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'94 JUL 27 10:55

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

July 26, 1994

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

Dear Mr. Choy:

Subject: Final Environmental Assessment (EA) for Charles River
Affordable Multi-Family Project, TMK 4:4-03-08-02:14
Hanamaulu, Kauai, Hawaii

The Kauai County Housing Agency did not receive any comments on
the draft environmental assessment for the subject project. We
have reviewed the final environmental assessment, and determined
that it has no negative impact.

As the reviewing agency, we issue a negative declaration.
Please publish the negative declaration notice for this project
in the August 8, 1994 OEQC Bulletin.

We have enclosed a completed OEQC Bulletin Publication Form and
four copies of the final EA. Please contact Dennis Alkire at the
Kauai County Housing Agency, 241-6448, if you have any questions.

Sincerely Yours,

Chad K. Taniguchi

Chad K. Taniguchi
Administrator

Dennis Alkire

Dennis Alkire
Project Coordinator

DA
C:\CR\OEQC_FNL.EA



"AN EQUAL OPPORTUNITY EMPLOYER"

95

1994-08-08- KA-PEA- Charles River Affordable ^{HUG} 8 1994
~~Residential Development~~ Rental Project

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FINAL ENVIRONMENTAL ASSESSMENT

CHARLES RIVER

HANAMAULU, KAUAI, HAWAII

**AFFORDABLE MULTI-FAMILY RENTAL HOUSING
OWNED BY THE COUNTY OF KAUAI**

KAUAI COUNTY HOUSING AGENCY

Prepared by

Dennis Alkire, Project Coordinator
Kauai County Housing Agency
241-6448

July 26, 1994



'AN EQUAL OPPORTUNITY EMPLOYER'

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CHAPTER I

PROJECT SUMMARY

PROJECT NAME: Charles River

PROPOSING AGENCY: Kauai County Housing Agency
4193 Hardy Street
Lihue, Kauai, Hawaii 96766

APPROVING AGENCY: Kauai County Housing Agency
4193 Hardy Street
Lihue, Kauai, Hawaii 96766

PROJECT LOCATION: Hanamaulu, Kauai, Hawaii

TAX MAP KEY: 4:4-3-08-02:14

TOTAL LAND AREA: 12.12 Acres

PHASING: Phase 1, off-site and on-site
infrastructure improvements

Phase 2, 50 to 60 rental units
and support facilities

Phase 3, 50 to 60 rental units

Phase 4, 50 to 60 rental units

CHAPTER II

PRE-ASSESSMENT CONSULTATIONS

The following organizations have been consulted in order to prepare this Final Environmental Assessment. Copies of these documents are included with this Final Environmental Assessment.

<u>EX:</u>	<u>AGENCY:</u>	<u>DATE:</u>
	<u>FEDERAL</u>	
1.	U. S. Dept. of Housing & Urban Development	02/03/94
2.	U. S. Dept. of Housing & Urban Development HUD Environmental Assessment	02/03/94
3.	U. S. Dept. of Housing & Urban Development Advisory Council on Historic Preservation	11/18/93
	<u>STATE</u>	
4.	State of Hawaii, Dept. of Transportation	08/06/91
5.	State of Hawaii, Dept. of Transportation State Historic Preservation Office	07/03/91 Item 3
	<u>COUNTY OF KAUAI</u>	
6.	Planning Department, Historic Structures	11/23/93
7.	Planning Department, Wastewater	04/06/92
8.	Department of Water Department of Public Works	07/01/91 Meeting
	<u>PRIVATE CONSULTANT REPORTS</u>	
9.	Cotton & Frazier, Environmental Site Assessment	01/19/94
10.	Cotton & Frazier, Drum Sampling & Soil Removal	01/26/94
11.	Cotton & Frazier, Removal of Abandoned Cars	02/01/94
12.	Kauai Electric, Power to Site	08/02/91
13.	Gray, Hong, Bills & Assoc., Traffic Assessment	07/26/91
	<u>COMMUNITY GROUP MEETINGS</u>	
	Pakui Program at the Lihue Community Center	Meeting
	Initial Presentation to Hanamaulu Community	Meeting

CHAPTER III

GENERAL DESCRIPTION OF PROPOSED ACTION

A. TECHNICAL CHARACTERISTICS

In February of 1994, the County of Kauai purchased a 12.5 acre parcel in Hanamaulu, Kauai, Hawaii. This parcel is known as the Charles River parcel, after the previous mainland owners. The parcel was purchased for the purpose of developing affordable rental housing for the Lihue / Hanamaulu area of the Island of Kauai. This area, located on the east side of the island, is the major center of commerce and government. The east side is the most populated part of the island, and has the greatest need for affordable rental housing.

The project site (TMK 4:3-8-02-14) is bounded by Kuhio Highway on the west, cane fields on the north, a cane haul road and the Kalepa ridge on the east, and Lihue Plantation base yard on the south. The site area is 12.2 acres. Nearby land uses include agriculture, education (King Kaunualii Elementary School), commercial and residential. There is a restaurant, (Hanamaulu Cafe) a small commercial building, a 7-11 and gas station, and the Lihue Plantation base yard.

The Kauai County Housing Agency proposes to develop the parcel for 150 to 180 units of affordable rental housing. Although the project is not yet designed, design guidelines are outlined in the Request For Proposal. The project will be consistent in scale and character with the surrounding community. The individual buildings will be low, with predominant roofs and overhangs. Open space and major trees will be preserved by careful sighting of the structures and parking. The development will provide laundry facilities, meeting areas, managers office, along with storage and service areas. The entire site will be landscaped. Parking will be screened from public view.

B. ECONOMIC CHARACTERISTICS

Phase 1 on-site and off-site infrastructure improvements are scheduled to begin February, 1995. This start date is mandated by HUD, and is linked to the timing of site acquisition and funding. Phase 2, comprised of about one third of the buildings and the support facilities will start about four months after Phase 1. The timing of Phases 3 and

4 will be reviewed during construction of the first two phases, and the later phases will be timed to minimize risk and potential negative impacts on the total housing stock or the rental market.

The estimated construction cost by phase is as follows:

Phase 1, Infrastructure	\$4,000,000
Phase 2, Buildings	\$4,500,000
Phase 3, Buildings	\$4,000,000
Phase 4, Buildings	\$4,000,000

The completed project, including land, will have an estimated value of \$18,000,000.

C. SOCIAL CHARACTERISTICS

The proposed project is located in the Hanamaulu community, which is located about two miles from Lihue. Hanamaulu is almost exclusively residential, with a population of about 1,500 people. The first area to be developed by Lihue Plantation in the 1950s was on the mauka side of the highway. When the area was developed, first choice of the lots and houses was given to current and retired employees of Lihue Plantation. In the 1970s the area makai of the highway was developed, with the same ownership patterns. All the property is fee simple. The makeup of the community reflects the ethnic background of the plantation workers. At this point in time, many of the residents are retired and or widowed. There is quite a lot of sharing of houses, due to the high cost of housing. Two or more families may occupy a dwelling. Children and grandparents often live with the parents.

This project will provide much needed affordable housing in the community. There is presently one public affordable rental housing project in Hanamaulu. It is operated by the Hawaii Housing Authority, and has 46 units. Lihue Gardens in Lihue is a privately owned project marketed for elderly tenants, with 54 units.

A detailed profile of the Hanamaulu area has been prepared for the Kauai County Housing Agency by SMS Research (Prudential Locations Inc.) of Honolulu. One purpose of this study is to verify that the area will be considered low to moderate income according to HUD guidelines. The area income determination will have an impact on the funding sources the county will be able to use for the project.

CHAPTER IV

ENVIRONMENTAL CHARACTERISTICS

A. PROPERTY DESCRIPTION

The property is located in Hanamaulu on the mauka side of Kuhio Highway, across from the elementary school. The site area is approximately 12.2 acres (see attached Exhibit A). The current zoning is R-20, with a small strip on the southwest zoned Open. Beginning about one hundred years ago, the major portion of the site has been used as a camp for plantation workers. A site map done in October 1983 (after Hurricane Iwa) shows thirteen structures identified as dwellings, as well as another dozen or so with unidentified uses. When the property was purchased by Charles River Hawaii from AMFAC, in 1990, there were four families identified as needing to be relocated before development would be allowed. These families have been relocated and the property is currently vacant.

The surrounding property has varied use patterns. Across the cane haul road that borders the northwest edge of the property is a narrow strip of AG land, then the Kalepa Forest Reserve. To the north, across Hulei road, the land is in sugarcane. Across Kuhio Highway to the southeast is Peter Rayno Park and King Kaunauli'i Elementary School, all zoned Open. Beyond the park and school is a residential area zoned R-6. At the south corner of the property there is a two story commercial building and a parking lot, zoned Commercial-Neighborhood. The property that borders the site on the southwest is part of the AMFAC (Lihue Plantation) baseyard. That property is zoned I-G, and is being used for material storage. This industrial use has been established for many years. Lihue Plantation is a major employer in the community, and has been instrumental in the development of the Lihue / Hanamaulu area.

