By Keli'i Tau'a/ Kimokeo Kapahulehua
September 8, 2006

Interviewers= KT/KK and Consultant=C

C- I attended school in the old Paia Holy Rosary School at age five-six, I attended Holy Rosary School. And right across the present Paia School, which is now the Hawaiian Immersion Program School, where my daughter is a Hawaiian language teacher. And so the Holy Rosary School is not there any more; the church is, Holy Rosary Catholic Church. I was raised; my dad sent me and my brother, being Protestant's Kalawina to a Catholic Schools. And so, continued from Paia and then um-

KK- So your daughter teaching at Paia; what's her name?

C- Leinaala.

KK- Last name.

C- Francisco-Vettes. Yeah, Vettes. Her husband is Garrett from Honolulu. So I seen, I think my timing in this world was perfect because I was-I was born the time when right after that, the year after, was the Pearl Harbor Era. And so looking at all that, I think being born in the right timing of the Plantation Era; the sugar beginnings, the ko, yeah. It brought us guys all together, and the pineapple. I think was so great that process of my life connect and what it would mean for me today as we talk.

KK- So, one question since you Paia boy: Renee Silva?

C- Renee Silva, again you know, in Paia it's a big place. Paia means to be kinda fenced in, in Hawaiian, literally. And Paia, the Renee Silva family come from lower Paia, around the coastline is another kanaka lawal'. And he too come from the interconnected cultural families that perpetuated the continuation of our family lifestyles; From Paia, from Naka, from Kuau, from Maliko, and all the way up to Pauwela and all the way up to Waileaku.

KK- Bring his name up, Les, because in observing all these years I've been seeing what you do and what he does; You guys go all the way to Kahoolawe, you guys go all the way to Makena, to Kahlakinau, in terms of your, of your 'ike, your knowledge. And why, humbly born in a small intimate town of Paia, but you guys spread all the way out to those espahua's?

C- Yeah my expansion from Paia, the place that I was 'aina hanau (born) extends now to Honoula, to the South side of Maui because of my daddy being born and raised on that side. His mama-his mama comes from; my grandmother Kikia Kukahiko Awaule is from the 'ohana from Honoula, Makena. That's the Kukahiko 'ohana who marries into this genealogy of Kaaua Mahi from the Big Island.

KK- That never stops!

C- And it comes up on Honoula; and that's how we know Kahoolawe! And this Tutu of mine: one of the, our great-great; our great and great grandmother, and our great grandmother who was married. Her husband, Awoleo, John Awoleo from the Big Island, he contributed the place names of Kahoolawe.

KK- Ahh.

C- Then he turned over his knowledge to David Kawakane, who was a brother to one of my great grandmother's (from the Kukahiko children, from John and Kamaka) who also contributed the names of Kahoolawe, the place names. And that's-we didn't know that. But we knew that we had always attachment until we found out. And my dad was hana'ed by Angus McFee, Angus Ashdown's father. And my aunty-aunty Helen Kuna'o Peter's (George Fieriera, Angus Peters, all my cousins.) she was the home take care, caretaker at the Makena house for the McFee house. And they went ma'ama my dad when he was young and give 'em job, like all over Makena.

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Makena School Report.doc
KK- So was your dad a cowboy?
C- No, he was just a regular person without parents. His parents died early but his
parent, his dad, was a cowboy. And my real name is supposed to be Kulolo’a, with
the "a" and Kulolo’a is an old name but somehow there was a misspelling with the
Kuloloio. It’s supposed to be Kulolo’a: The upright brain of the fish. Yeah, yeah and
so...
KK- So why can’t you gain that name back?
C- Well, I just gotta change it! I gotta change it back to the real way so, yeah I mean, I
gotta go so I’m telling my children, “No forget now. I going leave the “o” but I going
change “e” when you folks change “e” real fast, ok.” So I need to change that
Kulolo’a. Then I found out that, wow, we’re so fortunate to live Hawai’i, and all of us.
Because if we really look into our kupuna’s way of life in the past, we’re going to find
really interesting family stories and how we connect, and this is the process that I always
love: being with family and kupuna. Because we were always told in my generation.
“Just nana and listen.” and no talk nothing, and I hated that because I couldn’t respond!
KK- But now is your time?
C- Now is my time!
KK- You get ‘em.
C- Now I’m responding to the next generation to see that this nana means something very
important. Sometimes the answer don’t come out to you for years and sometimes you
gotta listen and no interrupt; just listen and observe. Sometimes you gain more knowledge
than asking too many questions because your mind supposed to be the fiber but first you
gotta absorb things, yeah? Anyway, that’s where I’m at.
KK- So Les, since you’ll be going, the process that we’re required to take is: Interview,
write up a hard copy and come back to you to show you that everything that we talked
about is accurate (the names, spelling is correct and so forth). So, because you’re not
going to be here and we’re pressed to turn in these reports, this is what I’d like to ask if it
would be one for you. That I go to Leilanaulu and she sign off, giving off permission to
be able to submit this interview.
C- Yeah.
KK- If you remember to tell her that I’m going to do this that would be great but
nevertheless because I’m friends with her I’ll just get back together. So, kalamai for
interrupting your preparation to go on this trip.
C- No, no, I’m all packed, yeah, I’m all packed.
KK- So, because your time is important let me try to focus on some things I’d like to hear
from you, especially in the South side. Do you know of the Makena School? Or do you
know who I can go to ask about it?
C- Yes, yes, I think this is some of the information about I know— that’s been developed
since the early 1945. We had a family reunion in Makena. The John Kamaka Kukuhiko
Ohana. We just had another one just recently. What it’s about is: that many of our
family (which is 10 children), our great tutu’s to the present, to our grand, and till now,
our parents and up to us. We’re looking at five-six and seven generations since the
Po’o; John and Kamaka. Many of our-my dad attended the Makena School. It was close
to where the house called- Aunt Mary Poepoe, who was married to Tutu Chony Awaloa,
A-w-a-t-s-a-a, Anueloa, A-s-w-e-l-e-a (one of my Tutu’s) whose house was connected to
her sister; Kealoha Aina. There was a road just by where the Prince Hotel is, used to go
mauka from the existing Makena Road. Now, in remnants, is the remnants of the King’s
Trail in front of the hotel, right above there where the hotel is. Used to go mauka over
there and the school was in the back of that area. It has changed completely changed.
We know that my dad used to remember the name of his principal and it was Mrs.
Ogily. Okay, and he used to qualify her name in his memory all the time. I guess it’s
po’e haole. Where she live, I don’t know, but he talks about; and he was so proud he at
least attended the Makena School up to fourth grade. And I think that’s when his family,
he was born in 1912; so must have been 1916 that the Makena School was, or around
there, 1918-19 around eight-nine years old.
KK- First World War.
C- Yeah, right after First World War, that he was; yeah 1918 where he was still going at.
And so most of our family in the Kukuhiko were the caretakers of the, at that time: The
Makena Warf, or the Makena Lading, where all the steam boats transit from either to
Lahaina or to Makana to pick up all the people from Makawao, Kula and within the
Honoula area.
KK- And all the pipi, all the supplies.
C- All the supplies would come in there. My mama’s side is also connect with this
Kukuhiko side. Both parents of mine have interesting connecting history to Honoula.
Well, the school that my dad was at was there, and I heard that there was also, please
check with me that I heard that at that time (and Uncle Eddie Chang used to tell us), but
my dad used to tell us about his time, and they remember names. I think if I’m right, it’s
about either Elnmer Carvalho’s father or Hanailib Tavares’ father, we need to do research.
KK- All right.
C- That was part of the after time of the Makena School period. And so, you can
imagine, you gonna look at when the Makena School period was if was time when they
either had: the Raymond Ranch at Ulupalakua, the Rose Ranch, and then came into the
Baldwin Ranch, then now the existing Purdy Ermman Ulupalakua Ranch. So we gonna
check in those periods, when the Ranch was using the Ulupalakua Makena Road, Ok,
which was situated on the Kukuhiko land; one of the properties now has been changed-
sold because of economic and changes in Hawaii.
KK- So Les, one thing I’m confused about is in talking to people still, and some of
the names you just mentioned, they speak of going all the way up to Ulupalakua to go
school.
C- Yes.
KK- If Makana School was there, why they go all the way up there?
C- Yeah, when the Makena School closed down.
KK- Oh, that’s what happened.
C- Then everybody went to Ulupalakua School. Ulupalakua School because it was easier
for all the kids to work under one system. During the pipi of the Ashdown, Angus
McPhee, even up to the 1930’s-25, most of the puniolo in Honoula, Ulupalakua to
Makena to Kaupo was all family related. From the Poopeo’s; from Kaupo; and others;
And all the cowboys, they usually knew each other. The Kanakalawa’s is one group of
ohana that knew each other; that took care of Makai sides, the ocean. Then you get the
mahiai’. The mahiai most of the mahiai was among the families doing the planting
within their lots, in the Honoula. So, the fisherman and farmers usually shared the same
kind of lifestyle. They were both of each. Many of them became roadkeepers and
paniolo.

KK- Oh, that’s what happened.

C- So, many of them got hired by the ranch to help maintain the road section by section
all the way up to Ulupalakua (and might be even Kaepo as far as you know) going
around Kanaio, right around. Everybody had assigned districts. And if you look in
history, many of our tuta’s and other families tuta’s, were road maintenance keepers.

They kept up with keeping the road workable, cleared and in condition so that the horses,
the cart and then the cars were able to go through that in the mid about 1900’s to Makena and to
Maui, yeah. So like anything else, that’s what happened. So, the Makena School. I know
my dad went to the school up to fourth grade and he was proud he graduated fourth grade
at the Makena School.

KK- Did he mention any of his classmates that went there?

C- He went to school at Makena with Buhi, Buhi Lono. And this Lono family, Lono
Kailua, that’s the Robert Kalani’s family.

KK- Is Robert still living?

C- Robert’s still living and their family come down by Pu’uolai, the Big Beach, by Onoli
the black sand beach, uh Kihelie side. Kihelie side of the Pu’uolai and the other side is the
Oneloa, the long beach, Oneloa. They call that Oneloa and this Small Beach; it’s li’i, li’i,
yeah, this side. Then get Onoli after the High Chief; where history talks about, where
the black sand, Kihelie side of Oneloa. That’s where the Kalani family was. Then many of
our tutus stayed down. Like Kawakani he marries into my, one of my aunts–he hanai’s
one of my aunts called the Delima family because they couldn’t have children.

KK- Look, I just went write Delina a little while ago you mentioned it.

C- Yeah, and so the daughter (one of Aunty Caroline and my Uncle Abner Delima) is uh, they
come from the Wilcox family.

KK- No.

C- The Wilcox, Abner Delima, before he died in 1980 around that time, he was- he come
from Kula. That’s all the Kula family.

KK- But the son, the son was the policeman?

C- Uh, Jr., yeah, Jr. Abner Jr.

KK- So is he still living?

C- He’s still living; they’re all in Honolulu, all the kids. But the two daughters; Carol
and Joann is taking care Aunty Caroline Delima and they have a place in Makena, by the
Landing. But they used to own a big piece of property called Big Beach in that area at
the old radio station. So that’s how the family ...

KK- The old radio station?

C- Yeah, that was the old radio station, where the Federal Aviation had to put a radio
station there, to get better communications for the incoming planes coming into south of
Maui down to Kahului Airport. Yeah, so they took it all down. So this is a continue in
places where now all of us cousins, you know, extended from Honolulu and Makena, we
all know each other; we all at my age now.

KK- So Lea, kalaimai, the radio station was located approximately where then?

C- At the existing parking lot of the new State park Makena. They had the first existing
parking lot and they have a new state ...

KK- That Big Beach then, Big Beach, right there?

C- Yeah, people call it Big Beach but the place is Oneloa. Yeah, yeah, yeah, Pu’uolai.
Yeah they keep changing these names around, that’s why we lose our history.

KK- I know, I know, but kupuna and makua need to say that in these kinds of reports
because even Papa Eddie Chang said the same thing. And that’s why when we write up
the report we say clearly: That if you guys going do anything in development, please
consider using the existing names, of those that were passed down.

C- Yeah, and so place names are important; and place names will be important; and it’s
part of our culture. And that’s what I mean, place names is not taught at school. It’s
taught at home. But unfortunately many of our families have moved out and relocated
from within their aupua’a’s that their parents came from, so they lose contacts of all the
history.

KK- So did your dad say anything about how many classmates he had at Makena School?

C- He did.

KK- And from which grades?

C- He did, he did. I believe that Makena School, when he used to talk to me it was just
like–you know in the early 1900’s, I don’t know what 1912 would be, especially in one
hot area.

KK- Right.

C- Who would like to teach school in a hot classroom? Did they teach it in the building;
or did they teach it under the tree; or they teach it under the Klaewe Tree? And how old
was each Klaewe tree? Because when you look at the Klaewe tree, it takes a long time for
those Klaewe trees to grow but they were ma’a and la’i to the hot weather of Makena and you
were talking about Honaunau, red earth. And why did they call it red earth? Because it’s red
hot! That’s why red earth means red hot. It’s not ice and snow down there. Yep, it’s the
Kona side, the koolau is the Hana side but here’s the Kona side, yeah. It’s red earth, so
that’s another life style, completely different from Hana.

KK- So how you think the buildings were made of, regular kind wood?

C- You see, when my dad guys used to talk about going into the a’a or the pahoehoe
during their time, one of their cherished memories was; anybody that came up with, you
know the kind tires, whatever Model-T, Model-A, that whatever the people had. They
would cut the tires up and use ‘em to make rubber slipper. Anything thread, they
couldn’t afford shoes. Everybody walk barefoot and you know, in my family, some of
my family, you can see their pictures when they were young, you can see they were being
dressed like Westerners like people from Massachusetts or Boston with a white shirt. But
that was a missionary attitude, yeah? And they had the kind pants that was so tight, it
didn’t match and we went to the same age group. My brother and I shared the same
shoes. Yeah, so you can imagine all those; the things that sometimes we not telling the
truth, yeah, was hardship. And my dad didn’t have money, he was an orphan, his parent’s
died young, so he stayed with his mother’s sisters (or aunties yeah) tutu’s that took care
of many of them because they were a big family. Yeah a big family taking care of each
other and that is what the great thing about our Kukahiko family was: They knew how to
take care of each other and malama each other. Today we don’t. It’s a different world,
it’s a different economic process but they taught everything that was taught in the family
and that was beautiful. So, my dad was raised like everybody else, yeah? Fish was their
resources. Fishing was their resources and conserving water was their resources. Water
was, when rain, they preserve the water in pa kini’s; in barrels, catching it by dripping
off the roof. When rain they would collect the water. They would drink—they’re the generation that started what I call drinking brackish water. Half salt, half fresh water. Today our generation don’t live on that. We’re damn spoiled. We always like fresh water with chlorine or no chlorine. Those guys drank their water with mosquitoes, and they survived! So something is wrong with values, yeah? And we haven’t even touched about one percent of our own family histories as Hawaiians. We just covering the outskirts without facing total reality because we can talk about it, but what’s wrong with it, is we’re not tasting it. There’s a big difference! Culture is about taste, culture is not about talking. You gotta taste the culture. You gotta drink the water for three, five years to say, “I am a gatherer.” You don’t become a gatherer overnight. Gathering is not inside the brains, the lolo or the lolo. Gathering is you really went through the experience. And either you felt the good and bad’s of the kino. To become culture you got to palu sometime. It’s not about feeling good about the body, you gotta learn how to palu; how to feed the fish with your own na’au, you know, we not learning that. Kalamai. (laughing)

KK- I’m going tell you right now, I’ve interviewed about thirty kupuna, and what my mind is telling me right now, let; by far you are you are getting into what we try to get kupuna to say but they don’t have life experiences like you. So please don’t apologize, just carry on. There’s a couple of things I was going right here that I wanted you to go, continue. But I want to finish on the school first. Anything else you can recall? You gave me the teacher; you gave me a couple of names. If you have anybody else you think might have gone there, I want to go visit.

C- The classmates of my dad is all pau and make. Pau already. That age group, in the seventies and eighties is all, they went...

KK- So how old would dad be?

C- If dad was living some 1912 till now, yeah, my dad would be ninety, ninety-one, ninety-two around there yeah, if he was still living, yeah.

KK- So the family names you gave me I can follow up and they can tell me if they can remember?

C- You can follow up and they can give you that. Also, when the Makena Church was coming up, it’s interesting to see...

KK- Which is Keawala’i?

C- Keawala’i Church, Makena Keawala’i Church. It was so interesting because I think it went through a different names too, the process of 1830 to 1834. But, looking at the church, that church held together the-the sad thing the churches used to be called stations at that time during the missionary period, yeah under what they called the Hawaiian Mission. Today they’re under what you call the United Church of Christ and the Council of Hawaiian Churches. And at one time it was called the Hawaiian Evangelical Council. So, all the politics of Hawaiian Keawala’i Churches, I mean, Hawaiian Churches, meaning churches that belong with the same families of Honolulu, Kahakuloa, Kiehi, Kaupo, Huelo, Paia, Kawaiha’o; all those churches belong to one family like that.

KK- That’s why the Kah’ue’s used to holoholo.

C- They used to holoholo and even their lifestyle was. They either went by horse or they walk feet yeah, or they delivered services once a month. But their spirituality kept the families together.

KK- Your making mention again this Makena School was a public school because...

C- It was a public school.

KK- Normally it’s parochial through all of this.

C- Yeah at that time, how come it didn’t come out? And so I guess during the territory they must have turned it over to a public school. But you gotta remember why it became a public school because it was run by the influence of the ranch owners. And it was to develop the beginning era of setting up a community base within an already established ahupua’a. No forget the ahupua’a is already set up but this Western approach was coming inside, turning trails into vehicular use into pipo roads, for the cattle, which all one trail ahalele into vehicular pedestrian and now we call it alien highways. And, but the ahupua’a system was still there before Western influence. And so we had our own ritual places. They had the churches just put along side the Kings Trail. Auwe. Look at all our heian’s and fishing ko’a was all along this trails, this aluanai that circles Maui moku.

KK- Can you name some in the area we’re talking about, in the South?

C- Yeah, I mean when you entered into the early sixties when Wailea began to become speculation under Governor Ariyoshi’s time, that is when the 701, the 701 journal plan, remember started to become the green belt law and all that started to take place in the early sixties. Then came the State of Hawaii. Remember 1960-1939 we just came statehood. Duh! We was a territory now to transpecse this new system into State. You can imagine the confusion of my Hawaiian family at Mackena or in Hana or in Kaupo not know the fast transition? Can you imagine today, as we talk, the fast transition can you imagine them at that time? What happened since then and till now is less than hundred years. It’s a big transition and so now we’re a State, we had to develop our consciousness under a palapala that’s very foreign to us. Foreign to my dad, even then my dad during that time didn’t have birth certificates. Some of them never go through immigration and naturalization laws to start having them registered under a new system. Everything was all in the Mo’olelo, Mo’okulehu. Am I making sense? Moookulehu, the mana of that Moookulehu cause the mau is to olole, is to olole of who you are. My name is boon, from the tuition’s to back, orally. And you know what was destroyed? It destroyed the living life of memory of our people. They took away the consciousness and subconsciousness of the use of memory. When we started to forget how to, how to do the chants and memorizing, we lost our culture. Everything is all written and we still losing ‘em. But that time was all, that was part of their pa’a in their head, you know why you get ‘em in the head we become masters. Today everything we become convenience and we are lazy! We are completely lazy, and that’s the challenge. And the new generation going get more lazy. You know why, they’re not lazy, they’re confused.

KK- Unless we do something about it.

C- There you go. Unless we do something.

KK- You and me and that’s why the ahu’s taught us how.

C- And the story is so important, the mo’olelo is so important. The mo’olelo is so important.

KK- Number one.

C- It’s not in the schools.

KK- Nope.

C- They’re masters from home, the knowledge come from the ohana itself. That’s why from Mackena to Keawakapu to Palawe to Palai to Kahele to Kalua to Lapunze to all
the way down to Kanaka right around all to Na’u to Hawaiian Homes. We’re here to Kango. All these families know each place and that’s where we had the knowledge. We had the knowledge from the families living at the hundred, yards away. It’s different.

KK- So, did each of the ahpura’a’s put out their own heiau?
C- Each of the ahpura’a was based one the influence of paau.

KK- Okay.
C- Of koaoli and but it was based on the fishing lifestyle. Yeah, and it took years for the mahi to go up there and say okay how do we connect up there. But most of our mahiai people, people of the mountain, were fisherman. They just went extend their makakakai. I tell you what is fishermen, kanakalawai’awai because on the boats, when they’re on the ocean and when they look back to this ain’a, like voyagers, they’re better than Captain Cook and Columbus. They’re better. When they look at the ain’a they look one time, that’s why the term “nana” their minds were photogenic. Just like digital man, X-rays. Who else can have a digital photogenic mind when you’re in the ocean and you know what land put to look like? But guess who knows the land when they can see this redness of this goddess Pele. You know Pele wasn’t a person that they was afraid of. Yeah, you know, Pele was a person of knowledge to them and Pele represented the elements. That’s all they did, our Kupuna know that. Yeah, you know what I mean, we’re changing the story. That’s what I mean, our culture had no fear about the elements. Yeah, Keli’i? They had no fear. And as navigator of the ocean, who do you think has more fear? People of the ocean or people of the land? What is our problem today, is fear, why? Because they forgot how to become our real identity; the people. Papaiac Ohana, meaning people of the family sea, you know people of the sea. We are people of the sea first, yeah. Before we can come people of the aina and that’s why we’re caught into the aina, but you know the word hoodwink? You know when you stand up and the wind is out of you? The wa’a rock and roll and when you go on vacation, in your six months to one year out there in the ocean, I tell you what, you become the most knowledgeable person. Why? You know how to work with all the imbalances of life. The nalu, the wave going to huki you. You know nalu means tidal wave, the power, nalu itself, meaning force that can change your whole life. And they learned about fear in the ocean. And they learned how to lose each other in the ocean and continue their goal.

Today, we’re on land and we’re just being the opposite! We don’t know how to be in balance. We learn how to fall down on flat land, we’re not supposed to get hurt on land. That’s the concept of old Hawaiian teaching, yeah. We don’t know how to make use, to be balanced on land. We take ‘em in the ocean, what happen? They pala, fisherman’s all pala. That’s what’s happening, we don’t teach our kids how to pala, to see their gut in the kapa’o, the hands. And to case ‘em if they gotta. Don’t be afraid about life. No go teach aloha, no go teach ho’okulule. That’s not the kind words we got to teach. We gotta teach what is pala, like the fish. We’re making them more afraid when we’re teach good words. Real fisherman dive, dive deep, and what they tell you? “Papa, I went deep enough.” “Go dive again.” They make you dive until you really went dive or you come up you drink so much salt water and they tell you tomorrow we start again.

KK- I got a question for you.
C- Don’t bite me. (laughing)

KK- No, no Lea, let me tell you. I’ve been an educator all my life. What you are presenting is beyond anything I’ve heard from the Kupuna. I’ve heard some brilliant people but what you’re presenting, my niunau, my question is would you ever consider presenting in a class format different subject areas as deeply committed as you just doing now to me? The value of this is priceless, priceless. No but, see some people get book learning but you are sharing with me the depth of what your kupuna had passed on to you and now it’s your chance to ololo rather than nana. And what you are passing on to me, I am sad I don’t have a video camera going right now but I have this going which is not enough. So, so when you go to your, think about this and when you come back we ololo again and, um, if you would consider I could easily; cause you know I teach at MCC but I can set up a specific class for you to come talk about the different element that you’re talking about. So, that’s another subject, but let’s get back to this.

C- Yeah, get back to this, yeah thank you.

KK- Okay, so I think, if anything else comes out about Makena School you’re telling me no but let’s move on to other things.

C- Yeah, keep on going.

KK- Okay, so you talk about fishing in Makena; can you give me some ideas of the kind of fishing you guys did, what kind of fish you caught, where did you catch ‘em?

C- Get, before we learned fishing, before we learned fishing, the little things gotta be learned first. And before we leave home, the hale, the kuhuhome, as the young chubs. You know the ohua is the small manini, the stage. When we become ohua, we going jump, we just like passengers as keiki, as olo. Meaning, and little bit kauna to it, this ohua fish begin to go through their own process; and what the ohua does, every fish has his own process. And knowledge is so, what we’re missing in Hawaii is we wake up, we rush through the whole day, and the last thing we do is we go sleep. But if one would say okay to every child, “What did you do Tuesday, three weeks ago on this date? Do you remember?” And the child would say, “Ah.” He would take about three hours trying to figure out what he did. The process before you become a fisherman is when you wake up in the morning, or when you go sleep, before you go alert, who’s they alerting? You know something going happen to you because you’re tutu going say, “Goodnight, go moemoem early. Wake up early, we going holoholo.” What does that do? It puts you on alert. That’s what we don’t learn. It puts you on alert, spiritually, mentally, physically, and everything that deals with you because we all different but it puts you on alert. And you know what the alert is? Something new going to happen tomorrow, why tutu told me get ready. They don’t teach that anymore to develop all your feelings, your mana, your conscious and subconscious mind, your aumakua inside you begins to wake up. I don’t know your aumakua but that’s how they tell you alert, who’s they alerting? You, nobody else, everybody going be sleeping and the one going wake up, that’s the one going. The one wake up late, that’s the one going be the mola one’s and the tutu going know that. Does that sound very familiar? And going take them years for catch up! So you gotta watch out which one was the mola, get plenty mola guys telling moeilo stories but they’re on the mola classification. Talk is easy. You can read literature and teach but talk is easy, why? Because they never taste ‘em yet. So, when you wake up, you go and get you’re, “Okay boy, remember where we’re going. Where we going? We going down Kanahena.” My mind says, “Do you know Kanahena?” Yes, we’re going where? Kalakokanahena, by the point, or the hikihikoalai, the corner of Kanahena? You know Hawaiian’s they go either the point or the corner or the papa, real simple. Yeah and they’re very specific because they know where you going or where you going start from.
That's what Kumu is all about, give it a point of start, so then when I tell you, "Hey shoot for the point!" You carry your upena, you running with the net, to the going, then they would tell you shoot for the corner. Shoot for the point, yeah. And they gotta identify name all the place names. All our culture, all our people, gotta learn the place names of all their nokuhaau and it's so hard. You know why? It's going to be people like me that took advantage. When I seen my momma guys teaching me, I seen all the luau's that was taught to me, I took advantage. I said, "Oh how interesting." Now I turn around, I'm one of the few families on Maui that know place names. But you try look the ones in Hana, they know! Why? They la'a, ma'a, now they pa'a with the mo'olele. And the one's not ma'a they go, "Oh yeah, anybody come from Hana?" They all raise their hand. "And what place you going?" They no raise their hand. You can tell, you can tell who ma'a and who la'a and where the hopa'a. You know as fishermen, it's the right people, why? You know why I like fisherman? They know the taste of the ocean. You know, ocean talk is completely different from aina talk. I hope I'm making sense, it's so deep, the way we; it's like poetry. Yeah, and that's what we lose sometimes. Sometimes I look at the garden guys just looking like this. Papa, Lewalewa, Uncle Abner, "Boy we going holo holo." OK, I do 'em with Lewalewa, Kaina Lono from the Lono family. I dove with Steven Kapoa, Kimo. I dove with Akina family. I dove with Akina guys, Akina guys bought their boat, still Makena landing for akul. They asked permission to our Kupuna from Makena to go around the malahini the kama'aina inside the bay. They no come naheau, and when they come all us kids go help go take out all the fish. And when they grab the fish, what the hand get five fingers but they slide four akul tails and throw, four throw, here four for you, throw. You know fast! Today we count, one, two, three, four, before you no count the hand count itself. Without thinking the hand is automatic, grab four tails and throw eight. No need think! Today we get hard think four, eight equals thirty two. It was natural, that was a part of, and it's not practicing. I hate the word practice. It's, it was very traditional, the word "ma'a" it's better than practice. Ma'a is, you really familiarize yourself, I like the word ma'a. Who ma'a, who moko? You ma'a, they going pick the one ma'a, all the opio and the mo'olele the ma'a the place. That's the one you like with burn by you going make! You going make if you no go with the one ma'a the place. (laughing) Don't mind me, I'm just talking.

KK- No, no, but my question to you is you think Leinaala can repeat everything you're telling me?

C- At this point, no. Honestly, I'm still telling them slow, by pieces, my mana'o. Because families, you know, what we learn as individuals in our families; you can write it down, you can share it, but every time you say it again, you know something, it turns out more once. More momona. You know what I mean? I don't know it's such a vibration when you hold everything back it's like one new kilaua stay passing all over again, yeah.

KK- What I'm thinking is, when she going read this part she going get, "Oh my goah, my dad said this, my dad did that!" She going open her maka'a.

C- Yeah, she going open her maka'a and yet she will know, and I know what word she going say. She going say, "That's my dad." That's the things that represent their grandma, their grandpa. They never live too long with my father but they would understand how, what I represent would be represent my parents, the mana from them. My children will say, "Woa, dad is talking the same thing like grandma." So that's the connection, I would say, that they would appreciate. Every ololo I would be shane, the mo'olelo, they would say, "That's my dad; he's telling it how it is." And that's what she's getting a hard time in school's because she's in a different criteria. Even if it's under immersion they're still teaching with a different criteria because those things supposed to be taught at home, not in the classroom. But anyway, that's...

KK- So, is it fresh in your mind if we go to ahupu'a or different districts down from Makena all the way to Kahikini of the type of fishing you, type of fish you used to catch, in the different names that you made mention? Is it still clear like you went?

C- Yeah, the lifestyle of a fisherman as I look back and I'm trying to remember was a; as Hawaiian's we were never limited. We need to understand the process of what we call Kapu because sometimes we default our own minds from vibrating the word kapu too much that limit's ourselves from becoming navigators. In us, the deep DNA in us, were always adventurous. And we were always looking for the things, we're looking for the mo'olelo that is still creating. The world has never stopped creating. So once we limit our people and start putting kapu's on, the kapu was for us to protect it's abundance. Was never to stop prosperity, but it's to use things wisely until politics came in, many of our all it's, I think, took advantage about Western way of using the authority. In other word, I'm in charge, I rule. No, it was always the ohana, the maka'aaina that put you up there and put you back down here if you no malama as konohiki. And there's a lot of Konohiki's that didn't deserve to be up there, even till today. Our politics, our system, has konohiki's. They don't belong there since the overthrow of this government. So, we're going through a lot of prejudice's, English way, but the part is the knowledge of what I just started to explain is to understand this process about maka'a from the top to the bottom Hawaiian's, they no look at things halfway, our kupuna no think small. The look, when they look at something, you know where they look for, Ko'i? They look from the starts to beyond the horizon, that's where their mind is. You know who get unlimited minds? The kind small thinkers, the kind only sit down and no think. Yeah, to become a navigator you gotta go beyond your own mind, yeah, so that you can escape the fear of maka'a. Making sense?

KK- Clear.

C- Yeah because if you makau, you get small mind. If you not maka'u then you really become one, the next title in charge. You can run the people, you can be in charge. Give me a leader who not afraid. The one with knowledge and knowledge is not limited.

KK- So here's my question; did you go to college?

C- No, everything I learned is all from the ocean. But all my principles and values and teaching is all from the ocean.

KK- You encouraged your children to all go to college?

C- I did because you know why? I needed them to compete with today's lifestyle. But now as I see them in the philosophy of the home teaches slowly by slowly, I can see them once and a while they go out to school. But when they coming back, there's something deep inside them. You know what haties call DNA, you know what we call that? Mo'olelo spirituality, amauta. That's what is DNA, no need go DNA science. We are Hawaiian inside! Hawaiian is astrology, Hawaiian is archaeology, Hawaiian is a whole gamut of elements and nature. Oh, it's so clear, it's so clear. Yeah, we're limiting ourselves. It's so clear, it's so clear.
KK: I hear you. I hear you. How are we going to bring our people to that understanding?

C: We gotta get a way to bring that understanding is, you gotta get schools that is willing to cut the kaka out. In other words, how to use the principles of our understanding of what is lolo and what is lolo. We need to even go to the principles about this is what we’re going to do. We gotta start from the time of birth. We gotta bring our family to celebrate, when papa guys give birth, the whole family go there watching the keiki coming out, watching that process. You know why? Everyone in the family gotta learn how to deliver a baby. The master of the mind, you know the kahu. Kahu is and expansion. Kahu is not a segment of knowledge, you know. When you kahu now things of many things, yeah I’m taking the Japanese little dipper. Yeah the kahu now means only by looking my mind already going. Not here in Hawaii, but I see the whole world. It’s so clear, you can see this hanau, this baby, aina hanau, coming down. And then, “Oh, you grab ‘em! What! Grab ‘em? Why? That’s the hau.” And when you grab the baby and you look all the coco, all the blood flowing inside your hand looking this you go, “Wow! This is life, this has nothing to do about fear.” How we bring fear inside? Hawaiian’s had no fear. I going be honest with you. Now I going close one. We can learn culture, we can do this, it took me years to understand who is akua and who is nauamauka and who is the nauamauka. I can learn it, I can say it, but do I want to do the dip into manaa’u. Right, because somebody went teach me fear of that nauamauka. That that nauamauka do wrong, you die, you sinful. Hawaiian’s had no such thing as sinful, let’s get it straight, pau. If the nauamauka from the kaulua, from the Biblical time people from Europe in Bethlehem but in Hawaii, in the ocean, our nauamauka was already established with the stars, with the universe, things of dark never make us afraid. Dark is light to us. Somebody said dark is Kanaaloa. They turn even our gods into Satan. That’s their Satan, it was political, by the pharaoh’s. Even our king started to do that but when you look at these old burial that I’m beginning to see in my own. Not one between zero to six hundred years perhaps the time frame, thousand years ago. Guess what they don’t have? They don’t have not one weapon inside there, the Indian’s got it. And five hundred years time you see ‘em in the case with their spear, but guess what, you look at the old burial, no more not one spear, they were abundant people and our kupuna was people of prosperity. The whole Honolulu, from Nuuanu Stream, I going be honest with you, to Kakaako, to Honolulu Harbor, that was all the fisheries of Hawaii. They had all the fish there. Right down in downtown Honolulu to Kakaako, they covered it up. The alawai went up even to the fisheries of Kualoa, they went change ‘em to Pearl Harbor, Koal, Runkus, Honolulu. That’s all the names from the missionary. But you go before Pa’a’s time, Papa T’s map, what Honolulu was called? Kualoa, the sea of Kualoa and not because of the sea, the ocean, it was the red’s, the aaloa of the fish houses. And they went cover all this lono in Honolulu, they call that junkie sand they cover this sand all the way up to the reef’s and now outside the reef’s is it’s called Honolulu Harbor. They’ve been covered and all the people from Kakaako, guess where they went move ‘em? Guess where, in Honolulu history? And when I found that out, I got pissed off. They went move all the fishery people up to what they call Aloha to Papakolea. They went remove all the people from Kakaako. Yeah, so Makena is the same thing. They’re removing an alupua’s estate, of what I consider, the lifestyle of a place that was so, not easy to live down there. It was hot! Right now everybody go there, now it’s changed, right? Because you know why Makena has changed, Honomua is changing real fast! Because why? Give me a place where I can relax from the pressure of banned and muscle beach Santa Monica. So as one Hawaiian, as I see this process, I tell my children, you know daddy going have to tell you folks how I feel now. Because I tried the other way and I thought we had hope but now I gotta try again because that way never work and it ain’t going to work. And you know where going to work, children, I talk to my child; Mammy, Ala, and Kekani and my mo’opuna. And hopefully they can understand. I said, “Why, we gotta do the changes ourselves. Just take care this property up in Poe’s and take care that part, and take care of it boy and work ‘em on the property.” The alupua’s is your own home and no let everything come inside and change you. That’s your alupua’s.” The new beginning of the alupua’s gotta be at home because what they make this place, the ahu, you know, the building, you know, we gotta ahu our own selves and we gotta deal upon our own lifestyle here. Every family goto malama that so that my mo’opuna going teach the same thing for the next generation. Ahu is not this generation then cut, then wait another hundred for the next generation to catch up. Ahu means the continuous building, passing on of the best values that you can give. The best because things going change eventually.

KK: So, as you share that, as I shared with you, our goal is to try to connect from Maui Tech Park to Wailuku to Makena and put in all these historical places, plus the lifestyles, plus the culture. What is, how do you see the connection? How do you see what was there that we could malama? In the Tech Park area as an example, that’s where they proposing to build a hospital.

C: Okay, but let me say this about philosophical and philosophy and mana’o. Mana’o about what is there today, for example this place. Let’s say from Kihei to Makena, we just concentrate on that. Halfway Mauka, all the way Makai, just one spot over there. You can ask me the question now, and connect me and lead me back if I go astray, because this one is the most important questions. You asking me the question, how do I feel? Now I going ask the question right back to you. Sometimes we think we heard the question but now I going ask you Kumu; what is the question?

KK: The question is, from your life’s knowledge or from your kupuna sharing the areas that you and I are talking about, what is there that we can point out to the developers that will assist them in their decision on using the land that they have purchased? Because now they need to address what we are doing, cultural assessment, and they need to get approved, approval from the Land Commissioners of Maui. And if there is something very valuable, just focusing on that new hospital they want to build, at the place they want to build it, then by Kupuna’s telling us and us submitting these reports, they might make a change of what they’re looking at.

C: Okay, let me share this with you. The question you ask is a question that will, that cannot be answered by anyone of cultural. The question you just asked me. Because why? Because in order for culture to exist, the best we know how, our Hawaiian culture, or traditional culture, or Polynesian culture, whatever culture we’re talking about, was under a system that was completely different from any outside influence for the people of that time. It’s so clear. You only can put 20 people on one wa’a. You cannot overload the wa’a. And this only the concepts about the sailing wa’a, where we came from, you only can put twenty people in order for that wa’a to reach it’s goal; three thousand miles.
We hope it reaches three thousand miles with the same twenty on top. The voyage is long, nasty, dangerous and full of experience. The question you asked doesn’t fit.

KK - Your analogy right there answers the question.

C - It doesn’t fit. It’s a definition beyond the scope for me to even answer your question. It doesn’t fit. It’s not about a new hospital, it’s not about the high technology, what culture is, is about; can my mo’opuna enter into these places and go, “Little kid, you don’t belong here, you belong out there.” That’s what’s going to happen to mo’opuna when they walk on their ho’omalae into these places. Before he and she’s still kicking his hum because it doesn’t fit.

KK - So isn’t it a good question for us of light kind and light thinking to really hui together, to come with answer’s and mana.

C - As people, yeah; as families, yeah; as community, no, at the present. Because this is where we always get knock off the coconut tree, the na’u. Everybody get coconut at one time. Today, it’s all convenience. So who eats coconut and who eats fish, it’s a completely different ahupua’a. Too much distraction and there’s too much choices and the choices have to be to start with our family. It will be most, most, most, most what you call, ho’ola full of life, yeah, most vibrating it, if we can start within our families. Yeah, because health and everything else starts from home, yeah. If you get good health at home and with your own family inside and you malama from the beginning, you no need this or those services. That’s outside of our realm because it’s another generation, it’s a different lifestyle, and the things they teaching you is a different category. It’s not about spirituality in the home because life and bale ola place of healing, place of hospital, place of ho’oponopono, healing, whatever it is, ah, I would rather try to continue the, to assess and get the freedom of assessment for it’s chana to understand the process of their individuality first rather than caroling outside of the circle first. They gotta develop what’s in the circle first, inside their na’au. Because if they don’t develop what they see themselves, what’s in the na’au, they gotta get the picture of what’s in their na’au, if they don’t see their na’au inside, then everything else is outside the picture. They’re just picture and they no understand. It’s a service but that service is not the people. It’s a different spiritual, philosophical, economic, ahupua’a that doesn’t fit with our people. Because our people keep going back to the same thing; what is my DNA? What is my umakua? Before that hospital come, we gotta be sure that we understand what umakua is about. We gotta go back and grind the same question again because every time we come, some, “Ok, pule kakou.” Some of our own people will kneel. Some of our people feel uncomfortable when they pray. Some of our people will say, “I won’t pray until I know who’s saying the prayer.” Oh my God, some people say, “Oh I don’t like that person, I better go from before.” I mean we get all these obstacles that is within us that need to be ma’awith. So we need to find out and talk about it because if we don’t, we’re way out of the circle. All these other things about teaching people outside of our circle, won’t mean a damn thing. It would just mean, what you call in science word call, ethnographical studies for their good, for the political process to make things happen under the cultural program. Not our county, state and federal systems doesn’t allow us to implement and their ahupua’a is not our ahupua’a, in the ocean as well as on the land.

(Laughing)

KK - At the conference, this has nothing to do with what I’m interviewing you about. What was the most impressive things that you came away with? Who or what? What are you excited about, looking forward to, to going back to? If you can connect to what we’re talking about, it’s great, but not that important. I just want to hear from your ma’a.

C - I think what we can get out of the conference is; the twenty-first century, with all what we’ve learned in periods of time and change, from zero to six hundred, eight hundred, fourteen, eleven hundred all the way up to all the different periods. Whatever, all the way down till now. I think we better start reassessing and reevaluating. Might be three classifications of choices of classes of, for our people to make choices to what classes they want to belong to. Why I’m picking three is; one is to continue taking care their families, that’s all, their main purpose. Find their purpose and objective, get married or going get some that just want to be single. That’s one classification. The other classification would be those who would like to participate in becoming a part of society and leadership. That’s another classification, meaning the Hawaii now. Forget the culture because we’re all limited in time and assets. Our lives are short. That’s okay, your choice. The fourth is; Do we really see if culture is going to mean anything in the future, at all. Where do our own experience have we seen culture improve a lot? Or just been pushed on the side if or anything have we reevaluated or made a summary of what “culture” really means anything. Or is it in the next phase, the fourth phase is; Is culture supposed to be totally read in the books? It’s not that easy to, to walk through the process like that when my mind is going through because it’s very painful to think that kind stuff. And so I’m sharing this, what is reality, or do I just stick with, every family gotta stick to their own family as grandparents as parents, yeah, or as friends to come, to start beginning their families to grab as much as they can to carry on their own traditions. Instead of getting caught outside there and get hard time for, you know, once you distract, yeah, I told my children I hope that you folks don’t get distracted, now you folks gotta work it as soon as possible, now we got time. And you folks been doing it, so enjoy this place in Paumua, when you been home, enjoy it now because pretty soon you folks going be the petitioners, you folks are the traditions, or you folks are the kanaka maoli for this place that was passed on. And if I going to be telling, oh, let’s go teach outside there, then my energy is going to be spent outside there when I rather spend ‘em right now, inside my family, right now. Because if I don’t hold, you know, house the word household, old biblical time, holding the house together which is ohana, yeah. When you hold your ohana together you no need one net, you need the help of the elements around you to keep you inside. You need the elements of nature and our kupuna was so sharp, they called all the umakua’i’s of nature to protect my family. No bring me energy fromsm outside. Because we knew how to deal with immortality and mortality, we knew how to deal with the spirit, how to huki, how to play with the unih pili. We knew that kind stuff. No go say, “Oh Jesus Christ, thank you God, Lord and Savior. I’m waiting for judgment day.” That is too fricken late. That is too late. You wait for that kind now you too late! You gotta practice from home already and teach your kids already so that they can build up when they come old, they can build up. And that’s what’s keeping us apart, we’re fighting each other’s spirituality. It was easier before because everybody understood before the influence of power, before the influence of Westerners, before they were living in a place of peace, not distraction. They was living in a place of sharing, not the kind, I get more than you. They was living in a place where all we had open space, not the kind, "oh ladies and gentlemen the Department of Parks and Land Use Commission now is considering this place as low income housing or affordable housing
or open space." Bullsh** that's not ahuapua'a. The ahuapua'a was trust. Do we trust when one guy right next to me have walls up? Trust with security is protecting their technology, where you want me to split my spirit up, five ways? I cannot share the story. For us might be but I going teach, the master student's inside my house first so that they can cope what's outside there. Before they walk outside and put that slipper on, "When you leave this house, no forget now, you out in the world. This is a different place, Hawaii's not like before." That's knowledge of the ahuapua'a. Ahuapua'a means what's happening to the ahu out there. Everybody building things, that's what ahuapua'a means. Who's building out there? Am I connected out there? That was the principles of the old ahuapua'a, whether I'm willing to go from here this hale, outside there. Can I go swim with the family? The family no like I go swim nowadays with you, yeah. But whoever went draw that picture for us, Makua, Makai and everything else, you do good, it looks like a principle that perhaps would have worked. But do apply that today? The laws no help me as a fisherman. I give up my chance, "oh, okay fisherman, Kanaena, that's a reserve, as fisher." Eh, man you go there you look all the tourists swimming with the fish. Duh! Molokini, duh! Kanakalawai'a, give up, yeah we know how Hawaiian's can give up. We know what is Kapu, we know what to share. Duh! Our lolo becomes lolo now because we're accepting something that the lolo is not agreeable to us. And the brains, the mind, you know the mana'o, the mind, Hawaiian style mind was never a mind to think what our mana'o was in some perspective. It was to filter knowledge first. And you ask the aumakua and all this knowledge and experiences happen, you ask the aumakua's go search and pick up the best, he pulls it out. He pulls nothing but the best, not *** confusion, he pulls it right out, he pick the best. It's to filter, this. That's why we get all ** up. Kalama'i the words, but I gotta say the words. I gotta go where mana'o is right now and goa; we're special, that's how we can be kahuku's of the land if we not kahu's of the land and we're thinking the easy way out.

KK- So your trip to Europe, as soon as I heard that, I told myself, the world is calling for us Kanakamalo's? But what about home, is what my na'auau is telling me. Like my, my affiliation with a foreign land is Japan, I'm always there. They always want to, you know, they want to, you and me, asıp, as practitioners, as those who have been a lot from Kupuna and from school; what is our kulaena outside of ohana? Is there anything else? Ohana is the extent of it? C- I think, I think, for me what a world is, if my life be granted a continuous voyage; meaning if my canoe can sail on the murky water's of progress, or the clear maloa water's of kualalim water's of progress, yeah, in Hawaii. If my canoe continues to float or sail, I would like to have my children, my grandchildren get outside of what I call the Hawaii circle in part of their processes. I don't want them to stay minimized. I want them to see the world of what it is bigger than just being an islander. But I don't want them to give up being an islander, the place called ku'uholo. Got it? That's first. But what I want them to have an experience outside so that they can see the world and the big picture, yeah. So when I go outside, if I want to find out what's happening outside so that I know and I can look back inside from the outside looking back inside, yeah. Because all these years I've been staying too long on the inside, yeah, and when I stay long in the inside, we as kupa, this is what took me to bring my mana'o. You know the term kupa, it's a matter of use, yeah. And it's a matter of definition that is so, so broad and yet so simple that kupa whenever says are you kupa, the words for kupuna is personal something I think is personal sometimes, that we've taken it beyond the scope of our own families. And sometimes we haven't even had a hard time using the word kupuna among our own selves yeah, because we use the word, "Oh my Kupuna this, my Kupuna that." But really we don't know our own Kupuna, we didn't know them at all. We know them by their presence but not actually the teaching, many of us. Because when you look at the number of minutes and hours and days and months and time in our lives, hardly they spend time with us. So, we're using that sometimes as a camouflage. As a title because we ourselves really didn't understand what Kupuna is about. So we kinda buffer that as a protected comfort zone, as kumu's, as teachers, and so forth. I try not to use the word Kupuna in my personal processes, I try use sometimes as clear as possible the reality of who taught me, and right now I think I gotta go with, what my father taught me so much and my mom taught me a lot. And then everyone in my family taught each other so I try to separate and try to summarize each one of them, yeah. And I think Kupuna means what did I get from the total circle of knowledge, not from the elders but from the functioning and the process while I was going through all these new experiences, yeah. And my Kupuna never go through what I'm going through so I gotta be real. And many of my Kupuna went through their process but they're not me. We need to separate that now, we need to be really clear about who are we and how we going to find ourselves to deal with the tomorrows, each and every one of us, and how we would like to dedicate ourselves in the work that you and I, we're trying to find definition to. Where do we fit? Are we Kupuna looking back? Do we start a program to help them see better? I think you and I been trying that, many of us on Mani, but I know some Kupuna that don't, that didn't even begin yet. And yet they're sitting in the circles of the kupa because they're totally confused. They're just sitting around and just joining, it's not time for lei making, it's more than that. It's not just time for just talk story about me, me, I'm talking about what can you share about, be real. If you can. Can. If you cannot, then don't say it, you're wasting our time, you're wasting that time. And so we need to take the challenges of having kupuna come forward and say, "Can't do that." Is that respectful? Is that reverent to the kupa? I don't know but we need to reach one line where something, we need to go there without being afraid. Yeah? And everybody going say, "You know what, I think kahuku is right." That's what this conference meant to me. Is this what the conference trying to do? I think so. It separates me from my activist hat, from my community hat, something close that I feel comfortable with which is the sea, the ocean. I feel comfortable, whether this going to be the process to kihela make a difference or to make a new charge in this change in Hawaii. The twenty first century going to the twenty second century, I don't know, I really don't know but I hope that if we can come up with something that going to be put together that can show wow, at least there was a start where people can look back for reference. Whatever the reference is, whatever the indexes is, whatever mo'olelo, oral documentation, history or whatever it is. I like it to go to, it should to go our immersion schools. Pa'a. It should be held information very comfortable, not to the whole world yet. Our immersion schools should be the first one's to see it at a very young age and let them listen to the tapes and conversations, but edit the best. Because you know, even when we edit conferences, we just trying to pick the best, but it's all depending who's doing the editing. But how you going edit the listener? The young opin.
KK- The report that you received, was it pretty well written? Or just everything, good and bad.

C- I think Kitty was coming forward as one of the, you know the one who wants to be thankful about her participation in this conference. I'm not sure, I'm not sure yet. I see the resolution but the resolution is not that clear yet. I don't think so. I thought that, I could see that the resolution needed to get more clear. And when I say more clear, it has to be more simple so that everybody can agree at least one or three thoughts and pick the best words rather than make whereas, whereas, whereas and confuse the whole thing. Just pick simple thoughts. "Hello, this is what we had think, this is what we believe in, Mahalo, out." No more all this other stuff and I think if we can develop that in this resolution, I think it will be okay to begin. Because this resolution is just the beginning, it shouldn't be the summary of a political statement. It has to be a resolve of pulling us together at the kanaka, at the conference. I think that's what the resolution is supposed to be and I think it's in the right track but I was looking at it; I need to read it again, going take me two, three more days. I just got it yesterday. I just came home and seen 'em in the mail so I need to review it again. But I think that should be part of the process that, you know we all work with different process' and I need to read sometime take me three four, five, six, twenty times.
FINAL ARCHAEOLOGICAL PRESERVATION PLAN
FINAL ARCHAEOLOGICAL PRESERVATION PLAN
FOR SITES 50-50-14-6371, 6373, 6374 Feature 1, 6377-6379
LOCATED AT PARCEL H-2
TMK: 2-1-05: 85 and 108 Pors
MALUAKA AHUPUA'A
MAKAWAO DISTRICT
ISLAND OF MAUI

FOR: Makana Lands LLC,

BY: Lisa J. Rotunno-Hazuka (B.A.)
  Jeffrey Pantaleo (M.A.)

NOVEMBER 2008
REVISED APRIL 2009
REVISED JULY 2009

ARCHAEOLOGICAL SERVICES HAWAII, LLC
1930 A Vineyard Street
Wailuku, HI 96793

"Protecting, Preserving, Interpreting the Past, While Planning the Future"

INTRODUCTION
Under contract to Mr. Don Fujimoto of Keuka LLC, and per recommendations by Archaeological Services Hawaii, LLC (ASH) and the State Historic Preservation Division-SHPD (Doc. No.0807 PC37), ASH prepared a Preservation Plan for six historic properties comprised of twenty-two features located within TMK 2-1-05: 85 and 108 pars, Maluaka ahupua'a, Makawao District, Island of Maui (Figures 1 and 2). The sites have been designated State Inventory of Historic Places (SIHP) 50-50-14-6371, 6373, 6374, 6377-6379 and consist of pre-Contact agricultural and habitation features. The plan was submitted to SHPD on 15 April 2009 and reviewed on 17 June 2009, where several revisions were requested (0906PC32). This revised Preservation Plan addresses the comments by SHPD and is being submitted for review and approval.

In 2008 and Archaeological Inventory Survey (AIS) was performed by ASH in consultation with Aki Shiono Consulting (ASC). A total of eight site complexes, Sites 50-50-14-6371, 6374 and 6376-6379, comprised of 59 features were identified and five (6371, 6373, 6377-6379) were recommended for permanent preservation (Figure 3). The State Historic Preservation Division concurred with these AIS recommendations; however, they also inquired whether data recovery and/or preservation of Site 6376 was warranted. Site 6376 is a modified outcrop that was extensively tested during the AIS. It is very similar to Site 6379, however Site 6379 was a better example of this site type and appeared to be an older feature (radiocarbon results). Thus, Site 6379 was recommended for preservation and no further work was warranted at Site 6376. A draft Preservation Plan was submitted in November to SHPD for review. During the public review comment period of the draft plan, two letters were received by SHPD from the public requesting preservation of Site 6374 Feature 1. Feature 1 is a boundary wall situated along the eastern property line of parcel 85. The purpose of the request for preservation was that Feature 1 was believed to be a portion of the former Aupuni (Government) wall built in the 1800’s. After considerable research was conducted, and the request for preservation discussed with the landowner, the client has elected to re-design portions of the proposed development and preserve sections of Feature 1 (for more details see Discussion of Site 6374). Thus, six sites will be preserved within the proposed development.

The six preserved historic properties are located in the northeast (Sites 6371 and 6377), southeast (Site 6378) and central portions (Sites 6373 and 6379) of the 21.0-acre project area and will be preserved through conservation (avoidance and protection) and interpretation (Figure 4). All sites,
except for Site 6374, will be protected by a 30 ft. buffer zone delineated by a low rock wall. Site 6374 will have a 5.0 ft. buffer zone on either side of the wall. And interpretive venue area with and informational plaque will be situated outside the rock wall (see Preservation Plan section for more detailed information).

PROJECT AREA
The subject parcel is roughly trapezoidal shaped and located within the coastal component of Mahuka akua'a, Makawao District, Ho'oulu 'ula moku, Island of Maui (Figures 1-2). The project area, consisting of approximately 21.0 acres, is primarily composed of Parcel 85 (19.039 acres) with smaller portions of parcel 108 (2.079 acres). Parcel 108 is located in the northeast corner by the existing 17th Fairway, and extends south bordering Makaua-Alani Road. Parcel 85, is the remainder of the project area extending partially from Makaua-Ko'one'o Road, up towards Makaua-Alani Road. Specifically, the subject parcel is situated near the south cut-de-sac of the Maui Prince Hotel and is bounded to the north by Fairway 17 of the Makaua South Golf Course. Portions of the south and eastern sides of the project area are bounded by Makaua-Alani Road and Parcel 84. The western side is bounded by Makaua-Ko'one'o Road and Parcel 83. Parcels 83 and 84 were previously surveyed by Rotzino-Hanksa et al. (Parcel 83) in 2008 and Donham (Parcel 84) in 2006 and manifested similar environmental and archaeological conditions.

OVERVIEW OF SITES FROM THE SURVEY
A total of eight sites comprised of 59 features were identified within the project area (see Figure 4 and Table I). SHP 6371 (formerly Bishop Museum Site 50-Ma-B8-218), 6373 (Site 50-Ma-B8-225), 6374 (Site 50-Ma-B8-230 Pt. 1) and 6379 (Site 50-Ma-B8-231) were previously recorded by Cordy during his 1978 investigations. Additionally, Feature 2 of Site 6372 may have been Site 50-Ma-B8-229 and Feature 4 of Site 6374 may correlate to Site 50-Ma-B8-242, however the descriptions and location map provided by Cordy were not specific enough to make a definitive correlation. The remaining sites and features (Site 6377 Feature 1, Site 6376-6378) were documented during the more recent investigations. Subsurface testing was performed at Site 6371 Features 2 and 3, Site 6372 Features 1, 2, 4, 6, 27, Site 6373 Features 3 and 4, Site 6376 Features 1, 2 and 4, and Site 6379 Features 1-3. Sites 6371, 6373, and 6376-79 were identified as traditional Native Hawaiian sites from the pre-Contact period. Historic era complexes were Sites 6372 a habitation site, and 6374, a series of five (Features 1-5) wall remnants. Feature 5 of Site 6374 is a marginally modified outcrop wall that is likely modern.

All sites were significant under Criterion D, and several (Sites 6373, 6378 and 6379) were also considered good examples of site types and therefore significant under Criterion C (Table II).

Figure 1. Location of Project Area on USGS Quadrangle
<table>
<thead>
<tr>
<th>SHPE</th>
<th>Temporary Site#</th>
<th>Description of Features from Current Survey</th>
<th>Total #</th>
<th>STATUS</th>
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<td>Features</td>
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<td>6371</td>
<td>55-Ms-88-218</td>
<td>Modified Outcrop Enclosure Fe. 1</td>
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<td>Circular Walled Pit Fe. 3</td>
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<tr>
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<td>6372</td>
<td>Historic House Site Fe. 1</td>
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<td></td>
<td>Oval Rock Clearing Mounds (n=22) Fe±2 1-2 22</td>
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<td>Relief Deposed Fe. 3</td>
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<td>55-Ms-88-226</td>
<td>(Complex) Platform Fe. 1</td>
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<td></td>
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<td>Enclosure Fe. 2</td>
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<td>PRESERVE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enclosure Fe. 3</td>
<td>1</td>
<td>PRESERVE</td>
</tr>
<tr>
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<td>C-shape Fe. 4</td>
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<td>Remnant Wall Fe. 7</td>
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<td>Depression Fe. 8</td>
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<td>Wall Around Project Area Fe. 1</td>
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<td>Modified Outcrop Phase, Cupboards Fe. 3 1-3 4</td>
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<td>U-Shaped Enclosure with Wall Segment Fe. 1</td>
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<td>Pre-Contact Square Enclosure Fe. 1</td>
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<td>Walled Pits/Depressions Fe. 2 1-2 2 2</td>
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<td>6379</td>
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</table>

Table 1: Summary of Archaeological Sites to be Protected
Table II. Summary of Significance for Archaeological Sites

SITE 50-59-14-6371 (formerly Site 218)

Site 50-59-14-6371 is situated in the NE corner of the project area near Malama-Alani Road. The site straddles the northern property line and extends into the adjoining golf course parcel (Figure 3). Cordy recorded the site as a platform with five faced pits in close proximity, two of which abut the platform. During the current reassessment, four walled pits (Features 2-5) were identified near Feature 1. Another walled pit is approximately 60 meters east of this site and has been incorporated into Site 6377. Site 6371 is now comprised of six features consisting of the platform/enclosure (Feature 1), circular walled pits (Features 2-3) and an L-shaped alignment (Feature 6). Site 6371 occupies an area measuring approximately 21.0 m long by 20.0 m wide and is bounded by Site 6374 Feature 4 a low wavy wall (Figure 5).

Feature 1

Feature 1, appears as an enclosure which has been created by modifying the natural bedrock outcrop on the upslope side, and a' a lava flow on the downslope side. Specifically, this main feature of the site complex is comprised of two parallel terraces which are somewhat connected at their terminus by piled rock wall alignments to form an enclosure. The southermost terrace measured 12.5 m long by 9.4 m wide. It is composed primarily of natural bedrock and small boulders that form a ledge measuring 1.0 m high. A small possible storage area designated Feature 1a was observed in the northeast corner of the terrace ledge. It measures approximately 0.8 m long by 0.5 m wide by 0.35 m deep and was likely utilized for storage. The other terrace is located to the north of the bedrock terrace and it measures 7.5 m long by 4.0 m wide. It is irregular in shape and is composed of small to large boulder cobbles and boulders stacked three to five courses high to a maximum height of 0.90 m. Another small storage area designated Feature 1b was observed at the southeast corner of this terrace. Feature 1b measures 1.2 m long by 0.5 m wide by 0.4 m deep and was probably utilized for storage. Feature 1a has a rocky interior surface that is somewhat level but not paved. Adjacent to the northeast and southwest corners of Feature 1, as well as the southeast of the enclosure are circular walled pits (Features 2-5). These walled pits are not deeply intrusive into the ground, rather they are small circular walls built into the natural depressions of the bedrock that encircle a rocky soil area. Cordy recorded five faced pits that were in close proximity to the main feature, two of which abut the structure. However during this survey only four walled pits (Features 2-5) were identified near Feature 1; another walled pit is approximately 60 meters east of Site 6371 and has been incorporated into Site 6377.
Feature 2
Feature 2 is the southernmost pit and is a well constructed circular enclosure. The walls are wide and constructed of subangular cobbles that are stacked 2-4 courses high measuring 1.0 m thick and .50m high on the interior and up to .70 m high along the exterior. Feature 2 has an interior soil area that is approximately 1.6 m in diameter. A dozen push piles butt up against the eastern side of this enclosure.

Feature 3
Feature 3 is an oval shaped walled pit located on the northeast side of Feature 1. It measures 2.0 m long (n/s) by 1.0 m wide and ranged in height along the interior from .40-.65 m. The walls are from .30-.50 m wide and stacked 3-4 courses. Features 3-5 are contiguous to each other and abut Feature 1.

Feature 4
Feature 4 is near Feature 3 and is situated along the northwest corner of Feature 1. This feature is disturbed and not completely enclosed along its northern side. The interior height of Feature 4 ranges from .30-.90 m and would have had a diameter of about 3.0 meters. Currently, a Na willow tree is growing out of the pit.

Feature 5
Feature 5 is located in between Features 3 and 4 and is an oval shaped walled pit. It has also been disturbed along its northern side from pushed rocks and tree fall. This disturbance is presumably from the golf course construction (recall this site was not slated for preservation during Cordy's survey, thus the golf course construction commenced). The feature measures 3.0 m long (n/wse) by 1.0 m wide and ranges in height from .30-.80 m.

Feature 6
Feature 6 is an L-shaped remnant alignment located north and adjacent to Feature 4. This Feature has also been disturbed by pushed rocks and tree fall. The interior is final and similar to the interior of the walled pits. Feature 6 measures 1.0 m long by .50 m wide.

Figure 5. Plan View Map of Site 59-58-14-6571
DISCUSSION OF SITE 6371

Site 6371 may be a pre-Contact temporary habitation site and the circular walled pits would have been utilized for agricultural purposes. It is composed of a primary feature, Feature 1, surrounded by smaller, ancillary structures (Features 2-6). Although the function of Feature 1 is still inconclusive, the recovered cultural materials and site type or architectural classification of Features 2 and 3, clearly represents and agricultural function. Site 6371 may have been part of a larger complex, perhaps Site 6377 (the U-shaped enclosure and walled pit) located approximately 45 meters west of this site, but such association is difficult to determine.

Cordy postulated a set of criteria in which to categorize the documented features and or sites within the project area. Based on his classification system, Site 6371 (Site 218) was interpreted as a permanent pre-Contact house site with agricultural features. The size of the interior floor and exterior floor area were the determining factors of permanence, and this hypothesis could have been further supported if multiple cultural layers and or additional permanent features were documented at the site. Based on the information collected to date, this site appears to have been intermittently occupied, although Feature 1 was not tested. Future excavations if they are to occur within this site should be undertaken at Feature 1 to determine its function and age. Although the previous surveys did not recommend preservation of Site 6371, the landowner has re-designed the development to avoid this historic property. Thus, Site 6371 Features 1-6 will be preserved within the central portion of the proposed development and will protected by a 30 ft. buffer zone and marked on the surface by a low rock wall. The 30 ft. buffer will be measured from the outer edges of Feature 1 (Figure 6).

Figure 6. Plan View Map Showing Preservation Area of Sites 50-50-14-6371 and 6377
SITE 50-50-14-6373 (formerly Site 225)

Cody originally recorded this site (50-Ma-88-225) as having three features. During the current survey five additional features (Features 4-8) were identified as part of this complex. Site 50-50-14-6373 is comprised of eight features consisting of a platform (Feature 1), two adjoining enclosures (Features 2 and 3), a C-shape (Feature 4), a remnant wall (Feature 5), an alignment (Feature 6), another remnant wall (Feature 7), and a depression (Feature 8). The site measures approximately 37.5 m long (n/s) by 27.0 m wide (e/w) and incorporates a natural outcrop within the site complex (Figure 7).

Feature 1
Feature 1 is a paved, platform, northernmost of the features. It is located approximately 3.0 meters north of Feature 2 the rectangular enclosure. Feature 1 measures approximately 4.0 m long by 4.0 m wide and .10-60 m high. It is comprised of loosely fitted, basalt cobbles and boulders that form a roughly square level, raised area.

Features 2 and 3
Features 2 and 3 are two adjoining rectangular enclosures sharing a common wall (see Figure 37). Feature 2, measuring 10.8 m long (e/w) by 9.0 m wide (n/s) and approximately 1.0 m high, is a three-walled enclosure abutted onto the eastern wall of the Feature 3. Its walls are constructed of stacked basalt cobbles and boulders and range in width from .65 to .80 m and in height from 1.0-1.50 m (interior) to 1.0-1.30 m (exterior). Although several areas of wall collapse are present, a constructed entrance is located into the east wall about three meters from the southeast corner of the structure. This is evident from a finished facing on the south side of the opening, the north side is tumbled. Feature 2 occurs atop a bedrock outcrop that slopes from east to west.

Feature 3, measuring 12.2 m long (e/w) by 11.5 m wide (n/s), manifests much better construction than Feature 2. Its walls comprised of small to large basalt cobbles and boulders stacked and faced up to eight courses high, are robust and range in width from 1.2 to 1.5 m and in height from 1.0 to 1.5 m on the interior and exterior. The walls are in good condition with the exception of a few partially collapsed sections. A possible constructed opening, with a walkway or ramp paved with 'viv', occupies the central portion of the east wall and connects Feature 3 with the adjoining Feature 2. The interior consists of a level soil area. One piece of coral was observed atop the eastern wall of the enclosure.
Feature 4
Approximately 4.0 m south of Feature 3 is the newly identified C-shaped structure. This feature, which opens to the northwest, measures 4.6 m long (e/w) by 4.2 m wide (n/s) and ranges in height .40-1.40 m high. Its walls are constructed of small to large basalt cobbles and boulders stacked two to four courses high around a small level interior area (Figure 8). The walls are partially collapsed on all sides and several pieces of coral were observed within and surrounding this feature. One test unit was placed within the interior of the C-shape which revealed a three-layer stratigraphic sequence and a remnant hearth feature designated Feature 4a. Approximately 2.5 m to the northwest is Feature 5, a V-shaped remnant.

Feature 5
Feature 5, a short wall with an acute bend, is the westernmost feature of Site 6373. The walls, measuring 3.7 m (n/s) and 2.7 m (e/w) long, shut against a bedrock ledge at both ends to form a low enclosed area. The walls are 1.0 m wide and constructed of stacked and piled basalt cobbles and boulders to a height of 0.60 m.

Figure 8. Photograph of Feature 4 of Site 6373 (View to East)

Feature 6
A short, single-course alignment of boulders is located just south of Feature 3 enclosure. It is oriented north-south and measures 3.0 m long by 0.50 m wide and ranges in height from 0.30 to 0.40 m.

Feature 7
A disturbed wall remnant occurs south of Features 2 and 3. It is built atop a bedrock bench and comprised of two sections that are stacked up to four courses high with a maximum height of 0.60 m. The heavily collapsed wall segment measures 3.0 m long by 1.2 m wide. Based on their proximity, Features 6 and 7 may represent the remnants of an older feature that was dismantled to construct portions of Site 6373.

Feature 8
Feature 8 is a 3.0 m wide depressed area located along the northwest corner of Feature 3. The depression is .50 m deep and is within the a'e flow.

DISCUSSION OF SITE 6373
Cordy interpreted this site as a historic, non-permanent house-site with livestock structures. The results of the current study indicate that a re-interpretation of this site as a traditional Hawaiian permanent habitation complex with agricultural features may be appropriate.

Site 6373 is a habitation complex that appears to originate in the late pre-Contact to early historic period based on the construction of Feature 3 and the findings from the testing. The site is centrally located within the subject property and is comprised of 8 features. Since this site will be preserved and incorporated into the proposed development plan, minimal testing was conducted during the current investigations. The Feature 1 platform/enclosure was not tested and its function has not been confirmed, but it may be the foundation for a sleeping house.

Feature 2, the rectangular enclosure is a structure that appears to have been a later addition based on its morphology and construction. The Feature 2 walls shut onto the east wall of Feature 3 to complete the rectangular enclosed area. Feature 2, thus post-dates Feature 3. It likely served as an animal pen being built on an uneven bedrock surface, containing little soil with a sloping interior floor area. Testing within this feature did not recover any materials to refute this interpretation.
Feature 3, the primary structure of the complex, appears to be a house site; however no formal entrance was identified during the survey. Testing within this feature recovered coral and 'ihi ilii though it was not abundant. This lack of cultural materials may be a result of sampling error due to the placement of the unit near the western wall. However, the 'ihi ilii present within the test unit wall, may be a portion of a living floor. Additionally, Cordy’s testing within Feature 3 recovered 33.3 g of marine shell.

Within Feature 4, the C-shaped structure, a small rock-lined hearth was recorded that likely dates to the pre-Contact era. Feature 4a, the remnant hearth, supports a habitation function, perhaps as a cooking house. Features 5 and 8 are ancillary features probably utilized as small planting areas or for storage. Features 6 and 7 the wall segment alignment may represent remnants of an older feature that was dismantled and the rocks used for the construction of other features.

Site 6373 is slated to be preserved in place with a 30 ft. protective buffer zone marked on the surface by a low rock wall. The 30 ft. buffer zone will be measured from the outer edges of the enclosures, Features 2 and 3 (Figure 9).