The Charles River site has been selected as a multi-family site and identified as such in the General Plan. Future growth in the surrounding area will likely occur to the east, on the oceanside of Kuhio Highway. There is a 70 acre tract of land there known as the Hanamaulu Triangle which, when there is additional sewer and water capacity, will probably be developed as housing.

B. GEOLOGICAL CHARACTERISTICS

1. **TOPOGRAPHY:** The site slopes gradually and evenly from east to west, generally between 3 and 5 percent. There are no hills or valleys. There is no standing or running water, except for the man made irrigation ditch which will be relocated prior to site development. The west side (access site) of the site that parallels the highway is approximately level with the highway.
2. **CLIMATE:** Climatic conditions in the area are known to have mean temperatures ranging from 70.3 degrees Fahrenheit in the winter to 78.4 degrees Fahrenheit in the summer. The relative humidity levels vary from 63 percent to 88 percent. The annual average rainfall is about 45 inches.
3. **SOILS:** The site is comprised of L1C and LhB soils, Lihue Series, which consists of well-drained soils upland on the Island of Kauai, silty clay, gravely in places. The loam is developed in material derived from basic igneous rock. A draft soils report has been done and appears to be in order. Soil geology is stable and suitable for the construction of the building types planned. proposed use. Existing vegetation consists of mango and banana trees, Java plum and various grasses.

C. FLOOD HAZARD

The Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) for Kauai County, Hawaii, Community Panel Number 150002 0140 C, map revised March 4, 1987. The map shows the property in the X zone (unshaded). The property is outside of the 500 year flood plain.

D. FLORA AND FAUNA

No rare or endangered species of plant has been identified on the site.

E. INFRASTRUCTURE AND UTILITIES

1. **VEHICULAR ACCESS:** The State Department of Transportation has reviewed the previous proposal (for 240 units) and determined that a single access / egress point along Kuhio Highway will be allowed. The highway will be widened to accommodate a left turn lane and a deceleration lane. Ten feet of property fronting the highway will be lost to the road widening work.

2. WATER: The county Department of Water has been aware of this project since 1990, and has "reserved" adequate water supply to accommodate the project.
3. WASTEWATER: The wastewater will be piped to the Lihue Sewage Treatment Plant. This STP is currently undergoing expansion, and will have an additional 1.5 million gallons of capacity within two years. This will be more than sufficient for our project.
4. POWER AND COMMUNICATIONS: There is electrical power, telephone and cable TV in the highway right-of-way. The existing capacity is adequate to serve the project.

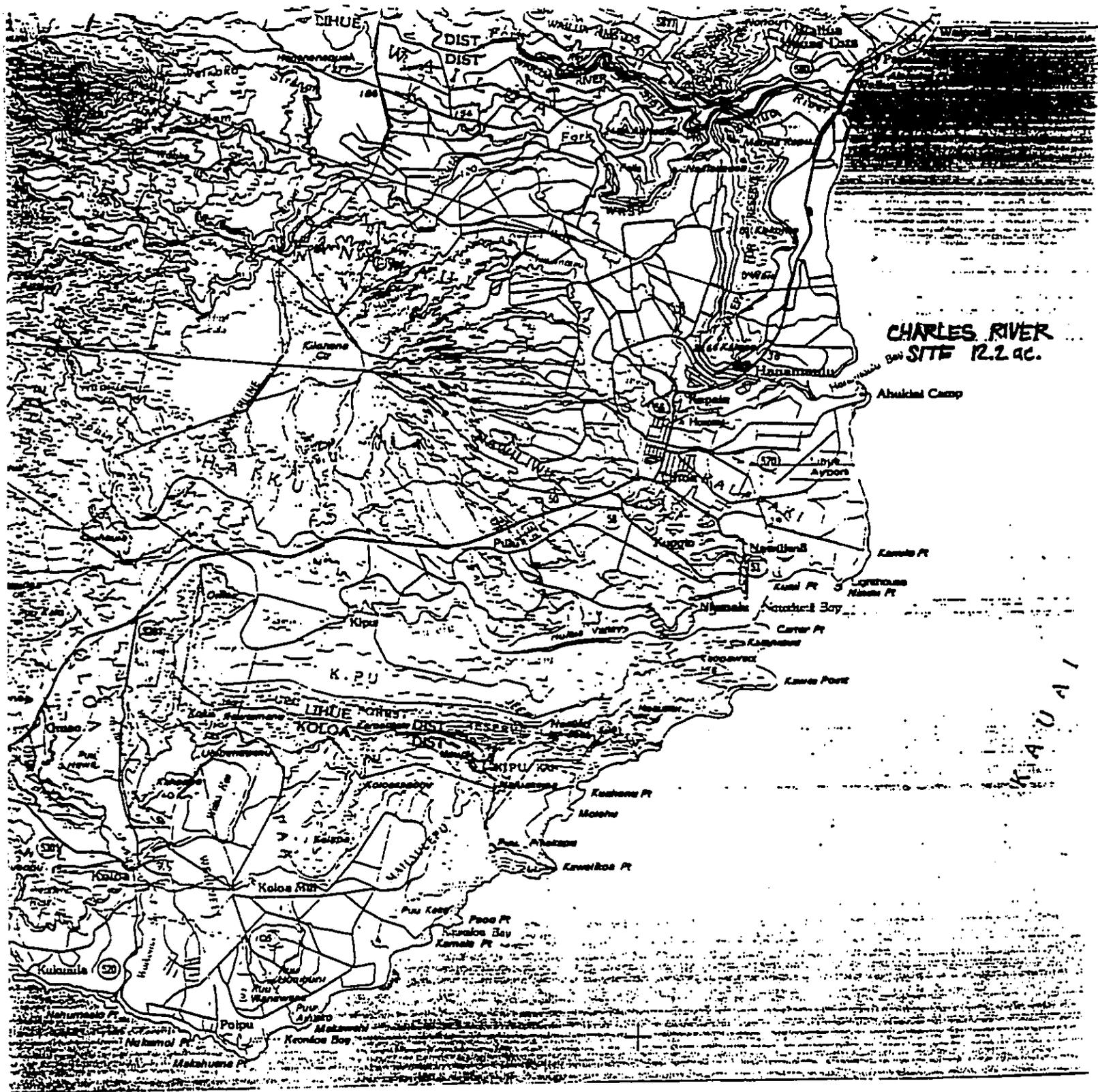
F. PUBLIC FACILITIES

1. SCHOOLS: Across the highway there is the public King Kaumuali'i Grade School, serving children in K through 6 grades. This is the newest facility on the island. Currently the school is at or near capacity. The school occupies an 8 acre site, and there are plans for future expansion. Also, since the hurricane, the school has had out of district students (from Wailua and Kapaa), whose facility was damaged. These students will go back to their original district when their facilities are back in service.
2. PARKS: Directly across the highway is Peter Rayno Sr. Park. This public park is adjacent to the King Kaumuali'i School, and is equipped with playground equipment, a large playing field, and other amenities. There are other smaller parks in the Hanamaulu community. The site is less than one mile from Hanamaulu Beach Park.
3. POLICE AND FIRE: Services will be primarily from Lihue, three miles to the south, with backup from Kapaa, seven miles to the north.
4. HOSPITAL AND EMERGENCY SERVICES: The nearest hospital and emergency service room is Wilcox Hospital in Lihue, less than three miles from the site. The project and the hospital are directly accessed from Kuhio Highway.