Figure 9. Plan View Map Showing Archaeological Preserve of Sites 50-50-14-6373 and 6379
SITE 50-50-14-6374

Site 6374 is a series of five freestanding historic walls (Features 1-5) that are located throughout the project area. The largest intact section of Site 6374 is Feature 1 which is situated along the eastern and a small portion of the southern boundary line of the project area. Feature 1 is comprised of 3 segments (northern terminus, central portion and southern terminus) that are located along the mauka (eastern) boundary line of Parcel 85 (see Figure 3). Smaller isolated wall sections (Features 2-4) of Site 6374 are present throughout the project area. Along the central portion of the northern property boundary line, is Feature 2 of Site 6374. Feature 2 may be a portion of Cordy’s Site 230 previously recorded within the project area. Feature 5 is a short section located within the central portion of the project area just east of Site 6372. Feature 4 is an east-west trending low meandering wall located along the northern boundary line of the project area. This low wall segment may have been a portion of Cordy’s Site 242. Feature 5 is a modified outcrop with an attached freestanding wall located in the northwest quadrant of the project area.

Feature 1
The wall within this larger section is primarily double-faced and core-filled and ranges .85-.155m in height and the .48-.128 m in width. It intermittently meanders in a zig-zag fashion following the eastern and portions of the southern boundary line (See Figure 3). A portion of the southern terminus of Feature 1 is located within the 30 ft. buffer zone for Site 6377, thus this portion will be preserved (see Figure 6).

Feature 2
Feature 2 is centrally located along the northern boundary line. It is a relaxed L-shaped wall that measures 5.5 m long in the north/south direction and curves to the east 4.0 m. The width of the wall ranges from 1.2 to 1.6 m and the heights range from 0.25 to 0.60 m. The wall is faced with cobbles and boulders and core-filled with smaller basalt cobbles. Although it is not definitive, this wall segment is likely a remnant of the long meandering wall originally recorded by Cordy, Site 230. This feature is in good condition except for the collapse along the northeastern section.

Feature 3
Feature 3 is centrally located within the subject parcel and is situated near the rectangular shaped wall (Site 1007-2) that encloses Site 6372. It measures 8.5 m long by .90 to 1.6 m wide and ranges in height from .25 to .50 m. The wall is straight and runs in an east to west direction. It is constructed of stacked small to large basalt cobbles and boulders that are core filled with small to medium basalt cobbles.

Feature 4
Feature 4 is a low meandering wall located along the northern boundary within the northeast corner of the project area. It is adjacent to and north of Site 6374. This wall is piled and badly disturbed probably during the golf course construction. Based on its location, Feature 4 may be a segment of the formerly recorded Site 242 by Cordy.

Feature 5
Feature 5 is located within the northwest quadrant of the project area where a former stable was situated. It is a large outcrop that has been modified by minimally stacking rocks upon the outcrop, and constructing a freestanding stacked wall to the southern terminus of the outcrop. Feature 5 measures 26.2 m long by .70-.60 m wide and is oriented at 145 degrees.

DISCUSSION OF SITE 6374
Site 6374 is a series of five (Features 1-5) discontinuous wall segments from the historic period that were assigned a significance of Criterion D. The walls likely functioned as property boundary walls as well as ranching cattle enclosures or exclusions. A portion of the northern terminus of Feature 1 lies within the 30 ft. buffer of Site 6377 and thus will be preserved. Additionally, a portion of the central section of Feature 1 will also be preserved in perpetuity. For the remaining segments of Feature 1, it has been purported that the eastern section following the boundary line of parcel 85 is a portion of the Government wall or Aupa’au wall (or Pa Aupa’au) shown on Torbert’s 1848-1856 map (Figure 10). To assess the supposition that the Aupa’au wall is present within the project area, several old maps and numerous land descriptions were reviewed. The following presents information obtained during this review.

Torbert’s map from the period of 1848-1856 exemplifies the Aupa’au wall marks and somewhat parallel to the government road (Makema-Kenono Road). Several maps produced after Torbert’s do not mention the Aupa’au wall. These maps include Alexander 1866-1879 Hawaii Territory Survey, a Hawaii Territory Survey map in 1923 by Walter E. Wall and a survey map of the project area (Great 1508 Apanu 2) for the Makema School Lot (Figures 11-13). As shown in Figures 11 and 12, the Hawaii Territory Survey maps exhibit another wall designated as Polaku Nahaka. The Polaku Nahaka wall extends west from Ulupalakua following the Ko’eo aupa’a’s
boundary line where it eventually turns north and terminates at the ahuapu’a boundary line between Kaauhoo and Palauea. According to the Alexander 1856 map, this wall marked the boundary of the plantation. Furthermore, a survey map of Grant 1508 Apana 1 and 2 as shown on Figure 13 (Apana 2 is the subject project area) was performed in 1910 for the Superintendent of Public instruction for the purposes of the Makena School lot (2005 Maly). This map exemplifies all boundaries surrounding Apana 1 and 2. As exhibited on Figure 13, the manu’a (eastern) boundary of this survey map refers to “wall,” not ahuapu’a wall for the project area. Thus, on three maps produced after Torbert’s, there is no surveyed wall designated as the ahuapu’a wall.

Pertaining to the land descriptions, the subject parcel and additional 25 parcels of land surrounding the project area were reviewed at the Department of Land and Natural Resources in Honolulu. An additional 28 parcels located within the coastal portion of Honua‘ula District were reviewed by Maly in his “Cultural-Historical Study of Ka‘oo and other lands in Honua‘ula” report in 2005. The results of this review are presented below.

The subject property, Parcel 85, was assigned Grant 1508 Apana 2 to Makahaozanno. The land description for this grant states only Pa Pohaku (stone wall) for one of the boundaries. Similarly, two parcels immediately adjacent to the project area, Grant 3623 Apana 1 to Kahakouka (east) discusses “Pa Pohaku,” and Grant 1500 Apana 2 to Makai (south), states “wall” (Figure 14). Neither of these grants describes a state Pa Aupuni (or Aupuni wall). Of the 59 additional land commission awards and or grants reviewed to the south and north of the subject parcel, several mention Pa Pohaku (rock wall), but only two mention Honua‘ula L.C.A. 2585 and Masewiciki L.C.A. 3670 Pa Aupuni. Unfortunately, these two aforementioned parcels were never awarded and their locations were somewhat indeterminate (Masewiciki’s house is shown on Torbert’s map Figure 10). However, based on the land descriptions of these two parcels, they were located adjacent to Makena-Keaonoio Road (government road) and L.C.A. 2399 Apana 2 to Kalili. Kalili’s parcel is near the present day Garcia property and Keawalai Church on the north side of the Makena Maui Prince Hotel (the project area is located on the south side of the hotel). As these two parcels are not located near the project area, it is difficult to make a correlation between the Aupuni wall which bounds these parcels, and the purported Aupuni wall on the project area.

In conclusion, two of approximately 50+ land commission awards and or grants reviewed for the Honua‘ula area state Pa Aupuni as a boundary in their land descriptions, and these parcels are not in close proximity to the subject project area. Furthermore, of the 4 maps reviewed, only one, the earliest by Torbert displays the Aupuni wall. Thus, there appears to be no conclusive evidence that the Aupuni wall is located on the subject parcel. Given this uncertain information, the landowner has still elected to re-design the development and preserve portions of the northern and central segments (Figure 15). A buffer zone of 5.0 ft. is proposed on either side of the walls. An interpretive plaque will be placed along the central segment along the east side (towards Makena-Alamii Road).
Figure 11. Hawaii Territory Survey Registered Map 1763 Showing Pohaku Nahana Wall (1866-1879)

Figure 13. Hawaii Territory Survey Map Showing Pohaku Nahana Wall (1923)
Figure 13. Map From Maly (2005) Showing Survey of School Lot (Project Area) at Maluaka (1910)

Figure 14. Portion of Registered Map 4131 Showing LCA's and Grants in Hauula District
Site 50-50-14-6377 (TS 7 and 28)
Site 50-50-14-6377 was recorded during the current undertaking. It is located within the northeast corner of the project area near Sites 6371 and 6374 Feature 5. It measures 14.20 m (northeast) long by 9.0 m wide (southwest) and consists of two features, a well constructed three-sided structure designated Feature 1 (TS 7) and a circular walled pit assigned Feature 2 (TS 28). The site partially straddles the northern property line extending into the adjoining golf course property (See Figure 3). Only Feature 1 has been slated for preservation.

Feature 1
Feature 1 consists of a relaxed U-shaped structure which is 2.8 m east of Site 6374 Feature 1 boundary wall. It measures 6.5 m long (e/w) by 4.3 m wide (n/s) and is oriented east west (Figure 16). The walls are constructed of basalt cobbles and boulders stacked three to five courses high and measure 1.2 m wide with a maximum height of 0.9 m. Feature 1 opens to the west and is partially collapsed along its ends. The interior of this structure is comprised of a level soil area. Near the northeastern corner of this feature is an irregular shaped wall/alignment that has been created by incorporating the natural outcrop. It measures 11.5 m long by 0.6 m wide and is constructed of loosely stacked and aligned basalt boulders with heights ranging from 0.30 to 0.50 m. This site is in a rocky area that slopes downward from east to west. No testing was performed at Feature 1 as it will be preserved within the proposed development. Further to the north is Feature 2 a circular walled pit.
DISCUSSION OF SITE 6377

Site 6377 is comprised of two features that seem to be temporary Pre-contact habitation and agricultural components. Feature 1 a U-shaped structure, and Feature 2 a walled pit. These two features were located approximately 35.0 m apart; however they were included together as one site. Site 6377 possibly functioned as a temporary habitation enclosure (Feature 1) with an agricultural planting pit (Feature 2). Site 6377 is in close proximity to Site 6371, and the agricultural planting area/walled pit (Feature 2), is similar in construction to the walled pits (Features 3-4) identified at Site 6371, a contemporaneous relationship of these two sites was indeterminate and they were assigned discrete site numbers. Feature 1 of Site 6377 is in good condition and has been slated for preservation. This feature will be protected by a low rock wall which delineates a 30 ft. no build buffer zone. The 30 ft. will be measured from the outer edges of Feature 1 (See Figure 6). Specific details of the long-term protective measures for this site and other preserved historic properties are presented within the Preservation Plan section.

Site 50-50-14-6378 (TS 27)

This site was located during the inventory survey and is situated in the southeast portion of the project area and is comprised of a square enclosure, Feature 1, associated with a modified outcrop, Features 2-4 (Figure 17). It is situated near Makaha-Ala Mo Road and the impacted sand fill area noted on Figure 3.

Feature 1

Feature 1 enclosure measures approximately 16.0 m long by 16.0 m wide with walls ranging in height from .6-9 m and 1.0-1.8 m in width. It is constructed of boulder-faced, core-filled walls that bound a level soil area. One large piece of branch coral, rounded basalt, chilin erupea, and mammal bone were observed on the surface of the interior. Two water-worn basalt cobbles are located outside the northeast corner of the enclosure, and one water-worn boulder outside the southwestern corner of the feature. The southern wall and the NW corner are disturbed due to lani cactus and door. Extending from the southwestern corner is a linear wall measuring 4.5 m long by 1.0 m wide. It is similarly constructed as the enclosure walls and its height ranges from 0.20 m on the south faced side to 1.0 m on the north faced side. Some collapse is evident at the southwestern end of this wall. One test unit measuring 1.0 by .5 meters was excavated in the NE corner and recovered a charcoal stained pit with charcoal flecking, animal bone and coral. Feature
1 is surrounded by a natural outcrop along its northern side. The outcrop has been modified with circular pits (Features 2 and 3), and a cupboard (Feature 4).

**Features 2 and 3**

Two circular pits have been built into the outcrop north of the enclosure. Feature 2 measures 1.7 m in diameter forming a walled pit or planting area in the lava field approximately 6.6 m deep. Feature 3 measures 2.5 m in diameter, is similarly constructed, and measures 0.55 m in the center. Both appear to have functioned as planting pits or perhaps small storage areas.

**Feature 4**

The last feature in this complex is a natural cupboard in the lava field to the southwest of the enclosure feature. The cupboard measures 1.0 m long by 0.6 m wide and was probably used for storage.

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*Figure 17. Plan View Map of Site 637B*
DISCUSSION SITE 6378

Site 6378 appears to be a pre-Contact permanent habitation enclosure (based on the architectural type and substantive construction of Feature 1) associated with small agricultural planting pits (Features 2 and 3) and possible cupboards or storage area (Feature 4). One test unit was placed inside the enclosure abutting the east wall. A charcoal pocket (Feature 1a) with sparse cultural remnant (echinoderms, unidentified animal bone and coral) was documented from this feature. As the feature is located along the extreme eastern portion of the unit, it is possible that a formal subsurface hearth is in close proximity to this test unit. Site 6378 will be preserved and incorporated within the proposed development. Like other site complexes, this historic property will be protected by a low rock wall which marks the 30 ft. buffer zone. The 30 ft. buffer will be measured from the outer edges of the Feature 1 structure.

SITE 50-50-14-6379 (formerly Site 231)

Site 50-50-14-6379 consists of an extensively modified outcrop that is located within the central portion of the project area. It is east (massa) of Site 6373 and measures approximately 15.0 m long (e/w) x 10.0 (n/s) wide and is oriented at 178 degrees. The outcrop is comprised of a fairly level paved area situated across its central portion. The pavement, assigned Feature 1, has been created by filling the surface with cobbles. Extending from north side of the outcrop is a freestanding curved wall segment that forms somewhat of a U shaped enclosed area designated Feature 2. Along the southern side of the outcrop, an L-shaped faced alignment has been created by stacking basalt against the exterior edge of the outcrop. This L-shaped alignment has been designated Feature 3 (Figure 19).

Site 6379 has been adversely affected by dense vegetation growth, mechanical equipment and possibly from the removal and dismantling of the rocks to build historic ranch walls in the area. Although there is some resemblance, what was recorded by Cerby is not clearly represented today and this discrepancy is likely due to the above mentioned impacts. Presented below are detailed descriptions of Site 6379 Features 1-3.
Feature 1

Feature 1 appears to be a fairly level paved or filled surface area along the central portion of the outcrop. It extends approximately 7.0 m long (e/w) by 3.0 m wide (n/s) within this central area. The filled area is slightly deformed and may cover a polish or natural erosive. It was indeterminate if the paving was a purposeful construction and if an interior chamber/pit was present under the cobble filling. Thus two units, TU 4 and 5 were placed within the paved area to ascertain presence/absence of an interior chamber and to assess the construction of the cobble pavement. Feature 1 may coincide with Cordy’s Site 231-2 platform.

Feature 2

Along the north face of the outcrop are crudely stacked sub-angular rocks which have been placed atop natural boulders to create a terrace/terrace-like area. This terraced area creates the back (south) wall of Feature 2. Extending from the northwest side of the outcrop is a freestanding wall that eventually curves to the east at its northern terminus. The freestanding wall is a boulder-faced and core-filled measuring 5.0 m long by 1.25 m wide, and ranging in height from .25 to .50 m. In plan view, the curvilinear nature of this wall together with the stacked north face of the outcrop forms a U-shaped enclosed area designated Feature 2. The enclosed area is fairly level and contains a rocky soil within its interior. During the current survey, a 1.0 by 1.0 m test unit (TU 1) was placed upon the rocky soil.

In 1978, one volcanic glass fragment was identified on the surface of this rocky soil area, and a 1.0 by 1.0 m test unit was placed adjacent to the fragment. According to the report, no cultural materials were recovered from the test unit. Feature 2 appears to correlate to Site 231-1 during Cordy’s survey.

Feature 3

Feature 3 is situated on the south side of the modified outcrop and is comprised of an L-shaped faced wall that forms a level soil area. The L-shape is formed by stacking large and small cobbles against the outcrop producing two perpendicular faced sections. The wall segments of Feature 3 are stacked 2-3 courses and measure .40 to .55 m high. The eastern wall, oriented at 250 degrees, measures approximately 2.5 m long and is .80 m wide. The northern wall measures 2.0 m long by .50 m wide and is oriented at 340 degrees. Feature 3 appears to be near the south side of Cordy’s site areas 231-1 and 231-2. A 1.0 m long (n/s) by .50 m wide (e/w) test unit (TU 2) was situated within the level soil area to determine presence/absence of cultural remains. During
tasting, a subsurface hearth feature designated Feature 3a was observed within the southern portion of the test unit. In order to fully document Feature 3a, another test unit, TU 3, was placed across and encompassing the southern half of TU 2.

DISCUSSION SITE 6379
Site 6379 is a Pre-contact temporary habitation and agricultural site comprised of three distinct features. Feature 1 was a deliberate paved portion of the natural outcrop. Testing within this area identified at least two sections of purposeful rock fill, as well as sparse cultural materials (marine shell, basalt deblage) and a subsurface alignment designated Feature 1a. This alignment was located along the southern edge of TU 4 and appeared near the base of Layer 1. At this same location sparse cultural materials were recovered. Although the purpose of the internal alignment is indeterminate at this time, it would likely be correlated with the cultural materials, and may be an earlier component of this temporary habitation feature. No additional testing was conducted at Feature 1 as it is slated for preservation. Feature 2, the U-shaped area, may have been utilized for temporary habitation due to its formal site type, size, and the presence of sparse cultural materials consisting of volcanic glass fragments and marine shell. Feature 3 contained a well defined subsurface hearth (Feature 3a) that was just below the organic humic layer. Based on the presence of Feature 3a, the L-shaped alignment functioned as the cooking area for the overall site complex. A charcoal sample was submitted from the hearth feature which returned an age range of AD 1480-1660. Site 6379 appears to be a temporary habitation complex from the pre-Contact period. The chronology is based on the charcoal sample collected from the hearth feature, as well as the overall feature types represented.

Site 6379 is in close proximity to Site 6373, a possible permanent Pre-Contact habitation site associated with agricultural and animal husbandry features. Due to the close proximity of these sites, it would seem that the two are related however no conclusive evidence was collected during the current undertaking. Fortunately, both sites will be preserved within the proposed development plans and will be protected by a 30 ft. buffer zone marked on the surface by a low rock wall (See Figure 9). The 30 ft. buffer zone will be measured from the outer edges of the modified outcrop.

PRESERVATION PLAN
Consultation—This preservation plan has been developed in consultation with members of Nā Kupuna o Maui and members, Mr. Kinikomi Kaapalehau and Ms. Patty Nishiyama, as well as with cultural consultants Mr. Leslie Kuloalo and Mr. Charles Maxwell. All of the sites have been visited by the above mentioned groups, except for Mr. Charles Maxwell, who could not hike to the interior archaeological sites. Furthermore, two meetings were held at the offices of Dowling Company Inc. to discuss the Long-Term measures and review the drafted site plan and preservation plans.

Short-Term Measures
Short-term preservation measures are implemented to protect the sites during the short-term (prior to and during construction). All sites are currently protected with orange construction fencing. The site complexes contain fencing that has been erected 30 ft. from the edge of the major structural features. For solitary features, the orange construction fencing is placed 30 ft. from the outer edge of the feature, except for Site 6374 where the orange fencing is placed 5.0 ft. from either side of the wall face. Archaeological monitoring shall be conducted during all ground-sifting activities associated with the development of this parcel. A monitoring plan has been submitted to SHPD for review and approval.

Long-Term Measures
Long-Term measures are a mitigating strategy to protect the site in perpetuity. These measures may not be adjusted and or changed without prior consultation and acceptance by the SHPD and MLBC (where applicable). The six archaeological sites within the project area will be preserved through conservation (avoidance and protection) and interpretation. All sites have a 30 ft. no-build buffer zone surrounding the main structures of the site, and this buffer zone along with the sites will be demarcated on all future construction plans. The buffer zone is delineated by a low rock wall with interpretive signage. The details of the Long-Term mitigation measures are presented below and are binding in perpetuity.

Surface Demarcation—A 30 ft. buffer zone shall be instituted at all preservation areas, except along the eastern boundary of Site 6371 due to the close proximity of Makena-Kaanapali Road, and along Site 6374 Feature 1 walls (these walls will have a 5.0 ft. buffer). The buffer zones, except at Site 6374 Feature 1, will be demarcated by low rock walls approximately 2.0 ft high and approximately 1.0 ft. wide. This buffer zone is
measured from the major structural features at each site. For Site 6371, the buffer zone will be measured from Feature 1, for Site 6373 from Features 2 and 3, for Site 6377 from Feature 1, for Site 6378 from Feature 1, and for Site 6379 from the outer edges of the modified outcrop (See Figures 6, 9 and 17).

Landscaping: The area inside the rock wall and surrounding the structure may be planted with Native ground cover. Inside the structures, the area will be selectively cleared of weeds and other vegetation and left in its natural state.

Access: Access is not permitted within the buffer zone delineated by the low rock walls except for maintenance purposes and for cultural practitioners and/or lineal descendants recognized by the SHPD and the MLIBC. A walking path leading to an interpretive venue with seating area and signage will be placed adjacent to the rock walls at each preservation area (See Figures 6, 9 and 17).

Signage: A plaque for each preservation area will be placed at the interpretive venue area. The plaque will be inscribed with the following at Sites 6371, 6373, 6377-6379.

State Site 50-50-14-6371
Pre-Contact Habitation and Agricultural Site
Please Respect This Area

State Site 50-50-14-6373
Pre-Contact to Early Historic Habitation Site
Please Respect This Area

State Site 50-50-14-6374 Feature 1
Historic Boundary Wall or Possibly a Portion of the Aupuni (Government) Wall
Constructed in the Early 1800's
Please Respect This Area

State Site 50-50-14-6377
Habitation Site
Please Respect This Area

State Site 50-50-14-6378
Pre-Contact Habitation and Agricultural Site
Please Respect This Area

State Site 50-50-14-6379
Pre-Contact Habitation and Agricultural Site
Please Respect This Area

REFERENCES

Cordy, Ross

Bureau of Land Conveyances, State of Hawaii

Bureau of Land Conveyances, State of Hawaii

Bureau of Land Conveyances, State of Hawaii

Bureau of Land Conveyances, State of Hawaii

Donham, Theresa
2006 Archaeological Inventory Survey of Development Parcel H-1 TMK 2-1-05:84 and 2-1-05: 37 and 36, Maalaea and Kama Ahupua'a, Honolua District. ASH, Wailuku and Kahului Archaeology, Kahului

Marl, Kele
2005 Ha Ma'ohio 'Aina Ho Kia'e Ke Kohi 'Aina E A'e Me Honua Ila o Maui, uloewi-Historical Study of Kano and other lands in Honua Ila District For Garcia Property, Kum Peninsula Associates, LLC.

Rutunno-Haakusa, Hodgins, Panaialo and Sinoto
2008 Archaeological Inventory Survey H3 Parcel 83, Malapua Ahupua'a, Makawao District, Maui Island. ASH, Wailuku

Rutunno-Haakusa, Lisa et al

Waihona Aina Corp.
2002 The Mahalo and Land Grant Database, as maintained by Project Director Victoria S. Creed, (Internet: www.waihona.com).
STATE HISTORIC PRESERVATION DIVISION ACCEPTANCE LETTER DATED JULY 21, 2009

APPENDIX

M-1
July 21, 2009

Jeffrey Pantaleo, M.A.
Archaeological Services Hawai‘i, LLC
1930 A Vineyard Street
Wailuku, Hawai‘i  96793
lisa@ashuman.net

Maluaka Ahupua‘a, Makawao District, Island of Maui, Hawai‘i
TMK: (2) 2-1-005:085 and (2) 2-1-005:108 por.

Thank you for the opportunity to review this plan, which our staff received in PDF format on July 14 of 2009 (Rotumot-Hazuka and Pantaleo 2009): Archaeological Preservation Plan for Sites 50-50-14-6371, -6373, -6374 Feature 1, -6377, -6378 and -6379...Archaeological Services Hawai‘i, LLC.

The plan was reviewed by SHPD staff on June 17 (SHPD LOG NO: 2008.5257; DOC NO: 0906PC32) and again on July 6 of 2009 (SHPD LOG NO: 2009.2892; DOC NO: 0907PC04), resulting in several requested revisions.

The preservation plan now contains the required information as specified in HAR §13-277-3 regarding the contents of preservation plans in general and is acceptable. An associated monitoring plan, received in July of 2008, was held pending acceptance of the preservation plan and will now be reviewed under separate cover.

Now that the plan has been accepted pursuant to HAR §13-277, please send one hardcopy of the revised document clearly marked FINAL, along with a copy of this review letter and a text-searchable PDF file on CD to the attention of “SHPD Library” at the Kapolei SHPD office.

If you have any questions or comments regarding this letter, please contact the SHPD’s Lead Maui Archaeologist,
Ms. Patty Conte (Patty.J.Conte@hawaii.gov).

Aloha,

Nancy A. McMahon

Nancy McMahon, Deputy SHPO/State Archaeologist
State Historic Preservation Division

c: Jeff Hunt, Director, Dept. of Planning, FAX (808) 270-7634
Maui CRC, Dept. of Planning, 250 S. High Street, Wailuku, Hawai‘i  96793
ARCHAEOLOGICAL MONITORING PLAN (TMKS 2-1-005:084, 2-1-006:037 AND 056)
INTRODUCTION

Per a request by Keka LLC., for an SMA minor permit application, Archaeological Services Hawaii, LLC (ASH) has prepared this monitoring plan for three parcels located in Makena, identified as Parcel H-1, TMK 2-1-05: 84 and 2-1-06: 37 and 56, Maluaka and a portion of Kaeo Ahupua'a, Makawao District, Island of Maui (Figures 1 and 2). This plan proposes archaeological mitigation measures to be implemented during all ground-altering construction related activities at the above referenced parcel.

The plans call for the construction of condominiums and a Beach Club, as well as retention basins and associated utilities (Figure 3). The construction related activities consist of, but are not limited to a base yard, dust and slit fences, grubbing of vegetation, excavations for grading, footings, utilities, below ground parking, and retention basins.

PROJECT AREA DESCRIPTION

The project area is situated in Makena adjacent to Maluaka Beach Park to the north, and Makena-Kekaholo Road to the east and west. It is comprised of 12.21 acres within 3 separate parcels. Parcel 37 is the largest parcel composed of 9.2 acres. Parcel 56 is adjacent to the north side of parcel 37 and consists of 1.01 acres, and parcel 84 is located meseta of parcels 37 and 56 and Makena-Kekaholo Road and contains 2.0 acres for a proposed retention basin.

The project area has been subjected to several archaeological investigations. The most recent work consisted of additional inventory survey procedures, during which fifteen historic properties, Sites 1007, 5708-5711, 5795-5799 comprised of 80 features were re-identified or newly discovered (Donham 2005). The sites consisted of traditional, historic and modern features (Figure 4). Traditional features associated with habitation, agriculture, ceremonial and religious were documented. Five charcoal samples from agricultural and habitation features returned an age range of AD1400-1440 to AD 1680-1740. Historic era sites were represented by agricultural, boundary walls, school site, habitation, animal husbandry, refuse disposal, Modern
features such as bulldozed roads and tailings, as well as modern refuse were also noted.

Two historic properties shall be preserved in place. Site 50-50-14-5706 Feature 11 which is an in situ burial site. This historic property is located along the east, central portion of the project area. The burial site shall have a 20-28 ft. buffer zone surrounding the burial. Within these buffers, several additional features from Site 5706 will be preserved. Feature 10 a modified outcrop will be preserved within the buffer zone, as well as a portion of Features 12 (modified outcrop and boulder alignment) and 14 (midden scatter). Site 50-50-14-5711 a ceremonial complex contained 8 features. Seven of these features will be preserved within the current development plans. Site 5711 is located along the top, sides and base of a major gulch which traverses parcel 36 awa‘awaa‘au. Feature 1 is the primary feature which functioned as a lo‘a, Features 2, 3, 5 and 6 are terraces that are situated along the sides of the gulch. Near the base of the drainage are Features 4 (a partial enclosure) and Feature 8 (a possible secondary lo‘a). The buffer zones surrounding this site will be from 5-20 ft.

EXPECTABILITY OF SUBSURFACE SITES

Based on the above information, it is likely that subsurface features associated with the pre-Contact and historic period eras will be recovered during grubbing and grading activities.

MONITORING PLAN

The current construction plans call for excavations ranging from 1-20 feet. Full-time monitoring will be the protocol for this project. In the event that, rock and or the water table is encountered and these procedures need to be adjusted; consultation and approval by SHPD via telephone and in writing must be obtained before implementing any changes to these monitoring methods. SHPD will also be notified of the onset and completion of the proposed monitoring project.

Due to the presence of historic properties in this area, one archaeological monitor per piece of ground disturbing equipment is the protocol for this monitoring project. The contractor and or landowner must inform the archaeologist at least one month in advance if more than 2 archaeological monitors will be required for this project. Dependent on availability, Maui resident archaeologists will be assigned to this project.

Prior to the commencement of construction, all pertinent parties will be informed of the monitoring procedures as well as the monitors’ authority to halt work in the vicinity of a find. Orange construction fencing shall be placed around the preservation sites under the archaeologist direction (See Preservation Plan for more details). This fencing must be erected prior to any ground disturbing activities. It is suggested that it be installed during the construction of the BMP's (dust and silt fences). Once construction commences, and subsurface sites are inadvertently exposed, ground-disturbing activities in the immediate area will temporarily halt until the archaeologist makes an assessment. The archaeologist will then consult with SHPD to determine the appropriate mitigation measures for the find. The area around the site shall be protected by erecting orange fencing or yellow caution tape around the findings. The site will be recorded utilizing all standard archaeological methods and procedures. Stratigraphic profiles will be drawn, photographs will be taken, and soil samples collected not only from the subsurface site, but also from selected locations within the project area.

If nighttime work is performed, the general contractor must notify the consulting archaeologist at least 5 days in advance. The archaeological monitor has sole discretion to determine if lighting is adequate to perform visual inspections of the soil.

If historic bottles are found they are to be collected by the archaeologist. No bottles may be collected or taken by any construction worker.

In the event that human remains are inadvertently exposed during this undertaking, the aforementioned procedures of halting and securing the site will be performed. After and initial assessment is made by Mr. Hinano Rodriguez of SHPD, and members of the Maui/Na'au Islands Burial Council-MLIBC (if the remains are believed to be Native Hawaiian), procedures for documenting the burial find shall be undertaken. These mitigation measures may include mapping and collecting displaced human skeletal remains, raking and screening of the area to collect all displaced human remains, and excavations to ascertain the context (in situ or displaced) and number of individuals represented by the skeletal remains.
ASH procedures for exposed skeletal remains and possible burial pit outlines is presented below.

1. Upon identification of displaced human remains, a possible burial pit outline, or basement and foundation all construction activities in the immediate area of the find is temporarily halted.

2. SHPD and the MLIBC shall be notified.

3. Mark the perimeter of the avoidance area with yellow caution tape, and or orange construction fencing and cover the remains to protect them from the elements.

4. Extend a baseline through the center of the dispersal area.

5. Mark all displaced remains with pin flags and produce a plan view map. Locate and identify displaced remains and only collect the displaced remains.

6. If a concentration is identified, map the concentration and leave in place for determination of disposition and controlled manual excavations, as warranted.

7. Manually rake bulldozed or other mechanically produced tillings and screen push piles to collect all displaced and fragmented remains.

8. Complete an osteological inventory of the collected remains to determine the components that may be left in situ or missing.

9. If a concentration or possible burial pit was identified, place a 2.0 by 2.0 meter controlled test unit, centrally locating the concentration within the test unit. Clean the surface with a trowel to determine if a pit outline is present. Map pit outline.

10. If no concentration was identified and raking is complete, skip to blade testing on item #13.

11. Excavate the in situ portion to identify any articulation, document the articulated portion within the pit outline, and collect all clearly displaced remains. Articulated remains and those in an anatomically correct position, shall be left in place until a disposition determination can be made by SHPD in consultation with the MLIBC.

12. Fill out all test excavation and burial forms and draw a plan view map of the in situ remains. Then cover remains with a thin layer of sand (if SHPD and MLIBC have seen the feature) and or tarp.

13. Conduct mechanical blade testing in potential areas of further discoveries. Blade testing is conducted by removing shallow (2-6") lifts over a predetermined area.
May 11, 2007

Mr. Jeffrey Pantele
Archaeological Services Hawaii, LLC.
5530 A Vineyard Street
Waialua, Hawaii 96793

Dear Mr. Pantele:

SUBJECT: Chapter 68-42 Historic Preservation Review — (County/DBA)
Archaeological Monitoring Plan for the Proposed Development of Parcel E-3 for Kea’au LLC, SMI 200500015,
72 Unit Condominium, Ancillary Recreation Building and Related Improvements, Grading and Grubbing (G T200700096), WTP T 200700093) and
Building Permit Applications (B T 200629889 through B T20063026)
Mauna Kea Kea Aupuna, Waikoloa District, Island of Maui

LOI NO: 2007.1108
DOC NO: 0704MK44
Archaeology

Thank you for the opportunity to review this plan and permit applications which were received by our staff on the following dates: November 28, 2006 (Archaeological Monitoring Plan), December 8, 2006
(SMI 20050011), January 17, 2007 (Mass Grading/Work on County Highway (G) 20070004, WTP
20070023) and February 20, 2007 (Building Permit Applications B T 200629889 through 20063026).

There has been some confusion regarding particular permit applications as covered by the archaeological monitoring plan, as the monitoring plan encompasses the above parcel/boundary, and includes a portion of TMI 2-1-005-085, 083, and 118. While we understand that portions of these parcels will be utilized during development of TMI 2-1-005: 084, 2-1-006: 037, and 2-1-006: 056, and that they are included in the archaeological monitoring plan text, we will address these issues separately. TMI 2-1-005-094 is a two acre parcel which was the old Mahana Road on which the old Mahana School was located, TMI 2-1-006: 037 is 9.2 acres and 2-1-005-056 is 1.01 acres.

We have previously provided comments on an archaeological inventory survey (LOG NO: 2006.2117/ DOC NO: 6696MK35), a Draft Environmental Assessment (LOG 2006.2120/ DOC NO: 6698MK40), additional testing at SHIP 50-50-14-5711, Feature 7 (LOG NO: 2006.4048/ DOC NO: 0412MK38), a Preservation Plan for a Ceremonial Complex (LOG NO:2006.4045/ DOC NO: 6613MK38), and a Burial Treatment Plan for SHIP 50-50-14-5706, Feature 11 (2006.2468/DOC NO:6690MK38).

During the archaeological inventory survey, which was conducted on TMIs 2-1-005-084 and 2-1-006-037 and 056, a total of 15 historic properties comprised of 89 features were identified. Several of these (N=11) were previously identified during prior archaeological work in the area by Bishop Museum,

but did not receive formal SHIP designations until this survey. SHIPs with the preservation recommendation that SHIP 50-50-14-5711, a ceremonial site with eight features. Subsequent testing at Feature 7 of this site determined that this particular feature was not part of the ceremonial complex. It was interpreted as a water control feature within a small area. It was excluded from the above mentioned Preservation Plan.

Outstanding concerns during review of the Draft Environmental Assessment included the Preservation Plan, the Burial Treatment Plan, and the Data Recovery Report, for the old Mahana School Site. We have reviewed and accepted, as indicated above, both the Preservation Plan for SHIP 50-50-14-5711 and the Burial Treatment Plan, still outstanding is the Data Recovery Report. The data recovery project was conducted by Bishop Museum, long ago. Your firm has been unsuccessful in obtaining the field notes from the data-recovery work. We have recently received a copy of the oral historic component of the project, which was prepared by Elena Fuso, LLC (Tuna and Kapulaulama 2006). We understand that the current developer will assume responsibility for obtaining information from Bishop Museum to complete this report in the future.

The archaeological monitoring plan conforms to Hawaii Administrative Rules Chapter 13-320 which governs standards for monitoring: the subject plan includes the following provisions. An archaeologist will be on site on a full-time basis and will have the authority to halt excavation in the event that cultural materials are identified. Consultation with Maui SHPO will occur in this event, to determine acceptable course of action. If human burials are identified, work will cease, the SHIP Burial Sites Program, Maui SHPO, Oahu SHPO and the Maui/Lanai Islands Burial Council will be notified, and compliance with procedures outlined in BERS 6.8.43 will be followed. Coordination meetings with the construction crew will be held prior to project initiation. The plan further indicates that an acceptable report will be submitted to this office within 180 days of project completion. We appreciate your voluntary correction of page 1, assuring that only the three above mentioned parcels are included in this plan.

Please notify our Maui and Oahu offices, via facsimile, at onset and completion of the project and monitoring program.

The plan is acceptable. We believe there will be "no historic properties affected" with the implementation of this monitoring plan, and the interim and long term protection measures detailed in the Burial Treatment Plan and the Preservation Plan. If you have any questions, please contact Dr. Melissa Kirkendall at (808) 243-5166.

Aloha,

Malcolm Chinos, Administrator
State Historic Preservation Division

MCK4

cc: Bert Ratts, DPLB, County of Maui
Jeff Tani, Director, Dept. of Planning, 250 S. High Street, Walla Walla, HI 96793
Maui Cultural Resource Commission, Dept. of Planning, 250 S. High Street, Walla Walla, HI 96793
Jeff Pantele, Principal Investigator, ASH, LLC 837-011
Hiromi Rodrigue, Cultural Historian, SHPO
Everett Dowling, Dowling Company, Inc. PAX 242-37779
ARCHAEOLOGICAL MONITORING PLAN
FOR PARCEL H-2 LOCATED AT
TMK: 2-1-05: 83 and 120 PORS
MALUAKA AHUPUA'A,
MAKAWA'O DISTRICT
ISLAND OF MAUI

FOR: Keka'a LLC,

BY: Lisa J. Retumon-Hazuka (B.A.)
Jeffrey Pantaleo (M.A.)

REVISED
JULY 2008

ARCHAEOLOGICAL SERVICES HAWAII, LLC
1930 A Vineyard Street
Waikiki, HI 96793

"Protecting, Preserving, Interpreting the Past, While Planning the Future"

INTRODUCTION
At the request of Mr. Del Fujimoto for Keka'a LLC, Archaeological Services Hawaii, LLC (ASH) of Waikiki proposes to undertake archaeological monitoring of all ground disturbing activities associated with the development of a parcel of land located in Makawao at TMK: 2-1-05: 83 and 120 PORS in Maluaka ahupua'a, Makawao District, Island of Maui (Figures 1 and 2).

The initial construction activities for the project area consist of backhoeing material, and grubbing the vegetation. Future ground disturbing activities will consist of excavations for the construction of residential structures and associated utilities.

PROJECT AREA DESCRIPTION
The project area, encompassing 6.0 acres (Parcel 83) and .355 (Parcel 120) is located in Makawao and occupies a small coastal portion of Maluaka ahu which, Makawao District (traditional district of Honamaka), Maui Island. The project site is located melewai of Makawao Atalai, near the north cul-de-sac of the Maui Prince Hotel. It bordered on the north and east by Parcel 85, south by Makawao Avenue and west by a segment of the Old Makawao-Kamilo Road. The northern and western boundaries are defined by free-standing stone walls (Site 1007 Feature 1 on the west and Feature 7 on the north), the eastern boundary is not physically defined, and a post and barbed-wire fence-line runs along the southern boundary.

An inventory survey was conducted by Aki Shirato Consulting of Honolulu in association with Archaeological Services Hawaii, LLC of Waikiki intermittently from 2001-2006. Two sites, State Inventory of Historic Places (SIHP) 50-50-14-6366 comprised of 15 features, and SIHP 6367 comprised of 3 component features were identified. Site 6366 represents a historic homestead occupied during the early twentieth century. Site 6357 is a modified outcrop from the prehistoric to early historic period and represents a traditional habitations with associated agricultural features that were intermittently occupied.

Both sites have been adequately documented and no further work, beyond construction monitoring is recommended for the project area.

EXPECTABILITY OF SUBSURFACE SITES
Based on the presence of the above existent historic properties, the documentation of habitation, religious and agricultural sites in adjoining parcels, subsurface remains sites may be present, thus all ground disturbing activities shall be monitored.
MONITORING PLAN

The construction plans call for excavations ranging from 18 inches to 10 feet in depth. Full-time monitoring will be the protocol for this project. In the event that rock, sterile fill deposits, or the water table is encountered, monitoring procedures may need to be adjusted; however, no changes may be made without consultation and approval by SHPD via telephone and in writing. SHPD will also be notified of the onset and completion of the proposed undertaking.

One archaeological monitor per piece of ground disturbing equipment is the protocol for this monitoring project. Depending on availability, Maui resident archaeologists will be assigned to this project. Prior to the commencement of construction, all pertinent parties including but not limited to construction and archaeological personnel will be informed of the monitoring procedures as stipulated in the monitoring plan, as well as the monitors' authority to halt work in the vicinity of a find. In the event that subsurface sites are exposed during construction, ground-disturbing activities in the immediate area will temporarily halt and project activities may shift to other areas of the project. Once the archaeologist makes an assessment, they will then consult with SHPD to determine the appropriate mitigation measures for the find. The area around the site shall be protected by erecting orange flagging or yellow caution tape. The site will be recorded utilizing all standard archaeological methods and procedures. Stratigraphic profiles will be drawn, photographs will be taken, and soil samples collected not only from the subsurface site, but from selected locations within the project area. If nighttime work is performed, the general contractor must notify the consulting archaeologist at least 3 days in advance. The archaeological monitor has sole discretion to determine if lighting is adequate to perform visual inspections of the site.

If historic artifacts are found they are to be collected by the archaeologist. No bottles may be collected or taken by any construction worker.

In the event that human remains are inadvertently exposed during this undertaking, the aforementioned procedures of taping and securing the site will be performed. After an initial assessment is made by Mr. Alain Rodrigues of SHPD, and members of the Maui/Lanai Islands Braille Council-MILBC (if the remains are believed to be Native Hawaiian), procedures for documenting the burial find shall be undertaken. These
mitigation measures may include mapping and collecting displaced human skeletal remains; however, no human skeletal remains will be collected without authorization from SHPD. Additional documentation will include, marking and screening of the area to collect all displaced human remains, and excavations to ascertain the context (in situ or displaced), and number of individuals represented by the skeletal remains.

PROCEDURES FOR DISPLACED HUMAN SKELETAL REMAINS

The procedures for exposed skeletal remains and possible burial pit outlines is presented below.

1. Upon identification of displaced human remains, a possible burial pit outline, or baulk and corral unexpected all construction activities in the immediate area of the find is temporarily halted.

2. SHPD and the MLIBC shall be notified.

3. Mark the perimeter of the avoidance area with yellow caution tape, and or orange construction fencing and cover the remains to protect them from the elements.

4. Extend a baseline through the center of the dispersal area.

5. After notification and concurrence with SHPD, mark all displaced remains with pin flags and produce a plan view map. Locate and identify displaced remains and only collect the displaced remains if authorized by SHPD personnel.

6. If a concentration is identified, map the concentration and leave in place for determination of disposition and controlled manual excavations, as warranted.

7. Manually rake baulked or other mechanically produced siltations and screen push pans to collect all displaced and fragmented remains.

8. If no concentration was identified and mixing is complete, skip to blade testing on item #13 after notification and concurrence with SHPD.

9. Complete an osteological inventory of the collected remains to determine the components that may be left in situ or mixing.

10. If a concentration or possible burial pit was identified, notify SHPD of the possible burial feature and ask for written authorization to test the possible burial feature. Once authorization for testing has been received by SHPD, place a 2.0 by 2.0 meter controlled test unit, centrally located the concentration within the test unit. Clean the surface with a towel to determine if a pit outline is present. Map pit outline.

11. If SHPD has provided written authorization to test on in situ burial, excavate the in situ portion to identify any articulation, document the articulated portion within the pit outline, and collect all clearly displaced remains. Articulated remains and those in an anatomically correct position, shall be left in place until a disposition determination can be made by SHPD in consultation with the MLIBC.

12. Fill out all test excavation and burial forms and draw a plan view map of the in situ remains. Then cover remains with a thin layer of sand (if SHPD and MLIBC have seen the feature) and or tarps.

13. After notification and concurrence with SHPD, conduct mechanical blade testing in potential areas of further discoveries. Blade testing is conducted by removing shallow (2-3”) lifts over a predetermined area.

After consultation with the owner, SHPD and the MLIBC (if the remains are believed to be Native Hawaiian), a burial treatment plan will be prepared.

Upon completion of the fieldwork, all necessary lab procedures including but not limited to processing, cataloging and analyses of artifacts and photographs, analyses of soil samples as warranted and submitting of charcoal samples for radiocarbon dating will be performed. All analyses will be synthesized into a final monitoring report, and the report shall be submitted within 180 days of the completion of fieldwork. Copies of this report will be sent to the State Historic Preservation Division offices on Oahu and Maui for their review and comments.

All notes, photographs and artifacts will be archived at the offices of Archaeological Services Hawaii, LLC at 1910 A Vineyard Street, Waikiki, HI 96813.
August 5, 2018

Jeffrey Petersen, M.A.
Archaeology of Hawaii, LLC
1930 A Vineyard Street
Wailuku, Hawaii 96793

LOG NO: 2008.1494
DOE NO: 080812C1
Archaeology

SUBJECT: Chapter 3.4-41 Historic Preservation Review—REVISED Archaeological Monitoring Plan for HI Parcel No. 2 in Alika Akapu‘u, Makena District, Maui Island

Thank you for the opportunity to review this revised plan, which our staff received on July 31, 2008 (Robinson-Harris and Petersen 2008): Archaeological Monitoring Plan for Parcel 3 Located at TMK (1) 3-1-009-45 and Portion of 115...Archaeological Services Hawaii, LLC.

The plan was first reviewed by SHPD staff on July 31 of 2008, resulting in a revision regarding TMK clarification (SHPD LOG NO: 2008.1494; DOE NO: 080812C1). The most recent version of the report was reviewed in PDP format to confirm completion of the revision.

Precautionary monitoring was recommended by your firm for all future ground disturbing activities within the subject parcel after completion of an inventory survey in which two culturally significant sites comprised of 11 component features, now as moved to SHIP 50-50-14-6346 (wall/mound), wooden house remnant, ancient public boundary, burials 39 and 39-3 (burial caves) and 34-4 and 34-4-2 (L-shaped mound), were identified. The historic period (late pre-contact to early historic) were identified.

The SHPD has recently accepted a revised version of the inventory survey report (SHPD LOG NO: 2008.1494; DOE NO: 080812C1) and with respect to the Hawaii Register of Historic Places, concurred that SHIP 50-50-14-6346 and 34-4-2 are significant under Criterion D for their potential to yield important information about history or prehistory. The SHPD also conducted an archaeological investigation and identified several culturally significant features.

As specified in the monitoring plan, there will be one archaeological monitor on site at all sites for each phase of ground disturbing operations. A series of meetings will be held with the construction crew and a consultation agreement is necessary. The monitoring archaeologist will have the authority to halt work in the vicinity of a culturally significant feature, and should anything of cultural significance be identified, the SHPD will be consulted to provide guidance.

Jeffrey Petersen, M.A.

Page 2

recommends...
ARCHAEOLOGICAL MONITORING PLAN
(TMKS 2-1-005:085, 108, AND 120 PORS.)
INTRODUCTION

At the request of Mr. Don Fujimoto for Keaka LLC, Archaeological Services Hawaii, LLC (ASH) of Wailuku proposes to undertake archaeological monitoring of all ground-disturbing activities associated with proposed improvements for three parcels of land located in Makena at TMK: (2) 2-1-05: 85, 108 and 120 pors in Maluaka ahupua'a, Honua'ula Moku, Makawao District, Island of Maui, (Figures 1 and 2).

The initial construction activities for the project area consist of grubbing the vegetation and establishing the best management practices (dust and silt fences, berms and etc). Future ground disturbing activities will consist of excavations for the construction of residential structures and associated utilities.

PROJECT AREA DESCRIPTION

The project area, encompassing 19.0 acres for Parcel 85, approximately 3.0 acres for a portion of Parcel 108 and .395 acres for Parcel 120, is located in Makena and occupies a small coastal portion of Maluaka ahupua'a, Makawao District (traditional) district of Honua'ula, Island of Maui. The subject parcels are juxtaposed between Makena Alanui and Makena-Ko'olau Roads, near the south end of the Maui Prince Hotel. It is bounded on the north by the existing golf course, to the south by Parcel 83 and Makena Alanui Road, to the east by Makena Alanui, to the west by Parcels 83, 84 and Makena-Ko'olau Road.

An inventory survey was conducted by Archaeological Services Hawaii and Aki Sinoto Consulting, intermittently from 2001-2007 where eight historic properties, State Inventory of Historic Places (SIHP) 50-50-16-6371-6374, 6476-6379 comprised of 59 features, were documented. Twenty-one features from five pre-Contact period sites, (Sites 6371, 6373, 6377 Feature 2, 6378, and 6379) have been recommended for preservation. The development plans were redesigned to accommodate these significant historic properties. A Preservation Plan stating short-term (before and during construction) and long-term (in perpetuity) mitigation measures for these sites is being prepared for submittal to SHPD.

EXPECTABILITY OF SUBSURFACE SITES

Due to the presence of numerous historic properties consisting of pre-Contact and historic period habitation and agricultural complexes within and surrounding the project area,
subsurface remnant sites may be present and all ground-disturbing activities shall be monitored.

Figure 1. Location of Project Area on USGS Quadrangle

Figure 2. Location of Project Area on Tax Map Key
MONITORING PLAN

The construction plans call for excavations ranging from 18 inches to 12 feet in depth. Full-time monitoring will be the protocol for this project. In the event that rock, sterile fill deposits and or the water table is encountered, monitoring procedures may need to be adjusted; however, no changes may be made without consultation and approval by SHPD via telephone and in writing. SHPD will also be notified of the onset and completion of the proposed undertaking.

One archaeological monitor per piece of ground disturbing equipment is the protocol for this monitoring project. Depending on availability, Maui resident archaeologists will be assigned to this project. Prior to the commencement of construction, orange construction fencing shall be erected around all preserved sites. Additionally, all pertinent parties including but not limited to construction and archaeological personnel will be informed of the monitoring procedures as stipulated in the monitoring plan, as well as the monitors’ authority to halt work in the vicinity of a find. In the event that subsurface sites are exposed during construction, ground-disturbing activities in the immediate area will temporarily halt and project activities may shift to other areas of the project. Once the archaeologist makes an assessment, they will then consult with SHPD to determine the appropriate mitigation measures for the find. The area around the site shall be protected by erecting orange fencing or yellow caution tape. The site will be recorded utilizing all standard archaeological methods and procedures. Stratigraphic profiles will be drawn, photographs will be taken, and soil samples collected not only from the subsurface site, but from selected locations within the project area. If nighttime work is performed, the general contractor must notify the consulting archaeologist at least 3 days in advance. The archaeological monitor has sole discretion to determine if lighting is adequate to perform visual inspections of the soil.

If historic bottles are found they are to be collected by the archaeologist. No bottles may be collected or taken by any construction worker.

In the event that human remains are inadvertently exposed during this undertaking, the aforementioned procedures of halting and securing the site will be performed. After an initial assessment is made by Mr. Hitano Rodrigues of SHPD, and members of the Maui/Lane'i Islands Burial Council-MLIBC (if the remains are believed to be Native
11. If SHPD has provided written authorization to test an in situ burial, excavate the in situ portion to identify any articulation, document the articulated portion within the pit outline, and collect all clearly displaced remains. Articulated remains and those in an anatomically correct position, shall be left in place until a disposition determination can be made by SHPD in consultation with the MLIBC.

12. Fill out all test excavation and burial forms and draw a plan view map of the in situ remains. Then cover remains with a thin layer of sand (if SHPD and MLIBC have seen the feature) and or tarp.

13. After notification and concurrence with SHPD, conduct mechanical blade testing in potential areas of further discoveries. Blade testing is conducted by removing shallow (2-6") lifts over a predetermined area.

After consultation with the owner, SHPD and the MLIBC (if the remains are believed to be Native Hawaiian), a burial treatment plan will be prepared.

Upon completion of the fieldwork, all necessary lab procedures including but not limited to processing, cataloging and analyses of artifacts and photographs; analyses of soil samples as warranted and submitting of charcoal samples for radiocarbon dating will be performed. All analyses will be synthesized into a final monitoring report, and the report shall be submitted within 180 days of the completion of fieldwork. Copies of this report will be sent to the State Historic Preservation Division offices on Oahu and Maui for their review and comments.

All notes, photographs and artifacts will be archived at the offices of Archaeological Services Hawaii, L.L.C at 1938 A Vineyard Street, Wailuku, HI 96793.
July 21, 2009

Jeffrey Panaitiu, M.A.
Archaeological Services Hawai‘i, LLC
1925 A Vineyard Street
Wailuku, Hawai‘i 96793

LOG NO: 2008-3045
DOC NO: 09077FC24
Archaeology

Mäahaka Area’s, Makawao District, Island of Maui, Hawai‘i

Thank you for the opportunity to review this plan, which although originally submitted in 2008 was not subject to formal SHPD review until now. The plan (Pouto-Pauta and Panaitiu 2008; Archaeological Monitoring Plan for Parcel H-2, Archaeological Services Hawai‘i, LLC, was received by our staff in hardcopy format on July 23, 2008 but held pending acceptance of an archaeological inventory survey and associated site preservation plan.

The plan was proactively prepared by your firm as a result of a long-standing archaeological consultant relationship with your firm and the project developer. Precautionary archaeological monitoring for all ground altering disturbance in the project area was recommended upon completion of at least two prior archaeological inventory surveys within the bounds of the current subject parcels, during which several culturally and historically significant sites have been identified (SHPD Log No: 2008-3045; DOC No: 09077FC24 and SHPD Log No: 2008-4056; DOC No: 09077FC24). These known to be in the immediate vicinity of the proposed project include SHP #570-16-4616 (post-Contact period wall/wall segments), wooden house remnants, concrete slab foundations, surface shell and refuse scatter, mounds, 4587 [pre-Contact habitation platform and five walled pits], 4571 [pre-Contact habitation platform and five walled pits], 4573 [pre-Contact habitation platform and wall], 4576 [map boundary wall and a modified courtyard wall, post-Contact in origin], 4576 [pre-Contact to early post-Contact habitation and agricultural features], 4576 [pre-Contact habitation U-shape and circular walled pit probably used for agriculture], 4576 [pre-Contact habitation square enclosures and modified boundary with constructed pits and a natural uproot], 4579 [two rectangular pre-Contact habitation enclosures and platforms].

Feature 1 of 4574 and five other sites (4571, 4573, 4574, 4576, and 4579) are subject to archaeological site preservation commitments (SHPD Log No: 2008-3045; DOC No: 09077FC24; SHPD Log No: 2009.2882; DOC No: 09077FC24; SHPD Log No: 2009.2882; DOC No: 09077FC24; SHPD Log No: 2009.2882; DOC No: 09077FC24). Please note we expect to receive written and photographic verification that short-term preservation measures are in place prior to the onset of ground altering activity within the subject parcels.

Jeffrey Panaitiu, M.A.
Pages 3 of 3

As specified in the monitoring plan, there will be one archaeological monitor on site for each phase of ground altering machinery in operation during the proposed project. A coordination meeting with the construction crew and all other pertinent parties to explain monitoring procedures and that the monitoring archaeologist has the authority to halt work in the vicinity of a culturally significant site will be undertaken, and should anything of cultural significance be identified, the SHPD will be notified for mitigation recommendations. The plan further states that in the event human remains are inadvertently exposed, both the SHPD and Maui/Lana‘i Island Burial Council (MLIBC) will be notified and appropriate burial protocol followed once jurisdictional determinations have been made. No human remains will be collected or removed from the project area unless specifically authorized by the SHPD. A report detailing the findings of the monitoring activity will be prepared and submitted to our office for review within 180 days after the completion of the project.

The plan contains the required information as specified in HAR §3-209.4(b) regarding monitoring plans in general and is acceptable.

Now that the monitoring plan has been accepted pursuant to HAR §3-209.4(b), please send one hardcopy, clearly marked FINAL, along with a copy of this review letter and a test-usable PDF file on CD to the attention of "SHPD Library" at the Kāpōlāl SHPD office.

If you have any questions or comments regarding this letter, please contact the SHPD's Lead Maui Archaeologist, Mr. Patty Come (Patty.J.Come@hawaii.gov).

Aloha,

Nancy A. McMahon

Nancy McMahon, Deputy SHPO/State Archaeologist
State Historic Preservation Division

cc: Jeff Hunt, Director, Dept. of Planning, FAX (808) 270-7614
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CULTURAL IMPACT ASSESSMENT REPORT
Mākena
FINAL REPORT

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Mākena
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Aia o Pu’u ‘Ola‘i, he wahi nani loa i Mākena noho māle ma ke ka hawaiiwana.
Pu‘u ‘Ola‘i, a beautiful place at Mākena sitting peacefully along the whispering sea.

Mālie Maui ke Waio Mai la from the Bishop Museum Library

Mālie o Maui
Ke waio mai la Kahiakala
'O Kahiakala Mokuhano ka uka
Kahiakala i ke alo Kauikī
Hī Kauikī ia Mokuhano
Hī Mokuhano ia Keauni
Hī Waikoloa i ka ili'ilī
Hone ana ia Kapueokahi
O Honua'ula mauka
O Kauliuli makai
Pau Pepe'a i Keauni
No ka he'e-palaha
Moku i ka ohe la ea la e

Maui is peaceful
Situated next to rough seas
Kahiakala is inland
And Kahiakala on the face of Kauikī
Kauikī guards over Mokuhano
Mokuhano attends to Keauni
Waikoloa cares for the pebbled beach
Which softly embraces Kapueokahi
Honua'ula is inland
Kauliuli is seaward
Pepe'a is destroyed by fire (The border ends at keauni)
Because it's slipping away
Severed by the sacred knife

The above chant describes the gentle calmness of the island of Maui. The title of the chant, "Mālie o Maui" means "the peacefulness of Maui." In as much as I was the last child (muli iala) of fourteen children raised in Kula, my dad made sure that I learned about the customs and lifestyle of our family. As I woke up daily with my dad at sunrise, he would look makai (towards the ocean) and if it was so, he would automatically say, "Mālie i ke kai (The sea is calm)," or "Mālie o Mākena (Mākena is peaceful)." It was in our lifestyle to roll with the calm flow of the northeast trade winds of Maui being open to receive and available to give a helping hand of aloha. The goal of our 'ohana (family) both Kimokeo and I is to help Maui continue to be "No Ka 'Oi." E konom mai! Mai, Mai, Mai. (Come in, come, come, come.

Honua'ula

Scope

The scope of this report will be to compile various historical, cultural and topographical accounts and facts of Mākena and its adjacent ahupua'a (land divisions), (TMK 2-1-05; 83, 84, 85, 86, 108, 120, 124, 125 (TMK 1-2-06; 36, 37, 56, 57, 99 (TMK 2-1-07; 04, 68, 92, 93 94); and finally (TMK 1-08; 78, 79, 80, 81, 90, 98, 99, 100, 101 and 108 all of which encompasses 1860 acres. Mākena is the name being used for this present cultural assessment. The land area as shown on the Honua'ula map falls between Pāpalau of the North and Kanaio of the South, Kula of the East and the sacred islands of Molokini and Kahului of the West.

Mākena is a small southern part of one of the twelve land districts on the island of Maui in Honua'ula which is close to the tail end of the funnel of the northeast trade winds.
wind that blows from Kahului all the way to Mākena from the early afternoon into the wake of the sunset hour at South Maui. It was a very popular fishing area in ancient times with many kulana-kau-hale (village sites) strung along the shoreline. Honua‘ula, a pa a na kahili pūkahi na 'ale o ka Mo‘o. Honua‘ula whose shoulders are pummeled by the Mo‘o’s wind. (Pukui, 113). A poetic expression for a person being buffeted by the wind. Mākena, Maui, is a windy place.

In this report, we Kalii Tau’a and Kimokeo Kapaulehua are taking the liberty to express our personal experiences since our ‘ohana (family) have spent much time in the area. We together have been on the top of Auwahi which is in alignment to lower or Auwahi kal in that leads down to the waters of Mākena. We have also paddled the waters of Kealakekua which is the channel fronting the volcanic lands of Mākena. As native Hawaiians, a place tells us who we are and who our hānai (extended) families are. Mākena and other places in Hawai‘i give us our history, the history of our clan, and the history of our people. When thinking of Mākena, I can see our model T vehicle in 1950 slipping down the old temporary dust filled road which cut through Ulupalakua Ranch from the top of Kula Road heading all the way down to Mākena Landing. Honua‘ula ties us in to the human events of the past that affect us and our loved ones. Honua‘ula gives us a feeling of stability and belonging to our family, those living and those who have passed away. Honua‘ula gives us a sense of well-being and of acceptance of all who have experienced this ahupua‘a or who will be experiencing this sacred ‘aina as residents. Reviewing the traditional proverbs, chants, and legends of South Maui and kupuna interviews will allow the reader to understand the overall cultural significance of Honua‘ula and Mākena. This simple chant expresses where the ancient knowledge and wisdom were stored:

E hā mai ka ‘ike mai hona mai e
O nā mea hana nō e u o nā mele e
E hā mai, e hā mai, e hā mai e
Bring the knowledge from above
All the hidden things in the chants
Bring it forth, bring it forth, bring it forth

We are approaching this report utilizing seven periods of time with a general overview of each period to give the reader a bigger picture and more background information of the settlement of Mākena. In the tradition of thinking in Ahupua‘a mind, this report will make reference to the entire area of Honua‘ula when discussing the area of Mākena. We rely upon the ‘ike of our elders to provide the knowledge concerning the history and culture of Mākena.

Era 1: Mythical Creation

One of the standard works that we can view is the Kumulipo (Creation Chant) which explains the birth of the Hawaiian Islands similar to Darwin’s creation of the world. Several other mythical creation stories evolved starting with the favorite Fire Goddess, Pele. There are many stories of Pele’s travels from Tahiti to the islands of Hawai‘i but
we share just the relevant stories that covered the island of Maui and the shpupua of Honua'ula.

Pele lived a very long time at Pu'u Keka'a on Maui but the people living on the island saw her only as fire. The whisper of the natives who lived at Makena spoke of Pele as their women chief who roamed the island and was greater than all of them.

In Sterling's book, *Sites of Maui* she tells a ma'oaloa (story) about Pele's position in the community leaving a man named Pea who lived at Waheane, Honua'ula to dedicate his new home to Pele saying that it should not be occupied until she had entered it. Sadly, he did not keep his word and ate all the ho'okupu (ceremonial food) which he had prepared for her. His unfaithfulness caused Pele to chase Pea to the ocean and her curse changed him into Polohaku Pea (Rock of Pea); which is located north of La Perouse Bay standing tall at the ocean front as a symbol of her prowess of yesterday, today and forevermore. (p 228)

The latest and last physical appearance of Pele known to the natives of Maui occurred as late as 1800 when the lava Goddess flowed from the top of the southern slopes of Haleakalā down through Honua'ula and landing at the surf of Makena and Wailea and small sections of Kīhei.

Many of the lava flows in the summit depression and in the Ulupalakua to Pu'u O'o area were dark black and bare 'a'a (rough, jagged type of lava landscape). The two freshest lava flows are near La Perouse Bay. The upper flow broke out of a fissure near Pu'u Mahoe and the lower flow broke out at Kalua o Lopa cone. Both flows contain large boulders or wrapped masses of typical 'a'a found throughout Hawaiii. The earliest published record seems to indicate that the Lapa flow might be the historic flow and the Mahoe flow earlier, but the similarity of petrology and degree of weathering suggest simultaneous eruption in the district of Honua'ula.

About two centuries ago, Tahu Pele completed her Lalanipu'u (row of foot hills) in Honua'ula such as Pu'u Naio, Pu'u Kulu, Pu'u Oha'i, Pu'u Laa Pali and Pu'u Pimoe. In 1736, Pele was still at Pimoe as she welcomed the birth of Kamahameha the Great. Although Haleakalā remains dormant, there is still a lot of seismic activity from Pu'u Pimoe and even to Pu'u Ola'i (Earthquake Hill) at Ku-Makena indicating she is close by.

At Pu'u Ola'i, Pele was jealous of the mo'o maiden of Kaho'olawe, Inana, whose parents were Helo and Kali. Pele accused Inana of trying to steal her lover Kohau from her at Makale'a. In a fit of anger, Pele transformed the three into hills named after them. Her older brother Kamohaili scolded her and pronounced the Kanawai Inana there, meaning, "you must not say or do unkind things to others." From that time the people of Honua'ula observed that law. They named the area Ku-Makena meaning 'stand courageously, accepting the joys and sorrows of life bravely, even while mourning or rejoicing.'


While Pele was carving her niche on the islands from below the earth's surface, her counterpart demi-god Maui-akamai had taken an ocean approach to presenting the islands. He paddled out into the sea of Po'o from Kipahulu and in line with the hill Ka-iwi-o-Pele near Hana with his brothers Maui-nua, Maui-waena and Maui-iki-iki to fish up the islands from beneath the deep ocean with the magical fishhook Manaiakalani. It is only because his brothers looked back which prevented the islands from all rising to the top. Today, we can be reminded of Maui-akamai's works by enjoying his fishhook, Manaiakalani, which is the constellation Scorpio stretched out in the Southern sky and viewed clearly from Makena.

**Eras 2 & 3: Pre-contact Migration – 0 to 1100AD**

After the mythical creation of the islands was completed, pre-contact migratory periods in five distinct eras started in the year 0 to 600 A.D. Migrations from Polynesia, particularly the Marquesas, continued through the second era. Between 600 and 1100 A.D. the population in the Hawaiian islands primarily expanded from natural internal growth on all of the major islands. Through the course of this period the inhabitants of the Hawaiian islands grew to share common ancestors and a common heritage. More significantly, they had developed a Hawaiian culture and language uniquely adapted to the islands of Hawaii which was distinct from that of other Polynesian peoples. (Fornander, 222). The gods such as Pele, Maui and others continued to grow among the natives.

During these periods, the social system was communal and organized around subsistence production to sustain 'ohana (large extended families). Hawaiian spiritual beliefs and customs focused on maintaining harmonious and nurturing relationships to the various life forces, elements and beings of nature. Ancestral spirits were honored as deities. Land and natural resources were not privately owned; rather, the Hawaiian people maintained a communal stewardship over the land, ocean and other natural resources of the islands. The kupuna (elders) provided leadership and guidance to the maka'a (adults) who performed most of the daily productive work of fishing, cultivation, and gathering. Between the islands of Hawaii there was some variation of language dialect and names for plants, animals, rains and winds. There were also variations in physical structures, subsistence techniques and art forms. Origin myths varied according to the particular migration and genealogical line from which families descended. The prominence of akua (gods) and kupuna (elders) also varied by island. For example, as discussed above, the volcanic deity Pele was more prominent in Puna and Ka'u. Qualitatively, the language, culture, social system and spiritual beliefs and
customs were common among all the inhabitants of the islands. Oral traditions indicate frequent transmigration and even intermarriage among families from different islands.

Era 4: Early Tahitian Migration – 1100 to 1400AD

This fourth period, between 1100 and 1400 A.D., marks the era of the long voyages between Hawai’i and Tahiti and the introduction of major changes in the social system of the Hawaiian people’s nation. The chants, myths and legends record the voyages of great Polynesian chiefs and priests, such as the high priest Pe‘a, the ali‘i nui (Head Chief) Mo‘ikeha and his sons Kila and La‘amalakahiki, and high chief Hawai’iloa. Traditional chants and myths describe how these new Polynesian chiefs and their sons and daughters gradually appropriated the rule over the land from the original inhabitants through intermarriage, battles and ritual sacrifices. The high priest Pe‘a introduced a new religious system that used human sacrifices, feathered images, and enclosed heiau to facilitate their sacred religious practices among the priests. The migration coincided also with a period of rapid internal population growth. Remnant structures and artifacts dating to this time suggest that previously uninhabited leeward areas were settled during this period.

Hona‘ulu is an ancient name that was introduced to Hawai‘i by Chief Mo‘ikeha of Tahiti. The reason Chief Mo‘ikeha decided to depart from Tahiti was to separate himself from his lover Lu‘uka who originally came from Hawai‘i with her husband Olopuna. Chief Mo‘ikeha’s departure was not simply moving to another section of his island and beloved home of Lanikai. Instead, he ordered Mo‘okinī, his kahuna nui (influential priest) to prepare their large wa‘a kaua (double-hull canoe) to set sail to the distant land of Hawai‘i. On this voyage, he would take his foster son Kamahulele to help him on this voyage. Mo‘ikeha also took his sisters Makapu‘u and Maka‘ana, and his two younger brothers, Kumukai and He‘ehā‘e. At this time, Kamahulele was inspired to provide a definition of the character of a kanaka maoli (indigenous Hawaiian) in the following chant.

From David Malo’s “Hawaiian Antiquities” (p. 222) we can see that Hawaiians of ancient times were equally connected to their genealogical lines and the islands they called home.

<table>
<thead>
<tr>
<th>He kana‘a Hawai‘i</th>
<th>He kana‘a Hawai‘i</th>
<th>A man of Hawai‘i</th>
</tr>
</thead>
<tbody>
<tr>
<td>He kana‘a Hawai‘i</td>
<td>He kana‘a Hawai‘i</td>
<td>A child of Kahiku</td>
</tr>
<tr>
<td>He pua ali‘i mai Kapa‘ahu</td>
<td>He pua ali‘i mai Kapa‘ahu</td>
<td>A favorite chief from Kapa‘ahu</td>
</tr>
<tr>
<td>Mai Mo‘a i lana‘i kea Kana‘aloa</td>
<td>Mai Mo‘a i lana‘i kea Kana‘aloa</td>
<td>From Mo‘a i lana‘i kea Kana‘aloa</td>
</tr>
<tr>
<td>He mo‘opuna nā Kahiko i‘au o</td>
<td>He mo‘opuna nā Kahiko i‘au o</td>
<td>A grandchild for Kahiku and Kapulana‘ehau</td>
</tr>
<tr>
<td>Kapulana‘ehau</td>
<td>Kapulana‘ehau</td>
<td>Kapulana‘ehau</td>
</tr>
</tbody>
</table>

The translation of this chant describes a Hawaiian person as Hawai‘i, an island, a man, a Hawaiian man, a man of Hawai‘i and a child of Kahiku. This information is important in as much as Polynesians of ancient times identified themselves with their protocol genealogical chant in their first meeting.

On his inaugural sail, Chief Mo‘ikeha stops at the first landfall at South Point, Hawai‘i. There, the Kale family on Mo‘ikeha’s first migratory journey asks the Chief if they could reside there. He grants them permission and today, one of South Point’s community names is the town of Kala‘e.

After Kala‘e, the remaining families on the wa‘a kaua (double-hull vessel) followed in line by requesting to get off as they came to a place in the Hawaiian Islands that attracted them. The Chief sailed north to drop the Hilo family at the town of Hilo. He took Kahuna Nui (powerful priest) Mo‘okinī up along the North-western part of Hawai‘i island to Kawaihao where the famous Mo‘okinī Heau was eventually built and named after this popular priest.

From north Kohala, Hawai‘i, Chief Mo‘ikeha could clearly see the beauty of Halsealii which enticed him to set sail and island hop from Kawaihao onto the deep rough channel of Ailalealea to Hana, Maui. There, the Hana family asked and were granted permission to reside at Hana. After, he sailed around the Kaepa coastline until he arrived at Hona‘ulu.

The Hona‘ulu family was granted permission to take up residence there. Still to this day Maui is the home for Hona‘ulu’s descendants. The rest of the voyagers along with the Chief sailed on to Lahaina, then Moloka‘i, O‘ahu and eventually Kau‘ai where he decided to take up permanent residency.

To prove that all this migratory movement in the Pacific took place in ancient times navigating by following the stars, an organization called the Polynesian Voyaging Society built a replica of an ancient double-hull canoe and launched it in 1975 on O‘ahu. (Keli‘i) was one of the three kahuna pule who blessed it and sent it off into the Pacific. I was in Tahiti to greet the canoe when they successfully arrived in Tahara, Tahiti. I was in Taehara, Marquesas to send the seven canoes back to Hawai‘i in 1985. I was at the San Francisco Golden Gate Bridge to welcome them in to the State of California and will be there in Yokohama, Japan to greet them on June 5, 2007. Yes, the Hawaiian people...
were a prolific group of sailors that traveled the entire Pacific Ocean navigating by the stars, moon, sun, birds and their belief of Akua and umumakua guiding them.

Era 5: 'Ohana – 1400 to 1600AD

The fifth period dates from 1400 through 1600. Voyaging between Hawa‘i and Tahiti ended. The external influences of the migrating Polynesian chiefs along with internal developments within the culture resulted in sophisticated innovations in cultivation, irrigation, aquaculture, and fishing. These innovations were applied in the construction of major fishponds, irrigation systems, and field cultivation systems. Such advances resulted in the production of a food surplus which sustained the developing stratification of Hawaiian society into three basic classes, ali‘i (the chiefs), kahuna (the priests), and maka‘ainana (the commoners). Oral traditions relate stories of warring chiefs, battles, and conquest resulting in the emergence of the great ruling chiefs who controlled entire islands, rather than portions of islands. These ruling chiefs organized great public works projects which are still evident today. For example, 'Umi-A-Liloa constructed taro terraces, irrigation systems, and heiau throughout Hawai‘i island, including the popular Pu‘uhonua o Hōnaunau (City of Refuge) at Hōnaunau in the area of Kealakekua Bay. King Kīhōlani on the other hand was the only island king inspired to construct the King's Highway that passed through Hōna‘ula as it encircled the entire island of Maui.

Our kupuna were very astute in their relationship with nature and to kahuku (coll) for what they needed. There are many stories passed down of our kupuna in action especially in calling of the winds. Here are a few more details of the winds with their names and description of them provided by our 'ohana. These were sometimes referred to as magical winds coming from Tutu La‘amaamo the wind goddess who cared for the winds in her wind gourd.

Kulauli or Kuukulau is a very strong wind and rain found out in the ocean. It blows in the morning and evening bringing in the ohia type fish. The Moa'e wind is a pleasant wind that blows from the land and sea too.

The Moa'e is a customary wind like the Moa'e but much stronger. It is said that this wind was born in Hana, grew up in Kipahulu, attained maturity in Kaupō, became aged in Kahikinui, grew feeble at Kanaio and rested letting its burden down at Hōna‘ula.

Maluaua is the companion misty wind/rain to (Noe o Hana). It is a famous wind of this land blowing strongly and pleasantly from the ocean and blows the rain back to the mountain.

The Naulu wind accompanied the Naulu clouds. The Naulu Cloud of Haleakalā was referred to as the Cloud Warrior who was in constant combat with the Ukiuki Cloud Warrior of Makawai. The Naulu and Ukiuki trade-wind driven clouds were split by the height and mass of Haleakalā into two long arms. Naulu reveled along the southern flank and Ukiuki along the northern flank of the mountain constantly battling forever to dominate the summit. Usually, Ukiuki was victorious but occasionally Naulu pushed him back. Sometimes, both Cloud Warriors called a truce and withdrew to rest, leaving a clear space between the heaped white masses of vapor looming against the blue of the sky. The space was called Alanui o Lani – The Highway to Heaven.

Kupuna Leslie Kuloloio says, "I think I was born in the right time of when Hawai‘i was beginning to go into a continuous change of clouds covering over Hawai‘i. Good clouds, trial clouds, the Naulu clouds, shady clouds, and the time when the clouds over Hawai‘i's skies was going to be a time for a new era and changes."

By the way, Kupuna Kuloloio has been an active member of the PKO (Protect Kaho‘olawe 'Ohana) who followed the behavior of the Naulu Clouds since it is one of the famous clouds running down from Haleakalā along Auwahi Mauka to Makai passing Mākena depositing its valuable cargo of water on the dry 'aina (land) of Mākena and Kaho‘olawe.

Makua Lagunero says that we should not forget the clouds overhead even though we are talking about what is happening below from mauka to makai and into the waters. He says we need to be fully aware that the clouds are actively participating in creating the surrounding environment. Makua Lagunero shares a story of being out on the ocean in the canoe with his blind grandfather who could smell an ice cream truck approaching the beach. Grandpa would lean into the wind on the canoe or smell the air to define what was mauka all the way to the open ocean. Grandpa's sense of smell was highly proficient so that he was able to detect the winds coming from mauka to makai and by asking about the cloud shapes of dogs, he could predict that if the tail was facing down, a storm was approaching from the ocean. To know of these things will be valuable so that the development of lands could take into consideration the knowledge of the kupuna and utilize some of this information to develop one’s blueprint to flow with the land as experienced years ago by our ancestors.

Along with being in-tune with the flow of the 'aina the people in this time have organized a society of voluntary giving. Although the common people provided food, bark cloth, and household implements to the chiefs, Hawaiian society remained predominantly a subsistence agricultural economy. There is no evidence of a money system or commodity production. A system of barter in essential goods between fishermen, mountain dwellers, and taro cultivators existed within the framework of the
extended family unit called ‘ohana. In general, this exchange within the ‘ohana functioned primarily to facilitate the sharing of what had been produced upon the ‘ilí (extensive land grant) that the ‘ohana held and worked upon in common.

Within the ‘ohana unit there was constant sharing and exchange of foods, utilitarian articles and services. It was not an organized barter system but a voluntary (though decidedly obligatory) giving. ‘Ohana living inland raised taro, bananas, weke (for tapi, or back cloth making) and olona (for its fiber). The inlanders had need of gourds, coconuts and marine foods; they would take a gift to some ‘ohana living near the shore and in return would receive fish or whatever was needed. When the fishermen needed pu or ‘awa they took fish, squid or lobster upsland to a household known to have taro, and would return with his kalo (taro) or pa’ai (hard pot, the steamed and pounded taro corn). ... In other words, it was the ‘ohana that constituted the community within which the economic life moved.

Cultivation of taro and fishing were the centerpieces of the material culture. The system of irrigation, fishing and aquaculture was highly developed and produced a surplus that sustained a relatively developed and unified social structure that was embraced throughout the whole archipelago. All the basic necessities came from plants. Even fishing relied on plants; the canoe was made from a hardwood tree; the net was woven out of olona or some other vine; spears were carved out of a hardwood tree; ropes were woven from the coconut husk or a vine, the sails were usually made of lauhala (pandanus leaves). Hawaiians could not have survived without plants, and Hawaiians were expert planters and cultivators.

Sam Po was one of the major native consultants for the book “Sites of Maui” authored by Elspeth P. Seling. Throughout the “Site of Maui”, Kupuna Po shared ideas relating to Hawaiian mauna-makai use of the shupua’a in Hona‘ula District and south east Maui. He said that the planting cycle was dependent upon the variations in rainfall according to elevation and seasons. He went on to say that planting in the uplands were done year round since there was rain daily. However, in the lowlands, planting was done when the rains came. Kupuna Po said that he had seen entire families with lauhala baskets carry lepo (dirt) from mauka (upland) to makei (lowland) one month before the rains to put in the lava holes. Hawaiian watermelons, iupu oloko, iupu nuboulani, pumpkin, and Pohe or Ipu ‘a‘a matured in about six months and were consumed while the families enjoyed the lowland plantings and fresh fishes from the sea.

The important usala (sweet potato) served as the major starch crop in the dry Mākena District in replacement for taro from the wetland districts. In the Hawaiian Newspaper (Nupepa Kooko March 8, 1923), an in-depth explanation is provided in the Hawaiian language on the (protocol) manner of planting sweet potato and the Kamapua‘a Prayer which we provide in English here.

In the beginning, everyone could clear a patch with the one who knew the prayers. After the weeding was done and the patch was clean, then the holes were made. The person who knew the prayer went ahead and everyone followed after, when making the holes. In planting, the one who knew the prayers planted the slips in two holes and prayed thus:

O Kamapua‘a-kane, O Kamapua‘a-wahine, o Kū, e Hina,
O Kamapua‘a-kane, O Kamapua‘a-wahine, Kū and Hina,
Eia ko nana waena
Here is our patch
Mai hele ‘oe i ko ha‘i waena,
Do not go into someone else’s patch
I ko kaua waena wale no ‘oe e eku ai
But root into our own patches
I ko kaua waena wale no ‘oe e ki‘o ai,
Excrete only in our own patch
Mai hele ‘oe i ko ha‘i waena e ki‘o ai,
But do not excrete in someone else’s patch
O pa auame ‘oe i ka pohaku o ‘eha
Last you be stoned and hurt,
A i ko kaua waena wale no ‘oe e eku ai, e ki‘o ai
Root and excrete only in our patch,
‘A ole e pa i kai pohaku
And no one shall stone you,
O na palama apau o kea waena o kaua nou wale no ia,
This whole enclosed patch of ours, is yours,
Amana.

After praying he planted in two holes and when he had finished planting everyone planted. It was kapu (taboo) to turn and look behind but must only look ahead. When the work was done, the patch was left alone and not weeded until the sweet potatoes matured. The one who prayed began the weeding and he weeded the first two which he planted. He dug only into these two sweet potato mounds to see how the tubers were and if he saw that they were large, he gathered kindling, built a fire to free the kapu and uttered this prayer:

E Kamapua‘akane e me Kamapua‘awahine
O Kamapua‘a-kane and Kamapua‘a-wahine
Eia au ke‘ai neti i ka‘ai e kūa,

I am partaking of our food.
E Kāmāpu'a kane a me Kāmāpu'a wahine
O Kāmāpu'a kane a Kāmāpu'a wahine
Us noa kēla waena ia 'o lua ma'ane'a e 'ai ai,
The patch is freed to you, eat, excrete and sleep here
E ki'o ai a e moe ai,
Amenna, us noa.
Amanna, it is freed.

When the kapu was freed, the patch was left alone for six to seven months and then it was closely watched. The sweet potatoes were carefully dug out by hand and then broken off. The rough looking ones were the "excrement of the pig." It was kapu to throw them away and must be left beside the mounds. Only the ones who knew the prayers were permitted to watch the potatoes but anyone was permitted to gather them up. It was kapu to throw stones into the potato patch or to shout aloud.

In Fornander, Volume 6, he describes another explanation of planting of sweet potato in the dryer sections of Kula and Mākena:

Planting in rocky places was called maka'alam. There was very little soil proper, the greater portions of the field being gravel, with rocks all around. There were also large holes resembling banana holes. Upon the sprouting of the potato vines gravel and stones are piled up and around then, and by the time the hole was covered thick with leaves, the potatoes were large and grooved. (pg. 164)

The nature of the common Hawaiian was a bit kolohe (ascal) as demonstrated in the following Hawaiian saying of sweet potato in Kula and a beautiful young lady of Keanae.

O ka wea kau no ia o Keana; o ka 'ulei ho'owali 'ula in o Kula.

‘It is the ‘ulei digging stick for the potato [patch] of Kula.’ A handsome young man of Kula and a beautiful young woman of Ke'anae, on Maui, were attracted to each other. She boasted of her own womanly perfection by referring to her body as the pool on heights of Ke'anae. Not to be outdone, he looked down and boasted of his manhood as the digging stick of Kula. (Pukui 2447)

In Kupuna Merion Kikwilii's interview, he shares that as a cowboy for Ulupalakua Ranch, he had the opportunity to ride his horse through 29,600 acres of pastureland starting from Mākeahiku close to Kula Sanatorium across to Kapukukui Mauka to Keewekapu makai and throughout Mākena. He speaks of the areas that had plenty of sweet potatoes. In his talk story with kupuna, they would say, "You see this stone wall here, that is where the pigs were kept and then mauka nei is where they use to plant uala." I asked him how you could tell if they planted uala where they described. Their answer was that there were no pohaku (rocks) on the ground. Also, to keep animals from eating the plants, they built single-wall enclosures. The different land sites in the Mākena district such as Kānali, Mākeeh, Awaia, Puonut, Ahehui, and all the way to Kanahena had sweet potato fields. They were grown some for home use and others for commercial sales since the boats came to Mākena Landing to import and export goods.

A further description of Mākena land use was by E.S. Craig Handy found in his many writings of Hawaiian plants. He shared that between Mākena and the lava-covered terrain of Keanae, many famous fishing localities were found on the coastal region which included Onau, Ma'oomok, Mo'aloa, Mo'oi, Mahauka, and Keae. These areas had sufficient soil and sand and were known for the cultivation of sweet potatoes and an abundant amount of fish, seaweed, crab and other ocean products.

Era 6: Chiefly rule of the Ahupua'a – 1600 to 1778

In the sixth period, during the century preceding the opening of Hawai'i to European contact in 1778, the Hawaiian economy expanded to support a population between 400,000 and 800,000 people. The social system consisted of the 'ohana who lived and worked upon communally held portions of land called i'i within the ahupua'a natural resource system. These families—the building blocks of the Hawaiian social system—were ruled over by the stewards of the land, the chiefs along with their retainers and priests. The history books are filled with tales of battles among the chiefs from all islands.

Kīha-Pillani who reigned in the last half of the 18th century connected the entire island with a network of trails to aid his people in their travels and gave the king quick
access to all parts of his kingdom. Even today, the original trails still exist from Keone’oi’o to Nu’u. Branching trails extended from the Pi’ilani trail in the Hona‘ula area, Keawalai to Nu’u, up to Pu’u Nioke and Pu’u Palani, through Kanoa and up through Pu’u Pane.

Even during this period of chiefly rule, land in Hawai‘i was still not privately owned. The chiefly class which provided stewardship over the land divided and re-divided control over the districts of the islands among themselves through war and succession. A single chief could control a major section of an island, a whole island or several islands depending upon his military power. Up until the time of Ka‘ahumanu I, however, no one chief was ever paramount over all the islands. Except Kau‘a‘i, Kau‘a‘i was never ruled by Ka‘ahumanu.

During the time of Captain Cook’s first visit, King Kalani‘opu‘u and uncle of Ka‘ahumanu the Great ruled Hawai‘i island and King Kahelii of the Valley Isle controlled Maui as well as Moloka‘i, Lāna‘i, Kaho‘olawe, Kau‘a‘i and Ni‘ihau.

The chief divided his landholdings among lesser ranking chiefs who were called konohiki. The konohiki functioned as supervisors on behalf of the chief over the people that lived on the lands and cultivated them. The tenure of a konohiki was dependent upon his benefactor, the chief. Konohiki were often related to the chief and were allocated land in recognition of loyal or outstanding service to him. However, unlike elsewhere in Polynesia, the konohiki were rarely related to the maka‘ainana or commoners on the land under his supervision. Thus, the konohiki represented the collective interest of the ali‘i class over the maka‘ainana as well as the individual interest of his patron chief.

The lands allocated to the konohiki were called ahupua‘a. Ahupua‘a’s boundaries coincided with the geographic features of a valley. They usually ran from the mountain to the ocean, were watered by a stream, and were bounded on both sides by mountain ridges. It afforded the ‘ohana who lived in the ahupua‘a’s access to the basic necessities of life—marine foods from ocean reefs and streams, low lying wetlands for taro, fresh water, timber, and medicinal plants from the forest. The use rights of the konohiki included fishing rights over shoreline fishponds and reefs.

The konohiki supervised all productive communal labor within the ahupua‘a’s month-to-month and season-to-season. He collected the annual tribute and determined if it was sufficient in relation to the productivity of the land. He regulated the use of land and ocean resources, administering the kanakawal (law) applying to the use of irrigated water as well as to fishing rights in the ocean. The konohiki was responsible for organizing communal labor for public works projects such as roads, fishponds, and irrigation systems.

The ahupua‘a of the konohiki was further divided into strips of land called ‘ili which were allocated to the maka‘ainana (commoner Hawaiians). These land grants were given to specific extended family units of maka‘ainana called ‘ohana. The ‘ili either extended continuously from the mountain to the ocean or was comprised of separate plots of land located in each of the distinct resource zones of the ahupua‘a. In this way an ‘ohana was provided access to all of the resources necessary for survival (Handy, Handy, Handy & Pokui, 99).

In Sterling’s “Sites of Maui”, he introduces the guardian shark Ka‘ala-muki-hau of Hona‘ula in this short chant: (p. 10)

'O Hī‘u noho i Keanae
Keli‘i hue wa‘a noho i Hana
Puhi noho i Kipahulu
Ka‘ala noho i Hona‘ula
Kamohoali‘i ke ali‘i nui a puni
o Maui
Hī‘u resided in Keanae
Keli‘i hue wa‘a lived in Hana
Puhi was stationed at Kipahulu
Ka‘ala-muki-hau guarded Hona‘ula
King Kamohoali‘i watched over all Maui
Here is the name (name) chant for Ka‘ala-muki-hau who served the people of Hona‘ula as their sumakua (ancestral god).

Eia ka‘ai
Eia ka‘a
Eia ke kapa
Nou e Ka‘ala-muki-hau
Nana ia‘u kau pulapula
I māhā‘ai
I lawa‘i
Kuku kapa
A e ola ia‘u, Kanui
Here is the food
Here is the fish
Here is the kapa
For you Ka‘ala-muki-hau
Look upon me you devotee
That I can cultivate the ground
That I may fish
And beat the kapa
Grant life to me, Kanui.

Era 7: Territorial years—1893 to 1959

Control over the Hawaiian Government Lands and the Crown Lands were taken by the Provisional Government that was established in 1893 when the Hawaiian monarchy was overthrown with the assistance of U.S. military forces. When the Republic of Hawai‘i was declared in 1894 these two categories of lands were combined and collectively called “Public Lands.” In 1896, “Public Lands” that had not been sold by the Republic of Hawai‘i were “ceded” to the United States of America at time of Annexation.
In 1900, under the Organic Act, most of these "Ceded Lands" were turned over to the Territory of Hawaii to administer; however, some of the "Ceded Lands" were retained by the United States Government, primarily for use of the U.S. military and Coast Guard. In the report of the Governor of the Territory of Hawaii, 1901, it lists the "Ceded Lands" in the district of Honu'ula and Kahikinui.

<table>
<thead>
<tr>
<th>District and Anupua'a</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kanaloa</td>
<td>7,600</td>
</tr>
<tr>
<td>Papakea</td>
<td>300</td>
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<td>500</td>
</tr>
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<td>1,000</td>
</tr>
<tr>
<td>Onu</td>
<td>600</td>
</tr>
<tr>
<td>Papa'au</td>
<td>4,500</td>
</tr>
<tr>
<td>Kahikinui</td>
<td>25,000</td>
</tr>
</tbody>
</table>

At this time, the Governor's report described the Honu'ula lands as "Rocky Grazing," and the Kahikinui lands as "Grazing Lands." Inez Ashdown, an avid researcher of Hawaiian culture states that at the turn of the century 1900, Honu'ula was rich with pili-grass, tobacco, cotton, ilima, native plants, and trees, such as noni and kukui. However, U.S. Craighill Handy reports the following ecological changes due to cattle ranching:

In Honu'ula as in Kahikinui and Kaupo, the forest zone was much lower and rain more abundant before the introduction of cattle. The usual forest zone plants were cultivated in the lower uplands above the inhabited area. Despite two recent lava flows, which erupted in about 1750, the eastern and coastal portions of Honu'ula were thickly populated by Hawaiian plants until recent years. A number of families whose men are employed at Ulupalakua Ranch have homes near the ranch house. Close by these native homes are little dry land taro cultivated. (p. 506)

Ranching has been blamed for many of the district's environmental problems. The cattle and goats stripped the land of its native flora while destroying ancient Hawaiian temples and gravestones. Ranching operations took over land previously owned by Hawaiian families. Some Hawaiians left the area and were not aware of it when the ranchers took their lands through the process of "quiet title" or adverse possession.

Honu'ula, Kahikinui and Kaupo

Now that a general explanation of the lifestyle of Hawaii has been provided in the above pages, we now focus upon the specific development of the ahupua'a of Honu'ula. The coastline of this section of Maui, much like Kaho'olawe, is wind swept and relatively barren. As indicated above, most mo'olelo (oral traditions) for southeast Maui date back to the era of the great migration from Tahiti and the long voyages between Hawaii and Tahiti. The mo'olelo of Kaupo, Kahikinui, and Honu'ula are also intertwined with that of the island of Kaho'olawe. Kaho'olawe was originally dedicated to Kaneolea, the great Polynesian god of the ocean and of seafaring. The channel parallel between Honu'ula and Kaho'olawe is known as Kealakekahiki Channel (pathway to Tahiti). Thus, the wahi pana (sacred storied places) of southeast Maui reveal a history of the settlement of the islands of Hawaii by the high chiefs of Tahiti as they were guided to end from Hawaii by their great navigators such as Mōʻihele, Hawa'iwai, Kiona, La'a-ma-ka-kahi, and Pua'o.

Up the coastline from Honu'ula is Nu'uo which connotes a high place and also the name for the second platform in a temple. A sacred village site, Nu'uo Bay was named because it was the landing place of Nu'uo, a great kahuna navigator who was an ancestor of the Na'au. Preceding Nu'uo is Kaupo meaning "landing by canoe at night." As the name attests, the bay of Nu'uo was a noted landing site for the entire southeast Maui.

Kahikinui was named for the beloved homeland, Kahiki of the earliest settlers who came to Maui from the South (Handy, Handy and Fukui, 508). Most of the Hawaiians in the Hana districts trace their ancestry to Hawaiians who lived in Kaupo, Kahikinui and Honu'ula before Captain James Cook's arrival in 1778.

The ocean along the shoreline of southeast Maui had abundant marine life and is a source of sustenance for many people. Fresh water seeps into the ocean at the shore and creates a productive ecosystem for a large array of sea life. The gods Kamehameha and Kanaloa are credited with going about all of the islands providing fresh water. They are attributed with providing springs of fresh water along the southeast coastline of Maui. It is said that they landed at Pu'u-o-Kanalua (Hill of Kanaloa), a small hili north of Kekaa'a'o when they first came from Kahiki. They dug a water hole by the beach and found the water Ka-wai-e-ka-lua'o. These gods also opened up the Kanaloa fishpond at Kula 'Ilu'ula providing the brackish water for fish spawning (Beckwith, 64). They went on to Nu'uo to dig another spring (Handy, Handy and Fukui, 510).
The Great Mahele

Kamehameha III was responsible for Ka Mahele in 1848 and the Kuleana Act in 1850 establishing a system of private ownership of all lands in Hawai‘i. The Board of Commissioners to Quiet Land Titles, which was set up under a law passed by the Hawaiian Government in December 1845, began hearing testimony on selected claims registered by non-Hawaiians early in 1846. The division of lands between the King and about 250 chiefs took place in 1848 and resulted in what is known as the Mahele Book. In it is recorded the names of the lands belonging to Kamehameha III and the names of the chiefs with the lands that they claimed. At the end of each Mahele (division), a phrase was added that protected the rights of the hoʻo'aina, who were the farmers living on lands (ahupua’a and iʻili) taken as private property by the king and the chiefs.

When the lands were divided in the Mahele (division) of 1848, there were a number of ahupua’a (sub-district land divisions) designated as “Government Lands” within the moku (districts) of Honou‘ula, Kalākau‘u and Kaupo. These designated “Government Lands” are indicated in the Indices of Awards (Office of the Commissioner of Public Lands, Territory of Hawai‘i) 1929.

Regardless of the parcel size granted to them, the tenants (Native Hawaiian) of an ahupua’a retained their traditional mauka-makai access and gathering and fishing rights. These rights are spelled out in the Kuleana Act of 1850 and are sustained in the Revised Laws of Hawai‘i. They are as follows:

“Where the landlords have obtained, or hereafter obtain, allodial titles to their lands, the people on each of their lands shall not be deprived of the right to take firewood, house-timber, sago cord, thatch, or ‘i‘i leaf, from the land on which they live, for their own private use, but they shall not have a right to take such articles to sell for profit. The people shall also have the right to drinking water, running water, and the right of way. The springs of water, running water, and roads shall be free to all, on all lands granted in fee simple, provided that this shall not be applicable to wells and watercourses, which individuals have made for their own use” (Haw. Rev. Stat. Section 7-1 (1985).

Fishing and Ocean Gathering

Fishing and ocean gathering occurred along the coastal areas throughout the region (from Mākena to Kaupo). The techniques used to catch fish differed according to the particular locality. For example, fish traps were found in Mākena and Kanahele where mo‘i and weke were caught. Akule were found in abundance in Mākena Bay, La Perouse Bay at Kāhīhi and Nu‘u Bay at Nakula.

Ahi and ono were caught in the deeper waters near Māmalu Bay at Nahalau. Mullet, ulua, manini, uhu and other shoreline fish were successfully caught along the Honou‘ula coastline even up until today. Because the elders taught fishing had ears and would run and hide if they overheard a conversation about fishing, reference to go on a fishing excursion was usually made by saying simply, “we going holoholoholoholo” which secretly meant that they were going fishing. Earlier, I had made reference to my dad awakening to the saying, “Mālie i ke kalua.” When he verbalized those words, to my disappointment, I knew we weren’t going fishing. On the other hand, if I saw him gathering the fishing gear as I opened my eyes, with much excitement I woke up silently and prepared my fishing gear to be ready to go with him on a fishing excursion. In fact, I can still recall catching my first fish, an ipupu‘u in the early morning at ‘Ahihi Bay with dad standing by my side.

Ocean gathering occurred along the Mākena shoreline where ‘ōpili (limpet), limu (seaweed), and kuyae (ocean snail) were gathered and ‘a‘ama (crab) was caught on the rocks. He’e (octopus) was speared when walking the shoreline or diving; ula (lobster) and crabs were caught while diving; and some species of crab were caught in traps as far as 2 miles from shore.

A recurring theme among local fishermen was to take only what was needed and to only go fishing when the family’s fishing supply was down. Many consultants spoke proudly about carrying on this traditional approach to ocean conservation. They believed that if they were not sensitive to the marine ecology, then nature would impose its own sanctions by not providing food. One consultant mentioned that he was taught by his elders to not go fishing during the months of October and December. If he disobeyed this rule, fishing would be unsuccessful during the other months of the year.

Fishponds (Loko i‘a), Fishing Grounds and Heiau

It has been said by the people of old that the measure of an ahupua’a’s wealth and power was determined by the amount of functional heiau that existed in their boundaries coupled with existing loko i‘a (fishponds). As explained above, the Honou‘ula shoreline has abundant marine life that served as a source of sustenance for many people. The fresh water seeping into the ocean at the shoreline produces a large array of sea life. The gods Kanu and Kanahele showered their blessings upon the neighboring Kahikinui ahupua’a by opening the fishpond Kanahele at Lului‘u. Loko i‘a served as liquid iceboxes or food storage. There, people could fetch a fresh variety of fish especially those cruising along in schools like mullet, mo‘i, weke, aholehole and numerous other varieties. The other food delicacies such as crab, octopus, seaweed and
the like were raised in these ponds. Other loko i’a built in the Honua’ula neighborhood were at Pu’u Ola’i in the shallows of Keawala’i Church; Kalepolepo in Kihei; and close by at Ko’ele which is hosted by the Whale Sanctuary Center on South Kihei Road. Wetland areas such as Māalaea mud flats served as other natural inlets to house the various marine life that the Hawaiians could use.

Ku-Mākena and ‘Ahihi bays each had a fish pond. The one at Keone’o’o was very large stocked with ‘Ama’a, ‘Awa, and ‘Olo. At certain times the spirits of the dead chiefs are heard and sometimes seen. This procession is called ‘o’o or as huaka’i-pō the Marchers of the Night. The two main ponds are named Haleua and Keawalaiakini and here dwell the mermaids and the benign sharks, such as Kamo’o’ili and Kaneikokala, their spirit mates of the sea. The fishponds at Mānakalea village were sacred to Queen Lo’a’kapu and her son, Kauholaumahalu.

Many a time, fishponds were inspired by an ali’i who wanted the convenience of having fish readily available for themselves or their guests. Lahaina, the capital of Maui housed the large loko i’a Mokuhi‘ia which fed the ali’i whose residence was at Moku’ula.

I was raised listening to my mother telling us of our father’s experiences with wahine hi’u’a (mermaids) and ha’uka’i-pō. In my dad’s younger years, he was raised in Kuau and Huelo so he was accustomed to seeing these spiritual encounters at places such as Twin Falls with the mermaids and other waterways at Ko’olaulo and Ko’olaupoko. It was an experience for me as a young boy to be with him at the shores of Honua’ula and have the ha’uka’i-pō literally lift our trick off the King’s trail and set it down in the opposite direction. Today, I realize that the spirits of the ha’uka’i-pō we encountered were not from the same district. We were the mālānī (new comer) in their ahupua’a.

The other measure of an ahupua’a’s rich success was the amount of agriculture heiau (temples) that were found in their land districts. Yes, it might impress the mālānī to claim that they have a large heiau on their ahupua’a but after all that have been said about the make-up of the Hawaiian lifestyle and the importance of plants in the Hawaiian society, one could determine that more agriculture heiau rather than one large luakini (sacrificial temple) would show the richness of their ahupua’a community.

In Honua’ula, there are many heiau and little alters of stones where people prayed to Lono and to Hina for rain and ample crops since the area was primarily used for planting, farming and ranching. Other temples include many fishing shrines (ko’a), a hula platform and a place of refuge (pu’uhonua). Appendix A is a summary list of the temples and sacred sites relevant to Honua’ula and its surrounding neighbors.

By looking at the chart on heiau, we are able to see that the greatest numbers of heiau were in the southern part of Maui from Kaupo to Kahūkinui. Also, the second largest heiau on Maui was Loa-Loa of Kaupo. This area possessed a greater amount of luakini heiau to serve Maui’s warriors with the psychological purpose of Hawaiian warfare between the warring soldiers of Hawai‘i Island. As we move north, fewer luakini heiau are found in Nā‘u, Kahūkinui, Kanaio and Mākena. For the most part, the heiau in the Mākena District were agriculture, rain and or fishing type of heiaus.

Nā Aumakua Māno

Uncle Boogie Luu’u葵 mentioned that there were a couple of shark holes in front of his house at Mākena Landing with about 3 or 4 sharks. The scuba divers go down and encounter the white topped variety. Uncle goes on to support that the aumakua (ancestral god) of the Kukahiko family was the mano (shark). Meanwhile, family member Angus Peters shared that Mākena resident David Lewalewa Lono would free dive down to these shark holes to visit with these aumakua.

Makua Lagonuere refers to sharks in the coral areas of Molokini and beneath the hill Pu’uloa near the famous Big Beach of Mākena. Kamu Hula Robert Kalani said that his grandfather and uncle used to dive under the hill Pu’uloa to feed the sharks every time they wanted to go out to catch fish. The kupuna believed that if they fed the sharks, they wouldn’t be bothered by sharks when they went to do their fishing.

Summary

As of this writing, we are convinced that the villagers and occupants of Makena were a peaceful farming and fishing community with occasional excitement from visits of Tutu Pele and French discoverer Captain La Perouse.

Kimokeo Kapahulehua and I (Kelii Tau’au) as Hawaiian practitioners send our Mahalo Akua, Nā Aumakua, Nā Kupuna, a me Dowling Company and Don Fujimoto (Thank God, Ancestral Gods, Elders, and Dowling Company and Don Fujimoto) for inspiring us to provide this sincere and honest cultural report.

The Mākena development will open up south Maui from Kihei to Mākena with new challenges. We hope the developers will tread with as much care as they have shown during the planning process. It is our sincere wish that the cultural sites that have been found can be retained and infused into the planned site development. Also, we desire that the native plants can be kept in tact as much as possible to retain the ahupua’a’s unique identity. For we honor the plants and trees of old it will assist with the wind flow and rain to be drawn to the ahupua’a as far as Kahōlalae. We would love to see the developers take into consideration the patterns of the winds, rains and clouds as they pass through the ahupua’a when building up new structures. Lastly, we desire that the ala i ke kai (pathway to the ocean) and the ala i ke kula (pathway to the

uplanda) will always be recognized as part of the law decreeing that one should respect Hawai‘i’s gathering rights (passage to fishing at the ocean and streams or gathering native plants in the mountain). By saying those things, we now can close this report me ka aloha pumehana (our fondest love and support) and the wisdom of our kupuna who said, “E ho‘olohe i ka leo o ka ‘aina” [Listen to the voice of the land].

### Bibliography


*Detailed Land Classification – Island of Maui*. Honolulu; University of Hawai‘i at Manoa.


Handy, E.S.C. *The Hawaiian Planter: Volume 1: His Plants, Methods and Areas of Cultivation*. Honolulu; Bishop Museum Bulletin 161, 1940.

Harris, Kim S.; Meier, Karin; Castro, Luisa; and Newman, Audrey. *Proceedings of the Native Ecosystems and Rare Species Workshops*. Honolulu; The Nature Conservancy of Hawai‘i, 1991.
Appendix A: Heiau

<table>
<thead>
<tr>
<th>Heiau Names</th>
<th>Ahupua'a Location</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lo'a'lo'a</td>
<td>Kaupo</td>
<td>Luakini - sacrificial. West Mauimainui Gulch. By menhune. Long temple on Mau. 2nd largest next to Pihanukole heiau of Hana.</td>
</tr>
<tr>
<td>Kanoa</td>
<td>Luala'i Kainui</td>
<td>Built by gods Kane &amp; Kanoa for rain</td>
</tr>
<tr>
<td>Na-hale-loulu-a-kane</td>
<td>Honua'ula</td>
<td>Built in antiquity dedicated famine/ epidemic</td>
</tr>
<tr>
<td>Manokohala</td>
<td>Kanaio</td>
<td>At Puki east</td>
</tr>
<tr>
<td>Mano'a'hia</td>
<td>Kanaio</td>
<td>At Puki west</td>
</tr>
<tr>
<td>Pu'u mahoe</td>
<td>Kanaio</td>
<td>Keawanaku</td>
</tr>
<tr>
<td>No name</td>
<td>Kenahena</td>
<td></td>
</tr>
<tr>
<td>Kalii</td>
<td>Keone'o'o</td>
<td></td>
</tr>
<tr>
<td>No name</td>
<td>Kali</td>
<td></td>
</tr>
<tr>
<td>Pu'i-la-kua</td>
<td>Kaupo</td>
<td>Luakini. Heiau belonged to chief Kekaulike</td>
</tr>
<tr>
<td>Pohakunahana</td>
<td>Makena</td>
<td>Small well preserved structure</td>
</tr>
<tr>
<td>Oo'pa'a/Ona'pa'a</td>
<td>Ulapahkua</td>
<td>By Pu'i Ola's gate owned by Seib Corp.</td>
</tr>
<tr>
<td>Onu'/Oenu'i</td>
<td>Makena</td>
<td>On Sam Garcia's land. Used as kapu school.</td>
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<tr>
<th>Place Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>Papakea</td>
<td>Mākena, Pu’u Ohe, Large shrine to Ku’ula-kaʻi</td>
</tr>
<tr>
<td>Kalani</td>
<td>Mākena, David Chang’s property</td>
</tr>
<tr>
<td>Popoki</td>
<td>Mākena, Kukahiko Cemetery</td>
</tr>
<tr>
<td>Ku’ula</td>
<td>Kanahena, Ho’oulu ‘ai-place to ask for plenty food</td>
</tr>
<tr>
<td>No name</td>
<td>Ulupalakua, Makoe Ranch</td>
</tr>
<tr>
<td>Pu’u Natio</td>
<td>Keone‘o‘io, Papaka land of the ghost of a departed chief</td>
</tr>
<tr>
<td>No name</td>
<td>Nahawale, At water spring called Waipépoli</td>
</tr>
<tr>
<td>Ke’ekëehia</td>
<td>Honua’ula, Place of refuge Hale Pueo, Place to pray for the souls of the dead, The Pueo-kahi and Pueo-mu-kea are two names for the akua, or God. Pueo is symbolic of Wisdom and the whole universe &amp; light. An aumakua or ancestral guardian spirit.</td>
</tr>
<tr>
<td>Nahalelouhia</td>
<td>Dedicated to Kane</td>
</tr>
<tr>
<td>Ka’ieia</td>
<td>Multiply to produce food</td>
</tr>
<tr>
<td>Pa‘aloa</td>
<td>Kaliihi, Honua’ula Above La Perouse Bay, For rain. Maka-kilo-i’a</td>
</tr>
<tr>
<td>Kaulena</td>
<td>Keone‘o‘io, A ko’a</td>
</tr>
<tr>
<td>Keawanaku</td>
<td>Kaliihi, Honua’ula, Probably a Ku’ula</td>
</tr>
<tr>
<td>Kahemaumini</td>
<td>Honua’ula, Multiplying fish</td>
</tr>
<tr>
<td>Koa’uku</td>
<td>Kanalo, Kaumukea, 2700 feet</td>
</tr>
<tr>
<td>Kohola</td>
<td>Kanalo, South of the Kula pipe</td>
</tr>
<tr>
<td>Manonokohola</td>
<td>Kanalo East, Honua’ula, Congregational Church</td>
</tr>
<tr>
<td>Manoka’a’a’ia</td>
<td>Kanalo West, At Puki, West of the Church</td>
</tr>
<tr>
<td>Haleleio</td>
<td>Kalepa, Kaupo, Luakini</td>
</tr>
<tr>
<td>Paparuikane</td>
<td>Kanalo, Hulapapa</td>
</tr>
<tr>
<td>Kīpuna, Ninaulunui</td>
<td>Kanaio, Between Wai-a’ilio and Wahene, Large platform</td>
</tr>
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<table>
<thead>
<tr>
<th>Place Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>Pū’uma’a’s</td>
<td>Kaupo, Machine from school house</td>
</tr>
<tr>
<td>Halekane</td>
<td>Kumunu, Leilani. Chief Nakuli’s temple, Nakuli succeeded.</td>
</tr>
<tr>
<td>Lonoa‘a</td>
<td>Kohala, Kaupo, Fifty yards south from Halekane.</td>
</tr>
<tr>
<td>Ke’ekahi</td>
<td>Kaupo, Heiau also called Ka-lani-ku‘i-hono-i-ka-moku, Kealakehe, Maui king also built luakini Loa-‘io Kane-molo-hemo, Popo-iwi, &amp; Pu’umaka’s 18th</td>
</tr>
<tr>
<td>No name</td>
<td>Puhihele, Kaupo, Overlooking Waikau to the West</td>
</tr>
<tr>
<td>Hala</td>
<td>Kaupo, Agriculture, Keauli the chief, Hala the kahuna</td>
</tr>
<tr>
<td>At Halaulani</td>
<td>Kaupo</td>
</tr>
<tr>
<td>Pu’ukua</td>
<td>Kaupo, Below house &amp; Antonie Marcelli Sr. to Nu‘u Road</td>
</tr>
<tr>
<td>Pa‘ako‘o</td>
<td>Kaupo, In pasture of Antonie Marcelli Jr. upper to Nu‘u</td>
</tr>
<tr>
<td>Wailei</td>
<td>Kaupo, 300 yards south of upper Nu‘u Trail</td>
</tr>
<tr>
<td>At Keu</td>
<td>Keu, Kaupo, Large heiau open to west 250 ft. by 265 ft.</td>
</tr>
<tr>
<td>At Keamael</td>
<td>Kaupo, 130 ft. by 50 ft above Keamael looking out to sea</td>
</tr>
<tr>
<td>At Opihi</td>
<td>Kaupo, On the flat country above Pu‘u Mano‘e’a to Nu‘u</td>
</tr>
<tr>
<td>Lala</td>
<td>Kaupo, Near Catholic Church</td>
</tr>
<tr>
<td>Papakea</td>
<td>Nu‘u, One burial found there. Multiple food crops.</td>
</tr>
<tr>
<td>Fish(Ukulea‘e)</td>
<td>Nu‘u, Consultant Kensi said heiau to increase fish supply</td>
</tr>
<tr>
<td>At Ka‘ili</td>
<td>Nu‘u, Large 50 x 124 ft. quarter mile up from shore</td>
</tr>
<tr>
<td>Halekou</td>
<td>Nu‘u, Large 145 x 90 up from Nu‘u Gulf 600 ft.</td>
</tr>
<tr>
<td>Location</td>
<td>Description</td>
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<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Oheohemui</td>
<td>Nu'u 34 x 50. Possible heiau for tapa drying</td>
</tr>
<tr>
<td>At Anakahelu</td>
<td>Nu'u Small 44 x 33 open to the sea</td>
</tr>
<tr>
<td>Pull-o-Kane</td>
<td>Nu'u Luakini</td>
</tr>
<tr>
<td>Oh ela</td>
<td>Nu'u No information</td>
</tr>
<tr>
<td>3 small heiau</td>
<td>Nakula 30 x 40 between Kahalu and Pu'ukai</td>
</tr>
<tr>
<td>At Pahili</td>
<td>Nakula Nu'u 38 x 35 ft facing the sea</td>
</tr>
<tr>
<td>Hakalauui</td>
<td>Kahikini La-pueo is the ahu pu'a. Uluao Keakalihilch, Chief. Mana was the priest</td>
</tr>
<tr>
<td>Kahuahakamea</td>
<td>Kahikini Wall enclosure still standing</td>
</tr>
<tr>
<td>At Pahoe</td>
<td>Kahikini Near milepost 32 @Kula (mi), 45 feet</td>
</tr>
<tr>
<td>At Kamokoa</td>
<td>Kahikini 94 x 80 ft built at Kame'ele Gulch</td>
</tr>
<tr>
<td>At Naia'ha</td>
<td>Kahikini Small heiau on hill overlooking village site</td>
</tr>
<tr>
<td>At Naka'ahu</td>
<td>Kahikini Above Waiapua. Curious shaped heiau</td>
</tr>
<tr>
<td>At Wailapa</td>
<td>Kahikini 60 yards north of Wailapa village</td>
</tr>
<tr>
<td>Hale-o-Lono</td>
<td>Kahikini Built by Keakaikui; Maui Chief;luakini® Kipapa</td>
</tr>
<tr>
<td>At Kepea'oa</td>
<td>Kahikini 30 x 45 ft open on 3 sides facing sea</td>
</tr>
<tr>
<td>Kaoa</td>
<td>Kahikini At Alna, a luakini</td>
</tr>
<tr>
<td>Momoku</td>
<td>Kahikini At Lualali'ua built by the mehune @ Ka-papa-iki</td>
</tr>
<tr>
<td>Kalaukakalua</td>
<td>Kahikini Above village Hanamumu'ula 48 x square</td>
</tr>
<tr>
<td>At Aoahi</td>
<td>Kahikini Small west of Lualali'ua Hills</td>
</tr>
<tr>
<td>At Koholupapa</td>
<td>Kahikini Total length 110 ft. Rough basalt w/lili'i, pebbles</td>
</tr>
<tr>
<td>At Mako'o</td>
<td>Kahikuni At Mako'o village @ shore 60 x 30 ft</td>
</tr>
<tr>
<td>3 Heisu</td>
<td>Keone'o'o Ho'omana for shark, Pu'alu'a-rain &amp; fish, in Papake Kaulana koias, another Papake uka called Pu'imaio</td>
</tr>
<tr>
<td>Mahia</td>
<td>Kula Small</td>
</tr>
<tr>
<td>Kaunuiopahu</td>
<td>Kula Small</td>
</tr>
<tr>
<td>Pu'okalao'oheo</td>
<td>Kula Small</td>
</tr>
<tr>
<td>Mana</td>
<td>Kula Small</td>
</tr>
<tr>
<td>Nininiwai</td>
<td>Kula At Puhehu, trampled by cows and replaced by pine</td>
</tr>
<tr>
<td>Papakea</td>
<td>Keokea Below Kula Sanitarium</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Kaahia'o</td>
<td>Keokea Kula On hill in back of Kula Sanitarium</td>
</tr>
<tr>
<td>Molohai</td>
<td>Kula Several hundred yards below Papakea heiau</td>
</tr>
<tr>
<td>Kaunuiumua</td>
<td>Keokea Kula Below Molohai in line with Haleakala Church, Pu' u Kali</td>
</tr>
<tr>
<td>Kaumeheia</td>
<td>Waiholu, Kula Northeast of Kaunuiumua on 'a'a lava</td>
</tr>
<tr>
<td>Kainu'oe'alua &amp; Waiholu</td>
<td>Small heiau on rocky knoll</td>
</tr>
<tr>
<td>Puahilo</td>
<td>Kula Large 60 x 66 ft. Destroyed when road built</td>
</tr>
<tr>
<td>At Rice camp</td>
<td>Kaoaulu Small L-shaped heiau</td>
</tr>
<tr>
<td>At Alae</td>
<td>Kaoaulu Above main road of Kaoaulu Gulch</td>
</tr>
<tr>
<td>Kalaihu &amp; Kaoaulu</td>
<td>In back of Mormon Church site</td>
</tr>
<tr>
<td>Kenalilupo</td>
<td>At Waia'ao Kula Small heiau</td>
</tr>
<tr>
<td>At Pu'umaile</td>
<td>Waia'ao Story told to Kamehameha 1 that 3 hacoles were sacrificed @ this heiau</td>
</tr>
<tr>
<td>Haleokane</td>
<td>Puhehuni At Po'onoahoe hoa small heiau</td>
</tr>
<tr>
<td>Mo'omuku</td>
<td>Oma'o'pi'o Kula Large 90 x 108. Drums heard</td>
</tr>
<tr>
<td>Mana</td>
<td>Oma'o'pi'o Large heiau where many graves included</td>
</tr>
<tr>
<td>Mahia</td>
<td>Oma'o'pi'o Small heiau</td>
</tr>
<tr>
<td>Po'ohinahale</td>
<td>Oma'o'pi'o Might be heiau Kaunuiupahu called by Thrum</td>
</tr>
<tr>
<td>Pu'upane</td>
<td>A'upane Khapi'ilani declared this heiau sacred</td>
</tr>
<tr>
<td>Keahuamanono</td>
<td>Haleakala Built by Kaaao, younger brother of King Keakaikui</td>
</tr>
<tr>
<td>Type</td>
<td>Scientific Name</td>
</tr>
<tr>
<td>------</td>
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</tr>
<tr>
<td>P</td>
<td>Pililotum nudum</td>
</tr>
<tr>
<td>F</td>
<td>Sidaearia syzygioides</td>
</tr>
<tr>
<td>G</td>
<td>Calotropis gigantea</td>
</tr>
<tr>
<td>G</td>
<td>Ficus carica</td>
</tr>
<tr>
<td>G</td>
<td>Ficus carica var. variegata</td>
</tr>
<tr>
<td>G</td>
<td>Ficus carica var. variegata</td>
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<tr>
<td>G</td>
<td>Ficus carica var. variegata</td>
</tr>
<tr>
<td>Gr</td>
<td>Chamisea celastrifolia var. hawaiiensis</td>
</tr>
<tr>
<td>Gr</td>
<td>Cereus undulatus</td>
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<tr>
<td>Gr</td>
<td>Heliotropium anomalum var. argenteum</td>
</tr>
<tr>
<td>Gr</td>
<td>Ipomoea nil</td>
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<tr>
<td>Gr</td>
<td>Justicia ovalifolia var. sandwicensis</td>
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<tr>
<td>Gr</td>
<td>Lipinaea integrifolia</td>
</tr>
<tr>
<td>Gr</td>
<td>Peperomia thunbergii</td>
</tr>
<tr>
<td>Gr</td>
<td>Peperomia thunbergii</td>
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<tr>
<td>Gr</td>
<td>Peperomia thunbergii</td>
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<tr>
<td>Gr</td>
<td>Peperomia thunbergii</td>
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<tr>
<td>Gr</td>
<td>Sida falax</td>
</tr>
<tr>
<td>Gr</td>
<td>Tephrosia purpurea var. purpurea</td>
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<tr>
<td>Gr</td>
<td>Hibiscus ephiphyllus</td>
</tr>
<tr>
<td>Gr</td>
<td>Lipochaeta roebelii</td>
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Interview: Samuel Chang

May 13, 2007

By Keli'i Tau'a/ Kimokeo Kapahulehua

KT- Keli'i Tau'a

KC- Kimokeo Kapahulehua

SC- Consultant

SC- In 1918 was all dirt roads, see, and get the hills. The car go up, no can go. So, I tell my brother back up the truck so the gas, that was something you know, the Model-T truck he had.

KT- Yeah, yeah.

SC- Then he had a Chevy truck. Well, I'm from Makena.

KT- Yes but did you ride the Model-T truck down in Makena too?

SC- Yeah but I didn't drive because I was a small boy and Makua was, oh you know, Keli'i...

Makena, you come up the Ulupalakua gate, you turn left you go to Kula, Wailoa then you go down Makawao then you go down to Kahului, then you come back again. Not like now, you go to Kula.

KT- So there was no roads before through Kīhei.

SC- No more, only through Keawekapu, before keawekapu you stop. From there on you have to go on the horse or walk. But now, Kīhei, full of hotels yeah?

KT- Yes, yeah and more people coming that's why we want to make sure we keep the Hawaiian sites. But your cousin Eddie, he walked me in and showed me all the grave sites right by the turn, yeah.

SC- Eddie is my brother but Eddie boy is my nephew.

KT- Eddie boy walked me, yeah. He showed me right by the turn, before you go up Ulupalakua where all the family gravestones.

SC- Well, here's Makena the road's about over here from Kīhei to Makena you come over here you hit the Ulupalakua Road, our land over here. But now the road, I cannot figure out, then my partner had a store over there, the store was right by the corner over here.

KT- What did he sell at the store?

SC- Well, to me my father, Change, they call him A'ura but to me he was the lifesaver of Makena people.

Makena CIA prepared by Hana Pono, LLC

KT: Why is that?
SC: What I mean, in Makena, if you no more the store, the store my father sold crackers, corned beef, you know all the essentials you won’t have all the dry goods. Then used to go on the truck, bring the poi home see. Then when you bring the poi home, he would sell it to the Makena families and the Makena families would mix the poi with poi palalu, it tastes okay. But the store was the littest but all I remember was the crackers, the corned beef and other staples that the people need. And what happen was the family would come charge, yeah.
KT: Charge?
SC: Oh and Kell'i and they cannot pay after a while, so I hear this from my sister Auie, they said they used to go Ana we give you our land.
KT: Ohh.
SC: Then my father said, “I don’t want anybody’s land, I going back China.” But papa was a good business man, you know. All together my mother gave birth to sixteen children and I’m number eight Kell'i. But we had a horse, I don’t know if I mentioned this, at Ulupalakua. We used to call that horse Kalaulani, beautiful heaven. But that house was the garden of Eden, Kell'i, hard to believe, hard to believe.
KT: Describe it, describe why.
SC: Well, here’s the mountain up here, okay, here’s Ulupalakua land, here’s Kalaulani, the five bedroom house ever here. But here’s the part that got me; Banana’s grew, loquats grew, mangos grew, mountain apples grew, monosu grew, apples grew, orange grew, and guava. All these things grew on the land. Then ginger, we had yellow ginger and white ginger. Here’s our house, then we had a little house over a old Japanese man, he stayed there and he found cabbage, boy. And, oh it was the Garden of Eden, cold.
KT: So did it rain enough?
SC: Not too much but I think how the plants grew is during the night is dew and dew came down and that, no more now but what happened was that my sister Daisy was school teacher over there, at Ulupalakua School, then when she left to come over here, there’s somebody over there. Everybody left Ulupalakua to come Oahu to work. So, my mother was up there, then when my father passed away, no, no- when my father passed away and then Diwa Purdy’s wife passed away, they got married you know, so they loved the imu yeah. So after she passed away, somebody, my brother Pake, number fifteen, Frank, he up Purdy’s. Of the sixteen, only he to left. He’s number fifteen, I’m number eight. So, we sold the land, I think for sixty five thousand to a person, then this man who bought the land changed Ulupalakua to another land to over look the ocean. But you look at it now, it’s bare now. No more house, and the ranch the ranch to surround us. Now, Kell'i, here’s why I like to share this with you, if it’s okay with you, about my mother. Okay, she was a Baldwin girl, Everett’s Wife Baldwin, but see my grandmother she the one marry Everett’s Wife Baldwin, not the rich Baldwin. He was a surveyor and he was going to Kona and she didn’t want to go with him. You see, my grandma was a beautiful lady, so my mother came, so she’s beautiful lady, you know. Now, before she died I was down here somewhere and I went home, she had the mother’s instinct see, I probably was the last one coming home to Ulupalakua now. She was ready to go. Okay, Kell'i, only one question she asked me, “Ahae o pake?” That’s the one, he’s the only one that didn’t come home yet.
KT: Mulilona’a
SC: Yeah, and so I said, no he was down iwojino but the war was pae so Pake didn’t come home, see. So, okay, saw she went and I stayed with her all night, Kell'i yeah before she passed away. Ohh, I tell you Kell'i, too late. Hundreds of things I only do it for her, too late, but I stayed with her all right. Now during the night, Kell'i, this is true, she woke up say there’s forty for forty-five more acres of land that belong to her. I look at the land, ohh, that land was Ulupalakua Ranch land, prime land, you know. And that’s where they bring the cattle in to brand and you know, beautiful. Now, what happened, I don’t know. But I think when the Ulupalakua Ranch and my mother went flight the case, the lawyer for Ulupalakua Ranch turn ‘eh, you know and pay Ulupalakua Ranch because roy, that’s what I know but that what she said about the ownership of the land. Now, about my mother, now she went out in a coma then the next day my Uncle Frank Alahana from Makena and Kahului, and that’s from the Kahului side, you see. Now he came, his name is Frank too and my brother Pake’s name is Frank, now he’s the part I’m amazed Kell'i. When he came, he prayed see, to forgive my mother for her sins because my mother was rascals. (chuckles) Me and my brother Robert are jump the fence guys being number eight and number nine. So, he prayed to forgive my mother for her sins. She woke up, look at him and went. So, to me now, as I saw it since she couldn’t see my brother Pake and the name same, Frank came and that’s what she saw and she left. To me I would believe that, you know, because she had a rascal life but she was a beautiful lady, my mother.
She was a good pianist, good horseback lady.
KT: Where did she learn all of that?
SC: Ah, I think from connection and living and having known from relatives, you know. How’s she going to, now see, Ulupalakua my mother also had thirteen acres of land in the middle further down, I don’t know where. So, Ulupalakua Ranch changed that land to the Makena land. Now, when you look at it, Ulupalakua Ranch didn’t own the Makena Land, see, it wasn’t theirs. So, the family could have had adverse possession after so many years. So when she passed away then nobody knows so the sixty five thousand, my share was fifty thousand. So, where did the fifty thousand? Well, Kell’i I retired as a mailman, Honolulu Post Office, I worked thirty-one years, I’m retired thirty-six years. I beat the system, you know. How many years you were a teacher?
KT: Mmm... thirty!
SC: Thirty, how many years you retired now?
KT: Ten.
SC: Ten, so if you live long enough, you going live past the thirty and where do you teach?
KT: I taught all over. On this island, on Maui, all over.
SC: On Maui where did you teach?
KT: Baldwin High School.
SC: What grade did you teach and what did you teach?
SC: Oh, Kell'i, Baldwin High School—then you must know my sister Annie, Mrs. Wilmington.
KT: Of course, yes.
SC: Yeah, she was the cafeteria manager over there. And my sister Annie was popo but she was a good cook, you know. That sister was kind to me, kind to me. John’s mother and father had a beautiful home on a sandy... The home, you on the ranch and you overlook Halaakila, you know and see Kiel'i, beautiful, and Baldwin High School just below. So, you at Baldwin High school then.
KT: So, you—when you was small lod time, you go catch fish, you remember some things growing up in Makena?
SC: Well, Kell'i, to be honest with you I had a happy life down Makena. Now, this I hold most close to myself is I had my own horse, you see. And the horse, see my family also raised...
pigs and my job was to take care the pigs. And by Puaipi, where Our Church is now, where Eddie Boy is, that's Puaipi and right Eddie Boy has a new house now right below there when rain time and the little acre or so had a little pump and alfalfa field. And my joy was to after school, to come home go straight to the alfalfa fields and go to the pump. The pump was cold water and my brother Eddie from Lahainaluna would come home from Lahainaluna and he would plant papayas. Now you Kamehameha graduate?

KT: Yes.

SC: And my brother Eddie, Lahainaluna. Poor Keli'i, I'm a die hard Kamehameha boy, my brother Eddie, you know why? Lahainaluna boys during those days they come home, they can build house, you know, and then can make good mechanics. But Kamehameha, we kinda spoiled, for me I would think. In 1927 we weren't spoiled but I would hire Lahainaluna boy, not always you know, but burn bye I come back to you again about Kamehameha, okay. What happened is I had my horse ate before I ate, you know. And as I mentioned working the alfalfa field was a joy to me, you know. You get a papaya, the water cold, you put the papaya where the water come out, you go dig weeds and then when the papaya cold you eat all by yourself with my horse, yeah. Then what I enjoyed most there Makena is that with my cousins, with our horses, we would take that, now Ubpalakaua Ranch we would bring the cattle down to Makena. And then, here's the bay now, there's a little pipe- you go in there's a holding pen a little small pen. Then you would bring the cows down the holding pen, cowboy rope the cattle then the two best cowboys and two strong horses, you know. They rope the cattle and bring them and Kanuha or KIkeaua would be out about half a mile then the boat come in and the cattle come in from this pen to the cowboy take the cow out and the boat over there we get the cattle and pig 'em on the boat. Then he would bring the boat out then move out and get the stall and lift the cattle up and get in the holding area. So that's how we watch, as a lot we love to watch when the cattle run away yeah. Those cowboys were good, the Parker Ranch cowboys, oh boy! So, then afterwards we would take our own horses and we would pretend. You know, no more cows, we would play with the rope and we take off with the horses in the ocean. When you stumble, yeah. But you no get hurt, yeah and good thing is that you on your horse me on my horse, we fight and we see who the stronger one. Hey, horses can swim you know, Keli'i. Whoa, they can swim and oh boy! Horses, boy that was my delight, my own horse. Now one story I have about my horse is a strong testimony, wow. I'm over here, here's Ubpalakaua, we're up going okay. I ride on him, so more saddle, no more bridle, just a rope as we going up just tie the mouth with the rope. I hold him. So we're going up, only be and I see, we going to and then I think one time I saw the cowboys drunk hit their horse on the head and I think I went hit him one time. So as we was going I wanted him to go faster so I went whip him. When I did that so I went get 'em on the head so he turned left, I dropped. When turned left I dropped right there and that horse never move.

KT: Wow.

SC: He never move. Only me over there and get kiawe trees, yeah. He never move, I got up on him again. That's something when he never move, if he went move he would drag me through all the kiawe's. No but he waited right there, Keli'i. That's the truth, you know. Oh boy! Yeah then my Tutu had pony and so far school, here's a story about one. You know where the hotel is by Makena, Maui Prince?

KT: Yes.

SC: Wellington over there a little further up was a school. Now the school is, and there was a water tank, the school is one room and the teacher taught kindergarten, first grade, second grade all in one room. I don't know how they did it. Here were the teachers that I know, Ogilvy, ah that guy was junk to me oh yeah, he didn't like me. You know this is the truth, when he came stay with us, so me a small little boy a carefree boy I do what I want, I run around, right. So the first day of school I gotta report to him right? Across the table-whack! Oh I cry up boy, I go home all by myself, one mile away. I remember him but I never did get to close to him. Then the next teacher was Joseph Lee. He was good, young Chinese boy. Then the best was lila Kapukimoana. She was really good and she was the one that converted me to stay with my Auntie Patsy to go Puna School. So, from Makena during the school years I would stay with my Auntie Patsy and my Uncle Mahoney from Punaene. You ever heard of the Mahoney?

KT: Yes.

SC: You know any of them?

KT: Well, not real well but I hear the name.

SC: Yeah, well Uncle Mahoney Kamehameha graduate 1911, he was a machinist. I was staying with them for three years, boy I tell you, I ate good, no harsh words. Now again, I was staying about the Kuakibol family, Tutu Kapahu, Tutu Luawai, Tutu Kahanui, those three sons, as far as I know, didn't have children. Joe Kapahu, Tutu Luawai, Tutu Kahanui got Kuakibol they went to 261, well, that's how. That's from Tutu Luawai, he's one Kuakibol but all the, I think there's one that went to over here. All of them maybe one, Tutu Mamo's from Kiihe, I call her Tutu Momona. Now all the girls, Tutu Maloa, I think she was the one Tutu Maloa the Chang family owe a lot. All of us born at home except my sister Doll and she was the midwife, Tutu Maloa. She was a quite lady. Tutu Maloa was the leader of the family, she took care of the church, Tutu Maloa.

KT: What church?

SC: Kowalal Church. So my tutu was the main one, see she was the one that ring the bell and took care. She was religious but I don't know how. So, another thing, my Tutu had two girls. One from Edward Dwight Baldwin, that's my mother and one from Tutu Mawai, that's Aunty Hilli. That's where Randoom Pilz came.

KT: Oh, yeah.

SC: You know Randoom Pilz, yeah? That's where my see, Randoom Pilz is my closest relative see. Now for the Kuakibol girls-Tutu Maloa's offspring, we all rascals. You heard of the Kuakibola's?

KT: Yes.

SC: And one other one, Peter's yeah. Rascals them, not all of them, then that's my clan you see. Got Tutu Maloa. Then Tutu Mawai offspring are the leaders, you know. My brother Eddie was a leader, they were the leaders, they were gifted you know. Then Tutu Anne that clan is the love ones. Oh, they- you heard of Foo Sun?

KT: Yes, yes.

SC: See, oh.

KT: They went Kamehameha.

SC: I think Henry Pu Sun went, the one that became a fireman. Yeah, that- who's boy is that, oh that's Foo Sun's boy, Henry Foo Sun. I call him Kawakane but they call him Boxy. You heard of him?

KT: Yes.

SC: He's a nice guy, he's still alive, he used to always drink. Oh, see you know my family pretty well, eh?

KT: Yes, cause that's David Keala yeah?

SC: Yeah, David Keala is Tutu Anne's, yeah Makawao. And that guy is noble yeah. That's Tutu Anne's clan. Lu'au is Tutu Anne's boy but adopted by Tutu Lawai.

KT: Somebody coming to your house?

SC: Oh that's my sone in law, my daughter's husband.

KT: Ah?

SC: So he has two vans, and he's a Samoan boy.

KT: So how old are you now?

SC: This past Thursday I became 96.

KT: Congratulations.

SC: My daughter Winona passed away on my birthday.

KT: How old was she?

SC: Thirty three years old.

KT: Did she have pilikia? Ma'ali?

SC: She had, I think kidney trouble I think. But that girl had five sons and one daughter. Now the five sons, the first third I have the first three. Buddy went to Korea mission for the Church, Mormon Church. Then he's a teacher, tennis coach and swimming coach in Ogden Utah but they're home now. Then you have Shawn a twin, he's in the Armed Services. Then the other twin, Walter is also in Armed Services. Both of them, Walter served in Arabia for seven months and he served in Iraq for one year or more or less. And Shawn served in Korea two times and Iraq. So those two boys have high ranking in the Armed Service. I think they're not Master Sgt, I think Staff Sgt. Monday on the services they'll wear their uniforms, all the medals. That's Winona. And Kenneth, oh, but you know Kenneth, when he was a boy I was a Boy Scout Leader for seven years, Keil's. I waited for him to graduate. Sunday afternoon he was with his wife his wife to be till late in the morning, he come home (we lived up Kobe Head that time) he roomed into two coconut trees. Good thing he fell asleep and when he fell asleep one nice station wagon was all right. They call me about five o'clock into Waipahu Station because he was in uniform, all blood. Then he couldn't go to the graduation because he was in the hospital. You didn't know that? Yeah he was in the hospital. But within three days he was in the Navy. Yeah, in the Navy, Kenneth in Kamehameha, I wonder why they become officer, you know, but he was a Master Sgt. But when he went in the Navy for boot camp he became the commander. Yeah, I have his picture over here in the book. Graduation he was in the front and he became a Navy Recruit. But the one that went to Annapolis was a haloo boy because Kenneth boy didn't take geometry in Kamehameha so he lacked that but he was an outstanding recruit. Get the picture, you want to see it?

KT: No need, he going come visit me. He going come Maui, he said, "oh we go to lunch."

SC: You two going for lunch?

KT: Yeah.

SC: Him now, only Kamehameha is Kenneth now he's monona, too much. But he was a good son, he was a good son.

KT: He was a bishop, yeah?

SC: Okay, Keil's, let me explain. Twenty seven years this church was the police station then he became active again. After twenty seven years he became a bishop. He was a good bishop, very efficient. I told Kenneth, "You know, you going be a good bishop because you cannot trust anybody." So when the bishop job is they come for temple recommend and like you the bishop I come to you, I have to tell you all my fruits, see, you got to otherwise you would be lying, see. Because people come to him they go tell he cannot trust, he became a good bishop though only too monomona now. He was here the other day and Monday he's dedicating the grave up here. He was a good bishop, yeah, he did real well. But Kamehameha, after seventeen years was sad for me, you know but... Going back to my Makena days I mentioned to you, I think the Kukukihiko clan, the year before last on July something the Kukukihiko family had a reunion over there. Oh, I tell you!

KT: Big!

SC: Eh, did you come? About eight hundred people were there and I think you know Bobby Lawai yeah? Well, he was the one that took care the food and I don't know how he took care of us over five meals and we all ate good boy. And now again I from my family, Gaylene graduated from Kamehameha after thirteen years, our youngest one, the one that own this house. She rented a bus for my family, so the bus came to Kihei, I think Alaina but, so the driver a haleo lady came and pick us up then we went to Makawao, to past your place then went to Ulupalakua. Then in Ulupalakua we stopped at the old school and I explained to them about the land. Then we had our lunch at the Ranch, the old ranch house garden. Then Ulupalakua all the trees have grown up tall now, so it's pretty. But honestly Keil's, I never see one horse or one cowboy or one cow. They're there, a few they were in the field but I never see.

KT: They're running all the mechanical horses.

SC: Yeah, I saw the mechanical horses, you know. And the good cowboys that I knew was James Hapaku you know the children, he was a good cowboy. And Koa Purdy and Wilrose Olson said he Koa Purdy was a junk old man. You know why because before the cattle break he's hogging out already. But Koa Purdy be good to my mother. That guy he got mean shape, he's strong. Then the Mau Fair they would have with the Army, they would have cowboy relays, you know for. The Ulupalakua Ranch would host the Army boys and Koa Purdy would be the anchor man but Ulupalakua Ranch, good cowboys, very good. So you know the family really well Keil's.

KT: Yes I do. Yeah, they always talk about you so I said I wonder if he remembers me when I used to go to camp he used to work in the temple.

SC: Are you a Mormon boy?

KT: I just came out of the temple (laughter)

SC: Where do you go church, Pukalani?

KT: I stay with my wife in Kihei now but that's where I used to go, Makawao ward.

SC: Where?

KT: Now I live in Kihei so I go Kihei ward.

SC: Oh, Kihei ward? Oh, Kihei hot, yeah?

KT: Hot, just like Lain, hot.

SC: More hot, ever here cool.

KT: One Caucasian girl.

SC: Haleo?

KT: Yeah.

SC: How many children you folks have?

KT: From my other wife I have two, one on a mission, my boy on a Spanish speaking mission.

SC: Oh and how much children you have, two?

KT: Two, yep.

SC: Two, one boy one girl? Oh, you up Kihei now. Oh, Kihei, plenty haleo people now.

KT: Oh, no more Hawaiians all over now.
SC: What part Kihel, now let me explain to you Kali’. From Makena to Kihel we come on a horse, yeah. First you come to Omao to farn then at the end of the road first go to Atsui Store then right by the old pier, you know the old pier no more now. Then you have the Atsui Store. That store sell salmin then the plantation store further over. And Tute Anne use to have a house, used to be a forest of Puuane Plantation. So that house by itself near the old Kihel School, Tute Anne that’s the love one. So, from Makena to Kihel my cousin Larry would come in on the horses to get jol before the truck came.

KT: So when you used to watch them driving the cows into the boat did you ever see the sharks going after them?

SC: No, no more sharks. As far as I know my grandmother was a, what you call that, she used to feed the sharks. So, I think my family was safe. Aunamaka, yeah, aunamaka. So I think as far as I know one time walking into Palau in I think there’s a hill here then water go underneath. Right on the side over here one big shark was sleeping, I was small I didn’t understand but I saw the shark over there. Big one, but he didn’t bother me. Although when we swim, papipi the name, the cow path, we just swim over there I used to worry about sharks. I used to think about it you know. But no, that’s the only time I saw a shark and my mother seen by herself, she was a good swimmer. And that’s the part in Makena I do a lot of swimming. Here’s used to be a warf. At one time Makena was the main port for Maui for the Kala farmers, they used to come down from Kula. But it wasn’t like Kahoali, it was like Kahoali the boat come right along side. This time the boat had to stay out then come in the small boat down Makena. Kula is known for the old Chinese farmers raise vegetable they bring.

KT: What kind of vegetables they used to bring?

SC: Oh, they used to raise cabbage, mostly cabbage. I don’t know, Kula those days was nice land and my father had a store in Kula too. Two stores, the Kula store his cousin took care of. Oh, he has a beautiful home with windows, you know but he sold that to build up Ulupalikua, by Chiristown. That’s where his house was.