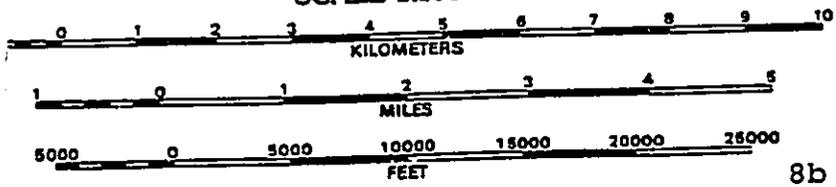
CHAPTER V

SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT

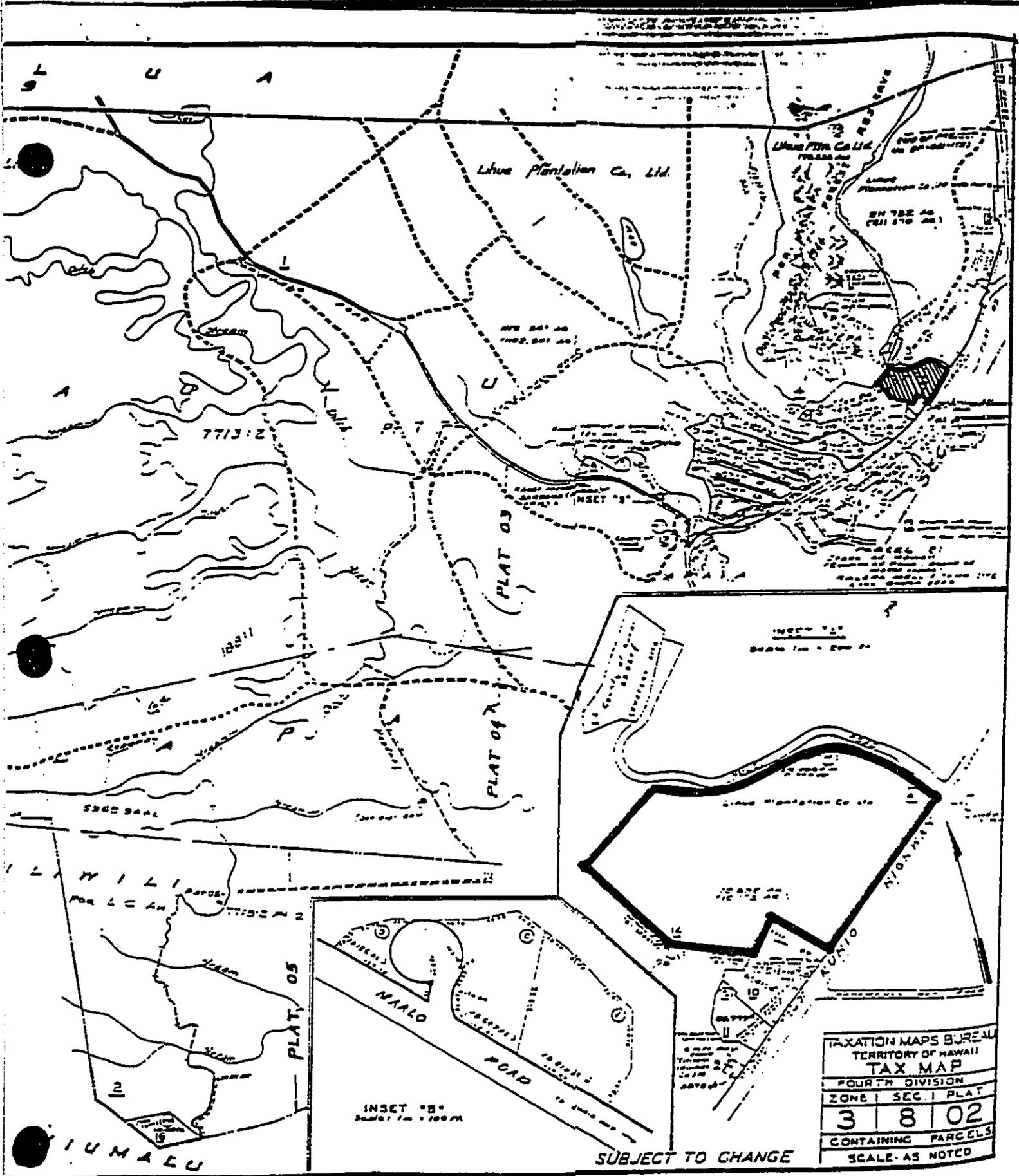
<u>TITLE</u>	<u>PAGE</u>
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Vicinity Map; Hanamaulu - Lihue Area.....	8b
Tax Map 4:4-03-08-02.....	8c
Zoning Map.....	8d
Federal Emergency Management Agency FIRM Map.....	8e
Soils Survey of Kauai.....	8f

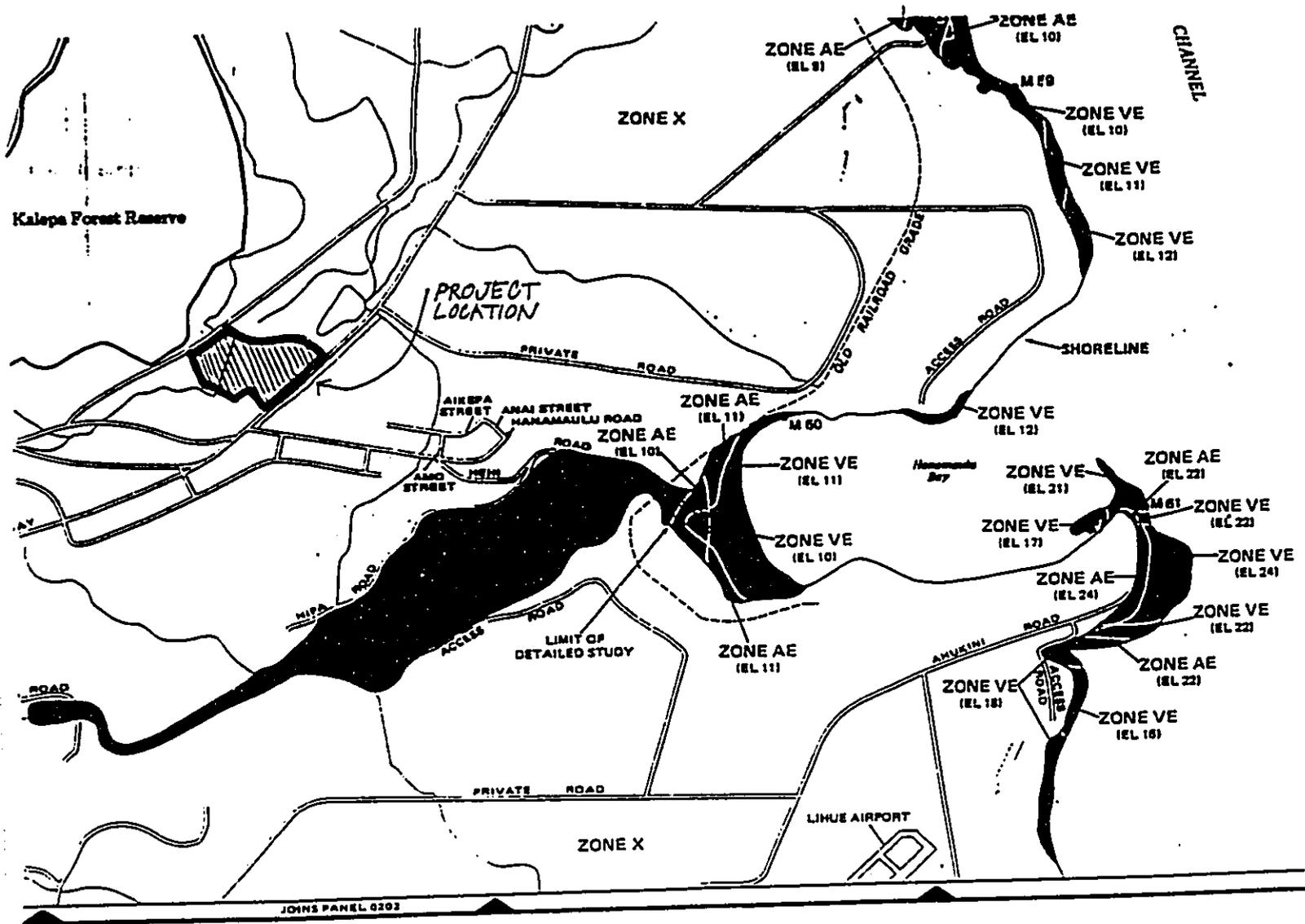


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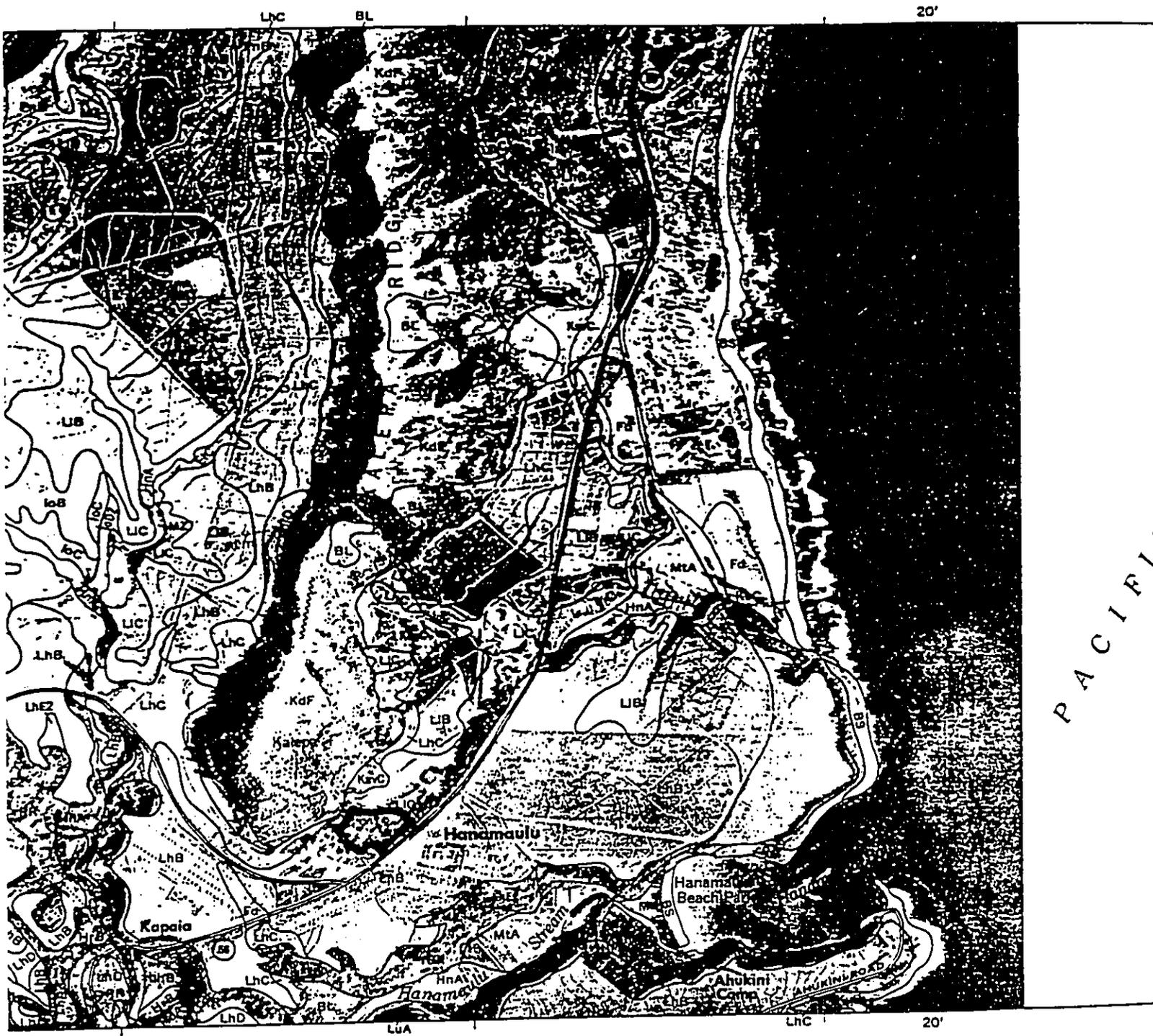


CONTOUR INTERVAL 40 METERS
SUPPLEMENTARY CONTOUR INTERVAL 20 METERS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
To convert meters to feet multiply by 3.2808
To convert feet to meters multiply by 0.3048

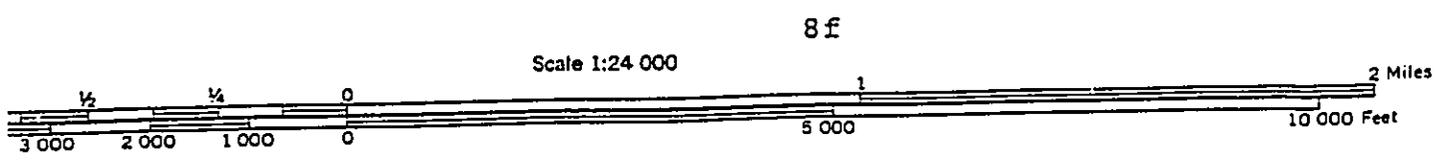




KAUAI ISLAND, HAWAII — SHEET NUMBER 30



PACIFIC



CHAPTER VI

SUMMARY OF MAJOR IMPACTS

A. SHORT-TERM IMPACTS

1. **CONSTRUCTION:** On-site grading and infrastructure improvements, and off-site work required for the project, will result in an increase of dust and noise. The prevailing tradewind patterns carry airborne matter over Lihue Plantation baseyard, with the Kalepa Forest Reserve beyond. Normal patterns will protect the school and residential area. The increase in noise will be mitigated by the fact that the property is relatively isolated, with no houses nearby. The school, located across the highway, is about 300 feet away, and should not be impacted during construction.
2. **TRAFFIC:** Required improvements to Kuhio Highway may impact the flow of traffic during construction. There is an alternative route via the new bypass road, which carries the bulk of the traffic. The highway carries primarily local traffic through the Hanamaulu area. During the period of the road, improvements, flagmen will assist with traffic to maintain acceptable flow.
3. **EMPLOYMENT:** The construction will have a very positive impact on the Island economy, which has been badly impacted by the hurricane. This will improve Kauai's unemployment rate. The phasing as outlined should provide extra opportunities for local contractors to be part of the construction of this project. The smaller groupings of units defined by phasing should allow for local participation.

A. LONG-TERM IMPACTS

1. **TRAFFIC:** The Traffic Impact Assessment for Charles River done by Gray, Hong, Bills & Assoc. was based on a total unit count of 240 apartments. Their conclusion and recommendation based on their analysis "...the proposed development will not have a significant impact on the volume of traffic and will provide safe access to and from the site. Roadway improvements, including the acceleration / deceleration and left turn lanes will mitigate any impacts the project may have on the existing traffic flow."

2. VISUAL: The existing property has been used for housing for the past one hundred years. Although our proposed density is greater than any know historical period, the previous residents planted and cultivated many beautiful trees and other vegetation. It is our intention that the development be comprised of small buildings of four to eight units each, designed to be placed in and around the major trees. The site is isolated from the surrounding residential areas and will be fully landscaped and fenced from the highway.
3. HOUSING OPTIONS: This project will significantly increase the amount of affordable rental housing in the Hanamaulu / Lihue area. This will help families be able to have a safe clean place to live, and the affordable rents will allow for families to save up money to eventually own a home of their own.

CHAPTER VII

ALTERNATIVES TO THE PROPOSED ACTION

A. NO ACTION ALTERNATIVE:

The No Action alternative involves no changes in the site. For the past several years there has been no activity on the property, since the discontinuation of its use for the past century as plantation housing. Recently it has been vacated, and it is unoccupied. Most of the old homes have been destroyed by fire and wind storms, only two remain.

If the project does not go ahead, the shortage of affordable rental housing will continue unabated. Families needing housing will be displaced from the community, or forced to double up with others. The county will have purchased a good site for affordable housing that would go unused.

B. ALTERNATIVE DEVELOPMENT OPTION:

Alternatives to the proposed development plan could include the following:

1. Affordable multi-family housing with higher or lower densities. The low density option has not been considered as it does not meet the market demand for affordable housing. The high density option is not consistent with the Kauai lifestyle, as it would require large buildings. The larger project could likely exceed the demand for housing.
2. Market-rate multi-family housing. This option is not consistent with our federal funding and the stated mission of the Housing Agency to provide affordable housing for the residents of Kauai.
3. Single-family housing. This option does not adequately address the demand for affordable units. They could not be built and rented for reasonable rates. If the units were built and sold, we do not feel that we can justify the cost/benefit to the community.

CHAPTER VIII

MITIGATION MEASURES

In the short term, during construction, measures will be taken to minimize impacts such as increased traffic, noise and dust. Measures will include specific construction hours to minimize noise near the residential areas, plans to reduce the impacts of the construction traffic, and dust screens and periodic site watering to reduce dust particles in the air. All construction and related activities will comply with applicable federal, state and county regulations.

The Kauai economy will be favorably impacted during construction. Note that the project construction will be phased. This is for two principal reasons. The first is to allow for flexibility in timing the project to the market for rental housing. And the second reason is to break up the project into smaller sizes that could be done by our local contractors. The dollars we spend for local labor will have a very positive impact on the economy on Kauai.

Long term impacts of the project will be some increased traffic on the old Kuhio Highway. This impact has been studied and determined to be minimal. The road will be widened, with a left turn lane and a deceleration lane added. A sidewalk will be added, to help foot traffic. There is no sidewalk at present.

The project will be a visual asset to the community. The property has been vacant for the past several years, and has become a dumping ground for rubbish and old cars. We have removed the junk, including eighteen cars. The scale of the proposed development will be residential in character, with small structures layed out to accommodate the many large existing trees. The entire property will be landscaped and irrigated.

The most important long term impact will be the increase in affordable housing. This will ease the strain on the doubled up families, and allow people to live near the busy Lihue area, where most of the employment opportunities are. Affordable housing acts to keep all rents at reasonable rates, because there will be long-term low cost housing available.

REFERENCES

Federal Emergency Management Agency: FIRM Flood Insurance Rate Map, Kauai County, Hawaii, Panel 140 of 225, March 4, 1987.

Charles River Site: Rental Market Study, Preliminary Report.
Prepared by The Prudential Locations Research & Consulting,
for the County of Kauai,
April 22, 1994.

United States Department of Agriculture, Soil Conservation Service, Soil Survey of Islands of Kauai, Oahu, Molokai and Lanai, State of Hawaii,
August 1972.