KT: Kauku then, Makia?

SC: Yeah, that’s the one. Now, over here I help at the temple for twenty five years as ordinance worker. Oh you went up there, had big crowd this morning?

KT: Small.

SC: Small, for Saturday, small. And where you staying now?

KT: I just came in last night because I have to do some pick up some temple clothes we going Kona temple. They no more clothing, yeah in Kona temple.

SC: They no rent clothes.

KT: Yeah, that’s why I had to get some.

SC: You have to bring your own yeah otherwise you cannot go.

KT: Yeah, but, you remember Earl Viloria, he’s the president now. He used to come Church College when I used to come.

SC: I remember him, real well. Tommy Kaukaukauhe and I good friend, he just passed away, he was in charge of take care the basketball game at Castle. So Earl he’s a good player but rough. He did something that fool you know I run inside and say, “You out!” Earl look at me he say, “Who this?” After we become good friends.

KT: You used to referee the games?

SC: No, I take care the time. But they were playing Kahalu ward and Kahalu ward is boals, he was All-Star, All-American volleyball player.

KT: Yes.

SC: He tough, you know and he married, see I forget her name. His wife is same age with my girls and they good friends.

KT: Kamehameha, she went Kamehameha.

SC: Yes, she went Kamehameha too. Oh, I forget her maiden name but when I forget her name, I can’t remember now. Now I’m all clear about you, when you first came in you see you tell you a Mormon boy so we close together. Now about, you know, I was baptized July 3, 1938 by Sam Kalaana. Molokai boy, Kamehameha graduate, he just passed away, Sam Kalaana. You heard of him?

KT: Yes, get that’s one school named after him on Maui, Kalama Intermediate.

KT: Who was that one kupuna up there in Waipalu?

SC: But now again, Kali’, you know all my family on Maui, the Kukahiko side. You know the Lauwa’s.

KT: Very well.

SC: You know the Foa Suni’s.

KT: Yeah I want to go Hilo, go talk story with Boogie.

SC: Who?

KT: Boogie Lauwai, he moved Hilo, yeah.

SC: Oh that’s a nice boy. You know, it’s sad, he was happy down Makena. I thought was, you see only had a little place. Here, my Tute Anne had the best spot, and it was by the houses. My Tute Anne’s house over here, one three bedroom: You know Kali’, my happy life, in my life it’s can’t be... Tute Hai, she had a veranda, you know, the ocean right there. We sleep in the lanai only on floor.
Interview: Robert Kalani

May 14, 2007

By Keli'i Tau'a/ Kimokeo Kapahulehua

KT- Keli'i Tau'a
KK- Kimokeo Kapahulehua
RK- Consultant

KT- You were raised in Makena?
RK- No, I was raised up in Paia, we went down to Makena all the time. Summer time we spent a lot of time there and when we went down to Makena there were only my Uncle David, my Auntie...

KT- With the same last name? David Long.
RK- My Auntie Mary, she was Awelos, married one Podagee man anyway. And her sister, what was her name, and my Uncle John Nuuwai, and my Auntie Peters, and then had the Delima's. My Uncle Abner was the one who had the light thing on top of Puuolai, guide the ship you know, the kind small little light. And they were the caretakers, I believe he worked for the Navy something. And then, oh and they had some husband over there. They had about one or two, I think. There were just a few of us there. And we went there during the summer months and during holidays and we would have to go pick up the klawe beans. You know, to go help my uncle feed the pigs and oh he had oodles of pigs that ran all over the place, you know. Then we had to go pick up the klawe beans.

KT- But lucky had the beans to feed the pigs, right?
RK- Oh yes. There was nothing to do except to go fish and swim, you know, but we enjoyed it, we enjoyed it. And then we would walk all the way into Keonolo, my uncle Charlie was living there, Aikala. They were the caretakers of Cutter's place. And we would walk! That road wasn't like that, it was horrible.

KT- So was only rock road.
RK- It was only rock road and all the....

KT- Was that part of the Kings Trail, that they call the Kings Trail?
RK- Yes, and so when we'd go in, go visit my Uncle Charlie, had my cousin Emmy there too but they were living out here my Uncle Charlie's still living there. So, that's all we went to do was

play music and sing and then we went with him, we went in and we would go down and pick up piipi, opaha, whatever we could get. We never starved there. You know, we had mangoes there, we had the wala, the potatoes, my mom, my uncle grow there. We planted our own vegetables when we went with my Uncle David.

KT- Yeah, what kind of vegetables?
RK- Oh, we had onions, we had wild tomatoes all over the place, the small one. And, we had a lot of things there but going to the movies or even having candy, we didn't have candy. You know the tamarind and my mother said, don't waste the sugar. (Laughter) Had the tamarind tree, and it was a good life. And as I grew a little older I look back at that and it think, we ate everything from the ocean. We had fish, we had wana we had the akule, we had limu.

KT- What kind of limu? Because today you don't think of going to Makena to pick limu, what kind of limu were you folks?
RK- Oh they had lipapa', huluhulu waha, limu kohu we had all kinds over there.
KT- First, give me your full name.
RK- Robert Kalani.

KT- Nothing else attached, it was a family name.
RK- Yeah, but they call me Lepake, so.
KT- And how old are you now?
RK- I'm going to be 63.

KT- Your birthday?
RK- 1739.

KT- 1739, seven twenty seven; interesting us, so would you be a Leo? You know the different signs.
RK- I don't know.

KT- You might be, yeah because it changes in that month.
RK- Depends on when that thing falls.

KT- We were talking about your family traditions and about Puu'ula'a. Can you review back so that I can get it on this recorder on what your family used to do and going diving there and for what purpose.

RK- My family, the Koa'a, come from a fishing family, you know and they lived in Oono right below Puu'ula'a. And they farmed, they grew their own vegetables, whatever, they had chickens, you know and all those things, they had pigs. But they also went fishing, you know, gather limu, piipi, hauikiki, opaha, wana, okali, all those things that came from the ocean, they lived on that as well as what they planted. And my grandfather was the caretaker of the road there in Makena and he was the only one that dressed in the Ma'ulu day in and day out. You know he went to work, came home, my grandmother washed the ma'ulu and he changed and hanged up that old ma'ulu on the lava rock, the fence that separated their property from the other one. Dry it out and then when the thing got dried, pull 'em up and he wore that to change into the next ma'ulu the next day to go to work.

KT- How did she wash it?
RK- Well, you know they had that, from what I seen when we went there in the early 50's they had this big block of soap, you know, he was a brown thing and you bathe with it. Oh, the thing was so rocky.

KT- Oh yeah.
RK- Okay, you bathe with that but they used to wash down in the ocean, you know on the rocks, you know but they had this big soap they used to scrub the clothes.

KT- Wow. So you're telling me that uncle, or grandpa then used to dive under Pa'ula'i.
RK- Oh yes, they had their sumakus during those days and according to my mom and the rest of the people that lived there in Makena said that my grandfather and my Uncle David and my Uncle Larry and another brother—another son of my grandfather's used to dive down into the cave under Pa'ula'i where the family sumakus live. And they would go down there and feed the sumakus before they would go out and do any fishing. I was told if you don't feed them, they're going to come out and go look around, you know the sumakus, and if they're hungry, you know, they going come out and look for food. So, my grandpa then if they going fishing that day, they dive down and feed the sumakus the Meneo.
KT- They never described to you what kind of food they were feeding.
RK- No, and so I told my- I used to question my mom, you know and I said, "Ma, that's like living in the pagan days. You know you worship this thing." And then she explained, "Robert this was haeae down from grandpa guys' family. That's their sumakus and they worship this." You know and this was given to their children, now their children is grown up and that's the grandpa then. They still carry on that tradition, you know, that you make this mano, your sumakus. And before you go out, if you think you going fishing, you know they have to eat. And so she told me every morning they go down, even if they don't going fishing that day, they go down and they feed.
KT- So when you talk about traditions, you and I know of the great stories of our Tutto Pele, are there any stories that you can share with us that has to do with Tutto Pele coming down from ma'uka and covering the different areas: Kaoneole and some parts above Makena?
RK- Well, you know, the lava flow had started out before my grandpa them started to live there but Pele did appear to our family, to my mom's family, you know, which of course, my mom them didn't know who this lady was but my grandfather did, my grandmother did.
KT- Did they pass down any particular details of how she looked or how she came or how did they identify her to be Tutto Pele?
RK- Well, my grandfather identified her and told my grandmother Lushine was here. You know now, this is what my mom told me that Lushine was here. You know, they didn't know that she was a drink and she like, you know, that smoke. Puipaka.
KT- Puipaka.
RK- Yeah, and then at that time my father guys, my grandfather they grew their own tobacco leaves down there. They used to make their own, so he went and he and my grandmother came up and gave it to this lady. They knew it was Pele, you know, and so they were talking and what have you. And then my mom said, my grandpa said, as soon as they left to go into the house, the lady left, wasn't there. You know when they came back outside to see me I saw her, she wasn't there. And so my grandfather told da kine, that was Pele that was there.
KT- Wow.
RK- And so that was the first time that she had come to visit.
KT- Do you do any particular chants of Makena?
RK- You know the chant that I was going to compose because I was into hula, my great grandmother, no my grandmother, my mom's mom, she a chanter for Makena.
KT- What was her name?
RK- Becky, Becky Kalipalau Lehua. She would get up at night and you know she would get up and then she would walk the streets of Makena, the road up Makena. She would kahie, walking down the road, you know. She never sang but she would chant every night. And then she would go down to the beach and then my mother guys can hear her chanting away. No more the humu, no more the smoke, just her. And my mother never did get along with her grandmother, no never did get along with her mom. My mom never did believe in those kind of things.
KT- But you picked it up.
RK- I picked it up and my mom was upset. When my Uncle John them would go fishing, you know, certain places in Makena there's different types of fishes. The Skull was where the Lading is and they would go out fishing, you know they catch a lot of fish, but they cannot bring the boat in, so much fish. So my uncle said, sometimes they would take the fish out, they don't throw them back into the ocean hana into the sharks came. And she says, "Robert the sharks came in and your uncle them was outside of the boat. They had to go call my grandfather. They said they have to call your grandpa for come." I go, "Why?" "The mano is your guys sumakus and only he be and he alone can go into those waters." And I looked at her and I said, "No aumakua?" She says, "Yes, you go ask your mana." But my mana had never told us about those kind of stories, you know. Not even my aumakua. And when we asked she say, "Get outside, get outside go play!" You know, but it was through my aumakua, my aumakua- my mother's sister these, even they wouldn't tell us about those things. But my mom's cousins, my Aunty Helen they would tell us about those episodes that happened in Makena with the mano and so my John Nuuwai them couldn't bring their boat in because there was so much fish then and the sharks came in. So, they had to go call my grandfather, my grandfather came. My grandmother came. My grandmother went out by the point, the point and she went kahie, my grandfather stood on the da kine and when she went got kahau my grandfather went in go help bring the boat in with the fish and the sharks was still swimming around. From up on the hill they could see the da kine. My aumakua, "No it was right here and we could see the sharks and the boat stay outside. Wanted to come in but no can because the sharks stay all around so they went to call my grandfather." So my grandfather came, my grandfather and she was at the end of the shoreline at the tip of the da kine and she went kahau and the sharks started to swim away and my grandfather went in. But the sharks that were there there were our sumakus, the one that lives there. They went with my grandfather.
KT- Would be great for your family to have these stories even if they don't believe because it's part of our heritage.
RK- Yeah, and they brought the boat in with all the fish, had so much fish! All kinds of fish they had and my grandfather had helped them to bring it in. My grandmother wanted to leave what she had to my grandmother, my mother didn't want. But she told my mom one of your children will carry on what I have. And when I became a Kumuloa my mother was upset. She said, "Your grandma was right but Robert, you're not going to do it." She said, "Those things is to be left with your grandma and let her take it with her." I said, "Why may?" Robert, she wants to give you something to take care of and you don't know how to take care of these things. You just don't take and keep. You must feed that, they have to eat, Robert and you don't know that."
my Aunty Rebecca had moved out because she got married, and my Aunty Nancy and some of the brothers. She said and she told me when I became a Kumu she came and she told me, "Robert you’re not going to dwell into those things." And it was, I could sit on that ocean and all of a sudden, I would kahoe, I would be in a trance. I would crawl on the rocks and I threw rocks at the water just to give me the rhythm and I would kahoe. One time the ocean came so high, right over me and I didn’t even know what was going on. There were times like that happened to me. And sometimes when I’m down there with my son and all of a sudden I would sing my songs and I would come stand up and I would walk the beaches I would kahoe without knowing what I was saying to the de kine. And my sister said, “What are you talking about Robert??” You know and I would just look at them and then the de kine I would just keep right on going.

KT- See, the gift was passed down to you.

RK- Without my knowing. But you see, I don’t know, I enjoyed it. You know, I left myself, I sing and all to myself. I even stand up and do the hula, you know and going through the motions of the hula and all those things.

KT- At your house I saw two boys, ohana?

RK- Yeah.

KT- They’re not interested in the area you’re known for?

RK- No. In fact they’re not from here, they’re from Molokai. You know the Joao’s?

KT- Yes.

RK- That’s their ohana. The only thing we are related is because the mom and I are related. The mom is a Nakoa.

KT- The reason for the question is, Once you go, who’s going to carry on your work?

RK- Well, I have a nephew and he’s interested in hula but I guess he doesn’t want to get involved into that kind. You know, because the brothers are very de kine, masculine and I think he feels that way. I didn’t ask, but if he wants to, he would go into it. But he used to love hula when he was growing up. And so, I don’t know if a young child growing up into the de kine those things would just lift me up and I would go down to the beach and I would get something, I used to go find any kind rocks and go ahead and do the de kine. Then afterwards I would just be so exhausted and I would sit down and then I forget what I was- and you know, I would look around and I would say, “Oh my god.” And then my sister them, when they were small, “Ma, Robert is talking to himself.” She went up to that chair, she knew and I didn’t tell her. I said, “Yes mom.” “Robert, you’re not going to carry this. You’re not going to take this. It’s good now, you’re enjoying it now, Robert, when you get a little older, who’s going to feed these things?" I said, “Ma, what kind of things you are talking about?” “I said the thing that’s to you from your grandmother.” “What is it?” And then she set me down and I didn’t really take it in until I got real sick. My Tuta Man, John Kukahiko, my mother had to go get him and my auntie them came to oki this thing that was within me. Keli‘i the thing was hard.

KT- How old were you then?

RK- Oh, I was kinda young already, about ten I think.

KT- Difficult, yet so young.

RK- That was when I was in school, ten about eleven twelve, something like that.

KT- But you experience like me, we cannot turn our back to our culture.

RK- Well, which is true, you know, but it’s something I don’t want to leave with somebody else. You know, and which is true, I don’t know how to feed. You know how I found out about this and she told me my mother is right about that. Cecilia Makekau, you know her?

KT- Yeah.

RK- Okay. She’s a pake from Hawaikai. She comes from a line of hula too. She had taken up the Hula Kapa and she was the one that told me. I mean, I was a little older then but when I met her, you know, she had told me about the hula and then I told her what had happened. She says, “Robert, I’m glad your mother was there to guide you.” I said, “You know, I didn’t even know what she was talking about because I couldn’t see those things.” You see it was in me and I didn’t even feel it until I’m by myself. This thing only happens when I’m by myself and nobody’s around. And so she said, “Robert, I’ll tell you.” And then she told me how she went through the hula. She told me from the time she went to take hula and you want me to tell you about it? She would come to the halau and her kumu is inside. But before anything happens there she says, “Robert the kumu came out and she gave us a chant that we are to do before we go into the halau.” And so outside of the halau they learn this oli. “You learn this oli Robert and the next day you have to bring a ho’okuupu with you. And the kumu is in the halau and you’re outside, the door is closed. And then you kahoe to her and then you go into that oli that you learned from her and then she kahoe’s back to you and then the door opens. And then you go in with your ho’okuupu. There’s no kahau and you bring your ho’okuupu and you put it, just one small little thing that they had and you oli, you take it off and you put it over there. And then she tells you what you’re going to do, you know, what’s going to happen. You have to learn the oli of building the kuahau. You learn that first before you learn anything else. So, every day you come, you bring ho’okuupu. At the end of the week, at the end of the week, she takes you up into the forest, you could gather up all your greens: the ihu, maile, and the la‘i, everything that you need. And she says, “You cannot go in right here and you going pick up those things that is close to you. You have to find the very best of everything, the best maile, the la‘i.” You know and then gather all those things, wash it in there, put ‘em in a bundle and then you _36:14_ kahoe, thank the gods for all these things. Thank the gods for guiding you into the forest to gather your greens and then thank the gods and ask them to get you yourself up. Your kumu comes after you and she kahoe, she thank the gods for all these things. And now you folks are going home, open up the way that you can come out of the forest. So when you go into the halau you get all your greens and now you have to build your kuahau before hula starts. And everything you gather for the kuahau has a melo. And when that kuahau is built ease the de kine, no, no, and before you can start your hula, de kine, you have to come down that evening. She said, “In the evening we had to come, then we have to go down to the ocean and cleanse ourselves before hula dance.”

KT- So, you went through all of this?

RK- I didn’t go through that.

KT- This is what Makekau told you.

RK- Yeah, this is what Cecilia Makekau had told me. And then she said, “You get your la‘i you going practice every day you come you have the same thing on, whether it’s dried or de kine." And if you want to get first de kine, like the fresh one but before those things come inside there that you wear inside the halau, you must bless that. You know, like the same only you went to get the first. And then that evening everybody come, they go au au, clean yourself before you can start with Akua. And then the next week classes start.

KT- Did you ever see any kuahau down in Makéa? I guess that’s the equivalent of the fish.

RK- It’s rare, its there.

KT- Exactly where?

RK- They own the property, that’s why we couldn’t- I’ll tell you about this kuahau. This lady and her daughter came to Makekau. But anyway, you know Caroline Lake?

Mākena CIA prepared by Hana Pono, LLC 6/14/2007
KT: Okay.
RK: You know her, yeah? She was going to the Mormon Church. She was a kumu, she also went to the kahuna, you know. Oh yes, she also, what she told me is the same thing that Cecilia Makokau told me. I used to dance for her at the Hukilau Hotel. She was living with her son and her daughter over here. They were working at Sheraton Maui. Well, anyway, we went down, I took them down to Makena because they wanted to go see the place we went. And, she's involved with Hawaiian artifacts and all those things. We went down and my mom was there and then when I introduced them to my mom and had my Aunty Kola Hokula who was still living in Makena, I introduced her to my aunty then and my mom. So everything was so jolly and so happy. So when I told her I said, "Ma, I'm going show them the place around." My mom says, "Robert, please don't take those things." She knew what the thing was but anyway, I took them around and went. There's a house down our place called Kalani Hekai, you know, burned by later on we come to that but talking about the fish. So we went to gather the mangos, there was the mango tree that was in the back of my Uncle David's house and I went picking up mangos. And all of a sudden the daughter turned around and looked and her eyes were focused. Because the old house was up on the hill like this. There was a old house right next to the Prince Hotel, up on the house like this. The old house was on one side then stops. The mango tree was here so when she came walk this way for go pull the mango, she went up this way and then look that side and then she seen this rock. Very smooth rock, you know was about like this, had some edges on the end, was lying there. And she goes, "Robert, I go, "Yeah?" Your family, what they fish em?" I go, "Oh yes, my Uncle David is a fisherman and my grandfather, you know they were well known fisherman down here. They were known as the Leo, the Leo family. Everyday, you know, they would go fishing. In fact they would go down under the Maui to go feed the mano our ancestors." And I said, "Why? Why? Why? You know what is that?" And I go, "Where?" Over there by that steps. I go, "Okay, Honey that rock, what?" You know, and they said, "There's a meaning to that rock." And I looked at her and she said, "For Christ's sake, Ella." And then she says, "Robert." So she went call her mother and her mother came, the mother said, "Your family fish a lot." I say, "Yeah I was just telling your daughter that. How long that thing was there?" I say, "I seen the house, in fact before the house went burn down, I'm assuming the thing went stand." And then I said, "Why?" And then she told me, "That's the fish god Robert." And I said, "And?" That's Kula. Every fishing family, you find, you going find this thing in front of their house, below the house, right next to the steps. Was about like this, it was right there.
KT: And you don't know if it's still there?
RK: We have never taken it away. When we sold the property, I never told anybody about that because my mom said, "Leave it there Robert." Because I told her, I said, "Ma, they said that the fish gods were scream at me." "This is why I didn't want you to take people behind there Robert." "That fish god belongs to our family," I told her. "I said yes, and nobody else and I didn't want you to go behind there and take these people behind there." And it was right there and then I promised her I would never have it removed and I would never tell anyone.
KT: The only problem...
RK: My mom died, my mom died so I just...
KT: The only problem about that is going to be some people who don't know about that. They're going to start building and...
RK: They are and my mom told me, "Robert, even if you want to go take it, even that Robert, you have to take care all. Hawaiians had so much things that they put their mana on and leave it for the families so the family take care of them." And then she said, "I don't want you to do that, you know, even like this hula." But you know as I got older I just forgot about it. You know, I forgot about that da kine until pueo kapa and so I just left my mom and my aunty them there. But I had to apologize to my mom, you know. And so I said, "Well, we sold the property, you know. I don't want to tell people it's there over, you go get 'em and you take 'em home and then something happen. Because I don't know what prayers or what da kine I have to use to remove that."
KT: This, you know where Sonny Visk lives?
RK: Yeah.
KT: Right after that there's a small pu'a, go down they built. They built big houses so they called me to consider going down there and pula. So, I stopped by Uncle Sonny, talk story, he went down there. He said, "Yeah, get hula down there." But that's what, for me I'm concerned about who know who, who don't know. And then the thing about negative things where...
RK: And so I just left it there and when we sold the property, you know, I didn't even think about that until Kapa came and we were talking about things like this. And so I told him that I remembered there was a kula. He said, "Well you know Robert, the Kula is always in front of the house, you know where the steps come down. It's always in front of the house." I said, "Well, this is what this lady had told me." But my mom just didn't want us to get involved in these kind of things because we just didn't know how to take care of those things and we went already sold the property when these things came up.
KT: There were, outside of the Kalani Hekai, which is on...
RK: The Garcia's.
KT: The Garcia's, are there any other significant areas in Makena you can think of that would be important to mala'ia?
RK: Well you know that little island where the church stay?
KT: Right.
RK: Right out there there's a little island over there.
KT: It's an island, not a rock.
RK: Yeah, it goes up like that and it comes close like that and it goes and it comes there. You know about that island but I'm not too familiar with it, I don't know maybe if there's a mill or something about that island but there's some sort of significance to that island there.
KT: There's that little rock that sticks out there, right outside Keawalai are supposed to be a fishpond. In the close vicinity is the rock Pu'au that was the male person who Pale enjoyed but he took off with someone else and so she turned him into a rock.
RK: No that's not that, that's the one over at Keoneo.
KT: Oh, okay.
RK: Yes, as you get up on the hill, you keep on the da kine, it's on this side.
KT: It's on the water, yeah?
RK: No.
KT: The one you're talking about...
RK: Oh the one I'm talking about is the little island right outside of Purdy's home in Makena.
There's a significance to that little island because it was wider than that and as the years went by, you know the ages of the caves there is a small little pond in there.
KT: Well, that was the loko'a before, right there.
RK: I really don't know, but my aunty then always used to talk (not my Aunty Helen there, my Aunty Mary) when I was down there at that time. And every time I used to go to Keawala'i.
always, I don’t know that little island draws my attention. That’s why I told my cousin, “You know I think there’s some significance to the island.” My cousin Malakulana used to walk from Makena landfilling the way to Puako’s for get opih and all that kind. She was a strong woman, let me tell you.

KT. You know when people talk about Makena and opih, I just haven’t experienced that much opih compared to Kaanapali and Kahikinui and Kaupo. But everybody that lived in Makena always talk about opih in Makena. I guess because it was very scarce once the turning of the tide as they say.

RK. Yes and people were gathering it, even small ones, they couldn’t even let them grow.

KT. Yep.

RK. But that heiau, that Kalani Heiau there, that heiau there, I think though they never tell me what the heiau there was for but you see the Hawaiians used to live up hill, up Mauka, not down by the ocean. They used to live up Mauka. Mr. Baldwin brought them down, next to the ocean, the one that used to own the Ulupalakua Ranch, according to my aunt. And, my mom tell me, when we went down there, we’d go swimming you know during the day and have lunch but in the evening we would sit out on the porch, my Uncle David’s porch and my dad used to tell my mother, “Oh the old folks going home, they coming and they going home.” So my mom said, “Oh I’ll tell you kids, Lower down that Kukuihelapa.” “Ma, na can aia!” You know, so we lower it down and then she said, “Keep quiet.” And she tell me da kine, “Put that guitar and ukulele away, new.” So just put it down and we would stare, sit. And then my Uncle David, my dad and my mom, they would talk and say, “Oh, the people…” You know the night marchers. Their pathway is right next to our house.

KT. Wow.

RK. And my Uncle David told my mother, “Every time the family comes here, you know, you can hear them. They’re laughing, coming home into the da kine.” So Kea had asked me what the significance of that heiau. So I told him, I said, “You know, the Hawaiians, the family used to live up Mauka. The pathway is over here to go up.” He said, “What?” I go, “That’s right. This pathway is for them to go home.” How we found the heiau? Because we went on the pathway, we went the path and we found the heiau. So he asked me, “What is the significance of this?” “I don’t know but I’m assuming that when they gather enough fish, you know, I’a, and you know, gather up the meal from the ocean going home, they leave some here, thank the da kine. So, whatever it’s or da kine they get when they going home they leave it here on this heiau. Maybe this heiau become one of their.” I said, “I don’t now.”

KT. So, is it not a really big one?

RK. No.

KT. In dimensions would it cover this area right here?

RK. Oh, yeah.

KT. Hmm, rectangle?

RK. Well, it’s just you know, those rocks that go up into the da kine. It’s not where you bury all the, you know. And then then thing was registered yeah, so I told them I said, “Hawaiians, you no take things and no give. Maybe this is what, on the way home maybe you give something here on your way home.” And I told him I said, “The night walkers used to, my Uncle Jimmy used to hear that like every other night or sometimes all night, all week long going home. You hear them, because he used to live down there by himself.” He said, “I used to hear them, the family going home.” And then be go, “Oh, how old the ohana?” So I told Kea, “That must have been the reason.”
KT: So she passed now?
RK: Well, she died when she was a little bit older, she died about 5 years ago. And then when she said that she got sick, I remembered what my mom had told me. You know, when we go to my Tum Moom John come and then I remembered what my mother was telling me. She told me she got so sick that even everybody came to her house to take the thing from her and they got, you know, like they were fighting with the da kine. And then she told me, she said, "Robert it's like worshiping the devil. Nobody knows this but me and those who have gone through it. A lot of Hawaiians will tell you that's part of our culture. That's not normal and that's why, come to think of it." And so I said, "But I can teach." "Yes you can teach, you went off those things, those things are no longer with you but you can go and teach the hula. But you cannot carry what your grandmother has now."
KT: When you were practicing, there was Hokuana, from Lahaina, Aunty...
RK: Aunty Emma Shaw.
KT: Who else?
RK: Had myself, Charlie O_66:04_, and Elizabeth Lum Ho, Reina Ching was my kuma you know. She took from Manuela Boy Rodrigues.
KT: Oh.
RK: That was her Kumu so I learned her style, Manuela style, from her. You know it's like this, the hands, you know, all like this.
KT: Only now I understand why my nieces do that. You just did it because I used to watch them.
RK: And it was never like this. That was when I taught da kine, it was like this until they da kine. It was always like this, Manuela Boy style. And that boy, he was with Keawetane, it was always like this until, that's Manuela style, you know. And then had Aunty Emma style was always roll back, roll back into da kine. Charlie Hokuana style was like this, was always like this. And Elizabeth Lum Ho style was like this. The basics were the same, you know, but the hand motions were all different in today hula. The thing that upsets me is when they dance like this. Oh, I get so upset, I turn the TV on and I crow into my son, "What's wrong?" And until da kine, I was the one who brought, well besides Maile of course, but I was more into the gracefulness, I was more up into all that gracefulness, you know, that was mine. I couldn't see people kaholo back and forth and with me was that when you dance, what you feel comes in the facial expressions. Your body movements, your hands, your eyes are smiling, everything comes out and you dance to that person. A lot of people come here, they don't understand Hawaiian so you dance that person and all your movements and your feelings, that person receives from you. That's my style. I will never let you kaholo back and forth, you're just taking up space honey, move. If you cannot bring out your feelings in your hula and if you cannot understand that song.
KT: Exactly what you said, is how my nieces dance. They are doing you proud because of how you taught them.
RK: I know I seen them one time and I was so happy! Even Keola Beamer's wife, she was my student. But now everybody comes and says, "Oh uncle, can you come to our workshop?" "I don't want to go because of that kind, you know why? Because you guys will learn this but you guys going to change it to something else." I said, "Unless if you keep what I teach you and go off and do it the way I teach you, then I can. But if not I don't want to go wasting my time."
KT: I'm glad you stand on what your principles are.
RK: I told them I said, "If you can make that person watching you move your feet you're damn good."

Agreement to Participate

I, (My name), understand that Kimokeo Kapahulehua and Keli'i Tau'a, independent investigators contracted by Dowling Company Incorporated will be conducting oral history interviews with individuals (kiupuna/makahua) knowledgeable about Makena, Maui. The oral history interviews are being conducted in order to collect information on possible prehistoric and/or historical cultural resources associated with this school, its history as well as its traditional cultural practices.

I understand I will be provided the opportunity to review my interview to ensure that it accurately depicts what I meant to say about any of these lands. I also understand that if I don't return the revised transcripts within two weeks from the date of receipt, my signature below will indicate my release of information for the GIS report. I also understand that I will still have the opportunity to make revisions during the report review process.

Please check the box:

☑️ I am willing to participate

☐ I am willing to participate under certain conditions.

Consultant:
Date: 5/18/2007
Name: Merton Kekiwi

Investigators:
Date: 5/30/2007
Name: Keli'i Tau'a

MAHALO NUI LOA.

Interview: Merton Kekiwi

May 30, 2007

By Keli'i Tau'a/Kimokeo Kapahulehua
KT: Keli'i Tau'a
KK: Kimokeo Kapahulehua
MK: Consultant

KT: So I'm sitting here with, give me your full name.
MK: Merton Kekiwi Senior.
KT: Do you have a Hawaiian name?
MK: No, I don't.
KT: Your mother and father, your mother's maiden name was?
MK: My mom's maiden name was Annie Kalili. My daddy's name was Hun Kekiwi.
KT: So, did mom work?
MK: No, she passed away when I was a young boy, I don't know really too much about it but no, she didn't work. Actually she comes from the Big Island, Annie Kalii Kenau.
KT: So your dad raised the family?
MK: Yes, my dad raised seven boys and one girl.
KT: Wow, so what did dad do?
MK: My dad used to work for Rice Ranch, Harold Rice then it came down to Oskie Rice and then the two boys took over the ranch; Freddy and Henry Rice. I was born and raised on that ranch. It's called Kaenoulu Ranch up in Kula.
KT: Right, I interviewed, it was a wonderful interview. So everybody's been telling me that you folks kind of were associated with Ulupalaka Ranch but that's not the case?
MK: No, when I was a young boy my daddy told us, had three of us, Henry Kekiwi, William Miki Kalanianio (who was adopted into the family but they never change his last name. My daddy brought him from the home and adopted him from the home but they never change his last name to Kekiwi, he kept his William Miki Kalanianio) and me the youngest Merton Kekiwi. He adopted me from the Sawaii family from Ulupalaka Ranch. And then my daddy told me, "You know when the three of you grow up," Well, the other two was older then I was anyway at that time but he told us, "I didn't want you guys three work on the same ranch but bye going fight
hui hui, no good. So Hanalei, Henry, you stay over here on Rice Ranch. You work over here. Milk you go Hana Ranch. You go over there with the old man Ah Sing. "You go ask him for job and you go work over there and buy you. I was the smallest, "When you pau school you go Ulupalakua Ranch, you go see all the old guys over there. I know all them, you go ask for job over there. So you guys three no stay on the same ranch." So when I got out of school I went to Ulupalakua Ranch and applied for a job. In fact they came see me at one rodeo and in 1964 I started to work for Ulupalakua Ranch. That's why I worked there from '64 to 2003 and I retired there as almost forty years on the ranch and I stayed in Ulupalakua and I raised my family there.

KT: So describe Ulupalakua Ranch from where to where as far as you know.

MK: What you mean from where to where; Boundary lines and all that?

KT: Yes because it's changed hands quite a bit but when you were there?

MK: No, when I was there it was the same guy owned by Parede Erdman. Before Parede Erdman it was Greg Baldwin. Before Greg Baldwin it was well, his daddy Edward and Ruth Baldwin owned that for a long period of time. When Edward passed on, it came down to his son Greg Baldwin. He never own 'em too long and then he sold the ranch to Parede Erdman. They came from Wyoming, Parede Erdman and his family came from Wyoming, I think it was White Horse Wyoming and they bought the ranch in '63, June of '63 and I worked there July of '64. When I started to work there I was number 18 cowboy. Had all the old people like Jim Hapakouka, Big Bill Wakekani, and all the rest of the family; Willie Kawai, Mitsuji Tarada, Toshi Tarada, all those old guys were there. I was one of the youngest there, started there in 1964, July of '64 at the rodeo, I started at the rodeo they hired me and I worked there. But you were saying, Ulupalakua Ranch, where does it get started. About two or three miles below Fong Store, Henry Fong Store up in Kealana about halfway between Fong Store and Ulupalakua Ranch there's a boundary fence line going mauka and makai. Haleakala Ranch on the Fong Store side on the Ulupalakua side of that boundary fence side it starts Ulupalakua Ranch. That area is called Makaula. The ranch is about 30,600 acres that whole ranch, Ulupalakua Ranch. When I left there they sold out plenty land before that so that was bigger than that, it was about 30- something thousand acres all together but they sold quite a bit of land on the makai side down in the by Keawakapu side. And then the ranch goes all the way over Auwaiki, I don't know if you know know the boundary of Auwaiki and the beginning of Kahikinui. The two hills right by that cattle guard going mauka and makai, that's the boundary end over there. Ulupalakua Ranch now only stops till right there by Auwaiki. After that now it's owned by Hawaiian Homes. Before we used to get that lease from Hawaiian Homes then Ulupalakua Ranch was about 40 thousand something acres, I think all together 44-somthing thousand acres. When the lease expired they gave up the lease from that area only from Auwaiki back they sold it off then. So now, I think Ulupalakua Ranch consists of about 28 thousand something-28,600 but when I left there it was 29,800 acres when I left there in 2003. But now they sold a little portion down in Makena to I think Seba, you know. They own mauka of the hotel so I'm not sure how many acres but that's Ulupalakua Ranch.

KT: So, mention that name one more time, right after Henry Fong so that's an ancient name?

MK: Makaula.

KT: Makaula.

MK: Below, the Ulupalakua Road as you're going down you pass one bad turn. Right about half a mile pass the Chinese Smel Park get one kind of bad turn there that's all Eucalyptus trees that's the only Eucalyptus trees below the road; makai the road from that boundary line is called all the way going down to Keawakapu. Above of the road going up is called Kukulu all the way up till Waiho up till the top, till the State Forestry boundary line up on top.

KT: So, up until the State Forestry, all Ulupalakua land?

MK: It's all Ulupalakua Land.

KT: So, you mentioned many of the names that have been mentioned over and over as we do our cultural assessment but try reminisce some of the real, you know, exciting; any time I listen to any of the kupuna talking exciting for me talk about olden days. And again, eventually I want to center bring you to whatever you can remember that has connections to the stories of Makena. To start off with as an example: Hapakouka, that's his statue sitting at the...
be down there before. Then come back over Kauai 1, Kauai 2, Willie Kauai's parents used to be there I heard and that area is still called Kauai 1 and Kauai 2.

KT: So it's not on maps yeah, it's just...

MK: Certain areas.

KT: But it's just people that you grew up around said that was Kauai 1, Kauai 2? You wouldn't be able to look at a map then and identify that?

MK: I really don't know but on a map I can show you which area it is but as far as sites where the houses were I don't think so it's on a map.

KT: So go back to that road that the one used to walk; was it dated as far as that was the road; everybody walked that road from ancient times?

MK: Yeah they told me, I heard, they told me it was the old historical trail. I don't know how old, I never did ask, maybe they told me I forget but as far as I know what they were saying a lot of people, Ulapalaka and Makena used to used to that trail up and down and walk up and down. Donkey's used to go on that trail and horses. I guess that was the only road going through there before the Makena Road time.

KT: So at the time the Makena Road came about you were already riding cars going up and down.

MK: Oh yeah, when the Makena Road came up it was before I went down to the ranch so it was there already and Makena, on the bottom of the Makena Road right there on the right hand side there was a big family, the Chang family and that was their place over there. My in-laws was right on the left side of that. All the chances was right down the line. Charlie Akii and Cecilia Akii was the top house; next house was Willie Kauai; and I think had one empty lot; then came Uncle Wally Kololio and his family.

KT: That was all down in Makena?

MK: Yeah Makena.

KT: Up the road coming down from Makena or lined up along the ocean?

MK: Lined up off the road, the Makena Road just before you reach the bottom, right across from Chang.

KT: Because the Chang's own the stone right there on the left but side as we going down.

MK: Yeah, yeah. But this wasn't that old, that family that got the place over there because it was in the early, the late 50's and the early 60's I think was.

KT: Do you remember the Post Office that was there?

MK: I heard about it but I don't remember.

KT: Here's a picture of the Post Office. That was given by Donna Lynn Delima, that's how it looked.

MK: Yeah, so I don't remember the Post Office. I think had one small store too, yeah?

KT: That was the Chang's.

MK: Oh, okay.

KT: Because across the street from there is where all the graves are, if you're going makai their graves are on the right hand side, yeah.

MK: Yeah.

KT: So, you said your Uncle Hapakula kind of trained you folks?

MK: Yeah everything on the ranch. He showed us all the trails going down to Makena. All those back road trails he showed us on horseback. We drive cattle down wild pipe and all that, he was one of our guardians he showed us all those...


KT: So can you recall any, well the fisherman call in other people call the bigger rock formations heiau's and so forth, were there any in between maus and the existing road that go Ulapalaka down to Makena that you can recall?

MK: Oh yeah, there's a few heiau. Out in 1996, I get a few I've seen. Also get.

KT: Before you continue, Ausawi is referred to only from the main road maus?

MK: Makai, Makai to the ocean. Mauska of the main road is called, oh yeah Ausawi mauska and Ausawi Makai. Mauska is upside of that Ulapalaka road past the ranch though. And the Ausawi Makai, yeah get Ausawi mauska.

KT: Recently, maybe a year to three, you're probably familiar with the name Art Medeiros.

MK: I know Art.

KT: Yeah, I went up there to do a ceremony for his planting.

MK: Okay you folks went up this area they call Kulali?

KT: See I don't know the names.

MK: Ausawi and then above of that is called Kulali. How far up you went? You no remember.

KT: As far as the road could go.

MK: Okay it goes up till Kulali, on top by skyline.

KT: Okay, yeah we were there.

MK: Yeah, you can come from the ranch side come on top and come across on skyline then you come down through Kulali to one holding pen get one water tank and then right below the pen you go down it's called Ausawi till the highway. Then if you cross the highway go makai it's Ausawi makai.

KT: So you know, you talk about shupas' our people living from mountain to ocean; through that description I can see them and what you just talked about going from mauska to makai. But the more people I talk about Makena they keep sharing that there's so many kuana kaulua that's in reference to towns that were built.

MK: You know the bottom of Ausawi, the road where you going down the ranch beach in Ausawi, there was only one road you go down there in Ausawi. When you reach down the ranch beach right there had one shack. The ranch boys had built that shack when they go beach and go swimming and fishing. Over in that area is called Moke.

KT: Just like Moke?

MK: Right. Make, maybe it's supposed to pronounce Makee but the old people I work there they call that Moke. Jim Hapakula, according to them, that area was the biggest Hawaiian colony right there. I don't know how big is big and he showed me some stone walls where hale ai and hale meei get small, get some stepping stones that smooth stepping stones where you walk. And on the Ulapalaka side of Makai, lot of graveyards there inside the a'a. Some places you can see 'em but if you go fishing if you walk along the sea coast you can see all smooth how they make the rocks, the grave; plenty in there get, inside the a'a. Make on top on the hill over there get one big stone. I never did ask them for what the stone was but the stone is still over there yet. But I know Makee one time was the biggest Hawaiian colony. They plant cola, you know sweet potato and fish, they go fish. Above Ausawi, some place up there I gotta show you. But anyway, the people above used to trade with the people down at the beach. They give fish, they bring sweet potato or whatever they get above they change with the people from down the beach. But Jim them was saying Makee was one of the biggest Hawaiian colony at that time. I don't know what year he was trying to describe. Had some people from Bishop Museum; when I started to work there long ago in the early 60's, I don't know what year but anyway they sent me down one time with some guys stayed down there one or two weeks. Not everyday, but we
go down back and forth, they took samples of the charcoal and tell how old it was and all that kind stuff. And this lady, I like say Sterling, I think that was her name?

KT- Inez, but I don’t know if she was an Inez Ashdown.

MK- Oh no, her I know her, Inez Ashdown. I know her too. She went down there a few times too and also I took her up in Awahou one area she wanted to go see see some old trees we had fenced in some old trees area. She said that’s one of the oldest trees get around, I don’t know what the name. But down at the beach they found charcoal they dig, these people from Bishop Museum, they said it was pretty old. I don’t remember what year they were looking back at but they found some old, I think that they could tell how old it was. That’s all I know, not too much I know about it. Also, more over in Awahou by Makake more towards Uluapalaka they get one place they call Wai Ilio that’s where the dog went find the water hole. Over there had one grass shack before, when I started to work that grass shack was still there but they went burn ‘em down somebody had burn down the grass shack. I don’t know who was.

KT- You know the story that speaks about Wai Ilio?

MK- Minna. Not much of a story but I know the area where it’s called Wai Ilio.

KT- It’s past where the, just a little past the hill where the prisoners used to stay.

MK- There’s two Wai Ilio. It’s called Kanasio Wai Ilio and this other one is called Make Wai Ilio. Yeah, get two. I know the two, the one past the hill it’s by Kanaio Wai Ilio. I know that one too.

KT- Are the stories the same?

MK- I not too much familiar with that but I know there’s two Wai Ilio though. But above, you know where the prisoners used to stay?

KT- Right.

MK- On the side of that hill you hear of that seven cowboys?

KT- No, share that with me.

MK- In the grave over there get one cave. We used to show the me guys that took us when we used to go chase cows in Kanasio. We go west, we come on top one small little pool, one stone on top the pool. Jim, we take off the stone and we look inside there’s a cave. They said he had seven graves in there. Some cowboys, they never tell the name or what and I don’t know if they knew the name, only skeleton; get handkerchief around the neck. So, I said wow, that’s something interest. But they never say who that that-they think it’s one of the Campbell family who used to live up in Kanasio. I don’t know if you know George Campbell and all those guys, yeah. They think, I thought they told me was one of that family or the Waikolani family up there. But the Waikolani family get their own graveyard more on top by the Kanasio church up there. So, I’m not sure but I know had one-still there is a cave there with seven bodies, supposed to be in there.

KT- So what you just said, confirms that the families used to have their own grave sites.

MK- Yeah, oh yeah.

KT- The Chang’s had it, the Kukahiko’s had theirs, now you pointing out this last name.

MK- And right below Uluapalaka Ranch, right below between house get one area called Hapukukua. Right below Hapukukua, that old Hawaiian trail going down to Makena, the next pasture down is Kauai 1 and Kauai 2. In that area get some graves too and then there. One of my uncles fell in the Punawai over there when he was a young boy and be died, the Swift family used to have their house over there and the Kauai family used to have their house down in that area and there is some graves that I know was in that area over there. But now, I guess the car no can go there but we passed through there before on the horseback and we used to see, they used to show us where they got their plant down there that’s where there’s no cement or cross or something over there but in that area I know get. Jim then used to show us where and all those old families used to show us where. In fact, Willie Kauai, his father used to live around there that’s why they call that place Kauai.

KT- So, you saw in your lifetime, a lot of changes in the land.

MK- Oh yeah.

KT- But you mentioned sweet potato and it’s historically everybody has talked about sweet potato, how important it is, they raise enough sweet potato to ship it out to the grove fields in California during that boat rush. Were you able to see with your eyes, you know farmland for sweet potato on the pasture land?

MK- Oh yeah, in certain area there must have been plenty sweet potatoes around. All the old people there tell me, “You see this stone wall here? Hale no, hale ai papakoa for keep raise pigs.” I tell, “They used to keep pigs?” They tell, “Yeah.” And then mauloa nei they used to plant oats so they kind of know where all the place where they used to farm. I say, “How can you tell?” “Oh no more stone; they clean all that area to make papua, keep the pig inside. No more wire, no more post so they make all stone walls they raise pig. And then all the clean areas the squares that you see put stone wall around and they plant their oats inside.” Pau uala, make stone wall, single wall and hale ai and hale moa and all that thick wall they build the stone wall. Single wall kind that’s so nothing can go inside because they get their plants in there and I see quite a few around. I cannot remember where but I know Kauai had; Make had; Awai had. Awai had plenty in there, Make had; Puna had; Ahu had (that’s above Kanahena side) all the way up in that area had plenty. Get plenty, still get plenty stone walls they never pull down yet, you know in there but they bought the land I think. I don’t know from what point to what point but I heard they shut off the Uluapalaka Road now you can go down now. You know where used to be locked?

KT- Right.

MK- We used to come to the back side, seen the hill go down, I heard now Sehu had shut off the ranch, no can use that area now. No can go through now. I never know that till about a few months ago I heard. So yeah, there’s quite a few sightings around but I guess you gotta know where and what kind, yeah.

KT- So you did mention that uncle them, Puna them showed you folks the different places of heiau’s, can you recall some of the names?

MK- Yeah in papa 4 and papa 4, I don’t know if papa 3 but papa 4 and 5 get heiau’s, get two big ones. I think in Kanahena there’s one. I kind of forget but I know in that area get. Maybe in Ahihi get one too but if I ride around I know where stay. They never bulldoze that place yet, it’s still how it was. But I know papas get, kanahena get and I think ahu get. Makahiku side get too.

KT- And those lands you just described, owned by the ranch yeah?

MK- Yeah, it’s owned by Uluapalaka Ranch.

KT- So as long as they’re not selling for development…

MK- No, I don’t think they had sell that, no. They sold Kenapu, that’s where the old Makena Road go down, in that area it’s called Kenapu. Get Kenapu 1 right by that old Makena gate where you come in where had that old cattle guard, down in the hollow? From there its Kenapu 1, then you go down get that mean ass turn where the red cinder yeah, and you pass the second cattle guard, it’s Kenapu 2 and then you go all the way down to Chang’s. Before it used to be all open, it’s Kenapu 3. And in that area I’m not sure if get heiau’s. Get one area

Makena CIA prepared by Hana Pono, LLC

over there before used to be owned by Foster Robinson, I think get one small one in there but I know get plenty water panual’s all cemented the top. Get about two or three in that area they never develop, I think that’s still owned by the ranch. I think the ranch they buy 'em out from the Robinson family. But it’s still there yet, though.

KT: During the time you were working, you folks always come back to home base, you never sleep out on the ranch?

MK: No, we used to go out early. We used to work the ranch about four in the morning we used to go out to Kahikinui where the old house used to be up there. Sometimes we used to work up there one or two weeks but we used to come home everyday. Come home at night, seven o'clock at night haul all the horses back; next day catch brand new horse then drive, haul half of the pasture into the pen then after lunch (they used to cook lunch for us out there all salt meat and all that kind stuff, poi, salmon) afternoon we drive the bottom half of the beach back up to the pen and work the cattle. Sometimes take three or four days, one week we stay outside there. Home about three or four days, we rest then we go back the following week, drive the second half of that area. But we never did go sleep out there. Before I heard the UHulupaka boys used to go sleep over there too drive cattle from UHulupaka to Kahikinui. Kahikinui all the way over to Kahikinui, it takes long because that big gulch, that Waipio gulch, Jim then used to show me the old trail before they went cut the road (well they went cut the road right by the old trail anyway so more the old trail anymore). They went use that trail to cut the road down the gulch cattle go down through there single file. Fifty-six head go, one cowboy follow behind. Then then fifty or sixty head go again another guy go in the back. And then once they got to the other side, they rest again and then they continue going over. I think they sleep at Kaupo holding pens along side of the road over there by Uncle 37STF’s house, I think, and then they continue on to Kahikinui. From there on they gotta go in the front and watch the road because they get narrow. Once the makamae cattle go everybody else behind, all the cattle all follow. So, by then it’s two days on the road so the cattle used to, they follow.

KT: You used the term, “makamae”...

MK: Makamae was the one’s who in the front; the eye, the one’s who is in the forward of everybody else. You know, working with these old guys they hardly talk English you know everything is Hawaiian yeah. Huli pipi and hele i loko kupa, you know. Big island guys talk Hawaiian is not the same like us over here. Big Island they hele i loko kupa eke. We call it holding pens yeah but it means the same thing but get two different kind slang how they talk and I learn all my Hawaiian when I grew up with my Papa Oha, he taught me all in Hawaiian. When I went school I had kind of hard time for understand because at home Hawaiian. Then when I went work on the ranch—all Hawaiian was much easier for me I can understand. Yeah so everything they talk, huli pipi and hele i loko kupa and wehawe and all that kind stuff and the other people think what we’re talking about and but I miss all that because more no them around. Let’s say I said I was number 18 guy and as years went by came down 17, 16, each guy retired pass on. I came down and came down and when I left out we had only five guys. I was a cowboy foreman then for about nine years I was the boss of the ranch over there but was only five of us. Now they get about the same, five of us, four or five. But they had, you know...

KT: They still gotta do the same amount of work.

MK: Same amount of job but everything change now, you no ride horse too much you get four-wheelers they ride around. And before I left there maybe fifteen years ago we started with helicopter, they drive the pipi with that. So no need too much horseback work so we no ride horse too much after that. It became not really cowboy style, you know half cowboy and half helicopter job and four-wheelers. We ride more fast, yeah and then became kind of diversified because we raised elk; then we raised sheep; then we had strawberries up the ranch. So, everything was being changed as the later years I was there everything changed, plenty things had changed not like before the old style yeah.

KT: What was the biggest challenge of being a cowboy?

MK: You mean horseback?

KT: Whatever the challenge is.

MK: Before days they tell you, well take example UHulupaka Ranch; When they hire you on the ranch you go being either one of the two sides. You going be fence gang, you go fix fence, fix water trough, fix the road, set up water lines, set up tanks, repairmen all over the ranch, fence gang. And when they tell you cowboy gang that’s all you do, ride horse. And when you on the cowboy gang you gotta do everything like a cowboy do. You gotta train your own horse, you gotta shoe your own horse, you gotta doctor your own horse. They issue you young colts. You gotta ride ‘em yourself, break ‘em in yourself, shoe ‘em yourself, train the horses, feed ‘em, make believe that is your own so you gotta do everything. Nobody going do for you so it wasn’t easy, it was rough; really rough, rough tough. I mean then you chase pipi, you gotta rope pipi when they tell you to rope ahua nowadays no more all that kind stuff no more ahulu pipi’s got one wild cattle in the brush and break loose and all that they do now is they shoot ‘em and then you no need go chase ‘em. No more fun like how used to be, yeah. Before days when the old folks go, run you follow them, you learn they teach you how to rope ‘em, take ‘em to the tree, tame ‘em overnight, next day you come back all palapalu put the rope on ‘em you can lead ‘em go down. Nowadays no more that kind stuff, all paul and I miss that kind stuff. Then when you go home in the afternoon pole pole already too late, dark you gotta feed your own animals if you get, you take care your family. You do what you gotta do then sometimes plenty things you have to do on your own. You’ve in fix your own saddle, sew your own leather work, make this, make that, you know no can afford to go buy; those days the pay was real cheap, yeah. If you go at the ranch now at the show they get these pay there inside the showcase they get these pay there inside the showcase every month the boys you taking only fifty cents a day. All that kind, you think how they went survive with all that kind pay. And when I started there in 64 the pay wasn’t that great. Lucky if we make $1.00 a hour but everything was free. They get house for you, they get water for you, light they pay all the light and everything free. Every work you get house meat and they kill cow every week at the slaughter house, they had their own slaughter house too, so we gotta work in the slaughter house too. We had to do everything on the ranch. I mean, when they talk ranching, you gotta know everything. If you go good at that they going put you on the fence gang and go ride horse, they think it’s easy. Once you get on the horse and once you know what you going to do it’s easy. But, to start off from ground work up, it’s not that easy, it’s rough. I mean rough, rough but good fun though, you know. I like it, it’s real cowboy life. Anybody say “Rope all your pipi and pin it to the tree or tassle’.” Oh yeah, I know all that kind stuff, we went through all that.

MK: I wish, I don’t know if I wish, but I would like to see- the guys who own the ranch if they would only respect ranch. Some of them they hana’t all this stuff for what we had and it’s how really bad, it’s really sad to see what the old folks used to do and what the young blood do and how they really hang in the ranch. They no take care of the old folks. They broke down the old houses, they just- sometimes all what they get in their head is just money and they rip everything out and sometimes we explain to them it’s one of the oldest things we got there. “Oh
we no use "en, we bull dozer that." And all the old folks just no like that but we no own the ranch so. But I see plenty things that they do that, wow if only the old folks could see what they do, to me it's not so nice. But again, we no own the ranch so you know, they do what they like I guess. Rule number one is the boss is always right, you know. But it's kind of shame they really, I don't know I shouldn't say this but they really had take plenty things from the Hawaiian's away. I seen that happen. Sometimes I think poor things the Hawaiian's no can pay their land tax and they just come from behind and the go in the tax office and they pay the land tax on the uly and sign 'em and they get the land and the poor Hawaiian's no more chance. What we going do, I guess we no can do anything but that's how it go.

KT: Well, that's why I, as an educator here I always try to share with the people and our people that work with their children about getting educated with that it doesn't repeat itself. There's got to be a better way but we gotta have the young people coming up fuzzy, fighting for it.

KT: The cowboys who lived at the Ulupalakua area, the pretty much just did cowboy stuff and they relied upon those people living close to the ocean to provide them the fish and stuff.

MK: Yeah, back and forth.

KT: So it wasn't expected for the cowboys to know much about fishing.

MK: No, we used to work slaughter house down at the ranch. We get up, maa, ate, you know, the live, every week we get that up at the ranch. We used to take butchers full down Makena.

KT: Didn't they have a slaughter house down there?

MK: Yeah but it closed down. Well, it used to be there but we had closed down. But in my years when I was up there, isn't it too long ago, but you know David Lono? We used to give him that he give us the fish. He used to go catch fish, he used to go throw net. I don't know where he catch his fish but he catch fish. You know Makena, land time for catch fish with the throw net; plenty hauoli over there but that time not too much but we give him-Doc Chang, you know Uncle Chang he give him opuapa and sweet bread and all that kind stuff from slaughter house, he give us fish. I know before the old people used to do that. But because we had all that free up at the ranch we used to change with some guys down at the beach. Willie Olsen, we take him for some stuff, he put them all in the freezer, he make us go help him go catch shark right in that bay over there. We used to do some exchanges but now more all that yeah. But we used to exchange, was good you know. They no eat that, we get plenty of that every week so we give them, they give us fish.

KT: So it's all about what our kupuna used to leave behind that is just balance.

MK: Yeah. I think it was so nice though. You get to know the people, change exchange, how nice.

KT: Anything else that you feel might be relevant for me to report about your experiences in Makena that we haven't spoken of?

MK: I really hope no developing too much down in Makena because if they do, those poor Hawaiians who stay down there or whoever is left down there; how they going pay their land taxes and all that? Too much development, which they got it know that but you know some times they worry more about the tourists than what we have here. You eat too much to them the poor people over here suffer.

KT: One of the kupuna's made mention that they wanted to entertain a tax law that whatever development is being made does not influence the land taxes when you originally received your land. So that's why I made mention to you that it would be great if our young minds would come up and study all the laws and present those and standing firm. And that's the only way because no way our people going grow up...

MK: Balance with them, we cannot yeah. I think if the young people would fight that and try stand up, learn more that would be nice because down the road I really think as of right now it's it's all my wife, how our granddads going survive? Housing and everything else is so expensive if husband and wife no go work you no can make ends meet especially if you no move place you gotta go rent. Man, it's not easy!

KT: Did you know of some land that runs all the way down to Makena that's still designated as Hawaiian Homeland?

MK: I be honest with you; in Ulupalakua, I not sure but Kahikiau, yeah I know get. But Ulupalakua I not sure, I no think so though.

KT: Somebody had just told me that there was some land that run right into Makena that is designated Hawaiian Homeland.

MK: I think right at the school yeah? The old school is one Hawaiian Homeland yeah, that? The old school at the ranch, the old Ulupalakua School.

KT: That's right around the corner right by the school.

MK: Right before the church, that I think is two acres or something or one acre of something like that but I heard that is Hawaiian Homeland. That's why they come over here came get the water. Those people who live behind, they come over there and they come get the water.

KT: By the Catholic Church, yeah.

MK: Yeah, not by the Catholic Church, on the side where the old school was. They go in the yard, I think they plant taro, I think they plant some stuff around there too and then they come over there they get the water.

KT: You know I really appreciate you sharing that, a lot of people don't have that value concept of maika'i make so the things that you shared, the trail and so forth, is really important in our report. Especially Maui and the island of Hawaii that really occurred there.

MK: Charlie Maxwell, they took me a few times and go show them around, you know. I help them out a few times. Sometimes the ranch they no like get involved with this kind stuff, they hui back yeah. But I go ask them, "Eh I get friends like go up there chant on top the hill, dance hula, it's okay with them..." They said they no like nobody go on the ranch but if you go with them it's okay. So I took them a few times and you're not the only one, plenty more other guys; Bishop Museum, all the Hawaiian kind stuff came over there. I forget but I went help try to express what I could. They went interview plenty old guys too like Dan Purdy. But like I said now, that young blood po'olani things changed, plenty things changed.

KT: Dan past away, yeah?

MK: Yeah, he was 92 or 91 or 92 years old I think, yeah. He used to ride his horse from Ulupalakua up till about one year before he died, he just died about one year ago. Not too long ago we had his one year thing. He used to ride his horse from Ulupalakua, his house, all the way till Pong Store. He go one side of the road with the 'oke o hula tie on top the horse saddle, with the stick he make nail, he pick up cans. On one side of the road he teach up the road, sit down homa, drink soda. Little bit eat then he go home he go the other side of the road and pick up cans all the way home. The bag come full he go ride 'em on the ride of the road bring out one more bag go again all the way home. It takes a while, maybe two hours if you go slow, slow, you know go ride his horse all the way home. Ninety-one years old he was still on top the horse, you know. His boy live right across the church, Michael Purdy, "Daddy I go show your horse." "No, daddy can slice 'em." So the boy go watch while he know down and he shave his horse. He put the saddle he put one low spot he go on one bank he push the saddle on top the
horse, he go ride his horse. Till he was 91 he never did ask the son for go shoe the horse, he did everything on his own. That's something boy, that's really something!

KT- That's the mind set of cowboys like you said.

MK- It's tough cowboys really tough. But he got 'em.

KT- Isn't that what we should be training all our young people?

MK- I know, we gotta be.

MK- You see Bully you tell him I say bi. Keli'i, you guys right on though. Any time you guys need help, if I can help I go help you guys.

KT- I appreciate that.

Agreement to Participate

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understand that Kimoike Kauahulehua and Keli'i Tauli, independent investigators contracted by Dowling Company Incorporated will be conducting oral history interviews with individuals (Kupuna/kukua) knowledgeable about Makana, Maui. The oral history interviews are being conducted in order to collect information on possible prehistoric and or historical cultural resources associated with this school, its history as well as its traditional cultural practices.

I understand I will be provided the opportunity to review my interview to ensure that it accurately depicts what I meant to say about any of these lands. I also understand that if I don't return the revised transcripts after two weeks from the date of receipt, my signature below will indicate my release of information for the CISIA report. I also understand that I will still have the opportunity to make revisions during the report review process.

Please check the bottom:

___ I am willing to participate

___ I am willing to participate under certain conditions.

Consultant:

Date: 5/24/2007

Name:

Investigators:

Date: 5/24/2007

Name: Keli'i Tauli

MAHALO NUI LOA.
Interview: Al Lagunero

May 29, 2007

By Kelii Tau’a/Kimokeo Kapahulehua
KT- Kelii Tau’a’s
KK- Kimokeo Kapahulehua
AL- Consultant

KT: I’m sitting here with

AL- Al Lagunero.

KT: Any other names you go by, Hawaiian names?

AL- Kabekehiiliilalo.

KT: Spell that out for me so that we can correct it.

AL- Kabekehiiliilalo.

KT: One time we visited and we really went into some of your life experiences of the ocean and many things always attract me to you but one of the things that I am working with is to research cultural assessment for Makena. That was a thriving fishing village of ancient times so in one of my interviews I was talking stories with one of a friend of mine and she mentioned, “Oh yeah Al was with us and we went and did this and this.” So what’s your mano’o about Makena? I’ll try to be more specific so that we can get some information that will contribute to as accurate a report as I can present.

AL- I think there’s information, recorded information, literature and stuff about Makena that’s available and sometimes maybe it might be hidden. And it comes whatever my information here is presented today is a part of the int and out of reading books and talking to people and feeling the space in Makena. If there’s a sense of family there it is because I come from a similar coastline in Kona. And especially towards Makena Landing, that area reminds me of where my grandparents are from in Kona. Kona and in speaking with some of the families there there’s a kinship that may exist through the koko but I’m not sure of it. And then speaking of the Kukahiko clan and some of the input of the Kukahiko clan in relationship to the Makena Landing area so I think when we share things about how we feel about a place it does not extend to any one place in particular. What you see, the sea generating from one area to another in terms of what it grows within the sea, those kinds of things are shared island to island and respected island to island, I feel. So there’s a great love for some of the images that come there. By the way I’m speaking from my artistic sense here and some of that artistic sense comes from shared input of artists throughout Hawaii over the last twenty or more years especially with affiliation with the Hale Nui III and the extent of the membership of that halau. So here’s a beautiful story, for example. Leslie Kulakio relates to me that his grandmother was known as the shell lady down at Makena Landing and that at times she would kayak and stand out by the rocks of that halau that they had down there, that family. And so when she would kayak at times the schools of alaka‘i and opelu would come in and see this she would dive into the waters to be with the fish. So that particular image of the ability of Hawaii to call to things that today we commercialize or you know, put on the shelves to buy rather than to call as family or to call to come as sustenance. Those kinds of things are pictures that are never far from my mind and never far from the history of who we are. In fact it is something that is a relationship or a story that carries the relationship of how we as a people are to the life that we have and to that life where it comes from and that we are a part of it.

KT: So did you see what you just explained anywhere else? Did you experience other islands or with family members?

AL- I experienced that for myself in a return to Kalaupapa many years after my grandfather had passed and years after my experiences with my grandfather as a fisherman. Kalaupapa I would say that he was a, you know, a Kalaupapa’s for that area, Kalaupapa Bay. He was a blind fisherman who took people out to sea, the canoe, about seven of them at a time to tell them where to drop the nets. I was in awe of this because my grandfather was not sighted but he had this ability to lead people so there’s a lot of love in that. Years later I was asked to do a pole for a convention in Kona and I take the time in the morning to walk to all of these places that I loved in Kona and visited and I remember one of the places that I visited is that place so that I might enter into prayer, a prayerful time and call to the ancestors and tell them that I was still present. So I went to the mouth of the bay on the side towards Mokule‘i, I had Kame‘e‘o and I called out and the schooner came in. And when I saw the schooner in this I threw the lei into the ocean and it was a circle of about maybe ten inches in diameter. And when I threw this lei in it floated out to the center of the school or the school fish, possibly to the center of the mouth of the bay. And as I observed that the fish started to jump through the lei coming up like a fountain in the middle of the lei continuously so, so it looked like a fountain was spouting in the middle of the mouth of the bay and with all the other fish around it. So, that ignited in me no common sense except aloha so I dove in to be with the fish and to swim with them.

KT- How old do you think you were at that time?

AL- I was about 31.

KT- The motivation to stop by to come talk story was prompted by your friend and mine, Leimomi, who is also her thoughts will be ceteris presented in this upcoming cultural assessment report that I am doing in behalf of Makena. She had cited your name and some others that you folks had cultural experiences. And without talking specifically, if you could generally share your experience and some of the items I think would be okay to mention and how this came about through, she mentioned, I believe, Uncle Lee had seen some things being sold in Chilisi and came back and wanted to... said something to the effect of artifacts from Makena which prompted you folks to go down and look throughout Makena to see if you folks could... AL- I think, let’s see it could have been about 28 or 29 years old at the time. A group of us who were good friends went to the end of the road, at that time, at...

AL: Well, I think anytime you deal with the ocean, you know in Hawaii, you are aware of the strata, the rock strata’s there; you’re aware what kind of sand is there so that you may know what kind of fish grows there. And by knowing those kinds of things you know how the ocean is structured and I’m talking about it’s depths and what you can find in those depths. What kind of plants come forth from it whether it’s ocean plants or and shoreline plants that harbor places for fish and for spawning. So, fishing people and people of the waters have that inclination to care for that as well as they care for the uplands because they need to know the structure of the soil and how the rain or the water moves upwards as well as the water moves downwards. So, as above, below kind of thing. Also that the people don’t stay down below all the time, they return to their farm lands. So it’s a really a wonderful philosophy that we live according to as above so below and returning. See, so many times I think as we look at

philosophy as above so below I am reminded of the mistakes that come out of other areas that speak about this understanding of, as above, so below. But no where do we hear as returning and returning over and over again. It’s important to us in our lifestyle, not only the physical but the spiritual. So all of these things find are binding together because you go down to the ocean; in Kona you go down to the ocean in Molokai or any of those land where do you find the crab? You find them where the kukukukaoaka is stretched out. That’s the crab or the one that you call that blue crab-Samson. So, some of these fat crabs are around those areas so the water that comes out from underground feeds those springs that run from mauka to makai are indications where these kind of fish occur. So here again, we’re talking about philosophies, what are the waters of life? We’re living in a place that we can see it physically.

KT- You pointed out some waters flowing in Makena and in so many of the interviews that connect with the Kukukukao and all of the following names like Chang’s, Peters, Pu Sam’s, Keala, they all come from the people of Kukukikao and they always make mention of water, lack of water in Makena. The question I pose to you is, that sh Sharks, that I, that, in contrast to Keahou, Milolii, then move on further down all the way to Milolii they addressed the same situations there. But, since this island is a little smaller, did you see the people as an example Keahou and Milolii have been challenging time with lack of water because Milolii there was a village that appeared like they never went mauka-makai but obviously they had to do that.

AL- Um, the areas that are peoples like, you know, people have remained in the areas like Makena, Keahou, in fact that area where I mentioned about Makena Landing, I think that area is also called kealoha. So there’s that to remind me but as with Keahou I think the people know where the under ground springs are and that they can dig for them upland and have a cistern of some kind for these waters as well as dive below to where the springs are coming out and you just have to watch for the bubbles along the shore and gather from there. Yes, it’s going to be tainted with some salt water but you know, you fresh water you can get it. So when you are developing an area and you disturb the underground movement for these waters to come down, you’re also disturbing the fishing ground because the limu that goes with the flow of fresh water and whenever they create a certain kind of fishing, a certain kind of limu so the fish for that comes to that area. And those were, I think, pretty much all limu so must mean all fish but there’s kapu’s on these kinds of fish here and there.

KT- Yeah, good point there. As I pointed out, you know just casual talk story, and already the kind of assimilation that you presented is another approach to making some valid statement on how our kupuna thought and how they did things so that they were in alignment to learning all the survival skills that make them flourish until outside influence started to come in and the culture deteriorates.

AL- I think, yeah in that kind of review, you know the imagery that you just spoke reminds me that we must also not forget the clouds overhead. And while we’re talking about what is happening below with the land makau to makai and then into the waters; we should also be aware that the climate are a full participating in this whole environment. It brings to mind going out with my grandfather in the canoe and I think my brother and I were the only one on his canoe except for two paddlers and himself. We carried no supplies because other canoes carried those. But my grandfather would often lease into the wind or smell the air and there was a mix between what was mauka until the open ocean. So you could smell the indicators from land; Kona was so clean I recall that we could smell like the ice cream truck before it entered the bay area.

KT- You want to keep your nose in tune to that!


AL- Yeah, yeah, you know that’s like fifteen minutes before it even arrives into the bay area that you know that the ice cream truck- you can smell it. I’m sure that my grandfather’s sense of smell was highly proficient, you know, in recognizing what was on land. So this means that the winds are coming down, there’s a flurry to knowing those particular winds and what’s happening with the growth up on the hills, makau of the area that you’re in so that the clouds are behaving in a certain way. My grandfather was why, “Is the dog tail, is the dog present, where is the dog?” So he would be asking about clouds and the formation of the clouds. What kind of clouds were present and you knew the ones I remember especially the dog cloud. But why would he ask me about the dog? He said, “Look in the sky. Where is the tail? Is it hanging down or is the tail up?” So the tail down would mean that there’s a storm coming from the sea from that direction. And so, we had these famous cloud banks from the nalu. And does it circle around towards that area and Makena? Yes, it goes over to Kahoolawe. So then that cloud is very important. How do we extend what we think is development and care for the clouds? And those whinas because they’re all in a sense affecting the sustenance of those people and it was rich, we had a lot of fish in Kona.

KT- So now it’s not only sustenance for people per say but the whole life of the island?

AL- Yes, life chain, yeah.

KT- Plants as well as animals; there are many people talking about the ocean area now is all barren now, corals and etc. So this is all part of it.

AL- Yeah, I think another example of my love and the imagery that comes is stories by Inez Ashdown and whatever she recorded, whatever her translation of what was given to her by her Kahu at the time. But there’s this story that she tells about the brother and sister shark who were down in that Waiale area by Kawaikapu and that they took to the sea and became, they were kupu that changed into their shark form because they didn’t like what was going on up above so then they made their home up above, what is that island over there? Molokini, yeah; and that was described as a coral palace below and this is where they made their home also of the shark that would live underneath the hill by Big Beach, underneath the cave over there. So I was asked some time ago to do a painting regarding some of these shark stories and I love them because I heard them from my grandfather and my mother and my aunt and my great aunt. I also had the experience of this shark my grandfather would call to and would come and I also experienced that particular shark. So when I was doing a painting of the brother and sister shark knowing how sometimes one can take these ones forth just by thinking of them I wanted to extend my story so I went into prayer to say let my thoughts be kind about the relationship between the brother and the sister and the relationship that they have to their community. And so I thought I did it, I did it using water color. I still to this day love it but don’t know where’s it’s at. So the day that I was to deliver it I was having a dinner down in Kekaha somewhere and I had some friends that were visiting with me that were also interested in these stories so I said, “Why don’t you come to dinner with me and I would like to show you this water color.” And so we spoke about this story and then I showed them the painting and after we had dinner the woman who I because very close friends with her husband did not walk with the both of us but as we were walking the shoreline of Kekaha talking about the shark and things, it was a very low tide but a current came up and a shark about four or five feet came up on the surf right up for us and turned it’s eyes to meet ours. (Laughter) So we got all excited and I thought, okay now what are we going to do? I thought well, don’t touch it the water will take care of it and surely enough another current side up to the shark and the shark turned and sort of left and was following us as we walked the beach. So seeing swimmers ahead I thought, well
where there’s one puppy like this there’s sure to be some other ones so I called right ahead to tell the people get out. And this was also and area that the Filipino fishermen came in, they had their home along the shore so they often left from that place in the mornings with their nets and went to fish for the bait that they would use on the bigger boat that was waiting outside. So that was, you know it still continues these ways. So that’s Kealia but that’s not too far down the road from Makena. Here we are talking about this relationship island to island and if I’m not mistaken it’s the same that comes to build many of those ponds along the Makena shoreline area up until kalapana and those parts. You know the greatness of those parts are hidden and they’re totally like at the effect of us today.

KT- And even covered, though.

AL- Yeah covered but you can see the outlines of them at low tide.

KT- Well the rapidity of the covering of it is going to take that outline away.

AL- Yeah.

KT- But Kimo is having a grand time trying to do some work on that Kealia Pond. But he realized that he cannot be assigning and not expect to be there. But he’s having a wonderful time with all the things coming back, putting it back in place from a small pulp to vera to lalo to you name it all.

AL- Yeah, you know that used to be my office, that Noah building.

KT- Really!

AL- I was perched on the top floor so you could always go up to the top and look over the coast, back in ‘71 to ‘79.

KT- When you were doing artist work.

AL- Honest work! (Laughter) Well, I have something to say about that, Federally funded!

KT- Honest work.

AL- Federal honesty.

KT- So Al, as I mentioned, you know, with your permission and I only can get your permission if you sign letter this that whatever you say we can use.

AL- Sure.

AL- You know the last time I did one of these I have to tell you this. Came from, there was someone doing interviews about land situations in Kauai and they were set forth by Bishop Estate and knowing this woman that came was kupuna from Kona my greatest respect went to the idea of that and so that was no problem in signing over some lands that we had in the Kauai area. And now that I look at that area my heart is saddened.

KT- You signed over land?

AL- I know what I have, you should have been involved in it too because your family is named in that as part of the research that she did genealogically. This was a Keli‘i Kipi wahine hired by Bishop Estate.

KT- From Kauai?

AL- From Big Island. I think they’re Kohala people but they also live in Kailua and I think we’re pili to them also to the Makuakane. So, you know, we had so many family names on these documents and I thought- and she said, “Well most everybody signed it over.” And I said, “How did my aunties do?” And she said, “Oh they signed over this piece and some exchange for land up mauna.” But those are lands that are the entrance to the bay and the holua slide that was there that is a part of the history of that area lands in my grandmother’s back yard. So here’s Pele with the one with the umuhi. , 44:44, very European at Kauaihamea the great’s time be battled with Kauaihamea at No‘uanu.

KT- You’re throwing all these names at me all the way through the interview I was thinking Hina Maui’s mother, still I’m not sure.

AL- So yeah, we signed off that piece and then now the other pieces are under attack. Because just as I’m signing I’m just...

KT- This is for the information we talked about, no land attached to it. If it was I would put my name there to get the land.

AL- Oh, okay well I have some more to say.

KT- Keep saying it let me run to my doctor, keep talking right on there.

AL- The part of the ocean that Makena is very, very important just as a value that was passed on to me from my mother of the people that live in the ocean. You know a whole rather kind of level of thinking. So, I mean that was very important to know.

KT- So you were saying anthropological values.

AL- Things that are related to the physical, physical things that people can relate to as easier peg boards to understanding values. So, when we dive into, you know the history of our people often times the word is based on anthropological evidence and the trail of it as part of the behavior pattern that people could put a value on. The value comes first from the inside of that and then the outside of it. Some, on one had it could be a subtraction on the other hand an addition. So when we speak about these anthropological values inherit in the Hawaiian that we know is the spiritual value, which is the leading point on the governance of our people and how we view the Universe. So we have a specific way to respond to the universe and that’s our kuleana out here in the middle of the Pacific. However there’s a trail of that that goes to many areas in the Pacific and to other migrational routes that we have known or theorized to come from. So it puts us at a larger value level for people to understand, really, who and what we’re trying to project and live. So that’s why I think it’s important for us to recognize that when we speak about the artifacts that remain evidence of our people’s belief and way, that in them we see the spirit without the spirit because if we have no relationship to those things.

KT- One of the challenging situations of our kupuna responding to things of Hawaiian culture is how to explain to others that they are first Christian but yet hold these cultural beliefs and in many ways still value them and for some levels practice them.

AL- Christian is interpreted as logos as well and Christ is actually an understanding of light and the living light. The life form of it comes into this person called Jesus or Jesus. He becomes the Christ, the manifestation of that light in himself, in his body form. So this light is for all people, everybody has this light. If we go back to the very beginning of every culture genus they will speak about the darkness, the light and the sound in whatever way that is. In Christianity there was darkness and then the light and then the word and the word was before these things. So here are these three elements all having to do with energy. Each area of the interpretation of this in every place of you know, third world cultures or the Christian cultures amongst them who were Pagan before they became Christian acknowledge this light as well as acknowledge the living waters. So we explain it as a, or giving the names of them as mother, father and different era’s as different things just like they did in Egypt. And we have been in Egypt is one theory. So we look at this mother-father principle and it brings forth to having children. When I go through my experiences of Kυ Kυ Leno, Kαℵα, Kahekauma, Pola, Kina as experiences that are alive today I can still relate to for example Kυ as Michael because he’s the one that cars the sword of truth. This the same one that is the warrior, the one that’s a staunch and upright you see it on
the stones. He has his stone and a way to see him and the strength of it the way that the cliffs hold up. So it's an interpretation of that value and when you look at these, especially in particular the form male parts and I could count around that, they are angelic beings so their

either male nor female it's a different form a different species of being. So when we look at, especially Ku, Kane, Lono, Kanaloa you look across the globe and you'll find the four always present. And you'll find the symbolism of them four relating to our own because we come from those elemental kind of descriptions of how we relate to those angelic type of forms. So, that's how we can relate to other people that they exist in their belief systems.

KT- So you were, before we finish a slight interruption, we're going to move the interview towards ocean. Connect Makena, ocean, and so forth; could you take us there now?

AL- Okay so, in Hawaii we would say Kanaloa but you cannot call one without the ears of the others always being open. As an artist when I look at the laʻi, for example, of the four being they might manifest themselves and I'm speaking in particular perhaps about Ku and Kanaloa. And you see their forms are carved, they are artistic expressions of power so you have the wide mouth, the all seeing eyes, the large ears the stance of resilience, the non a part of them always ready to jump into action so you know that these are things that express their portrait of power. Inasmuch as they are part of the architectural of our universe and greater universe we can relate to them in the manifestation of the ocean, for example with Kanaloa. And he has his domain further out, Hina is closer in. So we have an architectural awareness of our universe. So this universe in fact the temple that our people were worshipping just like when we look at an ocean, that's a temple and what is contained in there is sustenance and that mana that comes forth that gives us the ability to have personal energy. So we look at the sustaining factor of Kanaloa. Kanaloa in other religions such as maybe, you know the poʻe hoʻoale is to be understood as the twin. We refer to Kanaloa and to Kane as perhaps being the twin when they travel on this plane. But Kanaloa and the other poʻe hoʻole is to recognize them as the angel Ariels and Uriel so they have these functions with the domain of the element of water. And so, when we talk about fishing we're talking about asking Kanaloa. Not only are we asking Kanaloa for permission to have passage through Hina but we are looking at the moon, moon phase for fishing and for planting. But in this case we're talking about fishing we're passing through the waters of Hina to access the waters of Kanaloa. The balance between the both male and female is occurring at the same time. And as a kind of polynesian was for Hawaii to say it there's always a balance between the male and the female within ourselves between the waters, shallow waters and the deeper waters. So, too when we're looking at other belief systems they have this way of asking or requesting of some help of the unseen passage to these areas that bring sustenance. And within the sustenance a part of ourselves that energizes us. All of this that we refer to mana is freely given. That energy can never be stopped. So, it is accumulated in the human being to allow the human being to access the kind of things that bring them to the fulfillment of the soul request when the soul returns. And so why we have our behaviors in this way I think you look at the dignity and the humility of our fisherman when they go out, it's notkapu. There's a way to be about all of this. They come together, I recall I know these stories exist but I see you know where, when the fisherman was my grandfather's hui would come down from the mountains or wherever they come from they bring their supplies or they take out the supplies from my grandfather's home. Then they all spend two or three nights together. They prepare the nets, they prepare the pails, they prepare the canoes, they make sure that they're good with one another, the families are okay and they do all these kind of pono activities before they even venture out so that they are accessing what the sustenance they call

for will be. So they're not hunters out on the ocean, they're not hunting for anything. They know exactly what they're going for and they're calling for it and the response is, "Here I am." So, that's really something that we sometimes forget to mention in anthropological reports.

KT- So, during the time the ohana were in preparation you would recognize them spending time in pulu as...

AL- Yes. My grandfather did all the prayers. There was always prayer going on, people were in a prayerful way, they were not party animals. They were very quiet. In the day time they spoke to each other about things like mending and then doing the things they could see by daylight because back then nighttime we only had kerosene lantern so the nights were short. But we spoke about, you know, we laughed at night time, daytime was really time to you know you have light you work with it. So the night time was to some kind of like, you know, hope that all the preparations were good and that anyone had anything to share in terms of WaiʻUha or any Hoʻopali, you know that you could have good night fishing but it's not something that we're going to make time for, it's just part of the process. So maybe the one wife would say something and the fishermen listens and then he would take that into consideration or you know if it's vice versa if it's something he would listen. I mean he can hear everything, I thought. His house was surrounded by tihi. No matter how long a person stayed away from my grandfather the moment they stepped on the ili ili he could call by name who they were from whatever part of the house he was in and invite them in. So the first step on the ili ili he knew. So that tells me how good my grandfather listened. (Laughter) Nothing escaped him.

KT- So, he's a good indicator in the process of the activities that you're sharing points out, well at least for me, when I had privy to interview kupuna's like your grandfather to honor what greatness those kupuna were in awe of their element and their sense was just unbelievable.

AL- Yeah, you know know a lot of their mana's comes from that silence and that kind of humility that they carried. And you know when I was a kid I used to think, "What are we doing here in Kona?" You know people they don't talk too much and we can't stick around here and there but you know, I was privy to being with my grandfather whenever I wanted but not too much you know kids that made too much noise. They send them go play. So, it's that silent part I think that you know, how you do put that down on the paper. There was silence on the paper you know, you have to have that silence. So areas like Makena maybe further on out where there's no development on-can we treasure that because that silence is something for us to have? Can we treasure the silence of that, not have the waters disturbed in some of the areas that we've declared sanctuaries, for example? Is that a part of how we are moving to protect those things today? I hope so.

KT- As I see many of today's laws are saying if we're going to build something here, what are you giving in return. So, I don't see progress stopping per say, but the idea of how to be contracting is the protocol of ancient times. That was always going in yeah, take, take, take, nothing given.

AL- Right. You know in terms of the development we all have our different perspectives on it and sometimes I look at it and I'm thankful there were people who care well. That they are planting things that are greening some areas that some thought now is really being given to how to do it better. And so I think in that, not only the planting now but if there's a willingness to look at the possibilities of how to create corridors of peaceful interface with culture we can do that. Even the work that you're doing now and with this kind of information going to people who say we value this information then create the questions more than looking for the answers.
Create the questions that ask us, "How do we channel, provide the corridor for the wind that’s necessary for this area? If we’re going to change that, what are we giving up on that?" Take a look at that - that could be some kind of thought, for example, in architecture when you build a building. There’s now a building in Wailea, for example, right in front of Longhi’s where you have that development that comes up right across the street from Longhi’s and you no longer can see Kahului. So, some of the architects think of the scale of the land in relationship so they can protect how the wind might come down through that area and not be blocked for the people that are more below that. You know, kindness in planning that corridor for the other people who are below that tall windbreak would have been nice to see. The way in which we use our resources and how they get there, we got to be thankful for the technology, that it can bring us water the way it does. And we have to remember that those kinds of things are all a part of what we should create as a prototype, the islands could serve as a prototype for these kinds of things. There’s been a type of prototype for the golden people creating you know, the melting pot, we’re called melting pot; the aha between people. And so now we have the opportunity to take that a step further and say, "Hey from all of this we have so much talent. Globally they’re here. Now, put us to the test and create what’s really some beautiful structures." You know that we have that opportunity now, we have language that can be accessed easily between us. Not like when our kupuna were alive and was so distance between the foregiver and our people, now we have a merging of that. The merging and the melding of cultures was built with the ‘ohana that this is the time. This is the time for that melding; melding of all ways. And so, we don’t have to, you know, like really others people’s value. We can find similarities and we can kūhina one another just like we did before. Given our history of travels in the migration theories, wow we’ve got a lot to offer. You know when you go to your travels and other places all you have to do is look and see the kīkō love for us. Whether they are the same kind of plant or the structure of the plant the same, how does it relate to that area if it is maybe, you know native or endo to that area. And then you can find the prayer existant in that, in that anthropological trail. You know how people, when like today we like to go to museums and places where we can see all these beautiful things of the past? And then we see the contemporary works of people and we see that kind of thing, our people have left a trail across the globe in the areas that we’ve been migration-ally. No matter where I’ve gone, I’ve seen back to those elements like Ku, Kana, Lono, Kanaaloa. Later on we get, you know, poetic and we give them many more attributes; Lima, you know look at the lima and since we’re talking about Makena and the ocean. I think I had a call from one of my nieces and they were having something for the canoe club and she had the assignment to go get the lima kola. So, she said, "Oh, I’ll go down to Makena and go pick this thing. But what should I know about it first?" And this was over the telephone. How can you know if what you are giving is truly valuable information or just information? So you withhold- I withhold. Say, "Oh that’s nice, you go down there and get what you can." But turned out she didn’t go and the responser didn’t go and make. So when I ended up at the event for the canoe club they said, "Oh we still need something." I said, "Well, it’s right here on the beach. Let us gather these things and put them together and let us do it like that." So that shows that we relate to our environment peacefully, dignified.

KT- Coming back to that first, earlier discussion, that’s part of the protocol; you use what is available and do it in the land space you’re at and the people who have grown up there will have the great appreciation for the elements that exist there.

AL- Right.

Mākena CIA prepared by Hana Puno, LLC 6/14/2007

KT- So that’s exactly what you did for that canoe club.

AL- But we still are learning, we’re learning and when I listened to the prayers I did not hear the balance. You know, I heard the male parts being acknowledged but not the female. And we need to acknowledge that we do not have to be so materialistic as all these other ones have come and surrounded us with and then reinterpret our belief.

KT- I don’t...

AL- But you know, you ha’a; you ha’a at the moment of prayer because they all hear anyway.

KT- What in sister’s opinion, what’s our immersion program?

AL- Kulama.

KT- Kulama, What’s her feeling about what you just said? Is the youngsters catching up or they’ll never catch up.

AL- I cannot speak for her because I think, I don’t see the results in the classroom, you know I’m not there to be there and see progress or introductions or anything like that. But I’m very taken at that first graduation of the immersion at Kekaulike, you were there when they did the kuamo lilo. And then I looked across the room and I heard that voice and said, "Who is that man making noise over there?" Oh it happened to be my cousin who I absolutely adore.

KT- Who was that?

AL- You!

KT- I was making noise?

AL- Yeah, you was talking to somebody and I only because the light from the windows only created a shadow but it’s a good thing know your profile.

KT- I might have been saying too much, I appreciate. Because truly it’s tear jerking that our keiki can do that.

AL- Yeah, so that’s progress, yeah? But I think one of the things I hope some day is addressed in the communications field with our language is that we look at the structure of effective communication so that we can deal with more than the jargon of sentence and structure but look at how there could be more effective use of our tongues.

KT- Are you referring to the idea of the aloha no’cula?

AL- Both, English and things. A lot of people, for example, get stuck on opinions and they’re dime a dozen or cheaper these days. But if you can get someone to commit to an activity and complete it towards the common good, perhaps, and that’s like simple you or no’s yeah; will you commit to this? And then seeing how we do that in our lives so we can understand what kahua is.

KT- So, it’s not on this but I was asking you the category of your works. By definition it would fall on the category of oh, kahua, kahuna, kuola, pule; do you get into ‘a no’?

AL- Some, yeah because that’s how I was raised, that kind of medicare; More than Western doctors. So my mother’s ways was mere in terms of 1a’au was to deal with promoting the health not identifying the illness and stuff like that, it was ongoing to keep you healthy all the time.

KT- You have access to that kind of 1a’au to keep you healthy and strong?

AL- Yeah I do. And when I don’t think I know what to do then the prayer really is the one that answers because then the ‘ohana answers and will tell you where it is, what to use. But I try not to ask too much because my life is so beautifully arranged, I think. You know everything is a gift, so how can I keep asking for more and more. If I ask, I ask quietly and it’s through prayer basically for, you know, people I’m working with or conditions stuff like that. But at the same time I’m given information about how things- For example we have been at the effect of the prophecy of Ka‘epupuha for such a long time and some people are saying we’re now living it.
But prophecies are meant as forebodings and successful foreboding doesn’t have to happen, it can change.

KT- So, can you be specific about the prophecy in what has happened to this point that...

AL- I think basically there was this story about Ka'opuipuulu watching how his son was escaping from some harm and what happens is that his words become prophetic that in essence we would be like fishes in the sea. I think that the wall would be, you know things would be overturned and that we would be like fishes in the sea, almost like landless. Here we are with a lot of our people being houseless, not homeless, the homelessness comes in a different way. That we will be like fishes in the sea, does that mean the tides will rise? For a time people were just looking at the houseless ness as homelessness. So now we’re looking at world conditions and the rising tides and how will that affect us. So, are we living to counter act that activity? How can we do that? Can Hawaii be a prototype to change those things? I’m getting calls about droughts in Australia; droughts in other places. “Can you pray for these places?” Well, like I tell the plants, it’s not only one person, everyone must.

KT- I concur.

AL- And then in the praying, when we hear ourselves praying, deep requesting, deep prayers that are not frivolous asking. It’s really like committing to how we’re going to like-okay so we’re asking the above, we’re providing something here in the mirror below we say this is how we want things to be and the above is going to mirror it back. And when it’s mirrored back we are prepared for how it’s going to come. So the word and the quality of the vibration that we’re using, the energy of our mana needs to be really be tempered with in the protocols that we’re becoming more aware of as caring. It’s not that, “Oh I went and prayed for this.” And then oh, you know just let it be. If we could, for example, someone is asking for the prayers for those places that seem so far away from us. But if we have a face that we can relate to one thing and someone that we care for deeply; When I hear stories of the birds falling from the trees in that area and the animals in the wild falling down, no more water, that really touches me. And I can go inside because it’s awakening my sense of caring. If I didn’t have that would be hard for me to pray for dust. So, each one of us carries a key as to how we relate to those kind of things and we can do it. The ‘aaina at times, in my experience, always there are these different ones they come in and they say, “Oh pray for Pakistan.” What I going pray for Pakistan? I don’t know what for Pakistan and then I’m not up in the world news. And then here it comes, even before Bush declared war over there here is this one, the daughter of Muhammad, her name was Fatima, and she shows up with her sword and the sword Is the cimeter and it is shaped like the moon. I said, “Okay what is this about? Why?" So there’s some relationship there and we have opportunities to question and stuff but human’s being human’s we’re really pathetic. At times we’re really pathetic and lazy to go and, you know if spirit you can ask why. And sometimes you get an answer, sometimes you don’t but you have to come from that deep well that says I am. KT-I am.

AL- Now say, “I am me.”

KT- I am me.

AL- So, really a nice way to understand the difference between great ‘I am that I am’ and the I am me. In both, I am me is inclusive of this little me part, yeah. I mean look at the lessons of the Christ. “I am that I am.” (Laughter) Yeah? And then he also recognized the me part of him.

Mākena CLA prepared by Hana Pono, LLC


Mākena CLA prepared by Hana Pono, LLC

Interview: Boogie Luuwai

May 27, 2007

By Keli'i Tau'a/ Kimokeo Kapahulehua
KT- Keli'i Tau'a
KK- Kimokeo Kapahulehua
BL- Consultant

KT- Right.
BL- So he's one of our nephews. But what happened was my dad he was born so he was hanai'd by my Tutu's brother Joan Luuwai Kauhane Kukahiko. So what happened is at that time he was born there was like four John Kukahiko's on Maui so kind of confusing, yeah? So he changed his name because he was hanai'd to John Luuwai that's where we get that name instead of Kukahiko.
KT- Oh that's why. Because I was doing the same thing as I'm doing with you now with, he used to work for the City and County- just yesterday! He's up Kula Homestead now.
BL- Oh, Angus.
KT- Angus? He showed me a picture of two Johns. I took a picture of a picture there.
BL- Angus Peters?
KT- Right, right.
BL- Kolohoe bugga that.
KT- That's what they all say about each other. So I talk to them, "Kolohoe this guy."
BL- Oh him geez he was living on the, my Uncle Eddie Chang told him you can have one share down there right? Instead of taking the one by the road, Makana Road, he went put his house on the beach and they went there one acre around. So when my cousin Eddie Boy came over he said, "I going get this guy out." That's two cousins, yeah. And then he went to court, he kick Angus out. See what happened is that was maybe only half acre lot supposed to be so had thirty-six people in that, you know. Nakoa's, Aweloa's, so they sold 'em they had to split the money so he moved to, but he had a house in Kihelo but he moved to homestead so he lives up there.
But his side, his mom was Aunty Kuamo'o. She comes from the, my grandmother's side is Ani Kukahiko, Molokai's the two sisters. So Angus ties they come out of that side and that is the Aweloa's. The Kihelos, the Awa's, the Poepoos, loaded on that side. Our side come from Tutu Asian. Get eight sons and eight daughters right? A lot of them passed away but still that side of the family is huge.
KT- So you recall growing up going to school over there or you went Ulupalaka?
BL- Actually when I was in, we used to live in Kihelo- see we lived in Lahaina and then we moved to Kihelo, Kihelo Camp. You know where Suka Store is used to get one plantation camp.
So my father used to run the hide because when he was young he used to sail the South Pacific on the Jewel Wallace all of the Islands. They used to take Kamehameha kids train 'em navigation all that. When it came back, I think Dwight Baldwin told him you like run my boat from Kihelo to Kahoolawe they need when get drought you gotta take water pump 'em up by what that? He's in the ranch land. You was there where they used to have the house. This side of Kahoolawe is Hali'oua. You go around about three miles used to be the ranch house. My dad used to take food and I think was enough to bring cattle out, yeah. So he'd hitch the cattle on his boat. I think it could carry only 15-20. I think, was small heat. So they used to bring 'em to the pier on Kihelo and then winch 'em out.
KT- Kihelo at Kamaele?
BL- No that's in Kahoolawe.
KT- No, no but the harbor that they launched from was the one at Kamaele III or the one down Suka Store.
BL- Well, Keawakapu right.
KT- Right.
BL- They used to herd, before our time had a pier there, Keawakapu. Okay, they used to take the cattle, the pigs in Makana by the landing by the beach.
KT - Where were you, your house.
BL - Yeah. Not they used to take 'em Kaloholua. The Kihei one they used to bring back them and unload them on the Kihei Pier. Then they take 'em all the way down, oh... where the Canadians build that hotel? You know they built that hotel Mau Lao.
KT - Right.
BL - Well, that used to be the holding place. Because I know because there were kids running around there, that used to be the holding place for all the cattle. They had a slaughter house there plus they had a pig ranch. So a lot of time would they take the cattle to Rice Ranch up in Kula, yeah because no more mugga grass on Kaloholua when the drought.
KT - I was just going to say as I talked to Rice he said that's where Mau Lao that's where they had a pig farm.
BL - Yeah had a pig farm and actually a holding pen for the cattle over there. And then used to be only two hundred people lived in Kihei. The thing is some of the prominent families used to be the Suda's, the Kimoto's and my dad actually lived in the plantation camp behind the old, where Suda Store is now that used to be a plantation store for the people to shop.
KT - So when did you folks move down to Makena?
BL - Actually we never moved, we never moved.
KT - Only when you had done you were in the house.
BL - Yeah actually the way it was, come 1942 they shut all the beach off-right barbed wire. I mean nobody could go down the beach even go fish unless you cut the wire went underneath go throw net or something. So what happened, the way I lived at Makana Landing like that used to be, used to go straight out and down like that. But what they did and at that time they had how many houses? My Tutu Malone's house, Tutu Hai Hai's house, Betty Poepoe's house she was married to one of the Poepoe's. And then my mom and dad's father had his house with fishing nets. And then the house down below used to get where the real landing is, used to get on the net store it was a warehouse. And then when the war came on marshall law right? Everybody gotta move off the ocean. So what they did they build doz the houses down. So people never, you know, I remember get old pictures of old folks no more nothing. So they bulldozed all that and then dynamite the whole from because down here was the pilbox. You know that house right on the point?
KT - Yeah.
BL - Inside the house is a cement pill box. So they no take kayaks because Aunty Marie Olson, you know her?
KT - That name keeps coming up...
BL - She lived at the end of Keanaekoa, the last house.
KT - Okay.
BL - She used to take care of Cutter's place until he sold it to somebody else but she's still there she must be in her nineties now.
KT - Right.
BL - Uncle Willie, his husband had the lease for that place and then when he died his son Dikkie Boy had the lease. So Sonny Boy used the place and he take kayaks. So that was a ma'akini nest so what they did they blast all these side down plus all the tidal pools used to be here, boom and destroyed everything.
KT - So when you talk tidal pools, did that include fish ponds?
BL - Yeah, tillponds. Well, the kind where the water comes in and drains out yeah.

KT - Yeah because almost everybody you named, somebody in the family I have talked to but they keep bringing up the story since it had been passed down from one family to another about the sharks in the area.
BL - Where? That's why, where my house if you go in, there's coupla shark holes there. Still get about three of four sharks. You know all the scuba divers go inside yeah? They're still there. When I was still living there, they still are.
KT - Wow.
BL - Was mostly white tipped, yeah. You know like Kaluhalo's their aurauma is the Mano yeah?
KT - Right.
BL - Then when we was at the reunion they found the name of the shark that used to live there, you know, from way back going back to I don't know I forget the name I get 'em on the shirt somewhere. So when they destroyed the place we never go to move back there till 1957 when the war? Was 1945 right, then they let us move back. So, during the time nobody used to live there so my dad, you know let's a fishermen so we decided to put a two-room house. So we used to live in... we moved from Kihei in 1942 to Spreckelsville because he became a luna for HC&S. Then during the war better money you go work for the Navy because had two naval bases: NAS Kikulali and NAS Pauanese those two naval bases. So he worked for one of them so when the war was over the plantation said, "Oh you cannot work for us." Then we started doing commercial fishing until he started working for the State as a prison guard. So what we did was we put a two-room fishing house, only a fishing house but no more electricity. So every weekend or vacation we would be down there fishing. You know, so summer times I used to live down there and do bulila with my Uncle Abner, he had a fishing gang about six guys.
KT - That included his son Abner Junior, Richard...
BL - Yeah, yeah, yeah, Junior. He was about 5 years younger than us so we used to do all the diving before no more scuba then so if they lay the fishing nets way out, sixty-sixty feet water and of course he gotta go down take 'em out. So Uncle Abner, Jr. Dilema's dad used to own all the nets because as his wife was Hanai'd by my grandmother Tutu Ane's brother, Kapekane Hanai'd her so he makes a lot of nets, fishing nets. So Uncle Abner used to have the lau nets, you know, all different kinds. The lau nets and the, the lau we use tillponds for fishers, you ever seen that kind? That's the kind stuff we lay the lau. What you do it you take tillponds right and you put rope through 'em and the bottom is all the rope put ti leaves. So what they do when they go out on the boats they drop 'em and it's tied like that so three or four divers would go out and they drop 'em, hit the reef, pull 'em up and on the shoreline all the family used to pull. As the thing comes in they signal to stop so you can bring 'em. So when you like this side Makana Bay you go way over from the church come back this way, take a big area you going bring the fish to one corner; this is Palipipi, this one is Papalus Ewa is this beach. So you bring 'em to this end over here all the fish is then you drop the net with one bag then you close that up and you bring 'em in. So Aholi season is Aholi different see, because over there was the Landing used to be Keawalai true they had step, they go up and I'd seen it because my hanai'd Tutu used to climb and he see the school. But if there's deep water he cannot surf with 'em. So until they come probably sixty-fifty feet then they pull the net. So Nanae which is the point this side all the way across to Keawalai. Once you get the whole contained, if they're in they cannot go out right? So they watched this, maybe four-five tons of skulii now, then as it moves in they put another cut in it's still forty-feet water right? They move in, put another cut in twenty feet water. From then they surround the skulii on the sandy beach because now you can take 'em.
Because no more refrigeration, yeah? So what they gotta do is take so much at a time and take 'em to Noda's, I don't know what they get but I know they used to take 'em to Noda's maybe three-four tons but when they do that Upalakusa Ranch still was cowboys, right? So they used to call up those families in Upalakusa to come down in those days they had now they only get four cowboys up there because it's, everything is done high tech they can put 'em in one guy castrate yeah. So what they do, all the families, the rancher let them off, they would come down and help and then they could take fish home. And the difference is, see, in those days Upalakusa Ranch they were giving free meat but now they gotta pay. Every Baldwin there was nice to the Hawaiian's. Erdman a little bit different. So what happened is they would trade meats for fish then they would have a big feast.

KT - How often would this pulling in the nets happen?

BL - Mostly they, starting from the way the Skull come in when they come big schools they come in from April, May, June, July, August and then got too much after that because they come in, that time of period they come in spasms yeah, they spawa. So tons, even when I was living there, I don't know if you know Kache?

KT - Yeah, skull boat yeah, used to be?

BL - Yeah, well they used to come surround in front the Landing until then, they got sick. So I go there, I go help them yeah. They get one whole igloo skull, what I going deal with all this stuff. So I take 'em down Kihai service station give guys away or dry 'em on the rocks. But theirs was different the load 'em on this big container go down the airport and send 'em L.A. where get big Asian community. They ship 'em right out with the plane.

KT - Although you weren't raised there many of you other families like the ones you mentioned before were raised there yeah?

BL - Actually, not too many of them after war everybody my age, nobody live there except the Ahner's.

KT - The Delima's.

BL - They had a house by...

KT - Right before Kawaiwai.

BL - Onelua they used to have what that kind? See, my uncle them they used to work for FAA, they had a station there they were towers for navigation systems. But he used to, he had a house there but it was built by government but he didn't stay in the, usually it's one haole guy running the operation but he don't do nothing right? So I went to Delima's was on his land so he took care that tower station over there.

KT - So it was at Peldon?

BL - Actually it was more past Peldon it was Onelua beach, Makena Beach that section going down. Okay what happened was Tuta Keaweku owned that whole all the way down to Makena Beach, he owned that right. So when they took down the FAA station was obsolete already and then since he retired, my uncle retired, they ended up selling that whole section for $250,000. Can you believe that? Then this one over here, my father's sister this is Puno'ole right this one over here all the way from Onelua the black sand then all the way up to the road, that was owned by my Aunti Kapoakaikinemoe. She sold all this because was too much trouble with paying tax and you get the reason my dad's sister Emma Kapoakaikinemoe the property because she married Duke Kapoakaikinemoe and that was the Makena Kapoakaikinemoe property right. So when he died and so when he went into business he went in debt so he had to sell to pay off his debt. So when he died everything, all that property went to her including the one right next to Keawalu Church. What happened is she actually gave a section back to that families, you know, the only one that got left is right next to Makena Church, Keawalai Church got about two acres. That's Kapoakaikinemoe's property.

KT - From where you just described, where's the Garcia property?

BL - Right across the street. And across the street was I think Garcia married Margo Cockett and the way it happens when her family died she owned property on where they get the fancy house now past Polo Beach Kalawao. So when she married the ranch, that property on Kalawao Beach, that property the Garcia's property that's about five acres. So, but Sam died so the son Sam and John the own that property so they're trying to put houses on that, you know, but the thing is get that...

KT - Get the Kalialii house.

BL - Kalialii house yeah, Sea Ike did the study for them and then you going preserve all that stuff, yeah?

KT - So as far as you know I went down the road and talk story with Sunny Vic and then nobody asked me to go bliss past Sunny Vic's house because they were having these spiritual visitations. I went back to Sunny Vic told him the request he said, "Oh yeah in the back of my house had Pele's before."

BL - Oh behind stay Makena's property yeah? So in the back his place used to he Makena's and then across the street get this fancy haole house that used to be Makena's property with a nice bay. But the old man John Makena died and his daughter Mrs. Mac sold it that property to millionaires. But Sunny Vic is funny. I started Makena Association every time he come down every time something going on he tell me, "Oh come down here we get playboy guys naked on the beach and all da kine." I said, "What you like me for?" "No call the cops." "No call the cops just go down there and watch them and get out of there you know what I mean."

KT - All we pass through phases so that was probably his phase.

BL - Every time he call me up oh Jesus Christ. But he's still there he said most of his stuff behind in there. State take tax yeah but he get plenty money he used to own the pig company let his sons run 'em yeah.

KT - Where is Keleau now, your grandson?

BL - Keleau Kaahane, Keleau?

KT - No the little boy was my classroom, Aukai.

BL - Oh Aukai he lives with me. He just went home because the sister graduating Saturday. I took him down the airport, Aukai Big you know now.

KT - What's he doing?

BL - His second year at UH he just finished marine science.

KT - Wonderful.

BL - So yeah, he stay with me, good boy. So what happened I drop them off, you know he like surfing over here not that good you know at least there get sandy beach plus get plenty sun too.

KT - So he took his board over.

BL - Yeah he's doing pretty good. I think three of their friends they graduate Kamahameha last year, they're all freshman's.

KT - So he went Kamahameha?

BL - No, St. Anthony. He was too old to get in already. So I get one over here, one grand daughter in this one and I got two Kamahameha's oldest girl graduated Saturday. That's why, oh he live with me.

KT - I remember one of his classmates and my son and him, Aukai, the mumma passed away yeah, Nunahiva.

BL: Kamaille? Wow, so sad yeah. Monday the funeral going be down Waile‘e you know. They going have shuttle service from the Waile‘e park take you all down and you gotta walk through the conservation. What you call that Hawaiian name for the place? That’s where they going have the da kine, yeah Monday.

KT: Really, why they going spread ashes?

BL: I don’t know, they don’t say nothing. My daughter Keani call up and told me I tell her I cannot stay because we coming home Monday right. That’s not the normal kind where you gotta go catch shuttle go down there walk down the beach.

KT: So during the time you were spending down in Makena, did many of the Hawaiian families want to be spread out on the ocean?

BL: No. Before was all burial you know at the Kekaulike Church, there’s one graveyard there. Then you where the Kulaikina house is there’s another grave there. Then on top the hill, the Chang’s property, get another plenty buried there; Cremaat in modern time.

KT: New.

BL: Me too, spread out my ashes Makena Bay.

KT: Yeah, there’s so much requests from abroad you know that’s the style now save kala.

BL: Yeah well, it’s still nice. My mother in law just died last month. I was up there for that weekend had my mother in law’s funeral, my aunt Emma DeFries guys. Then my cousin Ulu’s son, that Craig in a motor cross race in LA, three in a row had we were up there. Well, you know it happened yeah. But actually I spent a lot of time in Makena.

KT: What is the relationship with the cattle ranch that depended on the people that was running the ranch.

BL: Yeah. Edward Baldwin used to run it okay. And then take the two ranches, this was Rice Ranch in Kula and this was Uupalaua Ranch. At that time we was kids Edward Baldwin used to run the ranch and this one Henry Rice used to run this ranch. But these people were good to Hawaiians. Even like his son Oskis Rice they could sit around sing Hawaiian music, play guitar. Edward Baldwin, they were good to the Hawaiians. When Erdman came in strictly property, start laying off all those guys. And then you know, and Edward Baldwin time if you died your family still give you a house until they die and nobody around then that go back to the ranch. So was real different.

KT: Well, was there areas specifically for different kind of seaweeds that folks used to gather?

BL: The kind seaweed they get mostly in Makena would be huluhulu waiina, limu kohua, and lipon plenty, you know outside Makena Beach. Limu kohua, limu kohua you would find ’em like where the mudist beach up above.

KT: So, Punalu‘i.

BL: Punalu‘i, yeah. Down at the Makena side from the Church down to our place you could find limu Kohua and waiina but what happened all this elasical stuff. Same with wana, you know wana used to be big like this, that’s only like this now. If you dive over here you see the whole, well the golf course ruined the place.

KT: Poisonous water.

BL: Well, the reason why they re-route the normal streams, I had a big fight with the Makena Resort and what happened when they had that 1989 huge break that washed the roads, washed rocks across the Wailea Golf Course into Makena Surf swimming pools right to the bottom and they filled this whole Makena Bay with this much dirt. I still get the video showplace. So what I did I showed it to the council I said, “Look at this.” In their plans they were supposed to put 15 acre silt holding area above the golf course to prevent the silt, you know what? They just finished it last year.

KT: Wow.

BL: So when I talk to the guy, “Oh yeah we got 15 an our budget.” But we get hard time because their boss come from Japan right so the decision was like 20 years. Only now they get the silt, the fifteen acre silt above. But that’s not enough, the big rain come. That’s why you dive Makena Bay, you dive, the bottom is all dead, the coral is dead completely. But the sides still got coral because the silt never get on that yeah. And when you go down there not too much mantis, all that kind fish I used to catch is when I lay moomoos at night time if you come around the corner and catch ‘em with the net. But that’s what’s happening yeah, no pay attention to the ocean, yeah. And you know they said they’re monitoring the— they’re supposed to monitor the, so I said, “Let me see the report.” No more nothing. They not doing nothing but new Dowling and his friends bought Makena Resort not too good.

KT: I didn’t clarify that why I’m sitting here with you because Kimoikeo and I do Cultural Assessments. You know the more I do this, I’m trying to figure out what can I as a kanaka maoli, do. I know what gonna be done but what can I as an individual do? And I only see trying to turn the minds of the people in the power positions to assist because man not going do it, right. You tried.

BL: No but if we get enough people go and testify yeah; I give you one example. The kupuna goes, the one Lindsay, I like him but a lot of the other ones they get taken but when we had testify against certain things….

So what my daughter Malle did she went on and got a grant and she hired the halele lady, good archaeologist she went where Makena Surf was going build his condo’s she went there and she found beaches. And she said Malle I went three feet and I found loose, all kind stuff. Because the first people that did this they not going deep enough. And the problem there they used to have a beach right above the number 17 golf course, it’s gone. They bull dozed the whole thing down, it’s gone.

KT: So you’re in agreement, as I keep talking to different people, that one person’s perspective is that Makena wasn’t that significant, yes it was a fishing village but the more and more I talk the more I see that there are so many cultural...

BL: Oh yeah, a lot of stuff there; a lot of stuff. But you know, because we never had burial control before, bull doze. It’s just like you know that, I don’t know if you know the golf course the one coming across the road they get used to have a lot over here that was owned by Lono family, they’re related to us right over here. So they had a halele couple living there, nice. They knew the genealogy of what’s going on. So they going, “Uncle Boogie these guys over here where they driving they digging up graves.” So we went over there, “What you guys doing?” “Oh we going to move this.” “Who gave you guys permission?” “Oh, nobody.” “Did you call the Burial Council?” “No,” I got on the phone I call, “Dana, come down Makena go see what this guy is doing.” She can talk, stop ‘em you see. By the way, how is she doing? KT: She’s doing good.

BL: She got Parkinson’s yeah?

KT: Is that what that is?

BL: Yeah.

KT: Not to good.

BL- Yeah, I called her, she came down and told the guys, "You don't do this until you go down before the Burial Council." Which is okay, you know. Who knows how much of that stuff goes on, yeah.

KT- But see chama like you who have lived on the aina there, you can at least identify significant areas so that the minimum is we could write about it and hopefully more like your no'upuna like my son and others who really into the culture will be following up yeah.

BL- Yeah, that's so hard to overcome that kind stuff. You go in Makena look at the Langding the Waipae used to live above and Kahalewaki on top all gone. You know what they going put on top the hill up by our old house? Seven-eight houses, four on the bottom by Makena Road, three on the top. Yeah so the only like my nephew Steven, the Chang's still own seven acres, this side of the old Makena Road. What happened was the only reason their property not up is because it's still age; Steven went put goats. Then my cousin Eddie live on the beach, yeah right next to, he got that ten years farming. If not, that's four acres. Imagine how much property tax you pay for four acres on the beach.

KT- Right.

BL- That's the only reason he saved that section so they can still live there. So what happen when he dies nobody like take over? You know, crazy yeah. And that, see my great-grandfather John Kokahiko used to own all the way from Paipai Beach down to Makena Landing. Even the park, you know the park where the ranch got, that's stolen land. I don't know how they do it, they fool around with the grant, you know. The old grants used to get leeps and bordons but the map and bordons used to be one stone wall, one coconut tree but the coconut tree not there so how you do that, yeah, the old days. That's sad though, but eventually you only going have millionaires on that shoreline and they build the ugliest looking house you would ever think of. They get one about, lucky thing they saved that Kokahiko property by the greenway. But, they pay 36 thousand property taxes for that place. So what they're doing, I think they hold weddings and stuff like that yeah. How much money going to pay the taxes? At least over 60 thousand a year and what going happen next year when they going up next to them when they ass that one, oh my goodness, no more chance.

KT- Something gotta be done.

BL- You no what it is, no more enough people around helping. And then the young ones they more interested in their own stuff, yeah. No more stuff. I miss Makena. You know what I miss? Diving. Fishing, I wish I could dive with the young kids. Man, I'm not in shape for this place man. (laughing)

KT- So you said the bottom all wipe out already but when you used to go diving you still were able to catch something.

BL- They only, you still can catch the fish like oio, kuwalea they still come around right. That new law they get, no can fish. That's the best thing they ever did let them come back again. But you know we the only one had fishing right into Ahili.

KT- Wow.

BL- Yeah we got that right ten years ago, we filed a petition. I went back, you know, generations fish there. When you guys closed Ahili Bay 1974 we wasn't on the island, we didn't have an opportunity to testify. But what we did, we found the group right, so of course we had somebody with the kahiko industry, I think Dana Hall, Kahakawela and the guy that runs Haleakula Reef so he was on the committee you know, and us guys wrote this is the way we fish you know. You know in the old days. And because the State did not give us the right to testify we believe that we supposed to be fishing there. But then we wrote how we going fish, okay.

We only going catch enough to eat, pick up so much ophi, we out. And I will not be doing the fishing, my brother in law doing all the fishing. Our grandchildren will do the fishing but we'll watch them, teach them, that's it. And if you like that, I can make the kids write down what they ought and I get one report. Then we tell them, you know people, come in here they wiping this place out. And then the thing is the first time I went they sent DLNR guy with the pistol, that's Stan Okumoto with us. He goes sit down all day with us in the lava fields. Then I told him, "Stan you know what? The next time you don't have to come. You see how I fish, what the hell I going walk in the lava flow?" Him he walk away, him yeah. But since I left, I don't know if my brother them went fishing because now what we gotta do we write one letter we going fish one certain day. And then since I left Maui I don't know if anybody went. But we still get that right, they never take'em away so. But now they worry all the fish all going multiply unless they catch the people that poaching. But I think what happened is they closed the gate going to Keanae, they shut at night so you cannot go that way which is good. All the people that live at the end of the road and who live down there; Auntie Marie and that guy that owns the old Cutter Estate.

KT- That's on the right hand side, right just before you pass the rubber dump.

BL- Yeah, you gotta go all the way down, down to that I forget what the name that was the name that Pinoe the hill on the left. Did you know that's Hawaiian homestead?

KT- Really.

BL- That's Hawaiian homestead you know, that hill on the left side is Hawaiian homestead and before you get to the old rubber dump on the left side, that's Hawaiian homestead. You know Vanessa used to be with Hawaiian homes, one time she called me and she said, "You know uncle I got all these maps about Hawaiian homesteads in Makena but I don't know where it is." So we went down and I told, "Oh that's Keanae Bay." On the left side, I don't know how many acres on the left side that's Hawaiian homestead, on the left side of the lava field. Go down to that pu'o on the end of Keanae Road, that's Hawaiian homestead around the hill. But the thing is, no more water, you gotta bring your own water.

KT- Still, yet, that the Hawaiians go and occupy.

BL- Yeah look at Kahanilau, get the Hawaiians living up there, they gotta bring their own water in and they're doing all right. And what better place than Keanae, the ocean is right there.

KT- Right, yeah, so possibilities.

BL- Maybe they can go they can fix all the fish ponds over there. Used to get plenty fish ponds. 1946 tidal wave destroyed all the entrance. I think get three or four big ones because we used to go over there dive.

KT- In the fish ponds?

BL- Yeah, the old ones. You know what we used to them yeah? My cousin and I we put the net across the entrance spon all the uh before they can get out.

KT- At least you guys were halai, no let the uhu get out of that fishpond.

BL- Yeah we block 'em in like this. Big kind you know, that was huge.

KT- Wow. You used to do any night diving or this is all day time?

BL- All day time. Night diving is all starting with the new generation. My son in law they go night dive over here, pretty good night dive. When I lived on Oahu it's nice to do night diving.

KT- But compared to Maui and here is the Citurgia still affecting the fish over here on this island.

BL- This side mostly Kona, Kona side. So like, you know like Kahala. Maui, no more Citurgia, Kahala you know. You know my brother, you go fish with him he throwing away the
Kahala's. I tell him, "No throw 'em away, keep 'em for me." So even when I was living on Makena Beach this haole guys they go spear right they come in Kahala, "What you guys going do with that?" "Oh we going give 'em to the Tongans." "Nah, you give 'em to me." So long you no cut the guts right? Kahala on the top here get loaded with worms you know, so when you filet that pull all the worms out. So I used to get Kahala cook 'em in the week. "What is this?"

My wife, she don't know so I tell, "This mahimahi." She tell, "Ohh this so delicious!" Taste like mahimahi, yeah it's so delicious. So these other guys they come out they speak they tell, "Eh Bully you want some Kahala?" "Yeah give 'em to me." I eat all kind you know. My brother he throw 'em off the boat. I said, "Go pick 'em up stupid!" "You going eat 'em?" "Yeah, I going eat 'em you stupid you throw this off the boat." We used to fish outside Kahoolawe, yeah and we go fish inside there what you call the kind military observation? Military range we go in under cover right, I forget the word they use for sneak in when real cloudy right. We go in his boat, throw the small boat, we paddle in. We surround Hanape Bay plenty mei you know. That noni is about this big.

KT- No it's surrounding areas what made Makena what it is, okay.

BL- Well you know Kahoolawe was part of Makena. The Kukahiko's like my grandmother's Tula Ann's brother he used to have his own sailboat and go and the reason why you see all the names on the island now he was the one told the people what was all these names. The whole island, the names the alupua's and all that he lived down there because a lot of our uncles were like Jack ains, they lived on the island with the pictures, took pictures of the whole family that lived on the island.

KT- To raise the cattle?

BL- Yeah, they took care the ranch. But you know, the sons they live in California. One time the name back they wanted to scatter their brother's ashes and my brother and I took 'em to the old ranch house. And the interesting part about this when we walking and, you know, he grew up there they were showing us where they put the water and all that kind and when we were walking we found this glass tub with cotton. He turned around and he said, "You know what this is my brother's piko you know, the one inside the cotton." Weird feeling you know when he said that. I pick 'em up and I said, "You know when we lived Kahoolawe I want to put 'em in something and throw 'em in the bay." I forget the brother's name. I kept a journal someplace with the names hoy it was interesting. Makena get a lot of, too bad the old folks all died.

KT- We the old folks now.

BL- I know. But you know when they used to tell us stories, ah you no listen yeah. We no listen to all that stuff but I lived in Ulupalakua during the summer months with the Awelos' my father's grandparents right. Get the mail truck from Wailuku, we stay there from June, July, August come back the mail truck. Then the next summer we stay with relatives in Kapo, the Marciels', stay over there for three months come back then the next year Ulupalakua stay with my Uncle Jimmy Healea they had me age. But us guys we was thirteen we cannot work, we had to be fifteen. So Ulupalakua Ranch send all the kids go pick up, dig up Kika Pamanamu the evasive stuff. So all we did was ride horse. Because what happen is like, you know the old horses that they're supposed to kill it, throw away the kids had opportunity go find one that they like. Every kid that old enough to ride horse he had his own horse in the forties. Mine was Makapa, was blind the left eye, so you cannot ride 'em from the left side the thing would kick you so you gotta come from that side. So everybody kids had horse so we were too young to work so we would ride horse, go up the mountains go pick up whatever and that's when Ulupalakua Ranch was populated, had a lot of people there.

KT- Describe that invasive plant.

BL- Pamanakai, yeah pamanakai.

KT- Can you describe it?

BL- Actually get a purple plant and purple green leaves. I no think they get that any more.

KT- What kind of flower?

BL- I forget, big. Used to grow just like weeds all over the mountain so all the ranch kids fifteen and above used to work. I think they used to make 20 cents an hour or something like that. Those days I used to work the pineapple field with Molokai, 40 cents an hour. Three months in Molokai I made eighty-one dollars. They deduct your three meals right and we ride the humuhulu from Kahului to Kula and they deduct that. Then all you get, those days you get eighty-one dollars, plenty rainy yeah.

KT- You can think of any questions you might be curious about for me?

BL- Ah like I said I wish I knew more about Makena, too had.
Interview: Maile Mosseman

April 11, 2007

By Keola Tau’a/ Kimokeo Kapahulehua
KT- Keolia Tau’a
Kk- Kimokeo Kapahulehua
MM- Consultant

Kk- So, how old were you when you first moved back to Upcountry Maui?
MM- Three. The age of three.
Kk- So how long did you live there?
MM- Lived there till I was thirteen. I was in the eighth grade in Uluapalakua School, that cute little school, and then my father and my mother had a Hawaiian group and they played for Everett Baldwin who was the owner of the ranch. They played for his parties and his activities and my father worked on the ranch as a cowboy and as a machinist and my mother was at home with us. So for those ten years I went to Ulupalakua School and had a wonderful life living in that wonderful area at that wonderful time.

Kk- Do you remember the kids from Makena being shuttled up to Ulupalakua School?
MM- Yes, absolutely. Mrs. Delima would bring, we call it her banana boat car, would bring the kids. The Poepoe’s, Daniel Poepoe who’s since passed. Erma Delima, my good friend. The Kauhaapo’s, Ray and Erma Kauhaapo, would bring them up to Ulupalakua School. Kanaio, Ulupalakua, and Makena kids attended Ulupalakua School.
Kk- So, did you attend Kamahameha Schools, do you know?
MM- I don’t know cause he was a couple years, he was older than me. I’m not sure how old Ray is today. But Parker Purdy, Erma Delima, they were my good friends, they were a year older than me, went to Kamahameha. I would have taken the test and followed them there, that was my desire, but my father at that time wanted us to move to the mainland and begin his dream of having island music. Eddie, Malie, those islanders were the pioneers, the pioneers for Hawaiian entertainment in the Bay area.

Kk- In the Bay area.
MM- Yeah, in the Bay area.
Kk- So, you grew up surrounded by music?
MM- Absolutely, hula and music.
Kk- But was that happening in Ulupalakua, when you were young?
MM- It was for my mom and dad and their group. I was too young to do professional dancing with their group. We danced in school May Day but that was it. We were too busy riding horses and playing all over the place with animals.

Kk- So riding horses, did it take you from Ulupalakua to Makena or how did you go there?
MM- No, we went to Makena on that bumpy, bumpy, dusty road on our truck or our jeep. My father took us to the landing to swim and when I went down to Makena with Erma every weekend to spend the weekends with her we went on her mother’s banana boat car.

Kk - With Erma Delima?
MM- With Erma Delima, umm hrm.

Makena CIA prepared by Hana Pono, LLC

KK- Now, can you remember where their house was located?
MM- Oh, I told my husband this morning, I think it was at the base of the pu’u, the mountain there, at the base of that mountain. I don’t know which house.
Kk- Right after you reach the bottom of that Ulupalakua Road that takes you down to Makena.
MM- Yeah.
Kk- If you take a left there’s landing then right after that on the right hand side is where Carolyn Delima said their house was. I just trying to confirm whether it was the same location that you’re speaking of.
MM- My goodness, you know, I hate to give wrong information.
Kk- But it’s between presently Kawaiala Church and the road that you end up from Ulupalakua down to. Take a left to go south.
MM- Yes. It just seemed like we went quite a distance. Maybe because it was kiawe trees and dust and bumpy, rocky roads just seemed like it wasn’t right near the landing but it seemed little farther. No.

Kk- So then you remember what was happening at the landing? Was it actively running cattle down there, loading cattle?
MM- Cattle, huh. I believe it was during that era that era was lots of cattle because my father drove the cattle truck either to Akahi Storage or the live cattle to Kaupe Ranch, Kahului and Hana Ranch and or down to the landing.

Kk- What was Akahi’s storage?
MM- Oh, in Kahului, that’s where the slaughtered beef was stored in the ice house or storage, Akahi storage, refrigeration shop.
Kk- Okay, cause there were, we found that there were many slaughter areas throughout the island.
MM- Uh, huh. Ours was right in Ulupalakua. Now that’s part of my sad memories because I’m an animal lover, grew up with them and every Wednesday the cows were put through the path, through the corrales and going through, like going through the guillotine and it you would, in school you would hear the shots. Boom! We knew what was happening and it was on that day that cattle was slaughtered and prepared and loaded in dad’s truck to be taken down to Akahi storage. After they took off wonderful valuable meat to give to the families that worked there for ten cents a pound, every cut, including the oyu, the n’alau all of that we would take home and clean. Every Wednesday was trip stew day so wasn’t my favorite day of the week. Uh, to this day I don’t care for tripe stew. Maybe because we cleaned it before we ate it.

Kk- Yeah. So, in going up and down the mountain there, what are some of the memories of Makena?
MM- Makena. The memories of Makena was skinny cows along the way-bumpy, dusty and kiawe trees were a light brown, not a lovely green. In fact, I was just telling my husband today, if I look at Waiola today, I don’t like to look at all of the developments. I don’t bother, I sing on Thursday’s at the Waiola and as I drive there I refuse to look across the street where I turn in to park at that new building coming up. It just bothers me. But, I must admit, it has been beautified but it’s- there’s lawns and there’s trees and there’s flowers. It’s been beautified as opposed to my era where it was just kiawe trees and dust and bumpy road but it’s been, to me beautified for other people. And, it’s, I love singing there because I look out at the beauty as a postcard beauty, which would have not been in my childhood. I wouldn’t have seen the ocean because of the kiawe trees.

Kk- Yeah. Are there any significant cultural things that you can recall such as a heiau?

MM: I can’t recall that. No, all I know is the story of the rock lady which is a legend in Uluapalaku. That is how far I go to the cultural history of Uluapalau, I don’t know of my own birth.  

KK: So, why don’t you tell us about the...  

MM: The rock lady?  

KK: Yes.  

MM: Be happy to.  

KK: Is that the one outside of Uluapalau as you heading towards Kanai?  

MM: Oh, at the fork.  

KK: Okay, so let’s hear your story.  

MM: (Laughs) My story comes from my father because maybe every father told a different story to every kid but this is the story we loved and knew. And I told it to the Cub Scouts as a den mother we’d go out and look at the rock lady. I’ve told it to my children. I’ve even told it in the Kupuna program in school. Maybe now you can’t tell those stories but I did them. And I put there is the shape of a woman, almost the shape of the island of Maui on the map. The head and the body, have you seen it?  

KK: Yes.  

MM: Okay.  

And it was just a nice rounded rock, no chisel of any sort, rocks being chiseled off or flattened in any way, just fluffy and round. My father used to always point to that when we drove with him out to take the cattle to Kanai and Kahikinui and Kaupo Ranch. And he would say, “See that rock lady?” And tourists would stop there and he said, “Yeah, you know what happened?” And I think he was trying to teach us a lesson in values. He said, “One time there was this lady and man that had chicken farm. They lived right around this area here. They were very selfish; they didn’t share it with anybody and one day a little nāhā‘ole lady (sooty lady)...” Because my father spoke Hawaiian so a lot of his words were Hawaiian. “And she had no teeth and she was hāpū‘u grey hair, and she knocked on the door. ‘Hello, Aloha, aloha, I’m hungry, I wonder if I might have one of those chickens running over there.’ And they said she shook her off of the property and didn’t want to give her anything. They shook her off and I guess, little did they know that was really Pēlā in disguise. And so, when she had that last lava flow the eighteen hundreds that came down that area, all that lava, she decided that she was going to catch up with that house; with that selfish couple. And so they started running and that’s as fast as the lady got because she’s down on the ground. The husband got farther down and he made it to Leporou. And according to my dad there’s a rock the shape of a man standing in the water. And we would tell our dad, ‘Wow, you mean to say, if you went and chiseled away and dug, dug, dug, there would be bones in there?’ And he said, ‘I wouldn’t do it. I wouldn’t advise anybody to do it.’ And then the story ended. So, I would tell my children as far as what dad told us, we were obedient and we wouldn’t go. ‘Why not?’ and take the knife or something and do it on our own like it’s been done today. People leave pensives for good luck and money and bottles of beer and all kinds of things. But I noticed when I went up there in January and took my grown children and grandchildren; they have a lot of chisels and pieces taken off the rock lady. So, it’s just a legend and it’s a learning legend and a good message to it.  

KK: The rock in Makena is called Ka‘ao and there’s pictures in books. I’ll see if I can find it and email it to you, send you the copy and stuff.  

MM: His and her rock story put together.  

KK: Yeah, yeah. Who are some of the Makena families that you can remember residing there?
hunting or fishing for fear of someone being jealous and wishing not goodwill for you. He would slip out in the middle of the night on his horse with his dogs and knife, no guns. And if he had a gun he never used it. And he would go hunting. And if even there were little piglets that came running out because something was disruptive, that little pig family, he brought it home and we raised them, even the goats.

KK: You’re the first to ever say that about slipping away quietly to go and do their catching.

MM: Don’t tell anybody—don’t tell the kids, don’t tell the wife, don’t tell the neighbors. Set your mind. My dad was like that and just goes. That’s why he was so successful in everything he did. He was inner strength and not trying to get a claim here and there so everything was done very quietly.

KK: How do you measure success as you just said. When you look at your father, he was successful in everything he did, as what you just said.

MM: Yeah.

KK: So, how do you measure success— that kind of success?

MM: That kind of success, in that rugged life of ours (and was a rugged man) that kind of success was measured with his desire to do good. Every night he would put his empty gun, put a dot with a little pencil on the ceiling and in bed he would practice. He would “shew,” every night he became a marksmen. His dogs— he was a loyal man. He was loyal to his dogs; Can I tell you a funny dog story?

KK: Please.

MM: Ahh, loyal to his dogs to a certain degree. One day he was drinking on the porch—in the garage with his friends and they had the lms going. They put the pig in the lms and they put lalo and different things in the lms. And so, it was time to eat, they opened up the lms and brought it out and mom shredded it with Hawaiian salt and cabbage and we all sat down and had a wonderful meal. And then he said, “How did you guys like that kula pig?” “Oh, that was good!” He said, “You just ate your dog mike.” Our black dog because that dog tanked too much, we used to feed it and it was not cut out to be a good hunter. So, in answer to dad’s success: He expected goodness and successful behavior even from his dogs and horse. All his kids and everybody else! So, yeah, but my mother was the mellowing factor. We’d have a hard time living with a rough rugged dad like that without the city slicker mamma from Honolulu who brought the Easter basket and the stockings for Christmas. No other house had that in Uplolakai. Our porch had—our house had decorations and mother was like that.

KK: So, did he go work the garden and plant sweet potato?

MM: He was too busy, we did. Yeah, that was our job—every one of us had gardens. And you know what Everett Baldwin did to make that place beautiful? I call it a Shangri-la not a soda can, not a piece of paper found anywhere. I’ll tell you why. They didn’t tell us when, it’s like Christ’s second coming— they didn’t tell us when but they would ride their horse with a yellow tablet and pencil and they’d ride from the beginning of the ranch (as you enter the slaughterhouse area out to the rock lady) and they would ride their horse and they would judge our yards, our fences, our gardens, our animals, our trees, publish caa, old jalopies. They judged it because they expected it to be a wonderful heaven for the inhabitants there. And so we did it and they would give us little prizes—twenty five dollars at the community meeting. But what was nice about them, what was nice about the community, was everybody won at one time or another. Everybody was a recipient. When we’d see them coming— “Aaahh! They’re coming! They’re coming! Oh, the Baldwin’s are coming, hurry up, hurry up!” If there was something on the ground we’d pick it up quick and throw it under the house or close the garage door or do something so that it would be, look good when they walked—rode by on their horses. And they comment and they mark and grading us all.

KK: So, you’re telling me that the community there treated the Baldwin’s like Alii.

MM: Yeah. Great deal of respect, ah! And he treated us the same way. He treated all of us the same way. We had Christmas functions with bags of candy and apple and nuts and oranges all provided by Baldwin. He was proud of his ranch. My dad—dad’s pride, that’s another thing about him. We believe in working hard; I have a hard work ethic and being proud. Like with little things. Like when people come to visit you, you don’t sit in the house and let them walk in. You get up and greet them. When they leave you walk them to the door. You actually wave until they’re gone down the street. You don’t turn your ekolu around and walk back in while they’re backing out. So, I still do that today because of my father telling us that. We were the first to have a television that had a reception. The whole community came every evening at 5:00 and sat in my living room and looked at the beginning logo for an hour.

KK: The warm up time.

MM: The warm up time, snow little bit of snow. Then when it came on everybody was there. We would go to sleep because was school the next day but everybody came in our house to watch television. Little by little antenna’s and mechanical things, other people started getting it but we were the very first to have television.

KK: Can you remember what station you watched? There’s still only three local stations basically.

MM: Four sticks in my mind, I don’t know if there was such a station as four. But we were young and it was so exciting when you opened the gate and come in the house, it’s still standing there by the way.

KK: Wow.

MM: Yeah.

KK: The property’s been sold though?

MM: No. No, there’s Amy Endo lives there. She works on the ranch, I think she does yard cleaning or whatever.

KK: The ranch people own all of those houses? It’s ranch housing?

MM: It was free house for us at that time. I don’t know about today. I don’t know after Birdman came in, I don’t know what it is but in our era it was free house and ten cents a pound for beef. Had your own garden, yeah, it was free.

KK: So, what was planted in the garden?

MM: Umum... Everything and every animal.

KK: What is everything?

MM: Definitely sweet potato, rows and rows of sweet potato.

KK: Do any dry land taro?

MM: I didn’t have dry land taro. If we had bananas and papayas and taro it was the water went out from the washroom. That was greenery there, away from the garden. The garden actually had the things that mother wanted for stew, for trip stew on Wednesday, the carrots, the potatoes. And the lettuce and the cabbage and the green onions galore; and flowers and herbs and cactus.

KK: What kind of flowers?

MM: Oh my mother liked ekoloin’oi, the marigold.

KK: What kind of flowers to make lei? Can you recall akulakai?

MM: Akulakai—you got it! Definitely she made, oh gingers are along side the house. Gingers, gingers, gingers... Avocado trees, loquat trees, etc.
The song says Ka'ulana mai nei o Ulupalaku he iniki niki uahi. Ka home a'o paniolo.

MM- The ginger.

KK- So, was the ginger along the roadside or in everybody's...

MM- A'ole. Remember we're a little cooler and dry up there. So, it wasn't like Hana where it's along the cliffs and everything. No, it was pasture land. It was pasture, pasture, pasture with trees. Eucalyptus trees and, but in our yards we all had avocado trees, bananas, papayas, ipo'ipos, edibles. So, the home that I live in now, Kulamalu, which is Downings, we bought a lot there.

KK- You folks moved from Kulamalu?

MM- From Pukalani, we're still in Pukalani. Aie, we moved from that house.

KK- You did.

MM- We did, we're in Kulamalu below Kanehama Schools on the old de sco. So my yard, in fact today we put our signs out, just like at the zoo so we can that we have indigenous Hawaiian plants growing in there. And sweet potatoes, everything we have there should store close, I want to be able to live off of some of my 10,000 square foot land- very small, but I still have edibles-mamani and we use that for tea that we drink. And so, to me its part of my roots is growing what you're going to eat. Not bungeejump's or things that I have to cut and trim but you can't eat. But I have my ferns for hakulikeli, you know lei po'o. It's a new yard, a year old or two- a year and half old so I have to wait to see what blooms so I can use things for my lei lei.

KK- Outside of the story you shared can you remember any Makena stories that kupuna might have shared with you?

MM- Makena- Mrs. Chang, Chang was one of my teachers, that name's coming back to me. Mrs. Chang, if she's still alive she moved to Kalakalua. She was my third grade teacher. She was Chang-Chang's Beach, I mean Chang area. That was Mrs. Chang, I still remember her. We didn't have the kupuna program. Anything we learned about, like we have today which is wonderful, what we learned was from our parents. I don't even recall, I don't know the Hawaiian's then were more quiet. I don't even recall my uncle Willie Kal'okamanle or any of these kula when was their stories and I'm certain they tell their children, their cousins, their personal stories. My grandma, she is pure Hawaiian (my father's mother) and she'd make her own luau. She had her own 'imua, her own. My father would come home from school once a month and smell her wonderful food in there from her own rocks, her own imu- hard working lady. And I remember that Makena- I don't have Ulupalakua in more my background. Makena was another world for us, driving the skinny cows trying to pitch out little greens on the dirt and eating kia'we beans.

KK- Did you eat kia'we beans?

MM- Oh, no but the cows did, yeah.

KK- The Makena family that I interviewed did share that periodically they did.

MM- Yeah I like hearing what they share about Makena.

KK- Uncle Eddie Chang said that they used to eat the kia'we beans when it was really lacking for food, hard times.

MM- Our's remember was Upcountry, more panui's and guava's and avocados and things like that.

KK- So did guavas do well in Ulupalakua?

MM- Pretty much. In Kemolo, pretty much. I remember driving out during the season the yellow ones and the red and the red guava's up by the Purdy house, pretty much.

KK- Can you recover weather conditions?

MM- Oh, I thought it was perfect. It was chilly at night, dark chilly, no street lights.

KK- All year round?

MM- I thought it was all year round except if there was a storm hitting all of the islands- we'd get major storms because we were all surrounded by Eucalyptus, huge Eucalyptus trees. So, those trees would fall and break, father always trimmed it so it wouldn't break our roof. But, the storms were mean because the wind would come down from Haleakala or whatever it was hitting us from the Big Island. We had earthquakes. We would sit on grandma's porch and we would look at them bombing Kahoolawe and as little kids didn't know the impact of it, and after for every bright yellow bomb. "Wow, look at that! Oh, there's another! Wow, look at that one!" So very innocent and our dishes would rattle every time it bombed and we could see from Ulupalakua down the bombing of Kahoolawe. My father was a hunter, he would go on the little planes to Kahoolawe and hunt and shoot too much, he had to leave some back because the plane couldn't take off, it was too heavy. He was a good hunter that was the only time he would be wasteful. He would smoke the meat, he would salt the meat, nothing was put to waste.

KK- If there's something you really want to say in this interview that we could share with the public?

MM- I guess I would like to say, and my friends would agree with me when I come to the reunions, you know the Hapakakula girls and the Purdy boys and Harada's and- I guess I would say it was the most wonderful childhood anybody could ever have because we lived a healthy life and we lived a life of togetherness. And I always thought Ulupalakua would remain that way, and to a degree it probably is still, but when I drive back there I have sadness because of change and that happens throughout the whole world. But, houses and pine houses and I just love the area that I lived there and I'm so glad I lived there at that time. My father has an even better era, more old fashion days at his time. But his dad is a Kalukamanle, his dad would hang out at Kula, at Copp Road with the China town. And he would come home on his horse every night, tie himself to the saddle, because he was so drunk, and along the road on that rock road all the way to Ulupalakua house where my grandma lived and him and my dad grew up, he had certain rocks and he knew that whiskey bottles were buried under and he would go and get a swig. So one night as a result of those bad habits the horse went wild one night, late, and went down to Kamalo side, that rocky, down, down, down. Going, going, going, and he never returned home all night, all day and my grandma was a horse woman as well and so she rounded up the cowboys from the Ulupalakua Ranch to go hunting for grandpa. And so they did and they would go unsuccessfull all day, they kept going, he never returned, finally she saw an owl circling in the middle of day, hovering like looking for prey in the middle of the day. And she told the cowboys she said (and my father who was a young man at the time) "He's over there, you know that owl? Papa's over there." So they rode over there and sure enough he was pinned under the horse. So the horse was shot, of course, it broke its legs and so she looked at my dad and all the young cowboys, thinking they were so cool, and she told my dad, "Don't you ever, as a reminder, ever, ever shoot the owl. That's our auruman." And so the owl is special.

KK- Maile I really appreciate this.

MM- You're welcome.