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Honolulu Office
Seven Waterfront Plaza, Suite 500
500 Ala Moana Boulevard
Honolulu, HI 96813

**COUNTY OF KAUAI
HOUSING AGENCY**

'94 FEB -4 AIO:31

February 3, 1994

Mr. Chad K. Taniguchi
Housing Administrator
County of Kauai Housing Agency
4193 Hardy Street
Lihue, HI 96766

Dear Mr. Taniguchi:

The purpose of this letter is three-fold:

1. To document acceptance and approval by the Department of Housing and Urban Development (HUD) of reports and letters prepared by Cotton and Frazier Consultants, Inc. for the Charles River project as follows:
 - a. Charles River Parcel Environmental Site Assessment, January 19, 1993;
 - b. Letter addressed to Don Gerbig AMFAC/JMB Hawaii, Inc., dated January 26, 1994; and
 - c. A faxed copy of a letter addressed to Ms. Jill Vellis, Oshima Chun Fong and Chung, attorneys for Hanamalu Associates dated February 1, 1994;
2. To transmit amendments to Compliance Factor 5. Hazards (24 CFR Part 51 and HUD Notice 79-33) and Environmental Factor (EF) Hazards on page C-5 of Appendix C, Field Notes and Checklist; of the Environmental Assessment prepared by HUD, dated December 15, 1993; and
3. To advise the County of Kauai that HUD's amendment of the EA and approval of the consultant's reports and letters will permit the County to incur cost on the Charles River project.

Subsequent to HUD's environmental review of the project, thirteen 55-gallon drums containing petroleum products were discovered at the site after the property boundaries were defined by the surveyor. This raised the question of possible soil contamination from the contents of the 13 drums.

EXHIBIT 1

AMFAC/JMB Hawaii, Inc. retained Cotton and Frazier, Consultants, Inc. to assess the conditions at the site and determine if mitigative measures should be taken. The consultants prepared a report, "Charles River Parcel Environmental Site Assessment," dated January 19, 1994. A letter summarizing the work on the property was also prepared on January 26, 1994, and refers to attachments that included laboratory analysis on the contents of the drums. The summary letter noted that no regulated constituents were identified and no obvious contamination was observed in the excavation. Laboratory tests confirmed that after the soil under the drums was removed to a depth of 9" and 12" at two locations, the remaining soil is not "grossly" contaminated. We understand that your office has a copy of this letter, therefore, it should be made a part of your Environmental Review Record.

HUD has reviewed the site assessment report and the letter dated January 27, 1994, and has concluded that the assessment procedures, the laboratory tests, and the removal of the contaminated soil from the site was properly performed. A more in-depth review of the consultants report is attached in a Memorandum to File, Environmental Assessment of the Charles River Project, dated February 3, 1994. Copies of amended page 3 of the HUD-4128 and page C-5 of Appendix C, Field Notes and Checklist are also enclosed for your record.

In amending the Compliance Factor 5. Hazards (24 CFR Part 51 and Notice 79-33), HUD has concurred with the consultants, and appends their report to the EA as supporting documentation to support the conclusion that the site is free of controlled substances.

By amending the Environmental Assessment with documentation provided by the consultants, Cotton and Frazier Consultants, Inc., HUD has complied with the environmental requirements of 24 CFR Part 50 for actions assisted with HOME Disaster Supplemental Funds. This action will permit the County of Kauai to incur cost on the Charles River project.

If you have any questions regarding this letter, you may call Frank Johnson at 541-1327.

Very sincerely yours,


Patty A. Nicholas
Director
Community Planning and
Development Division

Enclosures



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Honolulu Office
Seven Waterfront Plaza, Suite 500
500 Ala Moana Boulevard
Honolulu, HI 96813

February 3, 1994

MEMORANDUM TO: File

THROUGH: *Patty A. Nicholas*
Patty A. Nicholas, Director, Community Planning
and Development, 9.2C

FROM: *Frank L. Johnson*
Frank L. Johnson, Environmental Protection
Specialist, 9.2CE

SUBJECT: Charles River Project Environmental Assessment
Lihue, Kauai

I have reviewed the documents listed below that were prepared by consultants for the subject project regarding the potential impact on soils caused by spillage from several of the 13 55-gallon drums found at the site. I have concluded that the measures taken by AMFAC/JMB Hawaii, Inc. to have soil samples tested and contaminated soils removed from the site were performed in a satisfactory manner and is found acceptable.

The 18 abandoned cars found at the site were also removed and no soils under them were contaminated that would require mitigative measures.

This memorandum should be appended to the original Environmental Assessment to address Compliance Factor 5. Hazards (24 CFR Part 51 and HUD Notice 79-33) and Environmental Factor (EF) Hazards noted on page C-5 of Appendix C, Field Notes Checklist, attached to the EA.

The documents reviewed to arrive at this conclusion include the following:

1. Charles River Parcel Environmental Site Assessment prepared by Cotton and Frazier Consultants, Inc., dated January 19, 1994.
2. Letter addressed to Don Gerbig, AMFAC/JMB Hawaii, Inc., from Cotton and Frazier Consultants, Inc., dated January 26, 1994. Appendices included Appendix A, Figures; Appendix B, Photographs; and Appendix C, Laboratory Reports.

3. A faxed copy of a letter addressed to Ms. Jill Vellis with Oshima Chun Fong and Chung, attorneys for Hanamalu Associates dated February 1, 1994.

The Site Assessment concluded with the following recommendations:

1. Remove the abandoned cars and test soil under cars to determine if the soil is contaminated.
2. AMFAC/JMB Hawaii, Inc. should be contacted for the analytical results of any soil sampling performed beneath the leaking soil containers. Contaminated soil should be removed and disposed of properly.

The letter listed as item 2. above, from Cotton and Frazier Consultants, Inc. contained Appendix C, Laboratory Reports, performed by Superior Precision Analytical Inc. from San Francisco, California, listed the results of chemical analysis of the soil samples. The soil samples were analyzed for Total Petroleum Hydrocarbons as Oil (TPH-O), using EPA Modified Method 8015. TPH-O readings were detected at 390 ppm in scrape A and at 34 ppm in scrape B/C. Additional release response analysis, as recommended by the State Department of Health (DOH), was conducted on the same samples for polynuclear aromatic hydrocarbons (PAH's) and PCB's which were not detected. Total lead and total cadmium were detected at levels below the DOH recommended clean-up criteria for soils. Three drums that indicated a positive response for chlorinated compounds were additionally sampled and analyzed for halogenated volatile organics and PCB's. No PCB's were found in the oil and certain chlorinated compounds were identified but below DOH's recommended criteria for clean-up.

In summary it is concluded that all petroleum products and grossly contaminated soils were properly removed from the site, leaving the site clean of contaminated soils.

The letter addressed to Ms. Jill Vellis, from Cotton and Frazier Consultants, Inc., dated February 1, 1994, noted the procedures followed in the removal of the 18 cars found at the site. After each car was removed from its resting place, the ground surface was examined for the presence of staining or hydrocarbon odors.

It was concluded that all cars were removed without encountering any visual or olfactory indications of site soils being impacted by petroleum hydrocarbons and no further action is required.

DOCUMENT CAPTURED AS RECEIVED

Format for Environmental Assessment of HUD Projects

U.S. Department of Housing and Urban Development

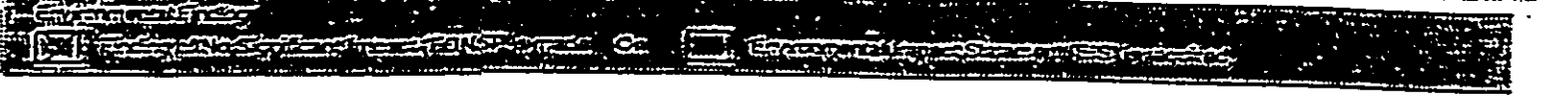
Project Number: []

FMS # 50-107

Project Name and Location (Street, city, county, State) CHARLES EWER PROJECT KULEI RD. & KUHIO HIGHWAY HANALEI, HI 96715	Applicant Name and Address (Street, city, State, Zip Code) KAWAI HOUSING DEVELOPMENT CORP 3501 ZICK ST., SUITE 108 LIHUE, HI 96766
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ACRS 12.17	Number of units processed 165	Date Received 8-25-93	Phone Number (808) 245-5937
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Findings and Recommendations (To be prepared After analysis is completed)



2. Comments and Recommendations

Project is recommended for approval subject to the following conditions: (If any, specify)

A. Before demolition of the structures on the site:

1. Comply with stipulations 1-4 of the Memorandum of Agreement (copy enclosed)

B. Before start of construction:

1. Comply with 24 CFR subpart B: Noise Abatement & Control. Provide certification that the project provide 5 dB attenuation in addition to standard construction practice.
2. Submit geotechnical report in accordance with Paragraphs 4.d. & 4.e. of Data Sheet 796 in HUD Hand book 4140.3 CHG for controlled earthwork.