Ua Pau.
Agreement to Participate

I understand that Kimokeo Kapahulehua and Keli'i Tau'a's independent investigators contracted by Dowling Company Incorporated will be conducting oral history interviews with individuals (kapuna/mahua) knowledgeable about Makena, Maui. The oral history interviews are being conducted in order to collect information on possible prehistoric and or historical cultural resources associated with this school, its history as well as its traditional cultural practices.

I understand I will be provided the opportunity to review my interview to ensure that it accurately depicts what I meant to say about any of these lands. I also understand that if I don't return the revised transcripts after two weeks from the date of receipt, my signature below will indicate my release of information for the CISA report. I also understand that I will still have the opportunity to make revisions during the report review process.

Please check the bottom:

☑️ I am willing to participate

☐️ I am willing to participate under certain conditions.

Consultant:
Date: 5/24/2007
Name: Angus Peters

Investigator:
Date: 5/24/2007
Name: Keli'i Tau'a

MAHALO NUI LOA.

Interview: Angus Peters

May 24, 2007

By Keli'i Tau'a/ Kimokeo Kapahulehua
KT- Keli'i Tau'a
KK- Kimokeo Kapahulehua
AP- Consultant

AP- You know, I love my Makena, only talk I cry about it. I love my Makena. But, you know, like I pray to God real hard, real heavy I tell I like stay Makena, I like stay Makena. But somebody gave me the answer one day and they said, "God answered your prayer." He said, "He took you from the ocean and he put you in the mountain now so your prayer was answered." I tell, "Oh thank you."

KT- You know, I alona everybody who sees that vision. Up here is so beautiful, the weather is so clean.

AP- Nice, not crowded, you know and we we get all different kind families up here and I think I'm proud of lot of our Hawaiian people up here. They try their best to go to their means, whatever they can and I'm really happy for all of them, you know. This one I try go kookus, this family over here I take kau kau once a while and I explained to them I said, "We all come from poor family, yeah. I remember days when I was small boy my mama them they make house, they go the other place get one old house hano the lumber, make the real straight and use the same nail and put back inside." I said, "I always thought that nothing in this world is impossible. Main thing you have two hands, you can move, you can do and pride, that's all you have to have and you can do anything that you want to do, you know." And my mama always told us, "Hana kalima, go and anybody you see, mai, real, come. You never know who that can be. That could have been Pfe, that could have been one God. But you always have to be nice to people, always, always." I think from my mama's talking and sharing with me for daily life I think I have learned a lot I can share if I have to share with anybody and the values. The values was very simple small, not too much but a lot of heart.

KT- So you're speaking like a very wise kupuna. So the question is, how old are you?

AP- Sixty-five.

KT- You my kupuna, you just couple of months ahead of me so you're my kupuna.

AP: But excuse me for crying, I’m very cry baby.
KT: No, I feel the same way. I drive down here I said, “These are those living on this island don’t know what they really have if they don’t really look at this.”
AP: Yes, we got plenty, plenty you know and there’s a lot of things that we have to look into here. You know I used to be on the Association and when we were on the Association I remember times when we had to go talk to the water board. I talked once a month and my talk was upcountry every year summer time you hear the same story, no more water. Yeah, no more water. So the 27 years I heard that story, no more water, I said the good thing about it is nobody died of thirst. Nobody died of thirst, yeah. And Johnathan Stark, he told me, “Mr. Peter’s we’re not talking about people dying of thirst or water shortage.” I said, “Well I’m here to get somebody’s attention.” And I said, “Mr. Stark, I think I get yours. So what’s the problem? Why can’t our Hawaiian people move on? I hear about the water, that’s why I mentioned about water.” Yell at that guy Craddock he was the water director, “Why can’t these people move on?” And then from there they said, “The water is okay, the water is okay.” But my other issue now, Hawaiians up here, I was the first one to put a hole like that. And the reason why is that they told us we have only one year to move on the land. And at that time we didn’t have money so for save my land I build that, I built that. Then when I get my money, my loan whatever I built this. And this came from so much, you know Keli’i always go back to my Makena, people come like County Fair help me build this house. I built this whole house bring home all my family. I get family downstairs I get family over here. I get almost 8,000 square feet. We built this house for $190,000.
KT: Wow.
AP: And that’s all my thing go back to Makena. People who I shared with they came up and gave us helping hand. And anything they called us anything you need we coming, we coming and they came. And all I had to do was coordinate with one contractor but the labor and everything almost came into zero.
KT: So who are we talking about from Makena?
AP: Makena, well people who came in the past. Boy Scouts, you know family came.
KT: All the ones that enjoyed the island that you...
AP: Yeah, and that’s the kind of people that came and give me a helping hand, you know, and till today we still get that reward, still get. You know when I go doctor one young girl come, one and see my name on the board, she say, “Uncle Eugene, you don’t know their faces she said, “Uncle Angus we remember going to your house and camping when we were small and we miss that place too.” I said, “Thank you folks, you folks all changed, I don’t know but thank you for giving me that honor of celebration of thank you.” And I really, I really, till today my wife and I lot of place we go people always say, “Eh, how’s our...” We don’t know but we say hi and then I get one thing I like to show you, I bring it.
AP: That was given to me and Bishop Museum wanted ‘em, some other places wanted ‘em so this person gave me this and said to me that she had replanted it and said, “I want you to be the keeper of this light.” So now I feel like I’m the keeper of the light so every time I look at my luminaria lamp I always say, “This little light of mine, I’m going to let it shine.” And the shining is from here the mountains all down there we shine, you know. And I share this in that manner, you know. I ask my family, my boys, when I die if anyone interested in taking care this light when I pass away they’re welcome to have it but if they don’t want they don’t want that responsibility then take to Keawaula Church or take to Bishop Museum. So far I didn’t get one answer but I just wanted to show you this. This is part of our history, whatever we can share. I don’t really know plenty about it but I know the person told me was hundred something years old.
KT: Who gave it to you?
AP: I don’t even know her name, one haole lady, she just came and she passed away already. And honestly, one I kinda lolo with the names, you know lolo with the names. This I just brought this, this thing came from the mainland and this person called me they own all the Peter Built trucks and trains. My mama and I will my mama did, not me, my mama and I sent this send me his pictures that we had blessed this place in Makena. This is my mama, she’s going bless the place and this is the family that we had blessed the place for. This people, they’re part owners of the Peter Built trucks and trains and everything. And when we blessed the place, the story about this is my mama is the one who blessed it. This is so much of our Hawaiian people with ti leaves and they came up with a bunch of ti leaves and my mama she respect our culture but my mama no believe in ti leaves. My mama maybe was wise or smart asked answer to them, “Ti leaves are for us to make Lauau and show the fly off the table.” And she said, “You folks go make le‘i.” That’s why you see the le‘i inside the land. They went go get all the plumers, these haole le‘i sew their own everything and my mama went way on top the hill had four houses now, so we’re on the hill and she said the le‘i, the flower, the circle togetherness the flower the fragrance the love the aloha the care’s where all that comes in yeah. So she said, “I going bless.” But then they said, “Oh you going bless all the homes once time.” She said, “No since this is a family got to the highest point and I stand. I bless the lei then you folks all put on you folks own house.” And they said, “Oh you not going make individual?” She said, “No, everybody united as one. If you make individual somebody (I don’t know if she was joking or what) she says, “Some day you folks might say, oh she went bless your house first you know, or she went bless my house second’ so we all together as one so nobody can bully, bully, bully.” Everybody’s one and that was the reason, you know and so till today when my mom had blessed this place and everything and I had told those people that we were looking straight to Kahoolawe and I said, “You folks always can remember my mama when you inside the house cleaning you come in front your house you look the ocean, you look the island.” She said “to work there, she was a maid and that’s how I got my name, Angus, she used to work for the haole Angus McPhee he was the last one to utilize that island, you know. So I was named after him and I go visit his grave stay down Ulupalaikaua. I go down visit him and maybe you can help me with this because I’m trying to find I have nobody to follow up with, Daisy Kalaupa, she used to be with Kaulima Pono Church. And we was better, I knew her as Tani Daisy, Aunty Daisy, Grandma Daisy, you know and she always play with us. I used to stay with her inside Huelo and I go pick up guava, I was ten years old stay with her and she come and then you know, there’s a lot of times we had to go into church contact Hawaiian talking, you know, things like that she used to teach me. But the teaching was, with the teaching went le‘i. Licking, you know, I mean...
KT: Licking for what?
AP: Yeah for you to pull in your pokala and you had to concentrate so licking. And I had the homecoming in Makena Church somebody wanted me to go and talk and my subject was licking. And licking, it sounds you know, we didn’t eat all our food we had licks; if we didn’t answer yes or what was licking, we gotta say yes you know; and clean the yard, you no do your chores, licks; you don’t go to church you get licks. So I said, all the licks I had from my mom and dad, yeah, and I thought that was punishment for all that years and I sat down and I think about it, that was the—that’s where they could teach us responsibilities and love care

Makena CIA prepared by Hana Pono, LLC
for one another—lickings. That’s why licks are a beautiful word. (Laughter) And the people, you know, they kinda look at me especially the haole they kinda know they don’t know why but that’s our lifestyle and I always tell our people (our Hawaiians) I said, “Our mouth lot of times is all mouth like they said. And the reason why I say that sometimes we got hakauku with our children, yeah our own children. And we tell our children after we get mad with them, ‘you get the bell out of here and don’t come back.’” Yeah and this is where the mouth going. Couple of days later, noon, dad or someone going call, “Where you stay? You folks get kau kau? Better come home.” That’s how it happens right? And so I said a lot of our Hawaiians they get big heart but when they get mad, they get mad but they forgive quick but the love is always there. But the new generation, I think maybe our generation has changed a whole lot, has changed a whole lot. We’ve been losing lot of love and care for one another, we’ve been losing because the reason why I say that again through my mama the activities and you know you came from that life, they come weekends we come go holoholo go down the beach everybody come; Undes, Auntsies, cousins, mamsa, daddies whatever and end up maybe sometime they get into one argument. Argue, argue, argue all the fancy names in the world they use you know, calling, calling. The next morning they wake up maybe was one last night and they say, “Oh rita, what we going make for breakfast?” Yeah, they forget all about it. But our generation you go make hakauku with each other, you we no talk to each other pass. Very seldom come back cousins and family like that, very seldom. I think our parents, I think was good. They knew how to turn the energy; they never keep ‘em in there they never build up ulcers or whatever. They blast it out and then they come back again start all over.

KT: Have you heard the Hawaiian saying, “A’oho pua ka ‘ike i balau ho’okahi”? That saying means all learning does not come from one school or one source so several ideas you’ve already presented has that principle in there even when you just said, that’s principle, right. So, from what you said and from what I do as a teacher of Hawaiian culture and so forth I see the time period moves on different philosophies come. But the old ones can be nurtured if they look at what it was so it still can be utilized. So, this is why I love what I am able to do, come talk story with the families with the kupuna on the philosophy because later on the keiki’s going to look at “Oh my gosh that’s what our kupuna was telling us!” And even my own son right now he said, “Oh dad you told me that before but I never listen.” You know, it’s going to come back, you know, but you gotta keep on it, keep on it and eventually it’s going to the light goin’ down and they realize.

AP: Well, just like this people here. They came and the first time I met them they were tourists, they came Makana. So they asked me, can I make them a Hawaiian luau? I said, “Yeah sure, come, come.” I said, “How many people?” “About twenty.” I said, “Sure, come, I make whatever you guys tell me the date the luau will be there.” Call okay, make the luau and that was a real (I think) like a backyard BBQ we call it. And this boy, haole, came we make kau kau, kalua pig whatever, wherever and then my boys go over there sing. My sister come from the other end with her, not her mumuu just her working kind clothes give a little hula out there going dancing, dancing. And they enjoyed it, you know. They enjoyed it and after they finished everything they was going home and the guy came. He told me, “How much do I owe you for this luau or this party, this Hawaiian party?” I said, “Hawaiians don’t have a bill, we don’t make no bills here. We make it with all our heart and that’s it, that’s all I can tell you.” And this man gave me three thousand dollars. He said, “Well, this is my appreciation.” I said, “Okay but if you ask me for a bill, no there’s no bill.” Then they came, they built their house everywhere then they made it at their home and they wanted another luau. So, make everything go, go, go and then I said, “Hawaiian luau’s everybody participate.” And these people they get made and everything in the house I said, “Even those people in the back there they all have to come out here and we all enjoy together.” And that’s why they not supposed to mingle with the guests. Yeah. I said, “No, Hawaiian luau, everybody joins in, in celebrating.” You know and I would go around and say, “How’s the food? You folks want any more water or tea or whatever.” And these haole people they tell me, “Yeah I’ll have a cup of coffee.” I tell, “Okay.” I pour the coffee for them. “Cream and sugar?” “Oh, yes please.” “You go over there you get your own.” I walk away. Hawaiian luau, I was exactly like that. “Coffee, cream and sugar, you go over there you get your own.” You know, and they go get it was all plain whatever you call it and they enjoyed it and these people they never forget that. Because like I said, Hawaiian luau everybody come participate everybody mingle with each other, share with each other. Not somebody behind hiding only us, even the ones who stay behind come with the apon, you know whatever yeah. So that was a good experience for all of us.

KT: How old was mom here?

AP: Who? Was she die?

KT: Right here.

AP: Oh, she must have been about pretty close to eighty because she died eighty-nine and she was just about...

KT: She died in 1969 or eighty-nine years old.

AP: She died eight-nine, yeah.

KT: So the family is known to live a long life because I went to Oahu to interview Uncle Sammy.

AP: Danny Chang?

KT: Ninety-six, ninety-seven.

AP: Oh, I love him.

KT: So, long life you folks. Must be the Chinese blood.

AP: Well, the Chang family their name Tutu Hal Hai he lived almost a hundred, they had long life, they had long life.

KT: So, have couple of questions. I have a digital camera, can I take a picture of this and a picture of this.

AP: Sure.

KT: Then I want to use it in my report.

AP: Sure, sure.

KT: Okay now that you’ve cleared that talk to me about Makana, some of the places that you growing up that was significant culturally. You know, because if these kinds of things are not reported, hopefully they respect—hopefylly they look at it that that’s a cultural significant place. We need to do everything to make sure we don’t just run the bull dozers. So, what are some of the areas?

AP: For me, as far as the grounds, I came in the area when we weren’t too heavy on hula’s and things like that. I think the heiiau’s came in more strongly maybe in the 70’s the 60’s you know all bunel sites and stuff like that. Prior to that, a lot of our people or a lot of Hawaiians you know, they never talk too much about this particular area. Yeah and I think the simple reason like the people in Ulapalaka they families had land but they wouldn’t talk, the ranches be there cattle ran wild they mima mina the job. But today the younger generations they would probably tell Pardue Ermann or those days the Baldwins’ or McKee’s or whoever they would tell them, “Eth get your cow out of my property.” Yeah? But before a lot of the people, the Kuau’s


all them they work on the ranch, they no go say nothing even if the rancho run over their land and maybe the ranch claim their land. And that's the kind thing I can think of because of land. As far as heiau's and things like that in Makalua I wasn't too aware of it because we never really only Makana Church, that's all, only Makana Church.

KT- Keawalai's Church.
AP- Keawalai's Church, yeah. And I come up here and I think we start catch my attention because more heiau's, more places like that. We got thirty-five heiau's. In here got the Kamalii heiau, get the baby heiau one, they call the baby heiau. I don't know nothing about heiau's but after coming to Kula you know, Kamalii taught my mind because Hinao Kamalii teach at Baldwin and now I think it's four hundred something years whatever I think I wonder if this is all olana. The baby that cries night-time I had that experience.

KT- Where's that one?
AP- That one is down here, around here somewhere. But anyway, this one particular night we just went pass clear the land, not this one we was cleaning plenty people's land. This boy he make already, RJ, and he tell me, "Papa, you hear the baby crying?" And cry away. I tell, "Oh yeah." He tell me, "What we going do?" I tell, "Have no fear, But a joy." You know the way I look at that it's a joy. But I said "Maybe it's not one Billy goat, maybe it could be one pussy cat. But if it's a baby we have an hooven, you know we heard the baby too." I told him and I said, "My mama if I want ask mama, 'Oh mama I hear the baby crying.' Oh maybe the baby was hungry, maybe the baby went make shi shi or maybe the baby just was happy we was here."

You know that's her explanation would have been, nothing negative everything positive, So, I had one whole bunch of guys came up here, you know construction workers like that and they come see me and talk story. This one guy he came and see me, he talk about heiau's, yeah. And I told him, "I tell you folks this I believe in God Almighty. I respect our culture, yeah and we have to take care. The only thing I can not stand is when you find one heiau nobody can go around, yeah, they lie even condemn the land. To me they should let the people go on 'em but because nobody heiau. Take care, plan clean, find out the history maybe they can share maybe they can keep the heiau. Because you know this kind of people they were spread, or these heiau's were spread all over. The one's that really didn't want to be bothered is the one's who was buried all together, they choose, yeah. So, just malama take care you know, I said, "Every day in this daily life sometimes they use the heiau for cure the other person which is not the heiau doing that, it's man themselves doing that." I said, "the heiau when we were small simple illustration..." I explained to all them guys, "Our mama and our daddy we get all our friends come over that's my time to go, let's go. And we go in the bedroom go play, mom and dad no like us go in the bedroom. They said, "no go in you get all go outside go play. You know, and that's the fear was taught to us." You tell your friends "Go boogerman, no go in there." So everybody carry on, carry on, carry on. That's what I taught. But I said, "This heiau now." They said, "Maybe you, he go with the machine he plow and the heiau stay down there and something he come off he broke his leg." So I tell those guys, "You know how come your leg broke?" They say, "What?" I say, "You had one accident braddah. Not from the heiau, you had one accident." But I say, "You take care that's the biggest thing, take care, malama make nice, that's the most important thing and be proud. Because if you have one, man I would get all our school children come down here say, 'Yeah this is so and so that's where the Hawaiian used to confuse the fishing heiau' whatever (you would know more knowledge about that). Get it bring it out so we can learn, not only my heiau, cover up let the weeds grow back again." And that's why in this Hawaiian Home I was trying to push, well I never really push, I was just telling people that all this something they said get thirty-two heiau's over here. Get all this heiau's we pop 'em up do teaching them. Kamalii School's right down the road can bring, King Kekaulike can bring the two of us or whatever. Not tourist bus but the kind bus, teach, teach, teach and that going be more valuable, yeah more valuable. And I said, "And then what they can do is we get six-thousand acres right here, make one graveyard for all the Hawaiians. Nobody moving houses, cut some land. I like be buried up here, it's beautiful." And I said, "The same people who take care can go malama the heiau's too. Let the State go ahead, pay." I said, "And what did whoever you presented to say?
AP- They said that's a good idea.
KT- Yeah, that's a great idea.
AP- And then I finish up my, the people the workers I talk to them I said, "You know, us guys a lot of things in our mind was taught yeah. Conscience be your guide all this kind of stuff. But you know you monkey, soon one heiau, who's! And had plenty single boys or some married men I said, "Your father go inside the Korean bar play with the ta ta go home no think nothing, thank you was doing good. That is for real, that you going get kickings that you going lose your home. But no, nothings wrong with that to you folks. But the heiau, who's you guys like point your finger for everything, yeah. For all the blame you like that." Then they all look at me, the all kinda say, I mean everybody have that kind of conscience thinking that kind of stuff but nobody's perfect.

KT- So let me direct you to some thing, see, you were right next to the ocean; what were some of your fishing activities that had to do with ocean that you can recall?
AP- That I can recall but most of all what my mom had told me about fishing, fishing in Makana from Makana to Kiholo and I heard, not because I heard this I heard this way before this other people. Had some kind of Hana Fest I was listening to the people and look like all our island was in the same manner. What I said from Kiholo to Makana to Laparulo, yeah everybody had their own fishing area. Yeah. The Kukuihio's fish from Makana Landing. Then maybe Makana Landing back up you get the Aikau they take all over there. And my mom used to tell us get one big, big school everybody join together come. But everyday living they never jump in the other people's stuff.
KT- That's the idea kokua; do you know, have you ever, did any of your chents take you to the kokua?
AP- What is the kokua?
KT- Kokua is they build a rock identity that pointed to the different kind of fish that they...
AP- Oh, no.
KT- What about right in front where you were hosting all of the ohana? You folks never used to go lay nets and stuff?
AP- Oh we go mai o, we go mai o, net, had Ulua fishing over there. Had plenty and I even took my own little grandchildren, we hook and I teach them the basic about it. My grandson hook one fish, he hook two fish, then he hook three fish. That's the first time he was about maybe five, six years old and I say, "Now you take home this fish." And I said, "Three is enough for all of us." That's the kind of thing, but three is enough for us go kau kau yeah. And the thing is my mom when you talk about fishing the thing that come to my mind is that my son, all them they used to go fish and any fish they catch grandma would eat. You know grandma would eat opakal fish anything. Grandma said, "What you bring home we gotta eat. You have to eat or not no catch only going pobo." And had incidents where somes of my uncles, this come

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into my memory now, we had kalua pig and in front my mama’s house, not my house, in front my mama’s house got one shark hole over there; I don’t know maybe some of the older people would there, I remember my mother saying my uncle throw all the bones from the pig. I guess they went shred the kalua pig and he said, “I going throw this for the shark.” My mama saw that, that’s what I can remember my mama said, “Don’t do that. You think they like eat bones? They like eat meat so you going do that they going get bent up.” That’s the way my mama talk so my mama, but in front there supposed to have one shark and there were things that had happened to me when I built my mama’s house up on Makana’s Landing. I was looking for water, the kind brackish water whatever, right in front my mama’s house my mama tell, “Before used to have one place over here long time ago we used, lady there used to go get water.” I went over there with the a’o dig and play, play, play I hit water! I hit water! I knew where that place stay and I tell, “Mama I found the water.” She said, “Oh, good, good, good.” So I say, next morning I go hunting with her. Next morning I woke up I don’t know if was high tide or whatever but was all covered. Was all covered, you know all the pohaku whatever and the hole was pretty right on the ocean was all covered flat just like nobody went there. So when my mama saw that my mama said, “No go. They don’t want us use that water so they went cover ‘em all up.” I mean that’s what she told me. How true, I don’t know I believe her so I follow up.

KT: So, it’s pretty close to where Ashana built that sister’s water, yeah? When you go to that old Ulupaulana Road going just about coming down where they built their store if you’re going muka on the right hand side and on the left hand side still get that cement.

AP: Oh, down inside the water, get one millionaire house.

KT: No, the road going muka before you come and then you gonna turn left and you talking about building the house where Boogie them used to go up and stuff. So going back on the road coming down would be on the right hand side because I went I took a picture still get that existing...

AP: Still

KT: Fresh water, brackish water.

AP: I hope I think the right place, but I know when you come down from Ulupaulana that road come right down...

KT: Right.

AP: You come right down and you go right to the ocean, get one right on the ocean.

KT: Well, if you took a left then you going in on the landing where...

AP: If you took a left you going be on the landing you go on the right and little bit down.

KT: Okay, on the right.

AP: And then there was more way over there’s where the Kukahiko graves all the graves over there. And then right on this side one place get the water and that’s where everybody get the water. And then right in the front of that, that’s where they catch the mauo. And then every time they had to go make the house, yeah, the mauo house you make rock and the fish swim around. Right there was a spot for the mauo, that I remember. And now I remember that water place over there. From Kihei to Makana get plenty water. Even my Makana house where I stayed by Poholena, I call ‘em Chang’s Beach it’s Poholena Beach or Paiku the land is Paiku the gathering of squash or something like that. That’s what my mama tell me. But over there get all water but when I first build my house the County said, “We not giving you water.” I said, “Well, I get my own water.” I go dig, you know how my house was I dig right there I bit the water. I pipi all my meakana with that, we cook with that. Drinking was little hard because brackish but so’au was all right, everything was all right.

KT: So, your mom and dad had how many children?

AP: Six.

KT: And where are you on the...

AP: I’m the baby.

KT: The others still living?

AP: Two, they living Honolulu. Two brothers, my sister was the oldest, she pass away, Mabel Meliapa beautiful hula dancer she used to dance with Lena Machado and not because she’s my sister but she was a very beautiful dancer. I went scater her ashes in Makana. I like this and she had six children and my sister never did take care of her children and I’m not trying to condemn my sister but when my sister pass away she had cancer. I took care of her when she pass away my other brother George helped. But her kids still till today all come up to me and they talk story with me, whatever. The day we went to go scater her ashes around I asked her boys, they were all with me on the boat I said, “Can you folks answer me something and if you folks don’t mind you folks don’t want to answer me, just answer to your folk’s mama she going hear.” And the question was, “Do you folks love your folk’s mama?” They didn’t say and I said, “You guys think about it and I’ll give you guys all the story and the answers to what happened to your folks mama.” I said, “Mama and grandma, mama was kinda feisty was kinda hard head and my sister she was at times she used to go tell me I was the baby and I instant paki everything but I don’t do nothing to her because she’s my sister.” But anyway, I told them, “Every time when grandma and your mama fight grandma is taught to blame because grandma would tell your mama ‘you get the hell out of here and you leave all these kids home’ so grandma raise you folks up but partially is blame to grandma. Grandma did good but she made some problems for you guys because mommy never have the opportunity to raise you folks but I know you love folks, I know I love you folks.” All they told me, “We love our mom.” And I was the proudest person. And the beautiful thing about it, I had a small little boat. Kahokalikau was with me on the boat we went out, about six of us on one sixteen-footer the thing was ready for half sink and everything so we told my sister we ready for open the um go scater her ashes hard time open. So one of my nephew’s go get screwdriver I said, “No don’t do it.” I said, “The reason why this no can open is because you folks make in hard head and she don’t want to, the like take everything with her. She’s a hard head person so just throw inside.” And so I go throw all the lei I go surf right around her throw all the lei and I back up, I back up and the water coming inside but the boat backing up. My nephew’s looking at me, “Uncle, you not going turn?” I said, “When I ready for turn, I turn.” I keep on and the water keep coming in. keep coming in then after was kinda far I went back up then finally I turn I pull the plug the water go out. So they asked me that question, “Why did you back up like that?” I said, “You folk’s make first all to me beautiful hula dancer and I think to my opinion of my sister I think she was one of the best and every time when she dance the hula when she go off the stage she never face her okole to the people. So we do the same thing for her, we don’t show her our okole. We back up all the way and then we turn around and we ride off.” They say, “Oh, okay okay, we was wondering why you keep...” I said, “That’s how your sister was and that was the reason, that was the reason for that.” I went to a point that was so far out that my house in the middle, my mama’s house on the left, my brother George on the right so we always can see her. No matter how far we always going see her, you know and that’s what we did for her.

KT: So your other siblings, are they buried there too?
My brother George is in the house; my mom is buried there; my dad is buried in Wallula. And the story to that is I ask my grandma, I ask my mom, “How come dad is buried in Wallula because he’s a member of the Keawaii Church?” Every time when get church you know, everybody bring when get one gathering they going have whatever one giving give the pig, one go give... My father always went humble and he was one Pedago and he always would humble, so my mom said, “No.” She buried him up there. So that’s why he’s buried Wallula but when my mom went pass away if you look my mama’s grave, beautiful lush, beautiful.

KT: At Keawaa?

AP: You go down there some day you go look, look like one house I make all the polka square perfect, nice. Then you get her marker for the grave but get my daddy’s name, get my mama’s name and get all. Even my name is on that marker now, all our names, all the brother’s and sisters all on there. And the people say why I do that and I say genealogy; in the future one whole family all right there. And there were two Angus, actually I was named after Angus, the name came from McFie. The first Angus he drowned in Paia. I don’t know if you know Doris Todd School?

KT: Yeah.

AP:Okay that used to be Hawaiian camp in that area. My dad was working plantation my mama them lived there. Before diamonds worked, twelve-eleven years old they go work. So my brother Angus he was twelve at that age he had to go feed pigs up by this beach they call Speelee Beach. He was older than me, this what my mama said, he fell in the water and there’s the kind room. Then from there, from Paia the find him Puunene, they find him there, he drowned. That’s why my mama would never want me to go swim in that ditch because of that simple reason my brother. I remember by Paia School there’s a beach and there’s a pump station I used to go swim inside that beach all the time. I beat my mama them. I close my eye, I dive and you know all naked. All the girls coming in paia school everybody haul the clothes; oh swim we stay all naked and some time the cane field man come chase us but we all stay naked and I almost drowned over there. And then one night I went go swim one day and I thought I could go swim by the big lake I went jump in the big lake I almost drowned. I almost drowned this guy make already Phillip was his name he saved me from drowning. I was fine everything I went home and then those days we get dining room and beach and the table. I was the smallest, I was the mauni. This guy, he’s living yet, his name is Earnest Kokeama his mauna’s name was Milen Mili, aionly Milen but we not related. But she go home tell the mauna, “Angus almost drowned today!” You know, okay, okay was fine and born bye the mama call my mama. And those day the telephone no more number just ring, you get signal yeah. Ours was one long two short. Dah ring ding ding. My mama grab the phone, “Hello, okay, okay.” My mama told me “Come here, go inside the room.” Dirty lingering! The lingering was so hard I tell you truth I wish I went drown. Tell you the truth after that always my mama always watch us, no she no like us swim in the ditch. But that was the kind of stuff but every time I see Earnest Kokeama I think you big mouth. (laughter) We all good friends, yeah. But you know, as you come back again, like I said the only fishing in my time when we had kalua my time in Makena Bay when I was really small we come and the fish abundant, plenty!

KT: So, when you say Makena Bay?

AP: Makena Landing, I’m sorry, where Lululi’s live. And we would come and they would surround here and make the last because that wasn’t all net, yeah, was one bag. I remember I was small but they get the rope with all the leaf and they hush, hush, hush and they come maybe they come from Makena Church come back this way they bring ’em in like this and come right into where that Ulupalakua used to let their. Ohh, all kind fish inside there, beautiful, plenty fish. That’s why when I came home in 1970 one of my nephews call me and say, “Uncle Grandpa need one house. Grandpa’s house was old, she had the last from how you say Hawaiian, Kahu Hale the Kahu’s house.” That was in Makena was old already, my mama bought it for twenty-five dollars. And we carry the house up to where Boogie them place yeah and we carry the house and the guy who took it there was George Alina (he pass away) his son, he had one son named Fork Chop, he pass away he was big three hundred dollars. But as we were going up the hill, the flat bed the front of the truck started to lift up so George he call, “Porkey, Porkey!” That’s the boy Chop, “Jump on the hood, jump on the hood!” The truck came back down again. Just that counter weight what you call that imbalance or something. Went right up and then they put the house. So that house burn bye after came real old. So my nephew, my mama never ask me, my nephew ask me. I had beautiful house in Honolulu, I had swimming pool and everything so I told my nephew, “I’ll be home.” So I stepped by Sears, bought one chain saw, I cut the whole house down. Threw ’em right down one guilty one kakahiwa whatever I burn ’em. I burn the whole house and we built another house. Not like this but you know Hawaiian style I made that everything.

KT: Anything that you would like to share?

AP: Not that I know of, my Makena is history, you know when I used to say Makena people used to call me come to the Makena Association. I used to tell them, “What is the Makena Association for?” “For save Makena.” Then I tell the people, “How long you living Makena?” “Oh, one-two years.” I said, “Then you are a selfish person because if you like save Makena, you no live in Makena.”

KT: Can you recall if there were any agricultural stuff being planted down there? Was there sugar cane up there? Makena or only till Puunene?

AP: Only Puunene.

KT: But, you can recall Ulupalakua Ranch came all the way down so all the pipe was close to the ocean.

AP: The pipi, the houses, the cows all ran on the ocean and why I say that, I know that for a fact because they had a lot of cow catchers. And as you come from Kihel, starting from Kihel the first road as you enter from Makena is Keawalai, still get the name. Then you come further down get Kahamaui, Kalopeloe get all different kind of names as you come down and Ulupalakua Ranch had mostly all that and nobody wanted, this I know, nobody wanted to was hard to raise in Kihel, well not Kihel, Makena more to because was dry.

KT: Right.

AP: So as far as vegetation wasn’t too much besides panini, you know what I mean. KT: So why did they run the cattle down there then?

AP: The klawi beans. Klawi had plenty of klawi beans and when get dry season mountain maybe they run out of grass, hot season that’s down Kihel, Makena. That’s klawi bean season so they send da kine and sometimes when it rain, you know how Kihel rains, Makena then get plenty the dry grass is good so they eat all the dry grass.

KT: So, many of the stone structures were for the ranch to control the pipe then?

AP: All the stone walls, yeah.

KT: Quite a few of them.

AP: Quiet a few because I guess those days they didn’t have barbed wires or whatever so mostly you look Ulupalakua, Makena had all those stones, yeah. But A&B own mostly all the lands in Kihel.

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KT- So who built those stone walls?
AP- Must be the cowboys, yeah? But before our small days, our parents knew they were testing us, menuehines. We used to ask the question, “Who built that stone wall moon?” “Oh the menuehines.”
KT- But, why would the menuehines build the stone walls if it wasn’t for the modern day ranchers, Uhualakasu Ranch to control the pigs? See the point is what is the reason for stone walls outside of controlling pigs?
AP- You know like I think sometimes you think about it yeah, now the King’s Trail it goes right around the island and there’s stone walls right around the island they use that for the King’s Trail.
KT- Right.
AP- All the way Layapanu there’s lava stone walls going on.
KT- This is the kind of questions I continue to ask the people, you know, to get different ideas to entertain my idea of possibilities.
AP- And that’s the only thing I can see and besides the ranch, part of ‘em was because why I brought up the King’s Trail, when my brother George (who passed away) was fighting I guess with Sebo, all those guys had all stone walls and they were talking about the King’s Trail especially down to Lapunuu.
KT- Right.
AP- And that’s why I said maybe that tie in with the King’s Trail or tied in with the Ranch. My Uncle, I remember my Uncle Edward Chang saying that some of those stone walls was just to show people who owned the land. And maybe those days had other people owned that particular land until the ranch bought it or took it over and the stone wall was there and they utilize the wall for their cattle too. Maybe, I don’t know but he said a lot of those stone walls was boundary markers for peoples lands but the fence would do the same thing, yeah.
KT- And also, what you earlier pointed out was our kupuna was so astute in everything they did that in my opinion they didn’t need a stone wall to was to know their property because just a postah up or a tree, you know.
AP- Yeah, could use that for markers.
KT- If that was the case, so again go back to that one Hawaiian saying, you know, all knowledge is not in one school. Some places could be stone walls, other places might not. I think today in many of the young peoples thinking is that is somebody said something that’s law which in this case wasn’t true.
AP- But if you notice all that Makena, maybe all the way around Hanalei side we got stone walls. Then again when you come back out here to maybe Kihii, the far up by Suda Store after that you hardly see stone walls. Could it be that our sugar cane they went plow all those things down. And maybe like one time Louise Howell, he used to run for OHA, he used to live with me in Kihii and he was telling me that Hawaiian Home Lands they had to do investigation. Over eight hundred something acres right in Puunene, you know where the drag strip, he said that supposed to be all Hawaiian Homestead.
KT- Oh wow,
AP- So, could be this kind plantation. Oh, the simple one-what that place, Lahaina now they got that new Hawaiian Homes open.
KT- Yeah, Kahome, oh right next to the...

AP- Right next to the gym. In fact right next to there they build that subdivision they found out that they don’t own the land. That’s why the Hawaiian Homes took it back and now this people are living there that was originally for all the employees from the hotel.
KT- Right.
AP- So I don’t know there’s a lot of things, you know, we gotta watch. I don’t know how we going to do it and people are doing it already, they’re watching it now. I’m not saying they’re not doing nothing about it, they are doing something.
KT- Yeah. So, the area that’s influenced Makena lifestyle was the shipping coming into the landing, the cattle there and since sugar cane wasn’t all the way down there. Fishing was big, ocean activities. I don’t know if you’re familiar with Kuhana Kan Hale? Large settlements that are found, or continually we found, cultural sites in Makena; Kanaio and so forth. So, they thrived upon the sea over there without all the modern conveniences that you and I think of today. But it was mauka to makai so they could have built the villages and during dry seasons go out canoes etc. But is was and is still is existing as long as you pointed out, we can do everything in our power to prevent the bull dozers or these thieves from going into that area and literally, you know desecrating that area.
AP- You know you just brought up something. You know, Makena, again me mines one I don’t know for a fact but I used to ask my mom them, “What is that, how come they didn’t have a lot of people in Makana during the old days besides fishing?” And the answer from my mom was that didn’t have running water. Wailea, Iao Valley, the water; Hawaiians lived mostly close to the water, yeah. I mean you would know that, yeah. Makena, Kihii, not too much although Kula had plenty water and maybe they went utilize all these spring waters from Kahana Park you walk in the water, the water cold, that’s fresh water that. Maybe they know how to cap it and utilize it. Makena, I tried think there was one slaughter house that they broke down right by Makana Landing and that’s why all the sharks used to come around. They killed right there and the blood was...
KT- Right.
AP- I don’t know if you know where my pig pen was? You know when you go Makana Landing and where they used to chase all the cattle out for go on the boat; right there had one slab in the parking lot. I think the slab part of ‘em still stay. That was the slaughter house and all the blood, I mean they wash off over there. But then the stone walls, you know, for me I don’t know up here you wouldn’t believe get heiau’s and Makena must have a lot of heiau’s too. All over must be, yeah.
KT- I have a list if you’re interested that I could send you that I put together. For example, Kinikoi and I did this one.
AP- Makana School, whoa.
KT- That is not the exact picture, I had an artist from what Kupuna explained on how it was to create that.
AP- My mother went to that school and then...
KT- Your mother went to Makana School?
AP- Yeah, she went only till third grade.
KT- Yeah because eventually as this report shows...
AP- Well, one of the teachers there, at my mom told me, what my father’s sister told me, she was a Pedagoe.
KT- What was, you know the name?
AP- Well, my father is Peters Ferreira. Anyway, I don’t know if you heard of Kupunaai?

KT: Right.
AP: That was my father’s brother-in-law and he, they live in Honolulu and that family one of, I don’t know how they tie in but she was a school teacher for Makena School, one of them and she was pure Portuguese and she speak fluent Hawaiian.

KT: Wow.

AP: And then this Kupuna, we was family to the Kupuna’s Keaakula, all my father’s sisters married to these Hawaiians and they lived Waimea. But he passed away, from that I can remember he was a rancher for Sears and Robuck, John Kupuna and Keaakula. He came to Maui, and that uncle he passed away he used to work Pearl Harbor and he was trying to study Maui. Lot of things he was trying to study about Maui and I was small, those days he used to go in his jeep he live in the mountains. I went learn something from him and this stays in my mind. He said, “You know how they got the name Ulupalakaa?” I tell, “Oh, how uncle?” He said, “Well, had the people or man came from Lahaina with the uts and he went carry. And he reach up there was palu, rotten already so that’s how they got the name, Ulupalakaa.” I tell, “Oh, yeah yeah, he carry the breadfruit all the way from Lahaina to here.” I don’t know if that’s true but that’s the kind of stuff I hear from him but he used to go all over Hana all over and he used to go back Honolulu. I don’t know if his kids would have any kind of information or if they kept any kind of information. But I remember he used to come on Maui this is my father’s brother-in-law and then like us our name, Peters and my father came from Honolulu. But my father’s name is not Peters. My uncle, that uncle said his name is Pedro but you cannot say the same name so they say Peters. So when I used to go to school my name Ferreira Peters so once and a while put Peters then and sometimes I put Ferreira. So the teacher told me you use one name and use it for the rest of your life, that’s what she told me. I said okay fine, I use Peters. But my man, she use Peters and Ferreira in two ways come from the poor family when she couldn’t pay the bill at Maui Electric she put Ferreira. By the time Ferreira catch up Peters stay back. You know what I mean? And that’s how they used to do it. Then when I went to Hong Kong I had to get passport and my wife went down she gotta make my passport my last name was Angas Keaakula Peters. My name was Angas Peters Ferreira so we changed my name. We changed my name to, because I had all my papers done in Angas Keaakula Peters, and I got Keaakula from Keaakula Kaliapa she’s buried in Kaiau Puoo church she supposed to be my Tutu Daisey, my Tutu Lady. And I was trying to think maybe you can help me because I was trying to sound like how I was related and I was the apple of her eyes. I was the apple of her eyes and there was a lot of things that she wanted to give me when I moved to Honolulu. Now she’s buried up here at Makawao Union, where all those rich haole burried. She’s buried up there and she’s buried right next to one guy named Angas. When I was living in Makena or just was getting to Kihei somebody send me one lawyer send me, I don’t know what I did with that paper, saying that I have to come and claim some land in Kaanapali with the Parka family. So, I call a lawyer and I tell the lawyer to take my name off that for some claim because I only lived from Pali to Makena. I never, I’m not a Hana, I’m not a Kaahulua, you know what I mean so leave that land to those people there who lived there all their life. So, yeah that’s why I want to check on that Daisy Keaakula.

KT: I’ve heard the name before but I gotta check where.

AP: She was the Kahu for Kaiau Puoo Church, she was real strong with Dan Akaka and then she ended up…

KT: Spell the last name.

AP: I gotta go check the grave, get ‘em on the grave, Daisy.

KT: She was Kalanapau Church, yeah.

AP: Did you read that book Perpetuating the Righteousness?

KT: No, who was that from?

AP: I gotta return it, I was about all the Hawaiians about the mission, from the Bible Genesis.

KT: And this, the father was heavy with Maui Prince, Sebco Hotels. And my son who was staying Makena Landing with my mom, I built the house for her like I said and then we went down. My boys went down riding their horses in front of my house going up and down. Sam, came, he told my boys, “Get that bloody horse off the beach.” So my sons come home told, “Dad, Mr. Garcia us to get off the beach.” And I told my sons never answer back anybody so they came home. So I went down, I went down to Sam’s place and then had Auntie Margie, her wife I call her Auntie Margie. Anyway, I tell him, “Why did you chase my kids off the beach.” He said, “Because their horse making don don in the water and they pollute all the place.” Then that’s when I came like you were asking the question, I said, “Ulupalakaa Ranch has hundreds of horses, cows roaming all this from Kauaikupu all the way to Lapera, up to the mountains and our ocean was always clean, the water was always clean.” I said, “Until the Japanese came in, put the golf course, every time when big rains come I seen when the rains came went right into Makena Landing. And before we used to have something like eco limu and now if you diving in that particular area kinda silksy and then there’s one limu, I don’t know what kind limu that. Just like from that fertilizer or whatever coming from the golf course look like the eco limu went turn into this big flat limu. Same color, but the limu went deforme one different way. That’s what I think, I never seen that kind limu before in the ocean, yeah.” And I just said what’s his name, Mary Aweola was married to Tutu Choney, she used to live, my brother got her place. Right next to Maui Prince, that was her place and we used to stay with her over there. And that’s why when they went go do, what’s the word for that, deposition? Sebco was trying to kick my brother out so my brother asked me if I could go do that deposition with the lawyers from Sebco. So I did and they asked me that question that, “Was my aunty’s land bigger or smaller?” So my answer was, “When I was small it looks big. Now it’s big look the land, was small.” Right I did, that’s common sense. You know. And then the other question they asked me about her was the stone wall. “How do you remember the stone wall?” I said, “The stone walls in Makena didn’t have cement, they were placed. So every time we would climb over the stone walls the rocks would fall, our mother would give us one step we go fix the stone wall. All the days you get, you remember how to stone wall there.” So then the other question they asked, “The animals aunty had, where did she raise them?” “Oh, over there.” And then, “What else?” “The teaching we got today, you keep your animals in your own yard or your own property, yeah?” But I said, “Those days, I thought my aunty owned from Makena to Ulupalakaa because the horse, the pig, everything used to roam all over the place, nobody had fences. They just go roam then the way they feed the animals or get the animals back was one call. You know like pigs they ‘ke, ke, ke, ke’ no matter they go home their own house in the evening, you know, the ending of days.” And I said, “That’s how used to be, ‘ke, ke, ke, my, my, and then pigs all go home their own house.” And then once and a while I used to go with my Uncle Eddie them (not too much the son Eddie boy) the son Lawrence which we used to call Ading, we used to go with the old man Hapakura was like the cowboy. We go with the army truck we go halfway up Ulupalakaa we catch a big now we take ‘em back home. But the old man Hapakura used to catch mostly all Eddie Chang’s pigs for him, yeah all him. Then my Auntie Mary Aweola, when she died her name was Australia. She married again because my uncle Tutu Choney who was married to her, he fell of one building at Puunene. And the building
he fell off that's the one stay at Keawala'i Church. They took 'em off the kind Navy houses and they used that for the hali- Hale Ali down at the church, that's where it came from Paunene, and my Tutu Choney fell off and that's how be died, yeah he died. He was so, so nice. David Lono, yeah he was a good fisherman. His Hawaiian name was Lewalewa and he never like that name. I don't know what that means but Lewalewa.

KT- Lewa is going to another level.

AP- Yeah but he never like that name, David Lewalewa Lono.

Agreement to Participate

I understand that Kimekoo Kapahulehua and Keili Ta'ii, independent investigators contracted by Dowling Company incorporated will be conducting oral history interviews with individuals (kupuna/nakau) knowledgeable about Makena, Maui. The oral history interviews are being conducted in order to collect information on possible prehistoric and or historical cultural resources associated with this school, its history as well as its traditional cultural practices.

I understand I will be provided the opportunity to review my interview to ensure that it accurately depicts what I meant to say about any of these lands. I also understand that if I don't return the revised transcripts after two weeks from the date of receipt, my signature below will indicate my release of information for the CIES/A report. I also understand that I will still have the opportunity to make revisions during the report review process.

Please check the bottom:

- I am willing to participate

- I am willing to participate under certain conditions.

Consultant:
Date: 5/22/2007
Name: Juneita Leima'i Schmitt

Investigators:
Date: 5/23/2007
Name: Keili Ta'ii

MAHALO NUI LOA.
Interview: Juanita Leimomi Schmitt

May 22, 2007

By Keli'i Tau'u/ Kimokeo Kapahulehua
KT- Keli'i Tau'u
KK- Kimokeo Kapahulehua
JLS- Consultant

JLS- And found some artifacts from Makena.
KT- Okay.
JLS- So when Lesile came back we met and he wasn't very happy about it so we planned an expedition out to the area past Ahihi, Keoneo'oio. We went down there because when it said artifacts from Makena we all thought, "Where in Makena?" And we walked and walked. We stayed there four and a half days out there and near the shoreline is where we found it. So, you do think, how they came down there because there were no track marks it was through a helicopter. And in the area there were graves, some small ones, say like this here, a lot of ground ones. All these graves were dug, we found little pieces of feathers but we could find no stone near nothing. We found the area where they dug up the graves. Now in doing oh, bow would you say, in just doing the sites on this whole area here, Al Lagonero and I, we found a ki'i (statue) about as big as this here, a ki'i.
KT- So that's about maybe, three-four feet.
JLS- Yeah, all this, you know. And we looked at an area to come and look and Charlie Kea'au was the one that said, "Hey there's something, this must have been a whole area." You know kahakole or whatever yeah. But the ki'i, everything I said, "How we going to preserve this without anybody coming over here and knocking everything down?" It looked like a chess board. Okay then, everybody goes walking off again so Al and I stayed there and we looked around and I told him, "Come." I would say that about 20 yards away from the ki'i we found a cave. Inside of the cave were artifacts. We took the pohaku that was all strewn around the cave and we covered it to make it look like a pu'a. Hopefully, and I pray that it's still there and no destruction. Within the last couple years, you know your heart kind of sore yeah when you hear all those people trampling around there and will they find it? You know, same thing with Kaho'olawe, we found a cave we covered it up. We sealed it, this is sealed. And when we left, we went back couple days later, Al-just Al and I knew about it, we didn't tell the rest. No, we didn't see anything. We sealed it and you know what, we couldn't find it.
KT- Okay so it was meant to be for you folks to see. JLS- Oh, but when you see something like this, you don't want nobody else to touch anything. That's the thing on Hawaii, on our property, you know had a lot of minakini. We had to seal a lot of caves in that area. And when you go back now, when you walk over the property you don't know where the pu'a is, you know where the lua was. And we were taught, very young, leave it alone respect the area.
KT- So, do you feel, I personally feel that when things of value are discovered, we need to take responsibility to make sure in some way or another secured it so none of these malahini's walk in on it and think it's theirs and take.
JLS- Yeah. Maui is such a gorgeous island; you and I both know that. You know a lot of us that have gone and seen things like this and tried to cover it up and leave it alone. Maui is a very rich virgin island that has not been fully, oh what do you say, interrupted by malahini or developers like that. It scares us, it scares us.
KT- So, the one that you folks saw that you called everybody, what happened, the ki'i?
JLS- The ki'i, we couldn't cover it up.
KT- So it's still exposed.
JLS- Yeah. But it's in an area only the mahane would go in there. And hopefully, we just pray on it, it looked like- really you know the ki'i yeah and just a pile of stones. So, hopefully we talk about it we leave that because people going think it's just a pile of stones.
KT- So, Tuta Solomon, when we were doing- you know we were working on what the Polynesian Voyaging Society wanted to touch bases with some cultural areas that has to do with voyaging. So they invited me out to do pole. And what you just said in my mind's eye, I could see Holomoana. Holomoana Heau has six feet to eight feet tall ki'i's standing upright. Couple of them were laid down. So when I asked kupuna why was it laid down, the answer was that during the world war they put it down for covering them there. And your daughter, I pointed out to be- okay I walked through outside of the major halau and heiau. On the bottom side there were two sites that she was interested in that I pointed out.
JLS- Can I show you something? When we walked miles and miles around that area there and then going towards, not Pu'ula'i is that Pu'ula'i?
KT- You pass Pu'ula'i area. Pu'ula'i is Big Beach, your way past that.
JLS- This would be Mahoe?
KT- Probably because the light house is; you folks went way past the light house, way out there.
JLS- Okay now, would almost hit the highway up here, you know you walk up. The petroglyph and anything, is other words the pictures that we took were never exposed to the public. Petroglyphs, you know all the sticks you know like people walking? I mean it went on and on and on and it had the canoe like this with the sails. And 'io all sticks here. But the petroglyph was right in a, how would you say a walking matching. This whole thing, it wasn't on one rock, it was a continuation. The big one, the big pohaku would have going up and another one would have it, like continuation.
KT- So question was it in a ravine type of place or was it just open area?
JLS- It was in the open but away from feet travelers, this was off the beaten path. And if we kept on walking we would have come up to Ulupalakua, the highway with Kanaha.
KT- So, from what you just said, did water pass through there?

JLS- No. You know where the highway is, the old King's Highway, way up off the path up through the bushes and then I saw and I run back and I whistled for Elton and we looked. And it went up to the highway but we didn't go across, you know, we didn't look in that area. But we wondered, does this go up to Kahikinui because Kahikinui was at one time a forested land, right?

KT- Well, just for your information, since the work we've been doing has led us from Kekuli'ike High School all the way across and the people we've been talking to and many of the Kupuna have shared seeing petroglyphs in the ravines, in the riversbeds that come down. In fact had one that you wouldn't believe, had a Japanese or a Chinese character on this pohaku by itself. But yet on the walls of this water passage was all petroglyphs.

JLS- And this, like I said, was across the Kings Highway and we were heading mauka. The petroglyphs were on a big flat rock. I think they call it stick figures like Olomalu, the marchers, or whatever it is. The arms go up one way and the legs go up one way and it kept going. It went from one pohaku to another, it was so darn interesting.

KT- So you didn't make a note that you could go back to this. You should take your daughter.

JLS- Taking Mahealani all around the island.

KT- Did she go already?

JLS- No.

KT- But you probably couldn't walk it.

JLS- I have my cane, I go any old place as long as I get my third stick.

KT- They should see this.

JLS- Because this is not only our culture and history, but how do the mahalani coming in.

KT- In my opinion can make a statement to the developers to look at the culture sites. And if they overlook this, they can be sued big time by government officials. Big, big time, that's why they're paying money to get cultural assessment be made for development.

JLS- It's so important because my grandmother came from Maui and great-great-grandfather had all, he had all this land, acres in Wai'ene's and also in East Maui.

KT- What was her name?

JLS- Burch. Alexander Burch was the one that built Wai'ene's Church, they call it Waiola, yeah. He was a mason and he built that church. His son Henry is my great-great-grandfather.

KT- Wai'ene's Church, not Wai'ene's.

JLS- Wai'ene's, his name is Waiola right now, it's Wai'ene's, yeah. That church, he built the church. So now, his one son married one wahine, pure Hawaiian and the meantime he's half Hawaiian because Alexander went marry one wahine from Lehua. They had Henry Nelson. Henry Nelson had a daughter Meleana. Meleana had my grandmother. This area was given to Alexander from Kaunolu so this is where they worked around here. And getting with people from not only Maui, Molokai, Lanai, we have like Mahealani was asking you about. I have family in that area. My grandmother's from Waipio, my mother's mother.

KT- So, rich with information you folks picking up.

JLS- You know, when I come back, after being through the South Pacific and the triangle, you come back here to Hawaii, you born and raised in Hawaii Nei. There is no other culture so rich as ours. You learn from different groups in the base here but you know when I come home it's like I told some people and when I give lectures, you appreciate what you have. Look at those people, the Hawaiian tourists, I still say the Hawaiian tourists smarter than the rest of the Polynesian groups. The only within the family was just there.

KT- How do you connect that with the Makena lifestyle of olden days from what you have already experienced?
Some were long stone work, no roof, just stones. Come around and this is where we found the ophi shells the cowrie i guess what they ate, yeah. That’s how you could always tell the site.

KT: You know where Sunny Vie’s home is?

JLS: Yeah,

KT: He identified that there were some heiau’s in back of his house.

JLS: He is correct. But you know they took the stones to build stone walls for the golf course, they did that. I’m going tell you another story about heiau. You know when the so called DSHL, they were Hawaiian Reservation, my girlfriend poor thing she was so excited. She got Kula, okay, no problem. Two months later I get this phone call, “can you help me?” So, I went up there, I took another friend with me. She had like a tree house, I don’t know if it’s still living in her tree house but she started her garden, it looked very nice. I looked around and said, “Okay, what’s your problem?” She said, “I am being haunted.” I said, “So what are they doing, sitting on your chest, pulling your hair, what?” She said, “Everywhere.” In other words, real kapolis out there. That’s how, so I said, I walked around the place. When I went just from here to there, yeah, and I went down a little incline I looked and I was angry, but not angry at her now, angry at Hawaiian Homes, how dare they not do an environment assessment of the place. I pushed away some bushes, it looked like it was a house dwelling, you know. Just take around the place, and I looked again, I dug around the dirt I found ophi shells, you don’t find ophi shells up in Kula. So I called her over and I said, “Where are the rest of the stones for this one particular area?” She said, “In my garden.” I said, “You take every stone and you put it back where you found it.” I said, “And the rest of it you put it back over there where that house was.” We tried to tell people on DSHL there was a village up there, how did they lot over the land and people live on it without doing an assessment of the place. And then Mahealani’s dad was awarded 2.8 acres up there. Mahealani and John went up there I told John, you know they did a site inspection, grave. So, she called DSHL and, “Oh, we’ll give you another portion.” “We don’t want another portion in that area.” It’s so beautiful.

KT: It is.

JLS: And look what they do to that Hawaiians.

KT: I didn’t get some basic information, your full name?

JLS: Juanita Lehionomi Schmitt. My father was from here, from Mau, from Pali my mother’s from Waimae, Hawaii.

JLS: My grandfather, my father’s father, is from Hilo where his father, great-grandfather jumped ship, immigrated a Hawaiian woman got my grandfather and my dad. So when I got divorced I took my maiden name back, Schmitt.

KT: Mahealani.

JLS: And my mother Lindsay. But, mana from Waimae.

KT: So, when I talked to your daughter she was telling me that she felt you raised them at Makena. What does she mean by that? You folks were spending a lot of time there but in what area?

JLS: Past Keana in that area. Especially with Mahealani, I don’t know if she remembered or not. I was good friends with the menhune. When Mahealani was born mana gave her ha, you know, she got it all out. I lost some of it with Mahealani. But anyhow, she was learning, she wanted to learn how to chant. She just wanted. You know when you see a child just, if you give a ukulele or a violin, they’re just into it. She was into it because I used to take her when I had rehearsals with Aunt Emma, you know with the show or with the hula here comes Mahealani, she would sit right next to Aunt Emma and walk right in. Then later on she would pick up a chant, I would sing something like that, she would pick it up. Or if she listens to, say Kaili’i Tava, here I used to play his records because we had dances to some of his songs but your chants went over with her- you and Uncle George. Then going down to Makena I would find a tide pool and I would lay her down and tell her sit down, breath don’t breathe talk. Did you learn that way? When I watch her, that’s a chanter. You better not ripple that water. You ever learn that? Can you master?

KT: Aunty Nana taught me a different way of using the waves in getting my ritu, rhythm, style. Although Kau’i pens when he says he listens to me he says I hear Aunty Kau’i to you. Mainly because Aunty Kau’i worked much much much longer with me than Nana. So, going back to what you were saying in going to Makena to achieve that, what did kumu want to achieve by placing Mahealani in that position?

JLS: It was me.

KT: Yeah, what did you want to achieve by it?

JLS: Oh, the learning process, also the mana o of breathing and she wanted to chant. So how am I to help her, Kaili’i, and the first thing you learn is your Ha. You get from your breathing you come out, right, without that control, how did you achieve it? We were taught control.

KT: Why did you select Mahealani to do this?

JLS: I don’t know, just dreams, just dreams. And then being there and then looking around while the other kids played, they weren’t interested but this one was. And then like you said, the rhythm of the wave, the chant, the smoothness, the rhythm, do you match it up, can you match it up and get all excited? I did it, my daughter did it!” You know, you get all excited.

KT: So, what we were talking to Shannon about the way we’ve been given in approaching learning comes through almost DNA without hearing just the feeling that tells us it’s right and we do. In revealing to you, like you revealed to me, you just felt it was right. Many times I do that when I’m given an assignment and what is this and you take it on and you...

JLS: But, God gave us talents, right, and it’s up to us to use the talent she gives us. Like me, almost make two years ago, they found me three days, one more day I would have been dead. But I think he’s got a purpose, I’m still here for a purpose. Okay, one part of my life I think what I’m going to do now, I don’t know, I don’t know. KT: Don’t you think now is part of that purpose?

JLS: It’s helping, it’s helping other people. To educate them, that’s what—educate so that their too, their mana o can be passed on to their mo opana. That’s all because these young ones have to wake up. Preservation of the culture is so damn important. It’s so damn important. But in today’s age, when you look at our parents, what did they do? They made sure there was food on the table, car fare in our pocket, clothes on our back and shoes on our feet and be educated. You see, they worked for that. They could not be bothered with this. Even though they have the mana o of what went on, what the kupuna talked about and everything they didn’t share as much with us, yeah. My grandmother and my mother than, genealogy was sitting right next to the Bible at Sunday School or even at home, you know we always had prayer before dinner, never after, before And then prayers before you go sleep yeah, that was the way. Uncle George was really strict but genealogy, know your ohana.

KT: Anything else you want to say about Makena, your experience?

JLS: Makena, I just hope and pray that when it comes, when these malahia come in and they say they’re going to do this and do that, you let me know. I take my po, I want, or I put myself in front of a machine like we did in Hilo to stop their work. We were young, but we did it.

Kahoolawe, we did it. This mo opana, my two of them, went on to Kahoolawe but they didn’t have
to struggle like we did. They get across, together it’s like working here and working with people. They have their palapala iki ali but they don’t understand. So this was a place where, through Mahelani, you know and her giving thoughts and everything and for what I know I try to help. Get on the land, if there’s a hotel on your land, you can’t afford a lawyer, go get one lawyer and make those guys pay you.

KT- Have you been able to make a connection between Makena and Kaho‘olawe since you Kaho‘olawe up?

JLS- Kaho‘olawe, leave it alone. I mean, no, it’s a good island for educational purpose because of its culture and history. Don’t take the history from Ulupalakua, what’s his name?

KT- Edmond?

JLS- No before that, when King Ka‘ahumanu used to come…. Ulupalakua, anyhow, take it from that time on and with him taking those animals over there, they should have left the island alone and preserved it for what the original use was for and that was for astronomy. The prisoners that was what you call, whatever…

KT- That they sent over there.

JLS- Yeah, could always escape. They could always swim to Maui and Makena. This island was not used as a prison with guards and everything it was just punished, put on. That’s all, you weren’t sent there to die, you had food. So I wish they would stop calling it the prison island. But leave the island alone, leave it the way it is. Try to get all that opala out, you know, and give it back to the... have you been to Kaho‘olawe?

KT- To be honest with you, no.

JLS- Okay, on top of Mo‘omului you know, there’s a lu‘u there.

KT- Right.

JLS- You have to go before anything else. Just go with Leslie who works with PKO. In that lu‘u there is a rock okina, on a good, moonlight night lay down on the rock, it’s not a sacrificial rock now. Lay down on it and watch the moonlight. And you know how the moon goes like this? You can see the markings in the wall. I think there were from eight to twelve, you can just see those lines come down like this. Now, you ready for this one? Every one of those lines built around this lu‘u points to a helu on every island with 180 degrees.

KT- Wow.

JLS- Doctor Emery was the one that did it. Doctor Emery along with Kikuchi, there was one that, they too were wondering why it was so even and where were these drawings pointing to. Where was the stars? There’s a lot of it that I would like to know before I go. Much much more to study on that. How did Nalana get from one to the other, only by the stars right? So in this lu‘u, I tell you the line would go maybe Oahu, the one up Popuka it went straight to Popuka. It went straight to Pu‘ukohola and there’s another one past that in Kohala.

KT- Mo‘okini.

JLS- Mo‘okini, okay. Then on Kauai, what helu was that? It’s more toward Waialae, there’s another big helu...

KT- So you’re saying it’s pointing to hills.

JLS- The pa‘ono but it was where the heiaus are. Like I said, you know you read the lua like this and here’s this big, here’s this rock that you can lie flat on, this is all open, you’re looking at the stars. But now, around the lu‘u itself there was those lines on the walls like this. This one pointing to that, and that and one here, every one of these lines pointed to a helu on all the other islands. How did that happen?

KT- So the line that is made is an indentation on rocks or on?


JLS- Pointing straight in the hau‘u.

KT- What is the marking kind? Is it a color thing?

JLS- No, he used the, he had some instruments there, I don’t know what it is.

KT- When you say he, you’re saying?

JLS- I’m saying Doctor Emery.

KT- Emery.

JLS- And it would, and then following, I’m not akamai with that kind of stuff, they write the kind of the longitude there and everything. Then later on we came here to Maui, we had a meeting and we asked him about that and he told us where, again, they always used to work. You know so you just walked away, you cannot really get into that because it is only what they deduced coming out of there on how. Because I think, I don’t know, I think that the sole purpose of the island of Kaho‘olawe was for astronomers, for the study of stars. Yeah. The Hawaiians were not stupid. They were so akamai with the nature around them. Look what they did before Pa‘a‘o came. Everything they ded had a purpose but prior to the purpose of weaving, digging, fishing, planting, they prayed. Who did they pray to? They just offered prayers. When Pa‘a‘o came ever he brought with him his Gods. He brought with him helu’s and that’s where your destruction came in.

KT- They certainly were, they certainly were.

JLS- You look, just they way they built, the way they provided for their family. The way they took care of themselves, you know the personal hygiene. You compare ours to Tahiti and you see how clean we Hawaiians were.

KT- Many of the professors that I had at the Universities agree with that, every one. And more specifically they said look at the further work, there’s no other culture in Polynesia that has taken it to the level of the Hawaiians. They said, “Look at the tapa, so refined. Look at the food, I mean they’ve taken it beyond what we used to be.”

JLS- And the crabs, a‘ama so around this area is where they used to live because a good friend of mine comes from ele from that area, yeah and their meals were like aama, palakai and pu‘o‘o.

KT- So, when you used to go to Makena you folks spent any time fishing?

JLS- Yeah.

KT- What kind of fish were you going for?

JLS- Just reef, like koki, just something you can clean and pulehu and manini, no clean the manini just pulehu pau. (laughter)

KT- So you folks throw net?

JLS- No.

KT- How you get the manini?

JLS- Taught my kids how to spear. They all had their own and I brought one time no more spear yeah but had bamboo because they used to like, I said, “Be like me your bamboo.” “Mama, what you going do?” I sharpen ‘em enough for me ‘ai you know and pick enough limu only for a meal. Opis, this one here, this no opison and the other one I sit down over there I just getting up because I know we gotta eat. I know what going have already even though I get one staw pot going, I like light bit from the ocean, yeah. I turn around look my bag empty, I get empty shells. You know how you teach them how to, you know, no need just scoop them. And then going down my family’s house right down Wailoa‘a right and just sit on one rock, you sit on one rock and you sit enough for dinner. You take this one and Mahina, they sit it before them even put it in the bag. So only if you teach them, yeah. Talk to them the same way, how to pick
sugar because it was kind of bitter, yeah. Through all that we learned to make our own tea when in Waianae, yeah, Uncle had the red behind with the little spigot and just pound.

KT- First time I ever heard that.

JLS- The dry like, you know my kids they used to laugh, “Mom you must have been poor.” I said, “No if you look at it from the backside, or the Western end, yeah we were way below the line of property. But you know what? We ate.” Just if we had flour and water that made our flour, yeah. And the best thing was, you know the Eagle condensed milk and we had our Ovaltine, hey we were all right. And what got us so excited was going down to Māhālī because we knew we could get fish. Going down to the wāpili place we had fish because all we would live on was meat. I don’t like stew, I don’t like roast beef. I’ll eat a steak about once every two years.

KT- Well, really appreciate this.

JLS- But I tell you, even Mākena, you gotta go go even if you just stroll. Just go on a nice clear night and just walk the old road.

KT- That was my stomping grounds, that’s what I caught my first fish. That’s where. Every time I do these reports I reminisce how it used to be.

JLS- Now you just talk, your heart gets sore at what you see now a days. And can you walk the ocean without being shot, without being threatened? Can’t do that now, my kids used to, oh I would say, “Okay what we doing this weekend?” “We can go Mākena?” It was their choice.

KT- That’s a good one.

JLS- And it was always a good feelings when you go down you get good vibes when you go Mākena. Not anymore.

KT- It’s getting too busy.

JLS- Even my kids, my no’opuna they don’t want to go to Mākena anymore. So if they just take us one time, how these kids are, you know I say, “Go Madie.” I said, “Nobody can chase you away from your own land.” That’s why when you go Mākena they call the cops and the cops are not going to take care and what they going to take the other side, they got more money than you in the pocket. And it’s too bad that the dollar side means more to people. But to us we had this very important, we rich you know.

KT- I agree.

JLS- But rich, we have culture, we have first of all we get the Lord, number one. Number two, we got chana. Number three we get land. And who want the land? That’s why we’re trying to help you get your palapala, su ahu, tell them how it was issued and you can never be made. No matter if there’s a hospital on it, if there’s a hotel on it, if there’s the Governor’s mansion on your land and you got the Royal Patent, You know, you can go right in and say, “Hey you don’t go over so much, either you own a house, you do not own the land.” This is what we can do up here. My family not that big enough, but eh, I give you two acres, you just work. So this is what I did with Māhealani and all them. I told them, “Two acres to begin with. You show me what you can do on the land I give you some more. It depends, once you become a farmer you become a farmer, but you take care the land. You will never own the land, I’m sorry to say. You own the house but that’s perpetually, it gets passed on it can never be sold.” So this is what we, in fact their land can never be re sold.

Mākena CIA prepared by Hana Pono, LLC

November 30, 2018
H2R LLC
2005 Main Street
Waikiki, Hawaii 96817

Re: Economic and Fiscal Impacts for H2 Residential Project

John Child & Company has estimated the economic and fiscal impacts for the proposed H2 Residential Project. This report summarizes the study background and conclusions. Information not included in this report is available in our workfile.

STUDY BACKGROUND

H2R LLC plans to develop a 27.825-acre site across the street from the Maluakoa development in the Makena Resort, South Maui. The site is commonly known as Parcel H2 and identified as tax map key 2-1-05-05 of the Second Taxation Division.

The development will include 53 single-family condominium home sites priced at above $1.0 million each. Homeowners will have access to the various community amenities within Makena Resort, and may be allowed to purchase membership privileges in the Makena Golf and Beach Club facility planned across the street. A site plan for the proposed development is included in Addendum 1.

As a part of the Special Management Area (SMA) approval process, this report assesses the fiscal and economic impacts of the H2 Residential Project during and after construction.

STUDY OBJECTIVE

The objective of our assistance is to assess the construction period and long-term economic and fiscal impacts of the proposed H2 Residential Project.

INTENDED USE AND USER

Our assistance is intended to be used by H2R LLC (the Client) as a part of its application for Special Management Area (SMA) approval.

As a result, our assistance is intended for the Client’s sole and exclusive use. In accepting this report, the Client specifically agrees that our assistance is not intended for any other purpose or users and is not to be relied upon by any third party for any purpose, whatsoever.
EFFECTIVE DATE OF REPORT

The effective date of this report is November 20, 2018.

SCOPE OF WORK AND SIGNIFICANT VALUATION ASSUMPTIONS

The economic and fiscal impacts for the H2 Residential Project are estimated based on "The Hawaii State Input-Output Study: 2012 Benchmark Report" prepared by the State of Hawaii Department of Business, Economic Development & Tourism (DBEDT). The 2012 Benchmark Report is the most recent study available.

John Child & Company has not assessed the market support or financial feasibility of the proposed development. The impacts assume market support exists for immediate development as planned.

In addition, the economic and fiscal impacts were estimated based on construction cost, sales price, and absorption assumptions provided by the Client without verification. These assumptions are integral components of the analysis. If the actual development, cost, and sales prices are significantly different from the assumptions, the economic and fiscal impacts could change.

STUDY CONDITIONS

This report is subject to additional study conditions included in Section I of the accompanying report.

ESTIMATED ECONOMIC AND FISCAL IMPACTS

The economic and fiscal impacts are summarized in Sections II and III of the accompanying report.

In summary, the proposed H2 Residential Project will have positive economic and fiscal impacts on State and County tax revenues, job counts, employment earnings, and overall output both during and after construction. The development will comply with workforce housing requirements and other conditions that include contributions towards school, traffic, and park improvements.