Project should be rejected for the following reasons: (Explain)

3. Submit drainage analysis to determine if the berms protecting the site are adequate to prevent storm damage to the project. The analysis should also evaluate increased runoff to downstream properties to determine if mitigation measures are necessary.
4. Submit 2 sets of site plan (proposed) and building elevations. The SHPO has requested a set for their review.
5. Incorporate energy conservation measures in the building design by following the Model Energy Code published by the Council of American Building Officials.

Signature: *Frank L. Johnson* Date: **12-12-93**

3. Comments by Environmental Clearance Officer: Concur Nonconcur

Required for projects over 200 lots/units:

G. Provide architect's certification that the project will be designed and constructed to be readily accessible and useable by individuals with handicaps in accordance with 24 CFR Part 8: Non Discrimination Based on Handicap in Federally Assisted Programs and Activities; Final Rule (copy enclosed)

Environmental Clearance Officer: *Frank L. Johnson* Date: **12-12-93**

4. Approval and Special Instructions: Page 3 of HUD-1284-2-5 2/10/94 3-3-94

EXHIBIT 2

Housing Division Director or Chief Manager: *Joseph Nicholas* Date: **12-15-93**

Amended *2/3/94* *Jan*

Form HUD-1284 (07/27/93) Part 24 CFR Part 50

Project Number: _____

A. Project Data

1. Project Type (Check all applicable items):

- | | | |
|---|--|---|
| <input type="checkbox"/> Family | <input checked="" type="checkbox"/> New construction | <input type="checkbox"/> Detached |
| <input type="checkbox"/> Elderly | <input type="checkbox"/> Renovation | <input type="checkbox"/> Semi-detached |
| <input checked="" type="checkbox"/> Special program (Specify) HOME disaster relief funds | <input type="checkbox"/> Land development | <input checked="" type="checkbox"/> Walk-up |
| <input type="checkbox"/> Market rate | <input type="checkbox"/> Other (Specify) | <input type="checkbox"/> Townhouse |
| <input type="checkbox"/> Assisted/Subsidized | | <input type="checkbox"/> Elevator |
- If required, in compliance with Section 213? Yes No **STATE CHAS** and/or Housing Assistance Plan? Yes No

B. Approvals and Coordination

1. Has locality approved the project? Yes No
2. Has an environmental assessment (EA) or EIS for the project been prepared by another Federal Agency? Yes No and/or has an EA been prepared under State or local law? Yes No Does the file contain the EA or EIS? Yes No
3. Has the E.O. 12372 process been completed? Yes No If "Yes," when? NOT APPLICABLE
(Area-wide) (State)

C. Cumulative Impacts and Alternatives

1. Are there any conditions which require the assessment of cumulative impacts? Yes No If "Yes," explain:
2. Does the project involve unresolved conflicts concerning alternative uses of available resources under Section 102(2)(E) of NEPA? Yes No If "Yes," reasonable alternatives are:

D. Planning Findings

Is the project in compliance or conformance with the following plans?

- | | | | | | | | |
|-------------------|--|-----------------------------|---|--|---|-----------------------------|---|
| Local | <input checked="" type="checkbox"/> Yes <u>zoning</u> | <input type="checkbox"/> No | <input type="checkbox"/> Not applicable | Coastal Zone | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not applicable |
| Area-wide | <input checked="" type="checkbox"/> Yes <u>LAW & ORD</u> | <input type="checkbox"/> No | <input type="checkbox"/> Not applicable | Water Quality (209) | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not applicable |
| Air Quality (SIP) | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Not applicable | If the answer to any is "No," explain: | | | |

* The site is currently zoned R-2 which will permit 20 units per acre or 240 units. The proposed project will provide 165 units.

E. Compliance Findings

Compliance Factor	Is In Compliance	Actions taken to achieve Compliance			Is Not In Compliance	Note conditions and/or source documentation that supports Finding Reference Notes
		Contribution	Mitigation and/or Modification	Special Study		
1. Noise (24 CFR Part 513)			X			SEE NOISE ASSESSMENT ANALYSIS ATTACHED WITH MITIGATION RECORDS TO COMPLY WITH 24 CFR PART 513. NOISE AGENCIES LETTER PREPARED FOR TRANSMISSION TO SHPO (ATTACHED) RESPONSE FROM SHPO NEEDED TO COMPLETE THE ENVIRONMENTAL REVIEW. IT
2. Historic Preservation (28 CFR Part 800)		X				SEE PAGE C-2 OF APPENDIX C
3. Floodplain Management (Ex. O. 11988)	X					" " " " " "
4. Wetlands Protection (Ex. O. 11990)	X					" " " " " "
5. Hazards (24 CFR Part 51 and HUD Notice 75-33)			X			(ANNEXES 2-3-94) ALSO REFER TO DOCUMENTATION CITED AT PARAGRAPHS OF APPENDIX C, FIELD NOTES CHECKLIST
6. Other						SEE PAGE C-3 OF APPENDIX C 10/23/94 10/23/94

* NANCY McMAHON, ARCHAEOLOGIST, HISTORIC PRESERVATION DIVISION, DEPT OF LAND & NATURAL RESOURCES INDICATED THAT THE SITE DOES NOT APPEAR TO HAVE ANY CULTURAL RESOURCES BY TELEPHONE CALL (10-294). A LETTER WILL FOLLOW IN RESPONSE TO OUR LETTER DATED 10-26-93.

F. Underwriting/Environmental Findings

Underwriting/Environmental Factor	Conformance/Impact:			Significant Mitigation or Modification	Note conditions and/or source documentation that supports Finding Reference Notes
	Minor	Minor	Major		
1. Compatibility with surrounding development	X				SEE PAGE C-3 OF APPENDIX C
2. Site accessibility	X				" " C-4 " " "
3. Demographic/neighborhood character	X				" " C-3 " " "
4. Schools			X		ADDITIONAL STUDENTS GENERATED BY THE PROJECT WILL ADD ADDITIONAL STUDENTS TO THE 3 DISTRICT SCHOOL LEVELS AND WILL CAUSE OVERCROWDING. LOCAL CHURCH, SOC. FACILITIES OR. A-27;
5. Parks and recreation	X				SEE PAGE C-4 OF APPENDIX C
6. Social services	X				SOCIAL SERVICE AGENCIES ARE LOCATED IN LIHUE, 3 MILES AWAY. S.D. MAPS
7. Emergency health care	X				EMERGENCY HEALTH CARE FROM POLICE AND FIRE DEPARTMENT ARE WITHIN 3 MILES OR 4-6 MINUTE RESPONSE TIME. WILSON MEMORIAL HOSPITAL WITHIN 3 MILES.
8. Public safety: fire	X				FIRE STATION LOCATED IN LIHUE-LIHUE 3 MILES AWAY OR 4-6 MINUTES RESPONSE TIME. S.D. MAP - SITE INSPECTION
9. Public safety: police	X				POLICE STATION LOCATED IN LIHUE, 3 MILES AWAY OR 4-6 MINUTES RESPONSE TIME DEPENDING ON LOCATION OF SQUAD CAR AT TIME OF CALL - S.D. MAP - SITE INSPECTION
10. Commercial/retail					SEE PAGE C-4 OF APPENDIX C
11. Transportation					" " C-4 " " "

Previous Editions are Obsolete

* ADDITIONAL STUDENTS GENERATED
 - ELEMENTARY - 37
 - INTERMEDIATE - 13
 - HIGH SCHOOL - 16

form HUD-1125 (07/27/83)
 rel. 24 CFR Part 53

Project Number: _____

G. Environmental Findings

Environmental Factor	Impact Anticipated			Fluorides Mitigation or Modification	Note conditions and/or source documentation that supports Finding Reference Notes
	None	Minor	Major		

1. Land Use and Development Factors

1.1 Physical site suitability	<input checked="" type="checkbox"/>				SEE PAGE C-4 OF APPENDIX C
1.2 Soil stability and erodibility		<input checked="" type="checkbox"/>			" " " " " "
1.3 Natural hazards		<input checked="" type="checkbox"/>			" " C-5 " "
1.4 Man-made hazards and nuisances	<input checked="" type="checkbox"/>				" " C-5 " "
1.5 Air quality	<input checked="" type="checkbox"/>				" " C-6 " "
1.6 Displacement	<input checked="" type="checkbox"/>				THE SITE IS NOT OCCUPIED BY PERSONS LIVING ON THE SITE THOUGH THERE ARE 4 DILAPIDATED SHACKS ON SITE
1.7 Energy consumption		<input checked="" type="checkbox"/>			POWER IS AVAILABLE. LAVAL GLE WAS CONTRACTED IN 6-91 ON A 240 UNIT PROJECT FOR THE SITE. THEY WERE ADVISED THAT IT WOULD REQUIRE ABOUT \$53,000 IN IMPROVEMENTS TO SYSTEM TO PROVIDE SERVICE TO THE SITE. \$15,000 WOULD BE FOR 3 PHASE SERVICE FOR SEWAGE LIFT STATION. S.D. PATTY ANLAY, ENGINEER WITH LAVAL CONSULTING. 10-28-93

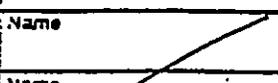
2. Infrastructure and Facilities (*See 24 CFR §50.4 for other relevant authorities)

2.1 Water supply		<input checked="" type="checkbox"/>			EXISTING WATER SUPPLY SYSTEM SERVING THE AREA IS ADEQUATE. PROJECT WILL BE REQUIRED TO PROVIDE HOSE-UP WITH TRUCK LOW ALONG HIGHWAY. S.D. GREGG FULLER LAVAL COUNTY BWS 10-28-93
2.2 Waste water		<input checked="" type="checkbox"/>			ADDITIONAL IMPROVEMENTS WILL BE REQUIRED TO SEWAGE COLLECTION SYSTEM. THIS LOCATED AT LAVAL COUNTY NOTES TRAPA LIFT STATION WILL BE REQUIRED
2.3 Storm water			<input checked="" type="checkbox"/>		A DRAINAGE ANALYSIS OF OFF-SITE STORM DRAINAGE SHOULD BE PREPARED TO DETERMINE IF DRAINAGE DITCHES ALONG THE PROPERTY LINES ARE ADEQUATE TO PREVENT
2.4 Solid waste	<input checked="" type="checkbox"/>				LAVAL HAS PROGRAM TO REDUCE SOLID WASTE DISPOSAL OF 25% BY 1995 & 50% BY 2000. EXISTING DISPOSAL SITES WILL BE ADEQUATE FOR PROJECT. S.D. MARIA COOSENS, SOLID WASTE MGR 10-28-93

3. Natural Features and Areas (*See 24 CFR §50.4 for other relevant authorities)

3.1 Water resources		<input checked="" type="checkbox"/>			THE WATER RESOURCES ON LAVAL IS ADEQUATE TO PROVIDE WATER SERVICE AND FIRE PROTECTION TO THE PROJECT. S.D. - GREGG FULLER LAVAL COUNTY BWS
3.2 Unique natural features and areas		<input checked="" type="checkbox"/>			SEE PAGE C-6 OF APPENDIX C
3.3 Important and productive farmlands		<input checked="" type="checkbox"/>			SITE WAS USED FOR HOUSING PLANTATION WORKERS MORE THAN 50 YEARS AGO. SITE IS VACANT EXCEPT FOR 4 DILAPIDATED STRUCTURES. S.D. SITE INSPECTION
3.4 Vegetative and animal life		<input checked="" type="checkbox"/>			THE SITE IS OUTSIDE OF ANY HABITAT FOR ENDANGERED SPECIES AS NOTED ON CONSERVATION DISTRICT FISH & WILDLIFE MAP FOR LAVAL - STATE DLNR MAP 6089 JUNE 1977

H. Participating Staff

Environmental Assessment conducted by (In addition to Preparer)	Name	Title	Date
			
Field Inspection conducted by (If different from Preparer)	Name	Title	Date
			
Additional Technical Analysis by	Name	Title	Date
			

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Appendix C
SAMPLE FIELD NOTES CHECKLIST

INSTRUCTIONS

This checklist is to be completed by the Appraiser during the field visit and attached to the Environmental Assessment (Form HUD-4128). It will constitute full documentation for many factors on the EA, and partial documentation for others. Some factors on Form 4128 require other kinds of documentation (e.g. contact with the SHPO, adequacy of services); so those factors are not included on this checklist.

Provide answers to all questions that can be observed during the field visit. Use spaces provided for any supplemental information and/or for recording any recommended mitigation measures. Use back or additional sheets if necessary but key answers to the relevant questions.

Several different types of maps will be useful on the field visit, such as project plan or plot map, location map showing major features and facilities in the vicinity, USGS topographic map, zoning map, and land use map. Many of the conditions observed can and should be recorded directly on the project plan. Distances to major features and facilities (e.g., schools and fire stations) and a description of the surrounding area are examples. The plan can then be referenced as "source/documentation" on the assessment form.

Project Number _____ Project Name CHARLES ZINER PROJECT

Location HULEI RD + KUHIU HIGHWAY HANAMAII KAUAI
(street) (city) (county)

Field inspection on SEPT. 2, 1993 by FRANK L. JOHNSON
(date) (signature)

Brief Description of project 165 2-BEDROOM UNITS ON 12.17 ACRES
AFFORDABLE RENTAL UNITS FUNDED UNDER THE HOME
DISASTER PROGRAM

General Project Information

Project is in a location described as: () Central city (X) Suburban () Infill
urban development () In developing rural area () In undeveloped area

Project is served by: Paved access Public water system Public sanitary sewer system Other utilities, such as gas, electric, telephone

Is the project an addition to existing development? Yes No
 Are there existing buildings on the site? Yes No (DILAPIDATED)
 Is the site covered with trees and non-agricultural vegetation? Yes No
 Is the site presently being farmed? Yes No

Section E. Compliance Factors

CF 1. Noise

Is the project within 1000 feet of a major road/highway/freeway? Yes No
 Is the project within 3000 feet of a railroad? Yes No
 Is the project within 15 miles of a military airfield? Yes No
 Is the project within 5 miles of a civil airport? Yes No

If "yes" to any of above, do NAG assessment or, for airports, use adopted DNL contours

Comments: SITE IS ABOUT 2 MILES FROM AIRPORT BUT WELL OUTSIDE OF THE 65 LDU CONTOUR. S.D. - 1 1/2 mi Kawooka. Airports Division STATE DOT.

CF 3/4. Floodplains/Wetlands

Are there drainageways, streams, rivers, or coastlines on or near the site? Yes No
 Are there ponds, marshes, bogs, swamps or other wetlands on or near the site? Yes No
 Are there soils or vegetation characteristic of wetlands on or near the site? Yes No

(Observations are useful only when the site is not identified on a floodplain map as being in a floodplain; if it is, compliance will also require the WRC 8-step process)

Comments: PROJECT SITE IS OUTSIDE OF THE 500 YEAR FLOODPLAIN AS IDENTIFIED ON THE FLOOD INSURANCE RATE MAP - COMMUNITY-PANEL # 152002 01406 REVISED MARCH 8, 1987
THE SITE SLOPES TOWARD THE HIGHWAY AT GRADIENTS OF 4-1/2 %.

CF 5. Hazards

Are industrial facilities handling explosive or fire-prone materials such as liquid propane, gasoline or other storage tanks visible from the project site? Yes No

If "Yes," check for compliance with 24 CFR Part 51C, using the HUD Hazards Guidebook.

Is the project within 3000 feet from the end of a runway at a civil airport? Yes No

Is the project within 2 1/2 miles from the end of a runway at a military airfield? Yes No

If "Yes" to either of the above, check for compliance with 24 CFR Part 51D.

Is the project near dump or landfill site? Yes No

Is the project near an industry disposing of chemicals or hazardous wastes? Yes No

If "Yes" to either of the above, contact the EPA per instructions contained in Notice 79-33.

Comments: THE PROPOSED PROJECT IS NOT LOCATED NEAR ANY HAZARDOUS WASTE SITES IDENTIFIED BY EPA AS OF 11-4-92 BY EPA.

Section F. Underwriting/Environmental Factors.

U/EF 1. Compatibility with surrounding development

Is the project compatible with surrounding area in terms of:

	yes	No		Yes	No
Land use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Texture, materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Height, bulk, mass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Building type (lo/hi rises)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Building density	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Building arrangement	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Population density	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Light/shadow and ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Setback	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landscaping	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: THE PROJECT WILL HAVE A DENSITY OF 13.5 UNITS PER NET ACRE OF 2 BEDROOM UNITS. MOST HOUSING IN THE AREA IS SINGLE FAMILY HOUSING. HIGHER DENSITIES HELP REDUCE UNIT COSTS AND MAKE MORE UNITS AFFORDABLE

U/EF 3. Demographic/neighborhood character

Will the project be unduly influenced by:

	Yes	No		Yes	No
Building obsolescence	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Transition of land uses	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vacant buildings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Transition in density	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Building deterioration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Non-conforming conversions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Postponed maintenance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Incompatible land uses	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Obsolete public facilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Inadequate off-street parking	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Buildings crowding land	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Comments: THE PROJECT ON THE EDGE OF THE TOWN OF HANAMALU AND WILL PROVIDE NEWLY CONSTRUCTED UNITS FOR AFFORDABLE RENTS TO FAMILIES WITH LOW-MODERATE INCOMES.

U/EF 2. Site accessibility - U/EF 5. Parks and recreation

U/EF 10. Commercial/Retail - U/EF 11. Transportation

Are the approaches to the project convenient, safe and attractive?

Yes No

Is the project accessible to employment, shopping and services?

Yes No

Are parks and play spaces available on site or nearby? STATE PARK 1/2 MI

Yes No

Are commercial/retail shopping center nearby?