In comparison, incremental expenditures associated with the increased population and utilization of roadways, schools, parks, and State and County services are projected to be relatively minimal and more than offset by the increases in State and County tax revenues.

The economic and fiscal impacts are summarized as follows:

Economic Impacts to State of Hawaii and County of Maui

<table>
<thead>
<tr>
<th>Construction Period impacts (1)</th>
<th>Long-term annual impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Land development</td>
</tr>
<tr>
<td>Projected output (expenditures):</td>
<td>85,500,000</td>
</tr>
<tr>
<td>Direct expenditures</td>
<td>37,500,000</td>
</tr>
<tr>
<td>Indirect and induced expenditures</td>
<td>47,000,000</td>
</tr>
<tr>
<td>Total</td>
<td>87,500,000</td>
</tr>
</tbody>
</table>

- Projected new jobs: [2]
  - Construction/maintenance jobs: 134
  - Other jobs: 138

- Projected employment income:
  - Construction/maintenance earnings: 513,300,000
  - Other earnings: 9,700,000

- Total: 523,000,000

[1] Cumulative impact from construction assuming each of the 53 lots is improved with one single-family residence.
[2] Includes new construction jobs and full-time and part-time wages and salary jobs. Approximately 194 full-time and part-time construction jobs are projected in the first two years as the lots are developed. Another 701 one-time construction jobs will be created over time as houses are constructed on the lots.
### Fiscal Impacts to State of Hawaii

<table>
<thead>
<tr>
<th>Construction period impacts</th>
<th>Long-term annual impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
</tr>
<tr>
<td>Tax revenues [2]</td>
<td>$21,000,000</td>
</tr>
<tr>
<td>DOT traffic impact fee [3]</td>
<td>259,000</td>
</tr>
<tr>
<td>DOE school impact fees [4]</td>
<td>205,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21,554,000</strong></td>
</tr>
<tr>
<td><strong>Expenditures:</strong></td>
<td></td>
</tr>
<tr>
<td>Roadway maintenance [5]</td>
<td>(4,000)</td>
</tr>
<tr>
<td>Schools [5]</td>
<td>(41,000)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(45,000)</td>
</tr>
</tbody>
</table>

Net economic benefit to State of Hawaii, rounded $21,550,000 $285,000

---

### Fiscal Impacts to the County of Maui

(Excluding Affordable Housing Net Benefit) [1]

<table>
<thead>
<tr>
<th>Construction period impacts</th>
<th>Long-term annual impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
</tr>
<tr>
<td>Net increase in real property taxes [1]</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>Park assessment in-lieu fee [2]</td>
<td>$990,000</td>
</tr>
<tr>
<td>Traffic impact assessment fee [3]</td>
<td>265,000</td>
</tr>
<tr>
<td>Police station [4]</td>
<td>52,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,308,000</strong></td>
</tr>
<tr>
<td><strong>Expenditures:</strong></td>
<td></td>
</tr>
<tr>
<td>Roadway maintenance [5]</td>
<td>(8,000)</td>
</tr>
<tr>
<td>Police [5]</td>
<td>(10,000)</td>
</tr>
<tr>
<td>Parks and recreation [5]</td>
<td>(6,000)</td>
</tr>
<tr>
<td>Fire and public safety [5]</td>
<td>(7,000)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(21,000)</td>
</tr>
</tbody>
</table>

Net economic benefit to County of Maui, rounded $1,310,000 $1,470,000

---

1. Net increase in real property tax revenue will increase when the lots are finished and the homes are built. Based on the projected lot prices and current construction costs for a typical dwelling, annual real property tax revenues are projected to increase by at least $600,000 when the lots are completed and about $1.5 million after all 53 homes are constructed.
2. $19,800 per unit in excess of three units.
3. $5,000 per unit.
4. Per zoning conditions, the developer will contribute $1,000 per market-priced unit, collected at issuance of building permit, for the development and maintenance of a police station in South Maui.
5. Expenses will increase up to $31,000 as homes are built.

---

[1] We have not quantified the net benefit to the County. However, the development will satisfy workforce housing requirements.
I. STUDY BACKGROUND

This section presents the background, study objective and intended use, effective date of the report, scope of work and significant assumptions, and study conditions.

STUDY BACKGROUND

HDR LLC plans to develop a 27.825-acre site across the street from the Maluaka development in the Makena Resort, South Maui. The site is commonly known as Parcel H2 and identified as tax map key 2-1-05:85 of the Second Taxation District.

The development will include 53 single-family condominium home sites priced at above $1.0 million each. Homeowners will have access to the various community amenities within Makena Resort, and may be allowed to purchase membership privileges in the Makena Golf and Beach Club facility planned across the street. A site plan for the proposed development is included in Addendum 1.

As a part of the Special Management Area (SMA) approval process, this report assesses the fiscal and economic impacts of the H2 Residential Project during and after construction.

STUDY OBJECTIVE

The objective of our assistance is to assess the construction period and long-term economic and fiscal impacts of the proposed H2 Residential Project.

INTENDED USE AND USER

Our assistance is intended to be used by HDR LLC (the Client) as a part of its application for Special Management Area (SMA) approval.

As a result, our assistance is intended for the Client’s sole and exclusive use. In accepting this report, the Client specifically agrees that our assistance is not intended for any other purpose or users and is not to be relied upon by any third parties for any purpose, whatsoever.

EFFECTIVE DATE OF REPORT

The effective date of this report is November 20, 2018.
SCAPE OF WORK AND SIGNIFICANT VALUATION ASSUMPTIONS

The economic and fiscal impacts for the H2 Residential Project are estimated based on “The Hawaii State Input-Output Study: 2012 Benchmark Report” prepared by the State of Hawaii Department of Business, Economic Development & Tourism (DBEDT). The 2012 Benchmark Report is the most recent study available.

John Child & Company has not assessed the market support or financial feasibility of the proposed development. The impacts assume market support exists for immediate development as planned.

In addition, the economic and fiscal impacts were estimated based on construction cost, sales price, and absorption assumptions provided by the Client without verification. These assumptions are integral components of the analysis. If the actual development, cost, and sales prices are significantly different from the assumptions, the economic and fiscal impacts could change.

STUDY CONDITIONS

This report is subject to the following study conditions.

Property Description

A legal description of the property that is the subject of this report was not reviewed.

The appraiser is familiar with the Makaha Resort neighborhood and real estate and has visited the properties for prior assignments; however, the real estate was not specifically visited for this assignment.

Basis of Analysis, Opinions, and Conclusions

The analyses, opinions, and conclusions of this report rely on data and information provided by others. The information is believed to be reliable; however, no responsibility is assumed for the accuracy of information provided by others.

The analyses, opinions, and conclusions assume:

1. No hidden or unapparent surface or subsurface conditions of the property, structures, soils, subsoils, geological formations, ground water, or drainage conditions exist that would render the property more or less valuable.

2. Existing improvements comply with all applicable public and private zoning codes, regulations and covenants, unless stated otherwise.

3. The client has provided us with all significant, relevant information covering the subject of this report.

No responsibility is assumed for matters legal in nature affecting the property or its title, which is assumed to be good and merchantable.

Properties in Hawaii typically include a reservation in favor of the State of Hawaii of all mineral and metallic mines. Our analyses, opinions, and conclusions assume these reservations do not have an impact on the value or use of the property.

Any drawings, maps, photographs, and similar exhibits accompanying this report are included to assist the reader in visualizing the property. No responsibility is assumed for the accuracy of these exhibits.

Hazardous Substances

The existence of hazardous substances (actual, alleged or threatened discharge, disposal, seepage, migration, release, growth, infestation, spread or escape of mold(s), mildew(s), fungi and/or spores or any materials, goods or products containing, harboring or nurturing these substances) that could be present on the property, or other environmental conditions that could impact the property, were not brought to the attention of the appraisers nor observed during the site visit.

The appraisers are not trained or qualified to detect hazardous substances or conditions even if these hazards, or evidence of potential presence of these hazards, are visible on the property.

This report assumes no hazardous substance or condition exists that would impact the analyses, opinions or conclusions. If a hazardous substance or condition exists, it could have a negative effect on the value of the property.

Archaeological or Historically Significant Conditions

The existence of archaeological or historically significant conditions that could be present on the property were not identified nor observed during the site visit. The appraisers are not trained or qualified to recognize archaeological or historically significant conditions, even if these conditions are visible on the property.

This report assumes no archaeological or historically significant condition exists that would impact the analyses, opinions or conclusions. If an archaeological or historically significant condition exists, it could impact the value of the property.
Endangered Species

The presence of flora and/or fauna on the property qualified for protection under the Endangered Species Act of 1973 was not identified. The appraisers are not trained or qualified to recognize endangered flora or fauna, even if visible on the property.

This report assumes no endangered species are present on the property. The presence of endangered species could impact the value of the property.

Terms of Assignment

We have no obligation to update our report because of events and transactions occurring subsequent to the effective date of the report.

Neither our fees nor payment were contingent upon the results of the report.

Use of Report

This report is valid only if presented in whole, with original photographs and exhibits, if any, and the official seal of John Child & Company embossed on the letter of transmittal and certification.

This report or any portion of this report may not be reproduced or published without the prior written consent of John Child & Company, and then only with proper qualification.

The contents of this report or portions of this report, the identity of the appraisers or any reference to John Child & Company, the Appraisal Institute, the Counsels of Real Estate, or the American Society of Appraisers, or to their respective designations may not be disseminated to the public through advertising media, public relations media, news media, sales media, or any other public means of communication.

Limitation on Liability

John Child & Company shall not be liable to Client or to any third party (including without limitation lenders and other persons to whom Client may show this report for the purposes of obtaining credit, insurance or any other benefit or promise) in the event that the use or value of the subject property is or becomes different from the use or value estimates, analyses, opinions or conclusions in this report unless it is established by clear and convincing evidence that John Child & Company acted in bad faith or willfully and recklessly failed to exercise an appropriate standard of care in the community while performing this assignment. In any event, John Child & Company's liability to Client or to any third party shall be limited to the amount of the fees to complete this assignment.

This report may not be shown to any third party without our consent and without receiving a written acknowledgement from any person to whom it is shown that such person has read, understands and agrees to be bound by the limitation of liability in this paragraph.
II - ECONOMIC IMPACTS

The economic impacts to the State of Hawaii and County of Maui are summarized under the following subheadings. All estimates are reported in 2018 dollars and do not reflect inflation.

OUTPUT IMPACTS

Output impacts measure the dollar change in the output of the State’s economy and represents total expenditures, or sales. The Kea’au Residential Project will generate direct, indirect and induced output impacts (expenditures) in Hawaii and, particularly, Maui County.

Direct Construction Expenditures

The direct impact of the development is measured by the total construction expenditures.

Site work, landscaping and affiliate improvement costs to develop the 53 condominium lots are budgeted at about $37 million before financing costs and impact fees. These costs will be incurred over an approximately 12-month construction period.

Buyers of the finished lots will be responsible for home design and construction. Based on an average building construction cost of about $2 to $3 million per dwelling, total construction expenditures resulting from the project are estimated to be about $169 million.

Indirect and Induced Expenditures

The direct construction expenditures will, in turn, create additional expenditures in other industries as suppliers of construction materials and equipment, for instance, are required to purchase goods and services from other vendors in the State. These latter expenditures are an indirect effect.

Based on multipliers reported by DBEDT, every $1 in construction spending generates another $0.45 in sales in other industries. Therefore, the $169 million in direct construction expenditures are projected to create another $75 million in sales in other industries.

In addition, the direct and indirect expenditures induce further productive activity through consumption expenditures. These induced expenditures are projected to total about $100 million.

Longer-Term Impacts

Once built, the project and homes will require ongoing maintenance. Based on yearly operating and maintenance costs for other resort residential projects in Wailua and Makena, the estimated long-term impacts include direct expenditures of about $2.6 million annually. These expenditures will flow through the economy and increase output in other industries by about $3.0 million annually.

EMPLOYMENT IMPACTS

The development will generate short-term (one-time) construction jobs and long-term employment.

According to DBEDT, about 5.3 full-time and part-time jobs are created for every $1.0 million in new construction. These jobs include on-site laborers, operatives and craftsmen, as well as professional, managerial, sales and clerical workers who may be employed elsewhere in the State.

Based on the budgeted construction costs to develop the 53 lots, about 154 full-time and part-time construction jobs will be created within the first two years. [1]

Additional construction jobs will be created as the individual homes are built. Based on the typical construction cost per dwelling, a total of 705 construction jobs would be created, or an average of about 13 full-time and part-time jobs per lot.

Labor earnings from these jobs will ripple through the economy and increase employment in other sectors. Based on DBEDT’s employment multipliers, a total of 570 new jobs in other sectors are projected.

When completed, the project and individual homes will require operations and maintenance staff. A total of 14 new full-time and part-time jobs will be created.

INCOME IMPACTS

Income impacts measure the effect of the development on household income consisting of wages, salaries, proprietors’ (self-employment) income, and fringe benefits.

The new construction is projected to generate labor earnings of about $106 million, including $61 million for the construction industry alone. Based on the projected employment, the average income per full-time and part-time employee (including benefits) would range from about $88,000 to about $78,000.

Labor earnings from long-term operations and maintenance are also projected to increase by about $390,000 annually after the project is completely built out. When the indirect and induced income impacts are considered, the project is expected to result in increased labor earnings of about $2.6 million annually.

[1] DBEDT does not distinguish between full-time and part-time jobs.
SUMMARY OF ECONOMIC IMPACTS

The one-time construction period and long-term annual economic impacts are summarized as follows:

Economic Impacts to State of Hawaii and County of Maui

<table>
<thead>
<tr>
<th></th>
<th>Construction Period Impacts (1)</th>
<th>Long-term annual impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Land development</td>
<td>Building construction</td>
</tr>
<tr>
<td>Projected output (expenditures):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct expenditures</td>
<td>$34,200,000</td>
<td>132,500,000</td>
</tr>
<tr>
<td>Indirect and induced expenditures</td>
<td>37,000,000</td>
<td>172,100,000</td>
</tr>
<tr>
<td>Total</td>
<td>$71,200,000</td>
<td>204,600,000</td>
</tr>
<tr>
<td>Projected new jobs: (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction/maintenance jobs</td>
<td>194</td>
<td>37</td>
</tr>
<tr>
<td>Other jobs</td>
<td>128</td>
<td>436</td>
</tr>
<tr>
<td>Total</td>
<td>322</td>
<td>775</td>
</tr>
<tr>
<td>Projected employment income:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction/maintenance earnings</td>
<td>$12,300,000</td>
<td>48,100,000</td>
</tr>
<tr>
<td>Other earnings</td>
<td>8,700,000</td>
<td>35,200,000</td>
</tr>
<tr>
<td>Total</td>
<td>$21,000,000</td>
<td>83,300,000</td>
</tr>
</tbody>
</table>

[1] Cumulative impact from construction assuming each of the 53 lots is improved with one single-family residence.
[2] Includes proprietors' jobs and full-time and part-time wage and salary jobs. Approximately 194 full-time and part-time construction jobs are projected in the first two years as the lots are developed. Another 765 one-time construction jobs will be created over time as homes are constructed on the lots.

III - FISCAL IMPACTS

This section evaluates the fiscal impacts of the proposed H2 Residential Project by comparing the tax revenue and expenditures to the State of Hawaii and County of Maui. The fiscal impacts are summarized under the following subheadings. All estimates are reported in 2018 dollars and do not reflect inflation.

FISCAL IMPACTS TO STATE OF HAWAII

The net fiscal impacts to the State of Hawaii are summarized as follows.

Revenues

The development will result in increased general excise and income tax revenues to the State of Hawaii. Based on the anticipated land and building construction expenditures, State tax revenues are projected to increase by about $21 million as a result of the new construction.

Longer-term expenditures for project operations and maintenance will result in increased tax revenues of about $330,000 annually thereafter.

The development will not require any capital investments by the State. However, the developer will make a pro rata contribution towards Pilihala Highway upgrades, currently estimated at about $285,000.

In addition, Department of Education (DOE) school impact fees are payable at the time building permits for the homes are obtained. Based on the current fee of $5,500 per unit, the DOE would receive school impact fees of up to $265,000.

Altogether, the development is projected to generate an additional $22 million in tax revenues and impact fees for the State.

Expenditures

In comparison, incremental expenditures associated with the increased population and utilization of State roadways and schools are estimated to be relatively minimal. Based on the State’s 2019 budgeted per capita expenditure for schools and roadway maintenance and operations, and the projected full-time equivalent occupancy for the project, these additional expenditures are projected to be about $45,000 annually.

Net Fiscal Impact

Lot development and future home construction at the H2 Residential Project is projected to generate about $22 million in additional tax revenues to the State.
The net positive long-term impact to the State is estimated at about $285,000 annually, as summarized on the following page:

### Fiscal Impacts to State of Hawaii

<table>
<thead>
<tr>
<th></th>
<th>Construction period impacts (1)</th>
<th>Long-term annual impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax revenues [2]</td>
<td>$21,000,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>DOT traffic impact fee [3]</td>
<td>259,000</td>
<td>-</td>
</tr>
<tr>
<td>DOE school impact fees [4]</td>
<td>285,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>21,544,000</td>
<td>30,000</td>
</tr>
<tr>
<td><strong>Expenditures:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roadway maintenance</td>
<td>[5]</td>
<td>(4,000)</td>
</tr>
<tr>
<td>Schools</td>
<td>[5]</td>
<td>(45,000)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>(49,000)</td>
</tr>
<tr>
<td><strong>Net economic benefit to State of Hawaii, rounded</strong></td>
<td>$21,550,000</td>
<td>$285,000</td>
</tr>
</tbody>
</table>

[1] Cumulative impact of land development and home construction, assuming each of the 53 lots is improved with one single-family residence.

[2] Includes general excise taxes, individual and corporate income taxes, and other business taxes.


[4] Payable when building permits are obtained; currently, $5,560 per unit.

[5] Incremental increase in State expenditures for roadway maintenance and schools as a result of the new population estimated based on budgeted expenditures per capita and estimated full-time equivalent occupancy in the project. Expenses will increase up to $45,000 as homes are built.

---

**FISCAL IMPACTS TO COUNTY OF MAUI**

The net fiscal impacts to the County of Maui are summarized as follows:

### Revenues

The developer will be responsible for roadway, water, sewer, and drainage improvements. As a result, no new capital expenditures will be required from the County.

However, the County will receive park assessment fees, traffic impact fees, and one-time contributions towards a new South Maui police station. Altogether, these impact fees are budgeted at about $1.3 million.

The development will also generate additional tax revenues to the County in the form of higher real property taxes. Based on the projected lot prices, the additional real property tax revenue from the finished lots is estimated to be at least $600,000 annually.

Property tax assessments and revenues will increase when the homes are built. Based on the typical home construction cost and current tax rates, the 53 homes could result in increased real property tax revenues of at least $1.5 million annually.

### Expenditures

County roadways and services will be impacted slightly as a result of the new construction, increased resident population, and increased traffic. However, based on the average per capita spending, the increased expenditures resulting from the 53 new homes are estimated at only $31,000 annually.

The additional real property tax revenues are more than sufficient to cover any County expenditures resulting from the development.

### Net Fiscal Impact

The fiscal impacts to the County of Maui are summarized on the following page.
### Fiscal Impacts to the County of Maui
(*Excluding Affordable Housing Net Benefit*)

<table>
<thead>
<tr>
<th></th>
<th>Construction period impacts</th>
<th>Long-term annual impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net increase in real property taxes [1]</td>
<td>$1,500,000</td>
<td></td>
</tr>
<tr>
<td>Park assessment in-lieu fee [2]</td>
<td>$990,000</td>
<td></td>
</tr>
<tr>
<td>Traffic impact assessment fee [3]</td>
<td>265,000</td>
<td></td>
</tr>
<tr>
<td>Police station [4]</td>
<td>33,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,388,000</td>
<td>1,500,000</td>
</tr>
<tr>
<td><strong>Expenditures:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roadway maintenance [5]</td>
<td>(8,000)</td>
<td></td>
</tr>
<tr>
<td>Police                     [5]</td>
<td>(10,000)</td>
<td></td>
</tr>
<tr>
<td>Parks and recreation        [5]</td>
<td>(6,000)</td>
<td></td>
</tr>
<tr>
<td>Fire and public safety      [5]</td>
<td>(7,000)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(21,000)</td>
<td></td>
</tr>
<tr>
<td><strong>Net economic benefit to County of Maui, rounded</strong></td>
<td>$1,310,000</td>
<td>$1,470,000</td>
</tr>
</tbody>
</table>

[1] Real property tax revenue will increase when the lots are finished and as the homes are built. Based on the projected lot prices and current construction costs for a typical dwelling, annual real property tax revenues are projected to increase by at least $600,000 when the lots are completed and about $1.5 million after all 53 homes are constructed.

[2] $19,800 per unit in excess of three units.

[3] $5,000 per unit.

[4] Per zoning conditions, the developer will contribute $1,000 per market-priced unit, collected at issuance of building permit, for the development and maintenance of a police station in South Maui.

[5] Expenses will increase up to $31,000 as homes are built.

### CERTIFICATION

We certify, to the best of our knowledge and belief:

- Reported statements of fact are true and correct.
- Reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are unbiased professional analyses, opinions, and conclusions.
- We have no present or prospective interest in the property that is the subject of this report, and we have no personal interest or bias with respect to the parties involved.
- Within the past three years, we have provided real estate appraisal and/or appraisal-related services relating to an ownership interest in the property that is the subject of this report and have informed the client prior to acceptance of this assignment.
- Our engagement was not contingent upon developing or reporting predetermined results.
- Our compensation is not contingent on the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event and is not contingent on an action or event resulting from the analysis, opinions or conclusions in, or use of, this report.
- The reported analysis, opinions, and conclusions were developed, and the report has been prepared, in conformity with the requirements of the Code of Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, and the Appraisal Foundation's Uniform Standards of Professional Appraisal Practice (USPAP).
- The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives, and to the requirements relating to review by duly authorized representatives of the State of Hawaii.
- As of the date of this report, Shelly H. Tanaka, MAI, AI-GRS has completed the continuing education program for Designated Members of the Appraisal Institute.
- Shelly Tanaka did not visit the real estate for the purpose of this assignment. However, she has visited the property for prior assignments and is familiar with the property and its environs.
- No one other than the undersigned prepared the analysis, opinions, and conclusions in this report.

JOHN CHILDE & COMPANY, INC.

Shelly H. Tanaka, MAI, AI-GRS
Vice President
Certified General Appraiser License No. 548
State of Hawaii
Expires December 31, 2019
H2 RESIDENTIAL PROJECT SITE PLAN
QUALIFICATIONS OF JOHN CHILD & COMPANY

SCOPE OF PROFESSIONAL SERVICES

Background

John Child & Company is a professional corporation that specializes in real estate appraisal and consulting and business valuation. It is the only company in Hawaii with expertise and professional designations in both real estate appraisals and business valuations.

John Child & Company was established by John F. Child, Jr. in 1937. The Company was the first firm to specialize in market research in Hawaii. Since 1937, the Company has provided critical knowledge of real estate market conditions and trends gained from the strength of its market research. As a result, its clients have confidence that John Child & Company real estate appraisal and business valuation assignments are based on competent analysis and careful documentation, and its consulting assignments focus on the key issues and provide sound alternatives.

The Company’s professional team members’ past and current local, regional, and national leadership positions in their professional organizations help to establish and promote the highest standards of professional practice and ethics for the industry.

Real Estate Appraisal and Consulting

The Company’s real estate consulting and appraisal practice includes a range of specialized services covering real estate in Hawaii and the Pacific area. Professional services include:

- Valuation of real estate
- Litigation support
- Arbitration
- Market rent analysis
- Highest and best use studies
- Market and financial feasibility analyses
- Economic and fiscal impact assessments
- Purchase price allocation.

Its assignments include all types of real estate interests such as fee simple, leasehold, leased fee, and other partial rights and fractional interests. Its assignments cover a variety of land uses and property types such as:

- Office buildings and commercial property
- Industrial property
- Telecommunications facilities
- Hotels and resort properties
- Agricultural, conservation, and vacant land
- Conservation easements
- Shopping centers and retail facilities
- Residential developments (single family, multifamily, and condominium)

Business Valuation

The Company's business valuation practice focuses on the valuation of closely-held businesses, including controlling and minority interests in corporations, partnerships, limited liability companies, and family limited partnerships. Its business valuation practice provides assistance in:

- Estate planning
- Tax reporting
- Mergers, acquisitions, and sales
- Stock transfers and redemptions
- Financial reporting
- Succession planning
- Internal accounting
- Litigation support.

REPRESENTATIVE ASSIGNMENTS

The Company has provided real estate appraisal and consulting and business valuations for nearly 80 years.

Real Estate Appraisal and Consulting

The Company’s real estate appraisal and consulting practice covers a variety of properties and property interests. Real estate interests include fee simple, leasehold, leased fee, and other partial rights and fractional interests. Representative projects are listed as follows:

Redevelopment

| Aloha Tower | Kakaako Waterfront Park |
| Development Plan | Kapalama Development Complex |
| Paseo Redevelopment Plan |

Resorts

| Hawaiian Riviera (proposed) | Kiawana Plantation |
| Hualalai | Ke-Olina |
| Koa'ula North Beach | Makana |
| Kauai Lagoons | Malaekahana |
| Ka'upulehu | Mauka Kea |

Wailea Resort
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### Hotels
- Ko Lani Hotel
- Pacific Beach Hotel
- Princeville Hotel
- Ko Samui Hotel
- Sheraton Kona Resort
- Sheraton Waikiki
- W Hotel
- Wailea Beach Resort
- Waikiki Beachcomber
- Waikiki Circle Hotel
- Waikiki Resort Hotel

### Shopping Centers
- Ala Moana Shopping Center
- Pearl City
- Prince Kuhio Mall

### Golf Courses
- Ko Olina
- Waikapu Country Club
- Waikoloa Golf Course
- Waikoloa (Kings)
- Waikoloa Village (two proposed)
- Wailea (Blue, Emerald, and Gold)

### Office Buildings
- Commerce Tower
- HBSA Building

### Industrial Properties
- Hilo Industrial Subdivision
- Manana

### Qualifications of John Child & Company

### Qualifications of John Child & Company

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### Healthcare
- Advent Health
- Kaiser Care Center
- Palani Medical Center
- St. Francis Healthcare Systems
- Arcadia Retirement Residence
- Palila Chinese Home
- Straub Hospital & Clinic
- Castle Medical Center
- Poind at Puahulu
- Queen’s Hospital
- Wilcox
- Kahuku Medical Center
- Queen’s Diagnostic Laboratories
- Kapiolani Medical Center for Women and Children
- Queen’s Health Systems
- Kona Medical Center
- Regency at Hualalai
- Kapiolani Plate

### Agricultural, Conservation, and Conservation Easements
- Campbell Parkwa and Kahoe Ranch
- Kualoa Ranch Land Trust
- Ka‘ahumanu Forest Reserve
- National Park
- Hawaiian Ranch
- Kualoa Ranch
- Kauai Island
- Kauai Island Conservation Easement
- Lipos Point
- Kauai Land Conservation Easement
- Makaha Point Conservation Easement
- Waihapa Ranch
- Waimea Valley
- Waiakea Ranch
- Waiakea Ranch
- Waiakea Ranch
- Waianae Valley

### Special Purpose
- Creanition/Memorial Parks
- Hawaiian Home Land Claims
- Kapaau Land Fill
- Botanic Gardens
- Chinese Cultural Plaza
- Kauai Boardwalk
- Island of Hawaii
- Kealakekua Bay
- Outrigger Canoe Club
- Kilauea Point National Wildlife Refuge
- Waimea Valley
- Ku‘uau Island
- State of Hawaii Airports
- Polynesian Cultural Center
- Wailua River State Park
- Visitor Attraction

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QUALIFICATIONS OF JOHN CHILD & COMPANY

Business Valuation

The company's business valuation practice focuses on closely-held businesses in Hawaii. Business valuation assignments typically estimate the market value of controlling and minority interests in closely-held corporations, limited liability companies, and partnerships.

These assignments are prepared to assist in estate planning and estate and gift tax reporting to the Internal Revenue Service. Business valuations are also used to assist in litigation, mergers, stock redemptions, and acquisitions.

Valuations of closely-held businesses include:

- Corporations
  - Asia Produce, Inc. - supplier of provisions to vessels
  - Dowling Company, Inc. - real estate developer
  - Finance Investment, Ltd. - real estate developer, investor, and provider of diversified financial services
  - Gay & Robison, Inc. - sugar grower
  - Industrial Investors, Inc. - real estate investor and manager
  - Jek W. Glover Holding Company, Ltd. - construction contractor
  - K. Inouye Properties, Inc. - real estate investor and manager
  - Loyalty Development Company, Inc. - real estate developer, investor, and manager
  - Loyalty Enterprises, Ltd. - property management and insurance agency
  - Palani Ranch Company, Inc. - cattle rancher
  - Pohokulo Ranch Limited - cattle rancher
  - Royal Phoenix Corporation - coffee systems supplier
  - Sun Fin Corporation - plumbing and air conditioning contractor, real estate manager
  - SSFM Engineers - professional engineering services

- Limited Partnerships and Limited Liability Companies
  - Aaron Properties Partners of Hilo - Hilo Burger King
  - Baruch Baizer & Beth-Kel - real estate investor
  - Caroline J. Robison, LLC - real estate investor
  - CGB Partners - real estate investor
  - Honolulu Open Medical Imaging, LLC - medical imaging facility
  - J.L.P. Robison, LLC - real estate investor
  - K.J.L. Associates - real estate investor and manager
  - KSM Associates, LLC - real estate investor
  - KVH Partners - real estate investor
  - Kaka Kai LLC - real estate investor
  - Kanai's Family Limited Partnership - real estate investor
  - Lanai Properties LLC - real estate developer and manager
  - Leong Brothers - real estate investor and manager
  - Loyalty Associates - real estate investor
  - Loyalty Investments - real estate investor
  - Maui Quest, LLC - real estate investor and developer
  - Robinson Kusui Land LLC - real estate investor
  - SCL Limited Partnership - real estate investor and manager

PRIVATE INDUSTRY

- Attorneys
  - Alston Hunt Floyd & Ing
  - Ashcroft & Watan
  - Bays Law Firm & Holmes
  - Bender & Fidel
  - Blank Rome LLP (New York office)
  - Codex Schwall
  - Cornman Fields
  - Cos & Lynch
  - Coss Lombardi & Petri
  - Charles Adam Ritchie & Duckworth
  - Cho Kerr LLP
  - Crockett & Nakamura
  - Damon Key Leong Kupchak Huestert
  - Dwyer Schnaff Meyer Grant & Green
  - Glynn & Finley, LLP
  - Goodell Anderson Quinn & Saffett
  - Imaoka Asato
  - Ing Holtsnawa Jorgensen & Endo
  - Law Offices of Shosalshi Miyazaki

- Architects/Planners
  - AM Partners, Inc.
  - Belt Collins Hawaii
  - C.H. Guernsey & Company
  - Cascadia PM
  - Helber Hauser & Fee Planner
  - Kenyon/Malone Architects
  - Leo J. Daley/Alfred A. Yee Division

- Banks/Lenders
  - American Savings Bank
  - Bank of America
  - Bank of Hawaii
  - Central Pacific Bank
  - PBB Hawaii
  - Paragon Partners, Ltd.
  - Paragon Brakerhoff, Inc.
  - RM Towill Corp.
  - Tawesca, Inc.
  - Westso Systems
QUALIFICATIONS OF JOHN CHILD & COMPANY

Banks/Lenders, Continued
Liberty Bank, Connecticut
Nippon Credit Bank
Oric Corporation
Suzwa Bank, Ltd.
The Bank of Tokyo-Mitsubishi, Ltd.
The Chuo Mitsui Trust & Banking Co., Ltd.
The Daiwa Bank, Ltd.
The Industrial Bank of Japan, Ltd.
The Kyowa-Saitama Bank
The Long-Term Credit Bank of Japan, Ltd.
Wells Fargo Bank

Closely Held Corporations/Limited Partnerships/Family Trusts
Alaia Partners
Kawai & Robinson
Jan. W. Glover Holding Company, Ltd.
J.C. Robinson LLC
K.K. Associates
KVH Partners and CGB Partners
Kameo Trusts
Lebdate Properties, LLC
Leong Brothers
Loyalty Development

Developers/Landowners
Akili Properties, Inc.
Alaia Tower Associates
Aventura Properties, Inc.
(Ria Kaiser National Housing Corporation Development Company)
Bradford Holdings
Campbell Hawaiian Investors, LLC
Central Pacific Realty
Chiyoda Hawaii Corporation
Cuko Development U.S.A., LLC
Dawson Company, Inc.
Ellelair Hawaii, Inc.
Finance Realty
Goldman Properties
Hans Ranch Partners
Harland Land Company
Haseko (Hawaii), Inc.
Henderson/Tokyo Waterfront Joint Venture
James Campbell Company

QUALIFICATIONS OF JOHN CHILD & COMPANY

Diversified Corporations
- Anacase/IMB Hawaii, Inc.
  - Anacase Property Development Co.
  - Azusa USA Corporation
  - Cook Inlet Region, Inc. (CIRB)
  - Dole Foods (ex Castle & Cooke, Inc.)
  - Castle & Cooke Retail
  - Mitsubishi Town, Inc.

Investors/Investment Bankers/Insurance Companies
First American Title Company, Inc.
IDO Realty, Ltd.
ITOCCHU Corporation (C. Itoh & Co., Ltd.)
Mitsui Mutual

Resort Operators/Owners
Alpha U.S.A., Inc.
Kapalua Land Company, Ltd.
Kauakahua Maka Kai Venture (Hulalai Resort)
Namu LLC (Mauna Residences)

Retailers
7-Eleven (Hawaii, Inc.)
City Mill Co., Ltd.
J.C. Penney Company, Inc.
Kyozen International
Louis Vuitton Hawaii, Inc.

Trust Companies and Trusts
First Hawaiian Trust
Hawaii Trust Company, Ltd.
Kamehameha Trusts

NON-PROFIT ORGANIZATIONS
Castle Medical Center
Chaminade College
Hawaii Health Systems Corporation
Hawaiian Opera Theatre
Hawaii Pacific Health
Hawaii Pacific University
Hawaiian Community Action Program, Inc. (HCAP)
Hokulani School
Japan Association of Real Estate Appraisers
Kahuku Medical Center
Kamehameha Schools
KCAA Pre-Schools of Hawaii
Marina Valley Theatre

Qualifications of John Child & Company
QUALIFICATIONS OF JOHN CHILD & COMPANY

PUBLIC AGENCIES

Bank Regulatory Agencies
- Federal Deposit Insurance Corporation (FDIC)
- Federal Home Loan Bank Board (FHLBB)

City & County of Honolulu
- Honolulu Authority for Rapid Transportation
- Department of Housing and Community Development

County of Hawaii
- Department of Finance
- Department of Public Works

County of Kauai
- Department of Water

Federal Agencies
- Internal Revenue Service
- U.S. Department of the Army
- U.S. Department of the Navy
- U.S. Department of Interior, Fish & Wildlife Service

U.S. Attorney General
- U.S. Department of Agriculture, Forest Service
- U.S. Department of Agriculture, Natural Resource Conservation Service

Public Utilities
- Hawaii Electric Industries (HEI, Inc.)
- Hawaiian Energy America Corporation
- Pacific Resources, Inc.

State of Hawaii
- Attorney General
- Hawaii Community Development Authority
- Hawaii Housing Finance and Development Corporation
- Office of Hawaiian Affairs

PROFESSIONAL TEAM QUALIFICATIONS

The professional team has a wide range of real estate experience gained through a variety of field experience, professional accomplishments, training, and education. Team members have earned their reputation for quality work and professional service.

QUALIFICATIONS OF JOHN CHILD & COMPANY

Professional Designations

Team members hold designations earned from the major professional organizations. Team members have earned the MAI designation from the Appraisal Institute, the CRE (Certified Real Estate) from The Counselors of Real Estate, and ASA (Accredited Senior Appraiser) from the American Society of Appraisers.

State Certification

Members of the professional team are Certified General Appraisers under the State of Hawaii license and certification program.

Other Qualifications and Training

Professional team members are qualified as expert witnesses in the courts of Hawaii; actively participate in and serve as arbitrators and review appraisers; and continue to attend courses, seminars and workshops to strengthen their own specialized appraisal skills and education.

Professional Team Members

Professional team members include:

- Karen Chang, MAI, CRE, ASA, President
- Paul D. Cool, MAI, CRE, Vice President
- Shelby H. Tamaka, MAI, AI-GRS, Vice President

The education and professional experiences of team members are outlined in their accompanying resumes.
QUALIFICATIONS OF JOHN CHILD & COMPANY

SHELLY H. TANAKA, MAI, AI-GRS
Vice President

Shelly estimates the value of closely-held businesses and real estate in Hawaii. Because of her expertise in both real property and business valuation, she is able to effectively assist clients with their estate planning and gifting decisions, tax reporting, acquisitions and mergers, stock transfers and redemptions, and purchase price allocations.

Shelly’s real estate valuations include resort, commercial, industrial, residential, agricultural, and conservation properties on Oahu, Maui, Kauai, and Hawaii. Assignments have included undivided interests, conservation and right-of-way easements, hospitals, skilled nursing facilities, and other complex or limited-market properties, as well as market assessments for various projects including a CCRC and two master-planned communities on Oahu and Maui. She also serves as an arbitrator and has worked on several lawsuits providing complex and timely analysis to assist in trial preparation and settlement negotiations.

Education
- Master of Business Administration, University of Hawaii at Manoa, 1998
- Bachelor of Arts, Psychology, University of California at Los Angeles, 1994
- Iolani School, 1990

Courses, workshops and seminars including:
- Appraisal Institute, Uniform Appraisal Standards for Federal Land Acquisitions, 2017
- Appraisal Institute, General Review Theory, 2014
- Appraisal Institute, Complex Litigation Appraisal Case Studies, 2014
- Appraisal Institute, Online Eminent Domain and Condemnation, 2011
- Appraisal Institute, Online Appraising From Blueprints and Specifications, 2011
- Appraisal Institute, Hotel Valuation, 2010

Professional Association
- Member, Appraisal Institute (MAI and AI-GRS designations)
  - Vice Chair, Region VII, National Board of Directors, 2017 - 2018
  - Finance Committee, 2017 - 2018
  - Finance Chair, Region VII, 2014 - 2015
  - President, Hawaii Chapter, 2014
  - Vice President, Hawaii Chapter, 2013
  - Director, Hawaii Chapter, 2012
- Trustee, Appraisal Institute Education Trust, 2017 - 2019

Professional Experience
- Vice President, John Child & Company, Inc. (2015 to present)
TRAFFIC IMPACT ANALYSIS REPORT
MAKE NA PARCEL H-2 PROJECT
Makena, Maui, Hawaii

FINAL DRAFT

October 4, 2019

Prepared for:
H2R LLC
2006 Main Street
Wailuku, Maui 96793

Prepared by
Austin, Tsutsumi & Associates, Inc.
Civil Engineers • Surveyors
Honolulu • Wailuku • Hilo, Hawaii

October 4, 2019
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TRAFFIC IMPACT ANALYSIS REPORT
MAKENA H-2 PARCEL PROJECT
Makena, Maui, Hawaii

1. INTRODUCTION

This report documents the findings of a traffic study conducted by Austin, Tsutsumi & Associates, Inc. (ATA) to evaluate the potential traffic impacts resulting from the proposed Makena H-2 Parcel Project (hereinafter referred to as the “Project”).

1.1 Location

The Project is located on a currently vacant parcel of land bound by Makena Alanui Road to the east and south, and Makena Keoneoio Road to the west. Figure 1.1 shows the Project location.

1.2 Project Description

The Project proposes to develop a 53-unit CPR residential development with a 57-stall beach parking lot. It should be noted that an existing 50-stall beach parking lot will be replaced, resulting in a beach parking stall count increase of 7 stalls. The Project’s residential component will have one access via Makena Keoneoio Road near the northwest corner of the parcel, while the beach parking lot will be serviced by a separate driveway. Figure 1.2 shows the Project site plan.
2. METHODOLOGY

2.1 Study Methodology

This study will address the following:

- Assess existing traffic operating conditions at key intersections during the weekday morning (AM) and afternoon (PM) peak hours of traffic within the study area.
- Traffic projections for Base Year 2028 (without the Project) including traffic generated by other known developments in the vicinity of the Project in addition to an ambient growth rate. These other known developments are projects that are currently under construction or known new/future developments that are anticipated to affect traffic demand and operations within the study area.
- Trip generation and traffic assignment characteristics for the proposed Project.
- Traffic projections for Future Year 2028 (with the Project), which includes Base Year traffic volumes in addition to traffic volumes generated by the Project.
- Recommendations for Base Year and Future Year roadway improvements or other mitigative measures, as appropriate, to reduce or eliminate the adverse impacts resulting from traffic generated by known developments in the region or the Project.

2.2 Intersection Analysis

Level of Service (LOS) is a qualitative measure used to describe the conditions of traffic flow at intersections, with values ranging from free-flow conditions at LOS A to congested conditions at LOS F. The Highway Capacity Manual (HCM), 6th Edition, includes methods for calculating volume to capacity ratios, delays, and corresponding Levels of Service that were utilized in this study. LOS definitions for signalized and unsignalized intersections are provided in Appendix B.

Analyses for the study intersections were performed using the traffic analysis software Synchro, which is able to prepare reports based on the methodologies described in the HCM. These reports contain control delay results as based on intersection lane geometry, signal timing, and hourly traffic volumes. Based on the vehicular delay at each intersection, a LOS is assigned to each approach and intersection movement as a qualitative measure of performance. These results, as confirmed or refined by field observations, constitute the technical analysis that will form the basis of the recommendations outlined in this report.
3. EXISTING CONDITIONS

3.1 Roadway System

The following are brief descriptions of the existing roadways in the vicinity of the Project:

Pillanani Highway – is an undivided, north-south State highway that extends from Mokulele Highway at its intersection with North Kihei Road and continues for approximately seven (7) miles to the south where it terminates at Wailea Ike Drive. In the vicinity of the study area, Pillanani Highway is a two-lane principal arterial providing access to Kekai and Wailea. Pillanani Highway widens to four (4) lanes north of Kilohana Drive and provides right- and left-turn deceleration/storage lanes at most major intersections along the highway. Within the study area, the posted speed limit is generally 40 mph and decreases to 20 mph in the southbound direction near its terminus at Wailea Ike Drive.

Okolani Drive – is a divided, east-west, four-lane collector roadway from South Kihei Road to Wailea Alanui Drive and narrows to an undivided, east-west, two-lane collector roadway from Wailea Alanui Drive to Pillanani Highway. Okolani Drive provides access to numerous residential subdivisions adjacent to the roadway. The posted speed limit is 30 mph.

Wailea Alanui Drive – is a divided, north-south, two-way, four-lane collector roadway with a posted speed limit of 30 miles per hour (mph). This roadway begins to the north at its intersection with Kilohana Drive and terminates at its intersection with Kaukahi Street, continuing as Makena Alanui Road.

Wailea Ike Drive – is a divided, east-west, two-way, four-lane collector roadway that connects Pillanani Highway with Wailea Alanui Drive. Wailea Ike Drive provides access to resorts, residential and commercial areas. The posted speed limit is 30 mph.

Kilohana Drive – is an undivided, east-west, two-way, two-lane roadway that begins to the east at its intersection with Pillanani Highway and continues eastward until its intersection with South Kihei Road. Kilohana Drive provides access to numerous resorts and residences including Wailea Palms. The posted speed limit is 25 mph.

Mapu Drive – is an undivided, two-way, two-lane roadway that provides access to several condos and vacation rental units from Pillanani Highway. It begins to the west at its intersection with Pillanani Highway and Kilohana Drive and continues eastward and then curves southward until it ends to the south in a cul-de-sac south of Kupuilau Drive. The posted speed limit is 20 mph.

Kaukahi Street – is an undivided, east-west, two-way, two-lane roadway that provides access to residences and businesses including The Fairmont, Wailea Golf Club, Hotel Wailea, Polo Beach Club, Wailea Golf Vistas.

Makena Alanui Road – is an undivided north-south, two-way, two-lane roadway that provides regional access to all of Makena. It begins to the north at a T-intersection with Makena Road and continues south to the Project site at its intersection with Makena Road and Makena Keoneoio Road.

Makena Keoneoio Road – is an undivided north-south, two-way, two-lane local roadway that provides public access to the Maluaka Beach. It begins to the south at a T-intersection with

Makena Alanui Road and Makena Road and continues approximately 1,000 feet northward where it forms a loop.

3.2 Existing Traffic Volumes

Based on the proximity to the proposed Project site, the following intersections were studied in the existing conditions scenario. The weekday hourly turning movement data was collected on Tuesday May 1, 2018, with the exception of Pillanani Highway and Kilohana Drive, which was collected on April 4, 2016:

- Pillanani Highway and Kilohana Drive
- Pillanani Highway and Okolani Drive
- Wailea Alanui Drive and Wailea Ike Drive
- Wailea Alanui Drive and Kaukahi Street
- Makena Alanui Road and Makena Keoneoio Road
- Makena Keoneoio Road and Beach Parking Lot

Based on traffic count data, the weekday morning peak hour was determined to occur between 7:45 AM and 8:45 AM and the afternoon peak hour was determined to occur between 3:30 PM and 4:30 PM.

3.3 Existing Traffic Conditions Observations and Analysis

In the study area, Pillanani Highway acts as the main thoroughfare between Kekai and Wailea, and Wailea Alanui Drive acts as the main thoroughfare between Wailea and Makena. Traffic along Makena Alanui Road was relatively low with no major traffic impacts. It should be noted, that construction-related vehicles are generated at the Makena Alanui Road/Makena Keoneoio Road intersection for existing construction of the Makena H1 development at the time of the traffic count. These construction vehicles were removed based on observations during the AM and PM peak hours of traffic.

Wailea Alanui Drive/Wailea Ike Drive – This signalized study intersection was observed to operate smoothly during the AM and PM peak hours of traffic with all movements operating at LOS D or better with no significant delay or queuing under normal operating conditions. All movements typically cleared within one signal cycle.

Wailea Alanui Drive/Kaukahi Street – This unsignalized study intersection was observed to operate smoothly during the AM and PM peak hours of traffic with all movements operating at LOS C or better with no significant delay or queuing under normal operating conditions. Based on the Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration, dated 2009, Four-Hour Vehicular Volume traffic signal warrant, a traffic signal is currently not warranted. Signal warrant figures are shown in Appendix D.

Pillanani Highway/Okolani Drive/Mikioi Place – This unsignalized study intersection primarily serves north-south vehicle traffic along Pillanani Highway and provides channelized right-turns for all approaches along with dedicated left-turn lanes for northbound and southbound approaches. During the AM peak hour of traffic, all approaches were observed to operate relatively smoothly with minor movements experiencing moderate delay with traffic analysis indicating that the
northbound and southbound left-turn movements operate at LOS A and the eastbound and westbound left-turn movements operating at LOS E.

During the PM peak hour of traffic, higher volumes along Pilani Highway result in longer delays to the minor street movements. Traffic analysis indicates that the northbound and southbound left-turn movements operate at LOS A/B and the westbound approach operates at LOS F and the eastbound approach operates at LOS E and overcapacity conditions. However, based on observations, eastbound left-turn queues did not exceed vehicle queues of 5 vehicles. A traffic signal is currently planned to be implemented at the Pilani Highway/Okolani Drive intersection as part of the mitigation for the Kai Malu Wailea residential development.

Pilani Highway/Kiholaha Drive/Mapu Place – This signalized intersection primarily serves north-south vehicle traffic along Pilani Highway and provides protected access for the minor street movements. Pilani Highway is generally a four-lane roadway about 700 feet to the north of this intersection, and reduces to a two-lane highway south of this intersection. One of the two southbound through lanes terminates to an exclusive southbound right-turn lane onto Kiholaha Drive.

During the AM peak hour of traffic, southbound volumes were observed to traverse the intersection smoothly. Traffic analysis indicates the intersection operates at overall LOS B with all movements operating at LOS D or Better.

During the PM peak hour of traffic, traffic operated relatively smoothly, however, northbound volumes were observed to queue for about a 30-35 minute period extending as far south to Okolani Drive. By 4:50 PM, vehicle queues were observed to clear without congestion. Traffic analysis indicates the intersection operates at overall LOS C. All other movements operate at LOS E or better.

Figure 3.1 illustrates the existing lane configurations, volumes and LOS. See Table 3.1 for a summary of the existing conditions analysis.
4. BASE YEAR 2028 TRAFFIC CONDITIONS

The Base Year 2028 was selected to reflect the completion year of the Project. The Base Year 2028 scenario represents the traffic conditions within the study area without the Project. Base Year traffic projections were formulated by applying a defacto growth rate to the existing 2018 traffic count volumes and adding trips generated by known developments in the vicinity of the Project.

4.1 Defacto Growth Rate

Projections for Base Year 2028 traffic were generally based on State of Hawaii Department of Transportation (HDO) historic traffic counts. HDOT's Maui Regional Travel Demand Model (MRTDM) growth for forecast years between 2007, 2020 and 2035, TIARs completed for other projects in the study area and nearby developments in the vicinity of the Project. An annual growth rate of 0.8% was applied along the mainline of the major roadways in the area.

4.2 Traffic Forecasts for Known Developments

4.2.1 Background Projects

By Year 2028, traffic in the Project area is expected to experience growth due to several developments in the Wailea and Makena regions. Trip rates for many of the single-family and multi-family resort residential land uses were obtained from the Resort Residential Trip Generation Rate Development, prepared by Parsons Brinkerhoff (PB) in October 2006. See Appendix D for the PB single-family and multi-family resort residential trip rates.

Table 4.1 includes the proposed land use(s) and AM and PM peak hour forecast trip generation for each of the known developments within the study area. Figure 4.1 and 4.2 illustrates the location of each development.

Wailea Developments

- Kahoolawe Island Reserve Commission (KIRC) Education & Operations Center – Proposed 2,950 square feet building that will provide educational, administrative, exhibition, and office functions.

- Kiholo Makena – Proposed to construct approximately 28 affordable single-family residential units with access via Wela Street.

- Makai at Wailea (MF-15) – This project proposes to develop 68 multi-family residential units. The project is located on the northeast corner of the Wailea Alani Drive/Kaaukahi Street intersection.

- Wailea Village Center Expansion – This project proposes to expand the existing Wailea Village Center by developing an additional 22,000 square-feet of shopping center use. The project is located to the south of Wailea Ikek Drive between Wailea Alani Drive and Wales Ikek Ikek Place.

- Parcel MF-7 – Proposed to construct approximately 75 resort multi-family residential units with access via Okolani Drive.

- Parcel SF-S – Proposed to construct approximately 57 single-family residential units with access via Kapili Street.

- Kealia O Wailea (MF-11) – This project proposes to develop 70 multi-family units as part of the Wailea Resort. The project is located next to the Wailea Gateway Center on the northwest corner of the Pilani Highway/Wailea Ikek Drive intersection.

- Parcel B-1 – This project proposes to develop an approximately 97,600 square-foot shopping center. The project is located on the southeast corner of the Wailea Ikek Drive/Kaaukahi Ikek Ikek Street and north of Hotel Wailea.

- The Ridge at Wailea (MF-19) – This project proposes to develop nine (9) single-family residential units as part of the Wailea Resort. The project is located east of Kaaukahi Street and north of Hotel Wailea.

- Hotel Ikek Project (MF-10) – This project proposes to construct a 110-room hotel at the northeast corner of the Wailea Ikek Drive and Wailea Ikek Ikek Place (North) intersection. Primary access to the site will occur at the Wailea Ikek Ikek Drive/Wailea Ikek Ikek Place (North) intersection with the Project access located along Wailea Ikek Ikek Place (North). The project will also share an internal easement with the adjacent Marriott Residence Inn Hotel.

- Kuai High School – Proposed along the mauka side of Pilani Highway with access via an extension of Kanahele Street and anticipated to serve approximately 800 students.

- Maui Bay Villas (formerly Maui Lu) – Proposed to construct approximately 388 timeshare dwelling units and 12 beach parking stalls with access via Kaonolu Street.

- Wailea Village Residential – Proposed to construct approximately 172 single-family dwelling units with access via East Wailea Road.

- Alakele Subdivision – Proposed to construct approximately 48 single family dwelling units and up to 48 ohauna units with access via Auhana Road.

- Kalana Kai – Proposed to construct approximately 40 affordable multi-family residential units with access via Kanani Road.
the east, and secondary access may occur at the Wailea Ike Drive/Wailea Ekolu Place intersection.

- **Hōnaunau -** This is a master planned residential and commercial community being proposed mauka of Piilani Highway at the southern terminus adjacent to the Piilani Highway/Wailea Ike Drive intersection. It's unknown when development will occur, but for purposes of this study, the initial 250 affordable single family residential units are assumed to be built by Year 2028.

- **Grand Wailea Expansion -** The existing Grand Wailea Hotel is proposing to increase the room count by an additional 224 rooms.

- **SF-7A, MF-12 & MF-13 -** Proposed multi-family residential subdivision adjacent to Okoalani Drive.

- **Parcel B2 -** 10,000 SF shopping center along Kalai Waa Street.

- **MF-10 (BMX Commercial) -** Proposed 30,000 SF (BMX Commercial Development) adjacent to Wailea Ike Drive.

- **MF-16 -** Proposed multi-family residential subdivision on Kalai Waa Street.

### Makena Developments

- **Makena Parcel H-1 Ocean Villas Mulana Development -** This project proposes to develop 13 single-family residential units and six (6) multi-family condominium units. Parcel H-1 is located south of the former Makena Beach & Golf Resort and is bordered by the Makena Golf Course to the south and west and by Makena Keoneoio Road to the east.

- **Makena Resort H-3 Development -** This project proposes to convert the former 310-room hotel at the Makena Beach & Golf Resort into 65 multi-family resort residential units, including a beach club for residents only.

- **Makena M-5/M-6/S-7/B-2 -** This project will consist of 46 resort single-family and residential units, 68 resort multi-family residential units, 10 Transient Vacation Rental (TVR) units, 14 residential condominium units, and approximately 27,300 square feet (SF) of retail space. The project also proposes to provide two new vehicular accesses; one (1) access along Honokalani Street and one (1) access along Makena Alanui Road.

---

### Table 4.1: Background Projects Trip Generation

<table>
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<tr>
<th>Background Development</th>
<th>Land Uses</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
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<th>Exit</th>
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<th>Exit</th>
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<tr>
<td>Kilhei Developments</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>South Maui Community Park Phase I</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Kihei Community Park</td>
<td>Obtained from Project’s TTIAR</td>
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<td>42</td>
<td>99</td>
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<tr>
<td>Kaneohe Drive/ Iba</td>
<td>Obtained from Project’s TTIAR</td>
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<td>363</td>
<td>393</td>
<td>416</td>
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<td></td>
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<td>Obtained from Project’s TTIAR</td>
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<td>103</td>
<td>77</td>
<td>50</td>
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<td>Obtained from Project’s TTIAR</td>
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<td>31</td>
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<tr>
<td>Kilhei Residences (Kalani)</td>
<td>Obtained from Project’s TTIAR</td>
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<td>178</td>
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<tr>
<td>Kilhei High School</td>
<td>Obtained from Project’s TTIAR</td>
<td>277</td>
<td>130</td>
<td>407</td>
<td>58</td>
<td>85</td>
<td>143</td>
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<tr>
<td>Maalua Bay Villas</td>
<td>Obtained from Project’s TTIAR</td>
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<td>69</td>
<td>179</td>
<td>210</td>
<td>136</td>
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<td></td>
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<tr>
<td>Wailea Ridge Village Residential</td>
<td>Obtained from Project’s TTIAR</td>
<td>33</td>
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<td>58</td>
<td>159</td>
<td>63</td>
<td>222</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Alaka’i Subdivision</td>
<td>48 Multi-Family Residential (ITE 215)</td>
<td>11</td>
<td>33</td>
<td>44</td>
<td>35</td>
<td>20</td>
<td>55</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Kalama Kai</td>
<td>40 Multi-Family Residential (ITE 225)</td>
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<td>15</td>
<td>20</td>
<td>16</td>
<td>10</td>
<td>26</td>
<td></td>
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</tr>
<tr>
<td>Total Kilhei Developments</td>
<td>655</td>
<td>918</td>
<td>1,763</td>
<td>1,338</td>
<td>1,014</td>
<td>2,352</td>
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<td></td>
</tr>
</tbody>
</table>

### Wailea Developments

| Kīmao Education and Operations Center | Office Building | 62 | 6 | 68 | 10 | 55 | 65 |
| Kīmao Kalani | Obtained from Project’s TTIAR | 6 | 19 | 25 | 19 | 11 | 30 |
| Malia at Wailea (MF-15) | Resort MF Residential | 6 | 9 | 15 | 11 | 12 | 23 |
| Wailea Village Center Expansion | Shopping Center | 7 | 5 | 12 | 60 | 66 | 126 |
| Keanae at Wailea (MF-11) | Wailea Resort TIIAR Phase I | 6 | 25 | 31 | 24 | 13 | 37 |
| Wailea Ridge/ Iba | 155 | 111 | 264 | 279 | 300 | 579 |
| The Ridge at Wailea (MF-12) | 2 | 2 | 4 | 2 | 2 | 4 |
| Hotel Ike (MF-10) | 25 | 10 | 35 | 20 | 26 | 46 |
| SF-7A, MF-12 & MF-13 | 24 | 15 | 39 | 62 | 87 | 126 |
| BF-8 | 16 | 16 | 32 | 16 | 14 | 30 |
| MF-10 (BMX Commercial) | 24 | 15 | 39 | 62 | 87 | 129 |
| MF-16 | 47 | 28 | 75 | 41 | 53 | 94 |
| Grand Wailea Expansion | 240 Hotel Rooms (ITE 330) | 55 | 21 | 76 | 46 | 61 | 107 |
| Kalama Phase 4A | 35 Residential Dwelling Units (ITE 210-ITE 225) | 31 | 101 | 132 | 102 | 59 | 161 |
| Total Wailea Developments | 469 | 406 | 875 | 783 | 835 | 1,618 |

### Makena Developments

| Makena Resort H-3 | Resort MF Residential & Beach Club | 54 | 25 | 79 | 46 | 47 | 93 |
| Makena Parcel H-1 | Resort MF Residential | 3 | 4 | 7 | 3 | 4 | 7 |
| Makena M-5/M-6/S-7/B-2 | Obtained from Project’s TTIAR | 95 | 81 | 176 | 82 | 70 | 152 |
| Total Makena Developments | 162 | 90 | 252 | 111 | 121 | 232 |

**Notes:**
1. Forecasts trips derived from available TTIARs for each Project, ITE Trip Generation, and/or updated to reflect current status.
2. Table shows trips generated by known developments in the vicinity of the Project. Not all traffic generated by these developments travel through the study area of the TTIAR, since some traffic will be routed to various roadways and intersections that were not included in the TTIAR. Majority of Kilhei developments likely routed farther north to Central Maui or within Kilhei and wont impact study intersections.
3. By Year 2030, approximately 50% of Kilhei may be completed based on current completion dates.
4.3 Planned Roadway Improvements

- **Pilani Highway/Okolani Drive/Mikiol Place intersection** – New traffic signal system
  - The construction of a traffic control signal at this location is planned by a private entity as part of the roadway improvements for the Kai Maku at Wailea residential development and should be operational before Year 2029.

- **Pilani Highway/Kileohana Drive/Maapu Drive intersection** – Additional northbound through lane and exclusive northbound right-turn lane.
  - The construction of an additional northbound through lane and an exclusive northbound right-turn lane along Pilani Highway is anticipated to occur before Year 2028. Existing agreements between HDOE and Wailea Resort will result in the construction of this improvement as part of the Wailea Resort Master Plan.

4.4 Base Year 2028 Analysis

It is anticipated that by Base Year 2028, traffic will have increased over existing conditions due to development in the Kihei, Wailea, and Makena regions. Actual growth within the study region may vary based upon the approval process and actual construction of the various nearby developments. All background projects and ambient growth is anticipated to account for approximately 30 percent of traffic increases by Base Year 2028.

4.4.1 Base Year 2028 Intersection Analysis

The study intersection on Makena Alanui Road will continue operating adequately with all movements at LOS B or better.

**Wailea Alanui Drive/Kaukahi Street**

By Base Year 2028, this intersection will operate adequately during the AM peak hour with all movements at LOS D or better. However, during the PM peak hour of traffic, vehicular increases primarily along Wailea Alanui Drive will result in the eastbound approach to operate at LOS F and the westbound approach to operate at LOS E. Based on the MUTCD signal warrant analysis, the intersection will be just shy of the Four Hour Vehicular Volume traffic signal warrant. This intersection should continue to be monitored to determine if a signal would be warranted in the future.

**Wailea Alanui Drive/Wailea Ike Drive** – This signalized study intersection is forecast to operate at overall LOS D or better, with all movements operating at LOS D or better during the AM and PM peak hours of traffic, with the exception of the southbound left-turn movement and the westbound left-turn movement operating at LOS E during the PM peak hour of traffic.

**Pilani Highway/Okolani Drive/Mikiol Place** – As discussed in Section 4.3, this intersection is assumed to be signalized by Year 2028 without the Project and is forecast to experience overall LOS B conditions during the AM and PM peak hours of traffic. All movements at this intersection are forecast to operate at LOS D or better during the AM and PM peak hours of traffic, with the exception of the southbound left-turn movement and the northbound left-turn movement operating at LOS E during the PM peak hour of traffic.

Pilani Highway/Kileohana Drive/Maapu Drive

As discussed in Section 4.3, an additional northbound through lane and an exclusive northbound right-turn lane along Pilani Highway will be constructed as part of the Wailea Resort Master Plan. All movements at this intersection are forecast to operate at LOS D or better during the AM and PM peak hours of traffic with the exception of the turning movements operating at LOS E or better during both peak hours of traffic.

Figures 4.3 and 4.4 illustrate the Base Year 2028 forecast traffic volumes and LOS for the study intersection movements. Table 4.2 summarizes the Base Year 2028 LOS at the study intersections compared to existing conditions. LOS worksheets are provided in Appendix C.

Figure 4.3: BY 2028 Traffic Volumes & LOS
NOTE: THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.

LEGEND

- WHT(P) = AM/PM PEAK HOUR OF VEHICLE VOLUMES
- X = UNignalized INTERSECTION X
- XIX = AM/PM LOS

MATCH LINE
FOR CONSTRUCTION. SEE FIGURE 4.4

FIGURE 4.3

MAKE NPA RCEL H-2 PROJECT TIAR
BASE YEAR 2028 LANE CONFIGURATION,
VOLUMES AND LOS - MAKE N AREA

NOTE: THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. DO NOT USE FOR CONSTRUCTION.

LEGEND

- WHT(P) = AM/PM PEAK HOUR OF VEHICLE VOLUMES
- 0 = SIGNALIZED INTERSECTION Y, OVERALL AM/PM LOS
- X = UNIGNALIZED INTERSECTION X
- XIX = AM/PM LOS

MATCH LINE
FOR CONSTRUCTION. SEE FIGURE 4.4

FIGURE 4.4

MAKE NPA RCEL H-2 PROJECT TIAR
BASE YEAR 2028 CONFIGURATION,
VOLUMES AND LOS - KHEI-WALEA AREA
5. **FUTURE YEAR 2028 TRAFFIC CONDITIONS**

### 5.1 Background

The Project proposes to develop a 53-unit CPR residential development with a 57-stall beach parking lot. It should be noted that an existing 50-stall beach parking lot will be replaced, resulting in a beach parking stall count increase of 7 stalls. The Project’s residential component will have one access via Makena Keanae Road towards the northwest corner of the parcel, while the beach parking lot will be serviced by a separate driveway.

#### 5.1.1 Trip Generation

Vehicular trips for the Project were generated based on two (2) publications. The Project assumes approximately 90% of the single-family residential units will consist of part-time residents, while the remaining 10% are full-time residents. Therefore, local resort residential trip rates obtained from the Resort Residential Trip Generation Rate Development, prepared by Parsons Brinkerhoff (PB) in October 2006 were used for this roughly 90% single-family resort residential units. These trip rates were derived from a local Maui study that calculated AM and PM peak hour trip rates for single-family resort residential units within the Wailea Resort area. These rates were accepted by HDOT.

Trips generated by the remaining 10% of resort residential units (full-time residents) was calculated based on the National Institute of Transportation Engineers (ITE) trip rates, which publishes a book based on empirical data compiled from a body of more than 4,250 trip generation studies submitted by public agencies, developers, consulting firms, and associations. This publication, titled *Trip Generation, 10th Edition*, provides trip rates and/or formulae based on graphs that correlate vehicular trips with independent variables. The independent variables can range from Dwelling Units (DU) for single and multi-family attached homes to Square-foot Gross Leasable Area (SF GLA) for commercial development.

See Tables 5.1 and 5.2 for Trip Generation formulae and projections for the Project.

#### 5.1.2 Trip Distribution and Assignment

Trips generated by the Project were assigned throughout the study area generally based upon existing travel patterns and anticipated traffic reroutes from known projects in the area. The traffic generated by the Project was added to the forecast Base Year 2028 traffic volumes within the vicinity of the Project to constitute the traffic volumes for Future Year 2028 traffic conditions. Figure 5.1 and Figure 5.2 illustrates the Project-generated distribution for Future Year 2028.

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### Table 4.2: Existing 2018 and Base Year 2028 Level of Service Summary

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM (HCM)</th>
<th>AM (LOS)</th>
<th>PM (HCM)</th>
<th>PM (LOS)</th>
<th>AM (HCM)</th>
<th>AM (LOS)</th>
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<tr>
<td></td>
<td>Delays</td>
<td>% Ratio</td>
<td>Delays</td>
<td>% Ratio</td>
<td>Delays</td>
<td>% Ratio</td>
<td>Delays</td>
<td>% Ratio</td>
</tr>
<tr>
<td>1. Makena Rd/Alauani Rd</td>
<td>7.4</td>
<td>0.02</td>
<td>A</td>
<td>7.4</td>
<td>0.02</td>
<td>A</td>
<td>7.5</td>
<td>0.02</td>
</tr>
<tr>
<td>EB/LI/RT</td>
<td>9.3</td>
<td>0.01</td>
<td>A</td>
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<td>B</td>
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<tr>
<td>Overall</td>
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<td>0.01</td>
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<td>0.01</td>
<td>A</td>
<td>9.7</td>
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<td>2. Beach Parking Lot &amp; Makena Keanae Rd</td>
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<td>0.00</td>
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<tr>
<td>SB/LI/RT</td>
<td>7.3</td>
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<td>A</td>
<td>7.2</td>
<td>0.00</td>
<td>A</td>
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<td>23.2</td>
<td>0.71</td>
</tr>
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<td>4. Wailea Alami Dr &amp; Wailea Beach Dr</td>
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<td>21.3</td>
<td>0.59</td>
<td>C</td>
<td>29.7</td>
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<td>0.11</td>
<td>B</td>
<td>20.2</td>
<td>0.35</td>
<td>C</td>
<td>27.5</td>
<td>0.19</td>
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<td>WL/LI/Th</td>
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<td>0.66</td>
<td>B</td>
<td>27.2</td>
<td>0.71</td>
<td>C</td>
<td>33.4</td>
<td>0.81</td>
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<tr>
<td>Overall</td>
<td>15.0</td>
<td>0.43</td>
<td>B</td>
<td>27.2</td>
<td>0.71</td>
<td>C</td>
<td>33.4</td>
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<td>5. Pililaupuni/Wailea Highways</td>
<td>9.8</td>
<td>0.01</td>
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<td>9.5</td>
<td>0.03</td>
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<td>B</td>
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<td>E</td>
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<tr>
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<td>0.25</td>
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<tr>
<td>Overall</td>
<td>10.6</td>
<td>0.33</td>
<td>B</td>
<td>10.6</td>
<td>0.12</td>
<td>B</td>
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<td>6. Pililaupuni/Wailea Highways</td>
<td>41.3</td>
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<td>D</td>
<td>56.1</td>
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<td>E</td>
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<td>Overall</td>
<td>19.1</td>
<td>0.09</td>
<td>B</td>
<td>29.4</td>
<td>0.07</td>
<td>C</td>
<td>41.4</td>
<td>0.07</td>
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* v/c = ratio > 1.0 denotes oversaturated conditions.
** Intersection analyzed using HCM 2000 methodology due to HCM 6th Edition methodology currently not supporting signalized intersections with hold phases (in this case, a hold phase occurs in the southbound through movement when the pedestrian phase on the northbound approach is actuated with the southbound left-turn movement).
Table 5.1: Trip Generation Rates

<table>
<thead>
<tr>
<th>Land Use (ITE Code)</th>
<th>Independent Variable</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trip Rate</td>
<td>% Enter</td>
<td>Trip Rate</td>
</tr>
<tr>
<td>Single-Family Detached Housing (210)</td>
<td>5 DU</td>
<td>[a] 25%</td>
<td>[b] 63%</td>
</tr>
<tr>
<td>Resort Single-Family Residential (PB Calculated)</td>
<td>48 DU</td>
<td>0.46 58%</td>
<td>0.46 50%</td>
</tr>
<tr>
<td>Beach Parking Lots ¹</td>
<td>7 New Stalls</td>
<td>0.35 89%</td>
<td>0.18 11%</td>
</tr>
</tbody>
</table>

Notes:
- [a] (T) = 0.71(X) + 4.8
- [b] (T) = 0.90(X) + 0.2

1. Beach Parking trip rates were calculated based on the observed AM and PM peak hour traffic volumes generated by existing beach parking lots on a per stall basis, at the time of the traffic counts in May 2018. Observations indicated that the existing parking lots were not fully occupied, so additional beach parking stalls should not generate additional traffic. However, to remain conservative and account for future potential growth, additional trips were generated based on the total increased beach parking stall count.

Table 5.2: Project-Generated Trips

<table>
<thead>
<tr>
<th>Land Use (ITE Code)</th>
<th>Independent Variable</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enter</td>
<td>Exit</td>
<td>Total</td>
</tr>
<tr>
<td>Single-Family Detached Housing (210)</td>
<td>5 DU</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Resort Single-Family Residential (PB Calculated)</td>
<td>48 DU</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Beach Parking (-)</td>
<td>7 New Stalls</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>15</td>
<td>32</td>
</tr>
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</table>

5.2 Future Year 2028 Analysis

By Year 2028, the Project is projected to generate a total of 32(28) trips during the AM(PM) peak hours of traffic. The Project is anticipated to account for approximately 0.8 percent of traffic increases at the Wailea Alanui Drive/Wailea Ike Drive Intersection and 0.4-0.5 percent of traffic increases along Pilani Highway at its intersections with Kilohana Drive and Okolani Drive by Future Year 2028 scenario.

5.2.1 Future Year 2028 Intersection Analysis

By Future Year 2028 conditions, all study intersections are generally expected to operate similarly to Base Year conditions. All intersection movement LOS will nearly operate with the same LOS as Base Year conditions, with most movement vehicle delay increases only ranging from 0-2 second increases.

At the Wailea Alanui Drive/Kaukahi Street intersection, based on the MUTCD signal warrant analysis, the intersection will continue to fall just shy of meeting the Four-Hour Vehicular Volume traffic signal warrant. This intersection should continue to be monitored to determine if a signal would be warranted in the future.

Figures 5.2 and 5.3 illustrates the Future Year 2028 forecast traffic volumes and LOS for the study intersection movements. Table 5.3 summarizes the Future Year 2028 LOS at the study intersections compared to Base Year 2028 and Existing 2018 conditions. LOS worksheets are provided in Appendix C.
Table 5.3: Existing 2016 Conditions, Base Year 2028 Conditions and Future Year 2038 Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Egress</th>
<th>Base Year 2028 Conditions</th>
<th>Future Year 2038 Conditions</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing Conditions</td>
<td></td>
</tr>
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</table>

Table 5.3: Existing 2016 Conditions, Base Year 2028 Conditions and Future Year 2038 Conditions Cont'd

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Egress</th>
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<th>Base Year 2028 Conditions</th>
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</tr>
</tbody>
</table>

Note: *Separations analyzed using HCM 2010 methodology to be full 50+ Filter methodology currently not supporting designated intersections with full phases. For this reason, a full phase occurs on the southbound through movement when the left-turn lane on the left-turn approach is activated with the southbound left-turn movement.
6. CONCLUSIONS

The Project proposes to develop a 53-unit CPR residential development with a 57-stall beach parking lot. It should be noted that an existing 50-stall beach parking lot will be replaced, resulting in a beach parking stall count increase of 7 stalls.

6.1 Existing Conditions

The majority of movements at the study intersections operated adequately at LOS D or better and under-capacity conditions during the peak hours of traffic. However, at the Pilani Highway/Okolani Drive/Mikioi Place intersection, some movements operate at LOS E/F and overcapacity conditions during the AM and/or PM peak hours. A signal is currently planned at this intersection by a separate private entity as part of the roadway improvements for the Kai Malu at Wailea residential development.

During the PM peak hour of traffic at the Pilani Highway/Kiloohana Drive/Mapu Place intersection, traffic operated relatively smoothly however, northbound volumes were observed to queue for about a 30-35 minute period extending as far south to Okolani Drive. By 4:50 PM, vehicle queues were observed to clear without congestion.

At the Wailea Alanui Drive/Kaukahi Street intersection, traffic was observed to operate smoothly during the AM and PM peak hours of traffic with all movements operating at LOS C or better with no significant delay or queuing under normal operating conditions. Based on the Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration, dated 2009, Four-Hour Vehicular Volume traffic signal warrant, a traffic signal is currently not warranted.

6.2 Base Year 2028

By Base Year 2028, all background projects in Kihei, Wailea and Makena and regional ambient growth is anticipated to account for approximately 30 percent of traffic increases by Base Year 2028.

With the installation of the traffic signal at Pilani Highway/Okolani Drive/Mikioi Place intersection and the widening of the northbound approach at the Pilani Highway/Kiloohana Drive/Mapu Drive intersection, traffic is anticipated to operate adequately with all movements operating at LOS D or better during the AM and PM peak hours, with the exception of the southbound left-turn movement and the northbound left-turn movement operating at LOS E during the PM peak hour of traffic.

At the Wailea Alanui Drive/Wailea Ike Drive intersection, the signal will operate at LOS C or better with all movements operating at LOS D or better during the AM and PM peak hours of traffic, with the exception of the southbound left-turn movement and the westbound left-turn movement operating at LOS E during the PM peak hour of traffic.

At the Wailea Alanui Drive/Kaukahi Street intersection, during the PM peak hour of traffic, vehicular increases primarily along Wailea Alanui Drive will result in the eastbound approach to operate at LOS F and the westbound approach to operate at LOS E. Based on the MUTCD signal warrant analysis, the intersection will be just shy of meeting the Four-Hour Vehicular Volume traffic signal warrant. This intersection should continue to be monitored to determine if a signal would be warranted in the future.

6.3 Future Year 2028

By Future Year 2028, the Project is projected to generate a total of 32(28) trips during the AM/PM peak hours of traffic. The Project is anticipated to account for approximately 0.8 percent of traffic increases at the Wailea Alanui Drive/Wailea Ike Drive Intersection and 0.4-0.5 percent of traffic along Pilani Highway at its intersections with Kiloohana Drive and Okolani Drive by Future Year 2028 scenario.

Upon completion of the Project, all study intersections are forecast to operate similar to Base Year 2028. All intersection movement LOS will nearly operate with the same LOS as Base Year conditions, with most movement vehicle delay increases only ranging from 0-2 second increases. At the Wailea Alanui Drive/Kaukahi Street intersection, based on the MUTCD signal warrant analysis, the intersection will continue to fall just shy of meeting the Four-Hour Vehicular Volume traffic signal warrant. This intersection should continue to be monitored to determine if a signal would be warranted in the future.

No mitigation is recommended as a result of the Project.
7. REFERENCES

# APPENDIX A

## TRAFFIC COUNT DATA

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<thead>
<tr>
<th>Groups Printed</th>
<th>Cars - Light Goods Vehicles</th>
<th>Buses - Unit Trucks - Articulated Trucks</th>
<th>Bicycles on Road</th>
<th>Bicycles on Crosswalk</th>
<th>Pedestrians</th>
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<tbody>
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<td>Right</td>
<td>Left</td>
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Approx %: 6.5 41.1 12.4 0 6.9 9.9 83.3 0 1.8 97 0.6 0.7 85.5 9 0.5 0 0.0

Total %: 5.7 46.5 7.1 0 2.7 1 8.7 0 0.4 23 0.1 0.3 7.3 0.8 6.5 0 0.0

Motorcycles: 0 6 0 0 0 2 0 0 0 2 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

% Motorcycles: 0.3 0 0 0 0 4.3 0 0 5.3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Cars: 114 5366 210 0 20 22 303 0 9 849 4 0 294 2 13 0 3207

% Cars: 69.7 66.8 86 0 62.5 47.8 77.9 0 47.4 82.7 85.7 0 78.4 61.8 61.9 0 71.9

Motorcycles: 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

% Motorcycles: 0.3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Buses: 2 2 3 0 0 0 0 0 1 1 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

% Buses: 0.3 0.1 0.5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0.1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Pedestrians: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

% Pedestrians: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
### Austin Tsutsumi & Associates

501 Summer Street, Suite 521
Honolulu, HI 96817-5031
Phone: 533-3464 Fax: 258-1267

---

#### File Name: Pilani Hwy - Kilohana Dr
Site Code: 18-510 Kiehi Information Center & Admin Bldg
Start Date: 4/4/2016
Page No: 2

#### PILANI HWY SOUTHBOUND

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<th>Start Time</th>
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<th>thru</th>
<th>Right</th>
<th>Peds</th>
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#### PILANI HWY NORTHBOUND

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#### PILANI HWY EASTBOUND

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#### Peak Hour Data

- **Peak Hour Begins at:** 07:45
- **Motorcycles:**
- **Cars:**
- **Light Goods Vehicles:**
- **Trucks:**
- **Articulated Trucks:**
- **Bicycles on Road:**
- **Bicycles on Crosswalk:**
- **Pedestrians:**

---

### Austin Tsutsumi & Associates

501 Summer Street, Suite 521
Honolulu, HI 96817-5031
Phone: 533-3464 Fax: 258-1267

---

#### File Name: Pilani Hwy - Kilohana Dr
Site Code: 18-510 Kiehi Information Center & Admin Bldg
Start Date: 4/4/2016
Page No: 1

#### Groups Printed: Motorcycles - Cars - Light Goods Vehicles - Buses - Link Trucks - Articulated Trucks - Bicycles on Road - Bicycles on Crosswalk - Pedestrians

- **Start Time**
  - **Left**
  - **Thru**
  - **Right**
  - **Peds**
  - **Total**

---

#### Note:

- Additional tables and diagrams related to traffic data for Pilani Hwy - Kilohana Dr.
## Austin Tsutsumi & Associates
501 Summer Street, Suite 521
Honolulu, HI 96817
Phone: (808) 533-3646 Fax: (808) 526-1267

File Name: Piilani Hwy - Kilohana Dr
Site Code: 18-510 Kheel Information Center & Admin Bldg
Start Date: 4/4/2018

### Page 2

<table>
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<tr>
<th>PILANI HWY SOUTHBOUND</th>
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<td>20</td>
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<td><strong>9:30 AM</strong></td>
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<td><strong>10:30 AM</strong></td>
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</table>

### Peak Hour Data

#### Peak Hour Begins at 15:30

- **Motorcycles**: 2.7
- **Cars**: 5.7
- **Light Goods Vehicles**: 10.9
- **Trucks**: 16.6
- **Bus**: 22.2
- **Articulated Trucks**: 33.3
- **Bicycles on Road**: 1.6
- **Bicycles on Crosswalk**: 0.2

Total: 88,174 vehicles/hour

### Groups Printed:
- Motorcycles
- Cars
- Light Goods Vehicles
- Buses
- Trucks
- Articulated Trucks
- Bicycles on Road
- Bicycles on Crosswalk
- Pedestrians

File Name: Piilani Hwy - Okolani D
Site Code: 18-521 Makena H2
Start Date: 5/1/2018
Page No: 1
### Austin Tsutsumi & Associates

501 Summer Street #521  
Honolulu, HI 96817  
Phone: (808) 533-3646  
Fax: (808) 526-1267

**File Name:** Wailea Alanui Dr - Kaukahi Dr  
**Site Code:** 18-521 Makena H2  
**Start Date:** 5/1/2018  
**Page No:** 2

#### Peak Hour Data

**Peak Hour Begins at 07:45 AM**

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**Peak Hour Begins at 07:45 AM**

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<th>Tot.</th>
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</table>

---

**Note:** The data represents traffic volume and flow rates at various points during the peak hour from 07:45 AM to 08:30 AM on successive weekdays.

---

**Austin Tsutsumi & Associates**

501 Summer Street #521  
Honolulu, HI 96817  
Phone: (808) 533-3646  
Fax: (808) 526-1267

**File Name:** Wailea Alanui Dr - Kaukahi Dr  
**Site Code:** 18-521 Makena H2  
**Start Date:** 5/1/2018  
**Page No:** 1

---

**Groups:** Printed-Motorcycles, Cars - Light Goods Vehicles, Buses - Unit Trucks, Articulated Trucks, Bicycles on Road, Bicycles on Crosswalk, Pedestrians

---

**Note:** The data represents traffic volume and flow rates at various points during the peak hour from 07:45 AM to 08:30 AM on successive weekdays.
### Austin Tsutsumi & Associates

501 Summer Street #521
Honolulu, HI 96817
Phone: (808) 533-3646 Fax: (808) 526-1267

File Name: Makena Keoneoio Rd - Parking Lot
Site Code: 18-521 Makena H2
Start Date: 5/1/2018
Page No.: 2

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<tr>
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</tbody>
</table>

**Peak Hour Data**

- **Peak Hour Begins at 07:45 AM**
- **Peak Hour Duration is 1 hour**
- **Peak Hour Volume is 2,015 vehicles per hour**

---

### Austin Tsutsumi & Associates

501 Summer Street #521
Honolulu, HI 96817
Phone: (808) 533-3646 Fax: (808) 526-1267

File Name: Makena Keoneoio Rd - Parking Lot
Site Code: 18-521 Makena H2
Start Date: 5/1/2018
Page No.: 1

**Groups Printed:** Motorcycles, Cars, Light Goods Vehicles, Buses, Unit Trucks, Articulated Trucks, Bicycles on Road, Bicycles on Crosswalk, Pedestrians

<table>
<thead>
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</tbody>
</table>

**Peak Hour Data**

- **Peak Hour Begins at 07:45 AM**
- **Peak Hour Duration is 1 hour**
- **Peak Hour Volume is 2,015 vehicles per hour**

---

**Legend**

- **Motorcycles**
- **Cars**
- **Light Goods Vehicles**
- **Buses**
- **Unit Trucks**
- **Articulated Trucks**
- **Bicycles on Road**
- **Bicycles on Crosswalk**
- **Pedestrians**
### Austin Tsutsumi & Associates

501 Summer Street #521  
Honolulu, HI 96817  
Phone: (808) 533-3646  
Fax: (808) 526-1267

File Name: Makena Keoneoio Rd - Parking Lot  
Site Code: 18-521 Makena H2

Start Date: 5/1/2016

Page No: 2

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**Grand Total**

Parks: 0  
Motorcycles: 0  
Cars: 0  
Buses: 0  
Motorcycles: 0  
Cars: 0  
Buses: 0

Peak Hour Data

**Northbound**

- Total Vehs: 54
- Peak Time: 07:15 AM
- Peak Vehs: 13

**Southbound**

- Total Vehs: 43
- Peak Time: 07:30 AM
- Peak Vehs: 21

---

### Austin Tsutsumi & Associates

501 Summer Street #521  
Honolulu, HI 96817  
Phone: (808) 533-3646  
Fax: (808) 526-1267

File Name: Makena Alanui - Makena Keoneoio Rd  
Site Code: 18-521 Makena H2

Start Date: 5/1/2016

Page No: 1

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**Grand Total**

- Total Vehs: 97
- Peak Time: 07:45 AM
- Peak Vehs: 54

---

**Northbound**

- Total Vehs: 43
- Peak Time: 07:30 AM
- Peak Vehs: 21

**Southbound**

- Total Vehs: 54
- Peak Time: 07:15 AM
- Peak Vehs: 13

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**Southbound**

- Total Vehs: 43
- Peak Time: 07:30 AM
- Peak Vehs: 21

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**Grand Total**

- Total Vehs: 97
- Peak Time: 07:45 AM
- Peak Vehs: 54

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**Northbound**

- Total Vehs: 43
- Peak Time: 07:30 AM
- Peak Vehs: 21

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**Southbound**

- Total Vehs: 54
- Peak Time: 07:15 AM
- Peak Vehs: 13

---

**Grand Total**

- Total Vehs: 97
- Peak Time: 07:45 AM
- Peak Vehs: 54
### Austin Tsutsumi & Associates
501 Summer Street #521
Honolulu, HI 96817
Phone: (808) 533-3646 Fax: (808) 526-1267

File Name: Makena Alumui - Makena Keoneo Rd
Site Code: 18-521 Makena H2
Start Date: 5/1/2018
Page No: 2

#### Peak Hour Data

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#### Austin Tsutsumi & Associates
501 Summer Street #521
Honolulu, HI 96817
Phone: (808) 533-3646 Fax: (808) 526-1267

File Name: Makena Alumui - Makena Keoneo Rd
Site Code: 18-521 Makena H2
Start Date: 5/1/2018
Page No: 1

#### Grouse Printed: Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks - Bicycles on Road - Bicycles on Crosswalk - Pedestrians

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#### Austin Tsutsumi & Associates
501 Summer Street #521
Honolulu, HI 96817
Phone: (808) 533-3646 Fax: (808) 526-1267

File Name: Makena Alumui - Makena Keoneo Rd
Site Code: 18-521 Makena H2
Start Date: 5/1/2018
Page No: 2

#### Peak Hour Data

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<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>

#### Austin Tsutsumi & Associates
501 Summer Street #521
Honolulu, HI 96817
Phone: (808) 533-3646 Fax: (808) 526-1267

File Name: Makena Alumui - Makena Keoneo Rd
Site Code: 18-521 Makena H2
Start Date: 5/1/2018
Page No: 1

#### Grouse Printed: Motorcycles - Cars - Light Goods Vehicles - Buses - Unit Trucks - Articulated Trucks - Bicycles on Road - Bicycles on Crosswalk - Pedestrians

<table>
<thead>
<tr>
<th>Time</th>
<th>Left</th>
<th>Thru</th>
<th>Right</th>
<th>Peds</th>
<th>LANE TOTAL</th>
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<tr>
<td>07:00 AM</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>07:30 AM</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>08:00 AM</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>08:30 AM</td>
<td>00</td>
<td>00</td>
<td>00</td>
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### APPENDIX B

#### LEVEL OF SERVICE CRITERIA

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<th>Right</th>
<th>Ped</th>
<th>Sum Total</th>
<th>Left</th>
<th>Thru</th>
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<th>Ped</th>
<th>Sum Total</th>
<th>Left</th>
<th>Thru</th>
<th>Right</th>
<th>Ped</th>
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<td>0</td>
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<td>2</td>
<td>4</td>
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<td>13</td>
<td>0</td>
<td>25</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>0</td>
<td>15</td>
<td>2</td>
<td>2</td>
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<td>04:15 PM</td>
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<td>27</td>
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<td>0</td>
<td>5</td>
<td>10</td>
<td>0</td>
<td>15</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>6</td>
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<td>92</td>
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<td>0</td>
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<td>13</td>
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<td>0.81</td>
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**Peak Hour Data**

- **Peak Hour Begins at 03:30 PM**
- Motorcycles
- Cabs
- General Vehicles
- Buses
- Single-Unit Trucks
- Articulated Trucks
- Bicycles on Road
- Pedestrians
- Sidewalk Pedestrians

**Notes**

- Hourly Traffic Volume
- Peak Hour Factor
- Lane Configuration

---

**Austin Tsutsumi & Associates**

501 Sumner Street #521
Honolulu, HI 96817
Phone: (808) 533-3646 Fax: (808) 526-1267
APPENDIX B – LEVEL OF SERVICE (LOS) CRITERIA

VEHICULAR LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS (HCM 8TH EDITION)

Level of service for vehicles at signalized intersections is directly related to delay values and is assigned on that basis. Level of Service is a measure of the acceptability of delay values to motorists at a given intersection. The criteria are given in the table below.

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Control Delay per Vehicle (sec./veh.)</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>&lt; 10.0</td>
</tr>
<tr>
<td>B</td>
<td>&gt;10.0 and ≤ 20.0</td>
</tr>
<tr>
<td>C</td>
<td>&gt;20.0 and ≤ 35.0</td>
</tr>
<tr>
<td>D</td>
<td>&gt;35.0 and ≤ 55.0</td>
</tr>
<tr>
<td>E</td>
<td>&gt;55.0 and ≤ 80.0</td>
</tr>
<tr>
<td>F</td>
<td>&gt;80.0</td>
</tr>
</tbody>
</table>

Delay is a complex measure, and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the vic ratio for the lane group or approach in question.

VEHICULAR LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM 8TH EDITION)

The level of service criteria for vehicles at unsignalized intersections is defined as the average control delay, in seconds per vehicle.

LOS delay threshold values are lower for two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections than those of signalized intersections. This is because more vehicles pass through signalized intersections, and therefore, drivers expect and tolerate greater delays. While the criteria for level of service for TWSC and AWSC intersections are the same, procedures to calculate the average total delay may differ.

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Average Control Delay (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>≤ 10</td>
</tr>
<tr>
<td>B</td>
<td>&gt;10 and ≤ 15</td>
</tr>
<tr>
<td>C</td>
<td>&gt;15 and ≤ 25</td>
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<tr>
<td>D</td>
<td>&gt;25 and ≤ 35</td>
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<tr>
<td>E</td>
<td>&gt;35 and ≤ 50</td>
</tr>
<tr>
<td>F</td>
<td>&gt;50</td>
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### APPENDIX C

LEVEL OF SERVICE CALCULATIONS

- Existing AM Conditions

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<td>EBR</td>
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<td>Lane Configurations</td>
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<td></td>
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<td>Traffic Vol, veh/h</td>
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</tr>
<tr>
<td>Future Vol, veh/h</td>
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<td>Conflicting Ped, %</td>
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<td>Stop</td>
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<td>951</td>
<td>1476</td>
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<td>1476</td>
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<td>A</td>
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<th>SBT</th>
<th>EBR</th>
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 Makena H-2 Parcel 06/15/2017 Existing AM Synchro 10 Report Page 1
### HCM 6th TWSC
#### 2: Beach Parking Lot & Makena Keoneoio Road

<table>
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<th>Conflicting Peds, mbr</th>
<th>Sign Control</th>
<th>Free Flow</th>
<th>Peak Hour Factor</th>
<th>Heavy Vehicles, %</th>
<th>Mmt Flow</th>
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<td></td>
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<td>Stop</td>
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| HCM LOS | A |

### HCM 6th TWSC
#### 3: Wahala Alanui Drive & Kaukahi Street

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<th>Sign Control</th>
<th>Free Flow</th>
<th>Peak Hour Factor</th>
<th>Heavy Vehicles, %</th>
<th>Mmt Flow</th>
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<tr>
<td></td>
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<td>Stop</td>
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<td>Yield</td>
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<th>Major2</th>
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<td>242</td>
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<th>SS</th>
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### Makena H-2 Parcel
#### 06/15/2017 Existing AM

**Synchro 10 Report**

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<th>YBR</th>
<th>SBL</th>
<th>SBT</th>
<th>SBR</th>
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<tr>
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<td>0.004</td>
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<td>7.3</td>
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<td>A</td>
<td>A</td>
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<td>-</td>
<td>-</td>
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<td>HCM 95th Vote (Q/veh)</td>
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# APPENDIX C
LEVEL OF SERVICE CALCULATIONS

- Existing PM Conditions

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## Movement

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## Conflicting Peds, #/yr

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## Grade, %

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## Heavy Vehicles, %

| Merit Flow | 13 | 3 | 5 | 207 | 93 | 2 |

## Conflicting Flow All

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## HCM LOS

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## Minor Lane/Major Movement

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### HCM 6th TWSC

2: Beach Parking Lot & Makena Keoneoiki Road

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#### Merge Flow

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#### Minor Lane/Major Movement

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### HCM 6th TWSC

3: Wailea Alanui Drive & Kaukahi Street

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#### Merge Flow

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#### Minor Lane/Major Movement

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Makeoka H-2 Parcel 05/15/2017 Existing PM

Synchro 10 Report

Page 2

Synchro 10 Report

Page 3
### HCM Signalized Intersection Capacity Analysis

**4: Wai`ale Ata`a Drive & Wai`ale Ika Drive**

11/14/2018

#### Movement

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#### Protected Phases

| Ph | 6 | 2 | 1 | 6 |

#### Permitted Phases

| Ph | 6 | 2 | 2 |

#### Actuated Green, G (s)

| G | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |

#### Effective Green, g (s)

| g | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |

#### Actuated g/c Ratio

| g/c Ratio | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |

#### Clearance Time (s)

| Clearance Time (s) | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 |

#### Vehicle Extension (s)

| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |

#### Lane Grp Cap (vph)

| Lane Grp Cap (vph) | 535 | 460 | 576 | 477 | 399 | 2085 |

#### v/s Ratio Prot

| v/s Ratio Prot | 0.31 | 0.19 | 0.06 | 0.00 | 0.00 | 0.00 |

#### v/s Ratio Perm

| v/s Ratio Perm | 0.04 | 0.11 | 0.15 | 0.50 | 0.35 | 0.61 |

#### v/s Ratio NA

| v/s Ratio NA | 0.71 | 0.15 | 0.50 | 0.35 | 0.61 | 0.12 |

#### Uniform Delay, d1

| Uniform Delay, d1 | 22.8 | 18.8 | 21.6 | 19.8 | 25.8 | 25.7 |

#### Progression Factor

| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

#### Incremental Delay, d2

| Incremental Delay, d2 | 4.3 | 0.2 | 1.5 | 0.4 | 2.8 | 0.0 |

#### Delay (s)

| Delay (s) | 27.3 | 19.0 | 23.1 | 20.2 | 28.6 | 8.7 |

#### Level of Service

| Level of Service | C | B | C | C | C | A |

#### Approach Delay (s)

| Approach Delay (s) | 24.1 | 21.3 | 17.7 |

#### Approach LOS

| Approach LOS | C | B |

### Intersection Summary

- **HCM 2000 Control Delay**: 21.3
- **HCM 2000 Level of Service**: C
- **HCM 2000 Volume to Capacity ratio**: 0.84
- **Actuated Cycle Length (s)**: 74.0
- **Ratio of lost time (s)**: 12.5
- **Intersection Capacity Utilization**: 59.8%
- **ICU Level of Service**: B
- **Analysis Period (min)**: 15
- **Critical Lane Group**: 

### Major/Minor

<table>
<thead>
<tr>
<th>Major/Minor</th>
<th>Minor2</th>
<th>Minor1</th>
<th>Major1</th>
<th>Major2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflicting Flow All</td>
<td>1820</td>
<td>1857</td>
<td>1820</td>
<td>1864</td>
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<tr>
<td>Critical Hwy</td>
<td>-</td>
<td>-</td>
<td>780</td>
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<td>Critical Hwy Stg 1</td>
<td>865</td>
<td>956</td>
<td>-</td>
<td>956</td>
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<tr>
<td>Critical Hwy Stg 2</td>
<td>956</td>
<td>956</td>
<td>-</td>
<td>552</td>
</tr>
<tr>
<td>Critical Hwy Stg 3</td>
<td>6.12</td>
<td>6.12</td>
<td>-</td>
<td>552</td>
</tr>
<tr>
<td>Follow-up Hwy</td>
<td>6.12</td>
<td>6.12</td>
<td>-</td>
<td>552</td>
</tr>
<tr>
<td>Pol Cap-1 Maneuver</td>
<td>6.12</td>
<td>6.12</td>
<td>-</td>
<td>552</td>
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<tr>
<td>Pol Cap-2 Maneuver</td>
<td>6.12</td>
<td>6.12</td>
<td>-</td>
<td>552</td>
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<td>Stage</td>
<td>6.12</td>
<td>6.12</td>
<td>-</td>
<td>552</td>
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<tr>
<td>Plateau blocked, %</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Mov Cap-1 Maneuver</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mov Cap-2 Maneuver</td>
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<td>-</td>
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<td>Stage</td>
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<td>6.12</td>
<td>-</td>
<td>552</td>
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#### Approach

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<th>WB</th>
<th>ND</th>
<th>SS</th>
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<tr>
<td>HCM Control Delay, s</td>
<td>364.2</td>
<td>136.5</td>
<td>0.3</td>
<td>1.1</td>
</tr>
<tr>
<td>HCM LOS</td>
<td>F</td>
<td>F</td>
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</tr>
</tbody>
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### Minor Lane/Major Movt

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<thead>
<tr>
<th>Minor Lane/ Major Movt</th>
<th>WB</th>
<th>BB</th>
<th>NB</th>
<th>NR</th>
<th>ERK</th>
<th>ERK</th>
<th>SB</th>
<th>SB</th>
<th>SB</th>
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<tbody>
<tr>
<td>Capacity (vph)</td>
<td>636</td>
<td>-</td>
<td>48</td>
<td>-</td>
<td>53</td>
<td>-</td>
<td>732</td>
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<td>-</td>
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<tr>
<td>HCM Lane V/C Ratio</td>
<td>0.034</td>
<td>-</td>
<td>1.291</td>
<td>-</td>
<td>0.554</td>
<td>-</td>
<td>0.12</td>
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<td>HCM Control Delay (s)</td>
<td>5.5</td>
<td>-</td>
<td>364.2</td>
<td>-</td>
<td>0.359</td>
<td>0.6</td>
<td>0.10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>HCM Lane LOS</td>
<td>A</td>
<td>-</td>
<td>F</td>
<td>A</td>
<td>F</td>
<td>A</td>
<td>B</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>HCM 95th %ile G(v/veh)</td>
<td>0.1</td>
<td>-</td>
<td>5.8</td>
<td>-</td>
<td>2.2</td>
<td>-</td>
<td>0.4</td>
<td>-</td>
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</tr>
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</table>

**Notes**

- **Volume exceeds capacity**: 30
- **Delay exceeds 300 s**: 30
- **Computation Not Defined**: All major volume in plateaus

---

**Makaha H-2 Parcel 06/15/2017 Existing PM**

Synchro 10 Report

Page 1

---

**Makaha H-2 Parcel 06/15/2017 Existing PM**

Synchro 10 Report

Page 5
### HCM 6th TWSC
#### 7: Makena Keoneoio Road & Project DW

**HCM 6th TWSC**

**Intersection**
Int Delay, s/veh: 0

**Movement**

<table>
<thead>
<tr>
<th>Movement</th>
<th>WBL</th>
<th>WBR</th>
<th>NBT</th>
<th>NBR</th>
<th>SBL</th>
<th>SBT</th>
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<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Lane Configurations**

<table>
<thead>
<tr>
<th>Traffic Vol, veh/h</th>
<th>Future Vol, veh/h</th>
<th>Initial Q, veh</th>
<th>Ped-Bike Adj, veh</th>
<th>Parking Bus, Adj</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Sign Control**
Stop: Stop
Free: Free
Free: Free

**Storage Length**
0

**Veh in Median Storage, %**
0

**Grade, %**
0

**Peak Hour Factor**
92

**Heavy Vehicles, %**
2

**Ment Flow**
0

**Major/Minor**

<table>
<thead>
<tr>
<th>Minor1</th>
<th>Major1</th>
<th>Major2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Sequence Flow All**
25

**Stage 1**
8

**Stage 2**
17

**Critical High**
6.42

**Critical High Stg 1**
5.42

**Critical High Stg 2**
5.42

**Follow-up High**
3.518

**Platoon Maneuver**

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1015</td>
<td>1006</td>
</tr>
</tbody>
</table>

**Platoon blocked, %**
0

**Mvn Cap-1 Maneuver**
991

**Mvn Cap-2 Maneuver**
991

**Stage 1**
1015

**Stage 2**
1006

**Approach**

<table>
<thead>
<tr>
<th>Veh No</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
</table>

**HCM Control Delay, s**
0

**HCM LOS**
A

### HCM 6th Signaled Intersection Summary
#### 6: Pilani Hwy & Kīkīhaha Drive/Mapu Drive

**HCM 6th Signaled Intersection Summary**

<table>
<thead>
<tr>
<th>Movement</th>
<th>EBL</th>
<th>EBT</th>
<th>FBR</th>
<th>WBL</th>
<th>WBT</th>
<th>WBR</th>
<th>NBL</th>
<th>NBT</th>
<th>NBR</th>
<th>SBL</th>
<th>SBT</th>
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<tr>
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</table>

**Lane Configurations**

<table>
<thead>
<tr>
<th>Traffic Volume, veh/h</th>
<th>Future Volume, veh/h</th>
<th>Initial Q, veh</th>
<th>Ped-Bike Adj, veh</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>201</td>
<td>0</td>
<td>0</td>
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</table>

**Work Zone On Approach**

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<thead>
<tr>
<th>Adj Sat Flow, veh/h/m</th>
<th>Adj Flow Rate, veh/h</th>
<th>Peak Hour Factor</th>
<th>Percent Heavy Veh, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td>218</td>
<td>0.925</td>
<td>22</td>
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**Arrive On Green**

<table>
<thead>
<tr>
<th>Sft Flow, veh/h/m</th>
<th>Grp Volume, veh/h</th>
<th>Q Service, s</th>
<th>Cycle Q Clear, s</th>
<th>Prop In Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>184</td>
<td>218</td>
<td>13.7</td>
<td>14.8</td>
<td>1.00</td>
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</table>

**Lane Grp Capacity, ve/h/m**

<table>
<thead>
<tr>
<th>V/C Ratio, s</th>
<th>Avail Grp Cap, veh/h/m</th>
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<tbody>
<tr>
<td></td>
<td>460</td>
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</table>

**HCM Platoon Ratio**

<table>
<thead>
<tr>
<th>Uniform Delay, s/veh</th>
<th>Incr Delay, s/veh</th>
<th>Initial Q Delay, s/veh</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.4</td>
<td>2.2</td>
<td>0.0</td>
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</table>

**Unsgr. Movement Delay, s/veh**

<table>
<thead>
<tr>
<th>LnGrp LOS</th>
<th>Approach Vol, veh/h</th>
<th>Approach Delay, s/veh</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6</td>
<td>242</td>
<td>36.8</td>
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</tbody>
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**Approach LOS**

<table>
<thead>
<tr>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
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**Timer - Asplund Phs**

<table>
<thead>
<tr>
<th>Phs Duration (G-Y+R-Y)</th>
<th>Change Period (Y+R)</th>
<th>Max Green Setting (Gmax-A)</th>
<th>Max Q Clear Time (g_p+c)+(g_p+c)</th>
<th>Green Ext Time (g_p+c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.8</td>
<td>4.0</td>
<td>26.0</td>
<td>8.0</td>
<td>0.7</td>
</tr>
</tbody>
</table>

**Veh 0 0 0 0**

**HCM 6th LOS**
C

---

**makana-h-2 parcel 06/15/2017 existing pm**

Synchro 10 report

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## APPENDIX C

### LEVEL OF SERVICE CALCULATIONS

- **Base Year 2028 without Project AM Peak Conditions**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Int Delay, s/hep</th>
<th>0.6</th>
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</thead>
<tbody>
<tr>
<td>Movement</td>
<td>EBL  EBR  NBL  NBT  SST  SBR</td>
<td></td>
</tr>
<tr>
<td>Lane Configurations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Vol, veh/h</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Future Vol, veh/h</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Conflicting Flow, veh/h</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sign Control</td>
<td>Stop</td>
<td>Stop</td>
</tr>
<tr>
<td>RT Channeling</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Storage Length</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Veh in Median Storage, #</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Grade, %</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Peak Hour Factor</td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>Heavy Vehicles, %</td>
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<td>2</td>
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<tr>
<td>Multi Flow</td>
<td>11</td>
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<table>
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<th>CS</th>
<th>NS</th>
<th>SB</th>
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<tbody>
<tr>
<td>HCM Control Delay, s</td>
<td>9.7</td>
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<td>0</td>
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<td>HCM LOS</td>
<td>A</td>
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<table>
<thead>
<tr>
<th>Minor Lane/Major Lane</th>
<th>NBL</th>
<th>NBT Ctrl</th>
<th>SST</th>
<th>SBR</th>
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<tbody>
<tr>
<td>Capacity (veh/h)</td>
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<td>779</td>
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<td>HCM Lane V/C Ratio</td>
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<td>0.014</td>
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<td>HCM Control Delay (s)</td>
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<tr>
<td>HCM Lane LOS</td>
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<td>A</td>
<td>A</td>
<td>-</td>
</tr>
<tr>
<td>HCM 95th %tile Q(veh)</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>-</td>
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*Synchro 10 Report*

*Page 1*
<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Volume, veh/h</th>
<th>Delay, s/veh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2: Beach Parking Lot &amp; Makena Keoneoic Road</td>
<td>23</td>
<td>09/30/2019</td>
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### Movement

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<th>Right</th>
<th>Left</th>
<th>Center</th>
<th>Right</th>
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<tbody>
<tr>
<td>Lane</td>
<td>WB</td>
<td>NB</td>
<td>SB</td>
<td>WB</td>
<td>NB</td>
<td>SB</td>
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<tr>
<td>Delay</td>
<td>50</td>
<td>3</td>
<td>25</td>
<td>50</td>
<td>3</td>
<td>25</td>
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### Conflicting Peds, #/hr

- 0
- 0
- 0
- 0

### Traffic Signal

- Sign Control
- Stop
- Stop
- Free
- Free
- Free
- Free

### Design Considerations

- Storage Length: 0
- Veh in Median Storage: 0
- Grade: 0
- Peak Hour Factor: 92

### Merit Flow

- 2
- 2
- 2

### Major/Minor

- Minor 1
- Major 2

<table>
<thead>
<tr>
<th>Conflict</th>
<th>Flow All</th>
<th>Lane</th>
<th>Critical</th>
<th>Flow All</th>
<th>Lane</th>
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<tr>
<td>Stage 1</td>
<td>25</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Stage 2</td>
<td>33</td>
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<td>-</td>
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<td>Critical</td>
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<td>-</td>
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<td>Critical</td>
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### Approach

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<td>HCM Delay</td>
<td>8.8</td>
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<td>3.6</td>
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### HCM LOS

A

### HCM LOS

A
APPENDIX C
LEVEL OF SERVICE CALCULATIONS

- Base Year 2028 without Project PM Peak Conditions

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Int Delay, sveh</th>
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<tbody>
<tr>
<td>Movement</td>
<td>EBL  EBR  NBL  NBT  SST  SBR</td>
<td></td>
</tr>
<tr>
<td>Lane Configurations</td>
<td>Traffic Vol, veh/h</td>
<td>20 5 5 245 125 5</td>
</tr>
<tr>
<td></td>
<td>Future Vol, veh/h</td>
<td>20 5 5 245 125 5</td>
</tr>
<tr>
<td></td>
<td>Conflicting Flows, vphr</td>
<td>0 0 0 0 0 0</td>
</tr>
<tr>
<td></td>
<td>Sign Control</td>
<td>Stop  Stop  Free  Free  Free  Free</td>
</tr>
<tr>
<td></td>
<td>RT Channel End</td>
<td>None  None  None  None</td>
</tr>
<tr>
<td></td>
<td>Storage Length</td>
<td>0 - - - - -</td>
</tr>
<tr>
<td></td>
<td>Veh in Median Storage, #</td>
<td>0 - - 0 0 -</td>
</tr>
<tr>
<td></td>
<td>Grade, %</td>
<td>0 - - 0 0 -</td>
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<tr>
<td></td>
<td>Peak Hour Factor</td>
<td>92 92 92 92 92 92</td>
</tr>
<tr>
<td></td>
<td>Heavy Vehicles, %</td>
<td>2 2 2 2 2 2</td>
</tr>
<tr>
<td></td>
<td>Main Flow</td>
<td>22 5 6 266 134 6</td>
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<th>Major/Major Minor</th>
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<th>Major 2</th>
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<tbody>
<tr>
<td>Conflicting Flow All</td>
<td>415 139 141</td>
<td>0 - 0</td>
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<tr>
<td>Stage 1</td>
<td>139 - - - - -</td>
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<td>Stage 2</td>
<td>276 - - - - -</td>
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<td>Critical Delay</td>
<td>6.42 6.22 4.12 - - -</td>
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<td></td>
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<tr>
<td>Critical Delay Stg 1</td>
<td>5.42 - - - - -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Delay Stg 2</td>
<td>5.42 - - - - -</td>
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<td></td>
</tr>
<tr>
<td>Follow-up Delay</td>
<td>3.518 3.318 2.218 - - -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pol Cap-1 Maneuver</td>
<td>594 939 1442 - - -</td>
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<tr>
<td>Stage 1</td>
<td>888 - - - - -</td>
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<tr>
<td>Stage 2</td>
<td>771 - - - - -</td>
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<td>Platoon blocked, %</td>
<td>- - - - - -</td>
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<td>Mov Cap-1 Maneuver</td>
<td>592 939 1442 - - -</td>
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<td>Mov Cap-2 Maneuver</td>
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<td>771 - - - - -</td>
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<tr>
<td>Capacity (veh/h)</td>
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<td>7.5 6 10.9 -</td>
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<td>HCM 85th %ile Q (veh)</td>
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### HCM 6th TWSC
2: Beach Parking Lot & Makeka Keoneoio Road

**Intersection**
Int Delay, s,veh: 2

**Movement**
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<th>WNR</th>
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<th>NBR</th>
<th>SBL</th>
<th>SBT</th>
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**Lane Configurations**
- Traffic Vol, veh/h: 5
- Future Vol. veh/h: 5
- Conflicting Peds, wky: 0
- Sign Control: Stop
- RT Channelized: None
- Veh in Median Storage, #: 0
- Storage Length: 0
- Peak Hour Factor: 92
- Heavy Vehicles, %: 2

**Major/Minor**
<table>
<thead>
<tr>
<th>Minor1</th>
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<td>Critical Hindy Stg 1: 5.42</td>
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**Approach**
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**HCM Control Delay, s:**
- NS: 8.8
- NB: 5.4

**HCM LOS:**
- A

---

### HCM 6th TWSC
3: Wailea Alanui Drive & Kaukahi Street

**Intersection**
Int Delay, s,veh: 14.9

**Movement**
| CBL | CBT | CSR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

**Lane Configurations**
- Traffic Vol, veh/h: 95
- Future Vol. veh/h: 95
- Conflicting Peds, wky: 0
- Sign Control: Stop
- RT Channelized: None
- Veh in Median Storage, #: 0
- Storage Length: -
- Peak Hour Factor: 92
- Heavy Vehicles, %: 2

**Major/Minor**
<table>
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<td>1028</td>
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**Approach**
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**HCM Control Delay, s:**
- NS: 95.3

**HCM LOS:**
- F

---

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Synchro 10 Report
Page 2
HCM 6th Signalized Intersection Summary
6: Piliuli Highway & Kikiaona Drive/Mapu Drive

09/30/2019

Movement

Lane Configurations

EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT EBT

Traffic Volume (veh/h)
220 20 25 25 15 145 20 1200 15 120 1005 190
Future Volume (veh/h)
220 20 25 25 15 145 20 1200 15 120 1005 190

Initial Q (veh/h)
0 0 0 0 0 0 0 0 0 0 0 0
Ped-Bike Adj(A_pbT)
1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Parking Bus, Adj
1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Work Zone On Approach
No No No No

Adj Sat Flow, veh/h
1870 1870 1870 1870 1870 1870 1870 1870 1870 1870 1870 1870

Adj Flow Rate, veh/h
239 22 22 22 16 1 22 1304 8 130 1158 160

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

Per cent Heavy Veh, %
2 2 2 2 2 2 2 2 2 2 2 2

Cap, veh/h
305 210 20 157 72 61 39 2049 914 161 1206 1022

Arrive On Green
0.11 0.13 0.13 0.02 0.04 0.04 0.04 0.58 0.58 0.19 0.64 0.64

Sat Flow, veh/h
1781 1869 164 1781 1870 1585 1781 1554 1585 1781 1870 1585

Gp Vol(V), veh/h
239 0 24 22 16 1 22 1304 8 130 1158 160

Gp Adj Flow(V), veh/h
191 0 164 1781 1870 1585 1781 1554 1585 1781 1870 1585

Q Serve(g_s), s
12.5 0.0 1.3 1.3 0.9 0.1 1.4 27.5 0.2 8.0 64.7 4.5

Cycle Q Clear(g_c), s
12.5 0.0 1.3 1.3 0.9 0.1 1.4 27.5 0.2 8.0 64.7 4.5

Prop In Lane
1.00 0.08 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lane Gp Cap(c), veh/h
305 0 238 157 72 61 39 2049 914 161 1206 1022

V/C Ratio(K)
0.78 0.00 0.10 0.14 0.22 0.02 0.06 0.04 0.01 0.01 0.06 0.16

Avail Cap(c) adj, veh/h
305 0 428 249 361 394 304 2049 914 161 1206 1022

HCM Platoon Ratio
1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Upstream Flt(H)
1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Uniform Delay (s), s/veh
12.4 0.0 0.2 0.4 1.5 0.1 11.8 0.7 0.0 9.3 16.6 0.1

Indq Delay(s), s/veh
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Free Flow(Cf) adj, veh/h
6 0.0 0.6 0.6 0.5 0.0 0.7 16.1 0.1 3.9 28.3 1.5

Unsg. Movement Delay, s/veh

LnGrp Delay(s), s/veh
57.6 0.0 43.3 50.4 53.7 51.9 65.9 16.5 101.1 59.2 35.1 7.5

LnGrp LOS
E D D D D D E B E D A

Approach Vol, veh/h
263 39 1334 1448

Approach Delay, s/veh
56.3 51.8 17.3 34.3

Approach LOS
B D C

Approach

Time - Asigned Phs
1 2 3 4 5 6 7 8

Phs Duration (g_s+g_c), s
16.1 70.6 70.6 19.3 7.5 78.1 17.0 9.3

Change Period (P+R), s
5.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0

Max Green Setting (g_mGn), s
28.4 12.5 28.4 12.5 28.4 12.5 28.4 12.5

Max Q Clear Time (g_s+g_c), s
28.6 3.3 3.3 3.4 66.7 14.5 2.9

Green Ext Time (g_p+c_p), s
0.3 9.0 0.0 0.1 5.0 0.0 0.0

Interaction Summary

HCM 6th Cell Delay
29.0

HCM 6th LOS
C

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HCM 6th TWSC
7: Makena Keoneo Road & Project DW

09/30/2019

Intersection

Int Delay, s/veh
0

Movement

Veh WBB WBT NBR SBL EBT

Lane Configurations

Traffic Vol, veh/h
0 0 0 0 0 0 0 0 0 0 0 0
Future Vol, veh/h
0 0 0 0 0 0 0 0 0 0 0 0

Conflicting Peds, m/hr
0 0 0 0 0 0 0 0 0 0 0 0

Sign Control
Stop Stop Free Free Free Free

RT Channelized
None None None None

Storage Length
0 0 0 0 0 0 0

Veh in Median Storage, %
0 0 0 0 0 0 0

Grade, %
0 0 0 0 0 0 0

Peak Hour Factor
92 92 92 92 92 92 92

Heavy Vehicles, %
2 2 2 2 2 2 2

Mvmt Flow
0 0 11 0 0 22

Major/Motor
Minor1 Major1 Major2 Major2

Conflicting Flow All
33 11 0 - - -

Stage 1
11 - - - - -

Stage 2
22 - - - - -

Critical Delay
6.42 9.22 - - - -

Critical Delay Stg 1
5.42 - - - - -

Critical Delay Stg 2
5.42 - - - - -

Follow-up Delay
3.518 3.318 - - - -

Per Cap-1 Minvaller
980 1070 - - - -

Stage 1
1012 - - - - -

Stage 2
1001 - - - - -

Platoon blocked, %
Mov Cap-1 Minvaller
980 1070 - - - -

Mov Cap-2 Minvaller
980 - - - - -

Stage 1
1012 - - - - -

Stage 2
1001 - - - - -

Approach

Veh NB SB

HCM Control Delay, s
0 0 0 0 0 0 0

HCM LOS
A

Minor Lane/Major Mvnt
WB/WLB/WTB

Capacity (veh/h)
- - - - - -

HCM Lane V/C Ratio
- - - - - -

HCM Control Delay (s)
- - - - - -

HCM Lane LOS
A - - - - -

HCM 95th %tile Q(veh)
- - - - - -
APPENDIX C
LEVEL OF SERVICE CALCULATIONS

- Future Year 2028 with Project AM Peak Conditions

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<td>None</td>
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<td>Storage Length</td>
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### HCM 6th TWSC

**2: Beach Parking Lot & Makena Keoneoic Road**

#### Intersection

**Int Delay, s/veh:** 1.5

#### Movement

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<th>R</th>
<th>B</th>
<th>N/B</th>
<th>N/B</th>
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</table>

#### Lane Configurations

- Traffic Vol, veh/h: 5 0 35 5 10 25
- Future Vol, veh/h: 5 0 35 5 10 25
- Conflicting Ped, vph: 0 0 0 0 0 0
- Sign Control: Stop
- Traffic Lane, %: Free
- Storage Length: 0
- Veh in Median Storage, %: 0
- Grade, %: 0
- Peak Hour Factor: 92 92 92 92 92 92
- Heavy Vehicles, %: 2 2 2 2 2 2

#### Major/Minor

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<thead>
<tr>
<th>Minor1</th>
<th>Major1</th>
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<td>41</td>
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<td>49</td>
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<td>6.42</td>
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<td>Critical Headway Sign 1</td>
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<tr>
<td>Follow-up Headway</td>
<td>3.51</td>
<td>3.31</td>
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<td>Red Cap-Maneuver</td>
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<td>1030</td>
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#### Approach

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#### HCM Control Delay, s

| HCM LOS | A |

#### Minor Lane Major Mvmt

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<th>N/B</th>
<th>N/B</th>
<th>S/B</th>
<th>S/B</th>
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#### Capacity (veh/h)

- HCM Marker Lane
- HCM Total Capacity
- HCM Total Delay
- HCM LOS
- HCM 95th Value (veh/h)

---

### HCM 6th TWSC

**3: Wailea Alanui Drive & Kaaukahi Street**

#### Intersection

**Int Delay, s/veh:** 4.7

#### Movement

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<th>E/B</th>
<th>B/R</th>
<th>B/R</th>
<th>W/B</th>
<th>W/B</th>
<th>N/B</th>
<th>N/B</th>
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<td></td>
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</tbody>
</table>

#### Lane Configurations

- Traffic Vol, veh/h: 25 10 5 85 40 30 5 105 25 45 395 90
- Future Vol, veh/h: 25 10 5 85 40 30 5 105 25 45 395 90
- Conflicting Ped, vph: 0 0 0 0 0 0 0 0 0 0 0 0
- Sign Control: Stop
- Traffic Lane, %: Free
- Storage Length: -
- Veh in Median Storage, %: -
- Grade, %: 0
- Peak Hour Factor: 92 92 92 92 92 92 92 92 92 92 92 92
- Heavy Vehicles, %: 2 2 2 2 2 2 2 2 2 2 2 2

#### Major/Minor

<table>
<thead>
<tr>
<th>Minor2</th>
<th>Minor1</th>
<th>Major1</th>
<th>Major2</th>
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<td>721</td>
<td>749</td>
<td>429</td>
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<tr>
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<td>527</td>
<td>527</td>
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<tr>
<td>Stage 2</td>
<td>244</td>
<td>222</td>
<td>-</td>
</tr>
<tr>
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<td>Follow-up Headway</td>
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<td>Red Cap-Maneuver</td>
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<td>341</td>
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<td>Mov Cap-Maneuver</td>
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#### Approach

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#### HCM Control Delay, s

| HCM LOS | C | D |

#### Minor Lane Major Mvmt

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#### Capacity (veh/h)

- HCM Marker Lane
- HCM Total Capacity
- HCM Total Delay
- HCM LOS
- HCM 95th Value (veh/h)

---

*Made by: H-2 Parcel 06/19/2017 FY AM*
### HCM 6th Signalized Intersection Summary

**6: Pillami Hwy & Kahoma Drive/Mapu Drive**  
09/03/2019

<table>
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<tr>
<th>Movement</th>
<th>EBD EBT EBR</th>
<th>WBL WBT WBR</th>
<th>NBL NBT NBR</th>
<th>SBL SBT SBR</th>
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<tbody>
<tr>
<td>Traffic Volume (veh/h)</td>
<td>160 15 15 20 20 165 25 660 10 90 1035 170</td>
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<td>Adj Sat Flow, veh/h</td>
<td>1870 1870 1870 1870 1870 1870 1870 1870 1870 1870 1870</td>
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<td>Adj Flow Rate, veh/h</td>
<td>174 16 1 22 22 1 27 717 6 98 1125 143</td>
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<td>Percent Heavy Veh, %</td>
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<td>Cap, veh/h</td>
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<td>Arise On Green</td>
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<td>Sat Flow, veh/h</td>
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<td>Gp Volume Veh, veh/h</td>
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<td>Q Serve (s), s</td>
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<td>Cycle Q Clearing C_l, s</td>
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<td>Prop In Lane</td>
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<td>Lane Gp Cap(l), veh/h</td>
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<tr>
<td>V/C Ratio(X)</td>
<td>0.58 0.09 0.07 0.14 0.30 0.02 0.02 59.0 0.54 0.01 0.79 0.95 0.14</td>
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<td>Avail Cap(l), veh/h</td>
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<td>Uniform Delay (s), s/hev</td>
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<td>LnGap Delay (s), s/hev</td>
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### HCM 6th TWSC

**7: Makana Kenoeo Road & Project DW**  
09/03/2019

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<tr>
<td>Lane Configurations</td>
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<td>Traffic Vol, veh/h</td>
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<td>Future Vol, veh/h</td>
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<td>Conflicting Peds, #/h</td>
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<td>6.42 6.22</td>
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<td>Follow-Up Hayly</td>
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<td>964 1004</td>
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<td>Stage 2</td>
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| Approach | YB NB SB |
|-----------|---------|---------|
| HCM Control Delay, s | 8.8 | 0 | 0 | |
| HCM LOS | A | | | |

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### HCM 8th TWSC
6. Beach Parking Lot II & Makena Keonecio Road 09/30/2019

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<td>Future Vol, veh/h</td>
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<td>Sign Control</td>
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<td>Storage Length</td>
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<tr>
<td>Veh in Median Storage, #</td>
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<tr>
<td>Grade, %</td>
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<td>Critical Hzwy Stg 1</td>
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<td>Critical Hzwy Stg 2</td>
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<td>HCM LOS</td>
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<th>NBR/Ant.Lt</th>
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<td>HCM Lane VC Ratio</td>
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**APPENDIX C**

LEVEL OF SERVICE CALCULATIONS

- Future Year 2028 with Project PM Peak Conditions

---

Makena H-2 Parcel 05/15/2017 FY AM Synchro 10 Report Page 8
### HCM 6th TWSC

#### 1: Makena Rd/Makena Alanui Rd & Makena Keoneocio Rd

**Intersection**

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**Traffic Volume (veh/h)**

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**Conflicting Pedestrians, #/hr**

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<th>NB</th>
<th>SB</th>
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<tbody>
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**Sign Control**

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**Heavy Vehicles, %**

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**Vehicle Flow**

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#### 2: Beach Parking Lot & Makena Keoneocio Road

**Intersection**

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**Traffic Volume (veh/h)**

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**Conflicting Pedestrians, #/hr**

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**Grade, %**

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**Peak Hour Factor**

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<td>92</td>
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**Heavy Vehicles, %**

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<th>NB</th>
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<th>SB</th>
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**Vehicle Flow**

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### HCM 6th TWSC

**3: Wailea Alanui Drive & Kaukahiki Street**

**09/30/2019**

**Intersection Parameters**

- **In-Int Delay, veh/h:** 15.9

**Movement Configuration**

<table>
<thead>
<tr>
<th>EB</th>
<th>BT</th>
<th>ESS</th>
<th>WSL</th>
<th>WBT</th>
<th>NBL</th>
<th>NB</th>
<th>SBL</th>
<th>SBT</th>
<th>SSL</th>
<th>SSR</th>
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</table>

**Lane Configurations**

- Traffic Vol, veh/h: 95 60 5 40 40 30 10 570 70 30 310 60
- Future Vol, veh/h: 95 60 5 40 40 30 10 570 70 30 310 60
- Conflicting Peds, #/hr: 0 0 0 0 0 0 0 1 0 0 0 0
- Sign Control: Stop Stop Stop Stop Stop Free Free Free Free Free Free
- RT Channelized: None Free - - Free - - Free - - Free - -
- Storage Length: - - - - - - - - - - - - - - - -
- Veh in Median Storage, %: 0 0 0 0 0 0 0 0 0 0 0 0
- Grade, %: 0 0 0 0 0 0 0 0 0 0 0 0
- Peak Hour Factor: 92 92 92 92 92 92 92 92 92 92 92 92
- Heavy Vehicles, %: 2 2 2 2 2 2 2 2 2 2 2 2
- Motor Flow: 101 65 5 43 43 33 11 500 76 33 37 66

**Major/Minor**

<table>
<thead>
<tr>
<th>Minor2</th>
<th>Minor1</th>
<th>Major1</th>
<th>Major2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflicting Flow All</td>
<td>1067 1046 337 1060 1045</td>
<td>- 337 0</td>
<td>0 620 0 0</td>
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<tr>
<td>Stage 1</td>
<td>403 403</td>
<td>641 843</td>
<td>- - -</td>
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<tr>
<td>Stage 2</td>
<td>664 642</td>
<td>- 438 403</td>
<td>- - -</td>
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<tr>
<td>Critical HDwy 1</td>
<td>7.12 8.52</td>
<td>6.22 7.12 6.52</td>
<td>- 4.12 4.12</td>
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<td>Critical HDwy 2</td>
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<td>6.12 5.52</td>
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<td>Critical HDwy 3</td>
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<td>5.54 4.08</td>
<td>3.10 3.10 4.08</td>
<td>- 2.218 - 2.218</td>
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<tr>
<td>Per Cap - 1 Maneuver</td>
<td>280 228 116 196 229</td>
<td>0 1522</td>
<td>0 960</td>
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<tr>
<td>Stage 1</td>
<td>624 600</td>
<td>463 469</td>
<td>0 - - -</td>
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<tr>
<td>Stage 2</td>
<td>450 469</td>
<td>597 600</td>
<td>0 - - -</td>
</tr>
<tr>
<td>Peak hours blocked, %: Mov Cap-1 Maneuver</td>
<td>183 218 115 144 218</td>
<td>- 1222</td>
<td>- 960</td>
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<tr>
<td>Mov Cap-2 Maneuver</td>
<td>183 218</td>
<td>144 218</td>
<td>- - -</td>
</tr>
<tr>
<td>Stage 1</td>
<td>615 396</td>
<td>458 462</td>
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<td>Stage 2</td>
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**Approach**

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**HCM Control Delay, 102.7**

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<th>HCM LOS</th>
<th>F</th>
<th>E</th>
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**Minor Lane/Major Mont**

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<th>MNT</th>
<th>NBBL</th>
<th>EB/SL Sidewalk</th>
<th>WSL</th>
<th>SSL</th>
<th>SBL</th>
<th>SBT</th>
<th>SSL</th>
<th>SBR</th>
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**Capacity (veh/h):**

- 1222 - 186 173 - 960

**HCM Lane V/C Ratio:**

- 0.009 - 0.94 0.503 - 0.034

**HCM Control Delay (s):**

- 0 - 312.7 46.2 0 8.8

**HCM LOS:**

- A - F E A A

**HCM 95th Tdle Q (veh/h):**

- 0 - 7.4 2.5 - 0.1

---

**HCM 6th TWSC**

**3: Wailea Alanui Drive & Wailea Ike Drive**

**09/30/2019**

**HCM Signalized Intersection Capacity Analysis**

**Movement Parameters**

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<tr>
<th>WB</th>
<th>WRB</th>
<th>NBT</th>
<th>NER</th>
<th>SRL</th>
<th>BRT</th>
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</table>

**Traffic Volume (vph):**

- 570 370 410 730 310

**Future Volume (vph):**

- 570 370 410 730 310

**Peak Flow (vph):**


**Total Lost Time (s):**

- 4.0 4.0 4.0 4.0 4.0

**Lane Util Factor:**

- 1.00 1.00 1.00 1.00 1.00 0.95

**Fph, pha/vehiles:**

- 1.00 0.95 1.00 0.95 1.00 1.00

**Fph, pha/vehiles:**

- 1.00 1.00 1.00 1.00 1.00 1.00

**Traffic Flow (vph):**

- 620 402 446 793 413 337

**RT Off/Reduction (vph):**

- 0 0 0 0 0 0

**Total Delay (vph):**

- 1770 1077 1863 1539 1770 3539

**Split Flow (vph):**

- 1770 1077 1863 1539 1770 3539

**Peak-hour factor, PHF:**

- 0.92 0.92 0.92 0.92 0.92 0.92

**Adj. Flow (vph):**

- 620 402 446 793 413 337

**Turn Type:**

<table>
<thead>
<tr>
<th>Ph</th>
<th>Perm</th>
<th>NA Perm</th>
<th>NA Prot</th>
<th>NA</th>
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</table>

**Protected Phases:**

- 8 2 1 6

**Permitted Phases:**

- 8 2

**Actuated Green, g (s):**

- 33.3 33.3 28.9 28.9 26.4 59.3

**Effective Green, g (s):**

- 33.3 33.3 28.9 28.9 26.4 59.3

**Actuated t/c Ratio:**

- 0.37 0.37 0.27 0.27 0.25 0.56

**Chained Time (s):**

- 4.0 4.0 4.0 4.0

**Vehicle Extension (s):**

- 3.0 3.0 3.0 3.0 3.0 3.0

**Laneway Cap (vph):**

- 652 555 505 417 438 1968

**Ratio Prot:**

- 0.30 0.31 0.39 0.32 0.32 0.10

**Ratio Perm:**

- 0.31 0.31 0.31 0.31 0.31 0.10

**Ratio:**

- 0.30 0.30 0.30 0.30 0.30 0.10

**Uniform Delay, d1:**

- 32.7 31.9 37.2 34.5 33.4 11.6

**Progression Factor:**

- 1.00 1.00 1.00 1.00 1.00 1.00

**Incremental Delay, d2:**

- 23.7 0.3 15.6 3.9 28.9 0.0

**Delay (s):**

- 56.4 24.2 53.8 38.4 63.4 11.6

**Level of Service:**

<table>
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<th>D</th>
<th>D</th>
<th>E</th>
<th>B</th>
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</table>

**Approach Delay (s):**

- 43.6 44.0 42.8

**Approach LOS:**

- D | D | D

---

**Intersection Summary**

- HCM 2000 Control Delay: 43.6
- HCM 2000 Level of Service: D

**HCM Volume to Capacity ratio:**

- 1.05

**Actuated Cycle Length (s):**

- 106.5

**Sum of lost time (s):**

- 12.5

**Intersection Capacity Utilization:**

- 84.3%

**ICU Level of Service:**

- E

**Analysis Period (min):**

- 15

**Critical Lane Group:**

-
### HCM 6th TWSC
#### 7: Makena Keoneoio Road & Project DW

<table>
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<tr>
<td>Lane Configurations</td>
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<td>Future Vol, veh/h</td>
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<td>Grade, %</td>
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<td>Peak Hour Factor</td>
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<td>Heavy Vehicles, %</td>
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<tr>
<td>Merit Flow</td>
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#### Major/Minor
- Minor 1
  - Conflicting Flow All: 41
  - Stage 1: 19
  - Critical Highway: 5.42
  - Critical Highway Stg 1: 5.42
  - Critical Highway Stg 2: 5.42
  - Follow-up Highway: 3.518
  - Nat Cap-1 Maneuver: 970
  - Stage 1: 1004
  - Stage 2: 1001
  - Platoon Blocked, %: -
  - Mov Cap-1 Maneuver: 970
  - Mov Cap-2 Maneuver: 970
  - Stage 1: 1004
  - Stage 2: 1001

- Major 1
  - WB: 9.8
  - NB: 0
  - SB: 0

- Major 2
  - WB: 9.8
  - NB: 0
  - SB: 0

- HCM Control Delay, s:
  - 8.5

- HCM LOS:
  - A

**Minor Lane/Major Mvnt**

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<tr>
<td>HCM Control Delay (s)</td>
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<tr>
<td>HCM Lane LOS</td>
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<td>HCM 95th %ile (veh/h)</td>
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### HCM 6th TWSC
#### 8: Beach Parking Lot II & Makena Keoneoio Road

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<tr>
<td>Future Vol, veh/h</td>
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<tr>
<td>Sign Control</td>
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<tr>
<td>Peak Hour Factor</td>
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<td>92</td>
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<td>Heavy Vehicles, %</td>
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<tr>
<td>Merit Flow</td>
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#### Major/Minor
- Minor 1
  - Conflicting Flow All: 1
  - Stage 1: 0
  - Critical Highway: 6.42
  - Critical Highway Stg 1: 5.42
  - Critical Highway Stg 2: 5.42
  - Follow-up Highway: 3.518
  - Nat Cap-1 Maneuver: 1022
  - Stage 1: -
  - Stage 2: 1022
  - Platoon Blocked, %: -
  - Mov Cap-1 Maneuver: 1022
  - Mov Cap-2 Maneuver: 1022
  - Stage 1: -
  - Stage 2: 1022

- Major 1
  - WB: 8.5
  - NB: 0
  - SB: 0

- HCM Control Delay, s:
  - 8.5

- HCM LOS:
  - A

**Minor Lane/Major Mvnt**

<table>
<thead>
<tr>
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<tbody>
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</tr>
<tr>
<td>HCM Lane V/C Ratio</td>
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<tr>
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<tr>
<td>HCM Lane LOS</td>
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<td>HCM 95th %ile (veh/h)</td>
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3:30 pm 11/01/2017 Synchro 10 Report Page 7
APPENDIX D
TRAFFIC SIGNAL WARRANTS

Warrant 2, Four-Hour Vehicular Volume

*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

MAKENA PARCEL H-2
PROJECT TRIM

EXISTING 2018 CONDITIONS - FOUR HOUR TRAFFIC SIGNAL WARRANT FOR WALEA ALANUI DRIVE AND KAUKAHI STREET
**Warrant 2, Four-Hour Vehicular Volume**

- **MINOR STREET HIGHER-VOLUME APPROACH-VPH**
  - 2 OR MORE LANES & 2 OR MORE LANES
  - 2 OR MORE LANES & 1 LANE
  - 1 LANE & 1 LANE

**MAJOR STREET - TOTAL OF BOTH APPROACHES - VEHICLES PER HOUR (VPH)**

*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.*

*FIGURE D2*

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**Warrant 2, Four-Hour Vehicular Volume**

- **MINOR STREET HIGHER-VOLUME APPROACH-VPH**
  - 2 OR MORE LANES & 2 OR MORE LANES
  - 2 OR MORE LANES & 1 LANE
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*FIGURE D3*
Resort Residential Trip Generation Rate Development

Background
At the request of the State of Hawaii Department of Transportation (HDOT), data were collected to determine if the resort residential trip generation rates documented in the Institute of Transportation Engineers publication entitled, Trip Generation, 7th Edition, were appropriate for the Wailea-Makena area on Maui.

Three major developers within the Wailea-Makena area agreed to participate in this effort and directed their traffic consultants to develop a methodology to collect data and use these data to determine alternative resort residential trip generation rates. The three traffic consultants involved were Austin-Tsutumi and Associates, Parsons Brinckerhoff, and Phillip Rowell Associates.

This write-up summarizes the methodology used to develop alternative resort residential trip generation rates based on observation of existing resort residential development located in Wailea Resort.

Methodology
In developing a methodology to research resort residential trip generation rates for the Wailea-Makena area, it was decided to collect data separately for single-family and for multi-family resort residential development. All developments used for data collection were located in the Wailea Resort area.

Effort was made to determine which multi-family resort residential developments allow units to be rented out as opposed to units that only allow owners and selected guests to occupy the units. Effort was also made through discussions with the Wailea Homeowners Association and Wailea Resort to determine which resort residential developments were primarily absentee owner units that are occupied only a few months out of the year and resident owner units that area occupied all year long.

Based on these criteria, 24-hour traffic data were collected at the accesses to resort residential between July 7, 2006 and July 17, 2006. Using the categories of resort residential identified in the previous paragraph, data were collected at the developments summarized in Table 1.

Parsons
Brinckerhoff
Table 1
Resort Residential Development Data Collection Sites

<table>
<thead>
<tr>
<th>Development Name</th>
<th>Residents</th>
<th>Long-Term Rental</th>
<th>Short-Term Rental</th>
<th>Total Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pualani Estates</td>
<td>92</td>
<td>0</td>
<td>0</td>
<td>92</td>
</tr>
<tr>
<td>Wailea Golf Vistas</td>
<td>48</td>
<td>0</td>
<td>0</td>
<td>48</td>
</tr>
<tr>
<td>Wailea Highlands</td>
<td>23</td>
<td>0</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Wailea Golf Estates</td>
<td>61</td>
<td>0</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>Wailea Kialoa</td>
<td>102</td>
<td>0</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td>Multi-Family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palms I</td>
<td>19</td>
<td>139</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Palms II</td>
<td>120</td>
<td>0</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Grand Champions</td>
<td>73</td>
<td>128</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td>Wailea Elua</td>
<td>73</td>
<td>79</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>Fairway Villas</td>
<td>118</td>
<td>0</td>
<td>118</td>
<td></td>
</tr>
</tbody>
</table>

Note: Fairway Villas data were available because of technical difficulties and the sale of Makena Resort.

All of the multi-family developments were used to calculate trip generation rates for resort multi-family development. This probably makes this rate conservatively high, since it contains both developments that allow short-term rentals and those that do not.

For the single-family developments, only Wailea Golf Estates and Pualani Estates were used to calculate trip generation rates. There were units in Wailea Golf Vistas and Wailea Highlands that were still under construction and it was judged that construction traffic would create an atypical trip generation rate. Wailea Kialoa was not used because it was determined through discussions with Wailea Resort and the Wailea Homeowners Association that Wailea Kialoa contained mostly residents that live in Wailea year round. This is not the typical resort residential situation in which owners usually occupy the unit only part time.

The resulting trip generation rates for resort single-family and resort multi-family are shown in Table 2.

Table 2
Resort Residential Trip Generation Rates

<table>
<thead>
<tr>
<th>Parcel</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate</td>
<td>Enter/Exit %</td>
</tr>
<tr>
<td>Resort Single-Family Residential</td>
<td>0.46</td>
<td>58/42</td>
</tr>
<tr>
<td>Resort Multi-Family Residential</td>
<td>0.22</td>
<td>49/51</td>
</tr>
</tbody>
</table>

Note: Rates are vehicle trips per hour per dwelling unit.

Single Family rates based on average of Wailea Golf Estates and Pualani Estates.
Multi-Family rates based on average of Wailea Grand Champions, Palms I, Palms II, and Wailea Elua.

Table 3 compares the calculated resort residential rates with the ITE published rates. As shown, the calculated resort residential rates for the single-family resort residential are about twice as high as the ITE published rates, and the calculated resort residential rates for the multi-family resort residential are slightly higher than those published by ITE.

Table 3
Comparison of Calculate and ITE Published Resort Residential Trip Generation Rates

<table>
<thead>
<tr>
<th>Rate Source</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rate</td>
<td>Enter/Exit %</td>
</tr>
<tr>
<td>Calculated Single-Family Residential</td>
<td>0.46</td>
<td>58/42</td>
</tr>
<tr>
<td>Calculated Multi-Family Residential</td>
<td>0.22</td>
<td>49/51</td>
</tr>
<tr>
<td>ITE Published Recreational Homes (280)</td>
<td>0.16</td>
<td>41/59</td>
</tr>
</tbody>
</table>

Note: Rates are vehicle trips per hour per dwelling unit.

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