Yes No

Is public transportation service available?

Yes No

Comments: PROJECT IS LOCATED ABOUT 3 MILES FROM LIHUE, WAGES JOBS,

DANCEING, AND RETAIL SHOPPING CENTERS ARE AVAILABLE. HANAMALU

PROVIDES LOCAL GROCERY STORES, SERVICE STATION & POST OFFICE.

Section G. Environmental Factors.

EF 1.1 Physical site suitability

Slopes: Not Applicable Steep Moderate Slight (4-6%)

Is there evidence of slope erosion?

Yes No

(Such as; Extensive gullies/small ravines? Bowed-retaining walls? Washing away of top-soil and grasses? Tree movement? Fire scars?)

Is there evidence of unstable slope conditions?

Yes No

(Such as; Trees perpendicular to slope? Vertical cracks at top of slope? Tilted utility poles? Hummocky-undulations on mid to lower slopes?) NO STEEP SLOPES ON SITE

Is there evidence of ground subsidence on the site?

Yes No

Is there evidence of other unusual conditions on site?

Yes No

Comments: SITE WAS USED AS A CAMP FOR PLANTATION WORKERS 50-60 YEARS

A.G.O. PROPERTY HAS 5-6 MANGO TREES, 2 COCONUT TREES & AMERICAN TULIP TREES.

EF 1.2. Soil Stability and Erodability

Soils: Loose, fine grained silts Gravel/Sands Clay (Hard/Dry)
 Non-expansive Moderately expansive Highly expansive
 Mix-of-each (check appropriate box if finding can be made by the reviewer)

Are there visual indications of filled ground?

Yes No

(Materials loosely piled on ground? Loose vegetation? Earth has graded appearance or topography appears unnatural in grade as related to vicinity?)

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Are there active rills and gullies on site? Yes No
 Is there off-site drainage to site? (DCRM PREVENTS IT) Yes No

Comments: THE MAUKA BOUNDARY OF THE PROPERTY HAS A BERM TO PREVENT OFF-SITE DRAINAGE FROM ENTERING THE PROJECT SITE. THERE IS ALSO AN UNLINED DITCH THAT RUNS PARALLEL WITH HULEI ROAD TO PREVENT DRAINAGE COMING INTO SITE.
 (Is a soils report needed? Yes No; geological study needed? Yes No)

EF 1.3 Natural hazards

Will the project be affected by:

	Yes	No		Yes	No
Faults, fractures	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fire hazard materials	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cliffs, bluffs, crevices	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wind/sand storm concerns	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Slope-failures from rains	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Poisonous plants, insects, animals	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unprotected water bodies	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Hazardous terrain features	<input type="checkbox"/>	<input checked="" type="checkbox"/>			

Comments: THE ONLY POTENTIAL NATURAL HAZARDS THAT SHOULD BE CONSIDERED IN THE DESIGN OF THE PROJECT IS WINDS OF HURRICANE FORCE AND OFF-SITE DRAINAGE THAT MAY ENTER THE SITE IN CASE OF FAILURE OF THE BERM OR DRAINAGE DITCH ALONG HULEI ROAD.

EF 1.3 Man-made hazards and nuisances

Hazards (Amended on February 3, 1994) *Plan 2/3/94*

Will the project be affected by:

	Yes	No		Yes	No
Hazardous street conditions (Highway)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Railroad-crossing hazards	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dangerous intersections	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Inadequate screened drainage catchment structures	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Through traffic problems	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hazards in vacant lots	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inadequate separation of pedestrian/vehicle traffic	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Chemical tank-car terminals	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Children's play areas located next to freeways or other high volume traffic ways	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Trucking terminals	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Inadequate street lighting	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other hazardous chemical storage (see note below)*	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Unscreened quarries or other excavations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	High-pressure gas transmission lines on site	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sanitary landfills or mining operations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Overhead transmission lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Industrial operations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hazardous cargo transportation routes	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			Oil or gas wells	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments: PROJECT IS LOCATED ON KUHO HIGHWAY. THROUGH SOUND SITE PLANNING THE HAZARDS POSED BY VEHICULAR TRAFFIC CAN BE MINIMIZED OR ELIMINATED.

* See attached documents prepared by Cotton & Frazier Consultants Inc.

- Charles River Parcel Environmental Site Assessment
- Summary letter dated January 26, 1994, addressed to Don Gerbig, AMPAC/JMB Hawaii, Inc
- Letter dated February 1, 1994, addressed to Ms. Jill Vellis, Oshima Chun Fong and Chung, Attorneys

Also see memo to File through ^{C-5} Patty Nicholas, dated February 3, 1994, subject: Charles River project, Environmental Assessment.

Nuisances

Will the project be affected by:

	Yes	No		Yes	No
Gas, smoke, fumes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Unsightly land uses	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Odors	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Front-lawn parking	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vibration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Abandoned vehicles	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Glare from parking areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Rodent or vermin problems	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Billboard encroachment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Industrial nuisances	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vacant/boarded-up buildings	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other _____	N.A.	<input type="checkbox"/>

Comments: THE PROJECT IS LOCATED AT THE EDGE OF HANAMALU TOWN AND
IS IN A RURAL SETTING WITH SUGAR CANE FIELDS TO THE NORTH,
THE MOUNTAINS TO THE WEST, HANAMALU ON THE SOUTH & THE OCEAN 1 MILE TO THE EAST.

EF 1.5 Air quality

Are there air pollution generators nearby which would adversely affect the site?

	Yes	No		Yes	No
Heavy industry	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Large parking facilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Incinerators	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1000 or more cars)		
Power generating plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Heavy travelled highway	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oil refineries	<input type="checkbox"/>	<input checked="" type="checkbox"/>	(6 or more lanes)		

Comments: KAUAI COUNTY IS MEETING THE FEDERAL AND STATE AIR
QUALITY STANDARDS AND COMPLIES WITH THE STATE IMPLEMENTATION
PLAN (SIP) FOR AIR QUALITY.

EF 3.1² Unique natural features and areas

- Is the project near natural features such as bluffs or cliffs? () Yes (X) No
- Is the project near public or private scenic areas? (X) Yes () No
- Are other natural resources visible on site or in vicinity? (X) Yes () No

Comments: THE FOLLOWING NATURAL FEATURES/PUBLIC PARKS ARE LOCATED
WITHIN 5 MILES OF THE SITE: KALAPAKI BEACH, AHUKINI STATE PARK, WAIALUA BEACH,
PUNU GROVE, WAIALUA RIVER STATE PARK, OPAEKEA FALLS & LYDGATE STATE PARK.
THE PROPOSED PROJECT WILL NOT IMPACT THESE RESOURCES.

MEMORANDUM OF AGREEMENT
SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
PURSUANT TO 36 CFR SECTION 800.6(A)

WHEREAS, the U. S. Department of Housing and Urban Development (HUD), will be providing financial assistance to Kauai County for the acquisition and construction of rental housing on a site identified as TMK 3-8-02:14 in Hanamalu, Kauai, Hawaii, now occupied by four dilapidated structures, formerly occupied by plantation workers;

WHEREAS, HUD has determined that the demolition and replacement of these structures will have an adverse effect upon a property eligible for inclusion in the National Register of Historic Places, and has consulted with the Hawaii State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 S.S.C. 470f); and

WHEREAS, Kauai County has participated in the consultation and has been invited to concur in this Memorandum of Agreement;

NOW THEREFORE, HUD, and the SHPO agree that, in fulfillment of HUD's obligations under Section 106, the demolition and replacement of the four structures shall be implemented in accordance with the following stipulations which take into account the effect of the undertaking on historic properties.

Stipulations

HUD will ensure that the following measures are carried out:

1. Prior to the demolition of the structures on the site, HUD will submit three sets of photographic documentation of the existing structures. Photographs shall be on 8" x 10" fiber-based paper prints from 4" x 5" Tri-X negatives. Both negatives and prints shall be processed with archival quality control methods. Photographic documentation shall include the following:

EXHIBIT 3

- a. Front, side and rear elevations of each building.
 - b. Overviews of the entire site.
2. HUD will provide three sets of Historic American Buildings Survey Standards (HABS) measured drawings of each house. Drawings of each building should include a floor plan, two elevations, (front and one side), one section, and any details agreed upon by the SHPO and HUD.
 3. Should the SHPO object, within 30 days to any actions taken pursuant to this agreement, HUD shall consult with the SHPO to resolve the objection. If HUD determines that the objection cannot be resolved, HUD shall request the further comments of the Council pursuant 36 CFR 800.6(b). Any Council comment provided in response to such a request will be taken into account by HUD in accordance with 36 CFR 800.6(c)(2), with reference only to the subject of the dispute; HUD's responsibility to carry out all actions under this agreement that are not the subjects of the disputes will remain unchanged.
 4. The three sets of materials required will be distributed by HUD, as follows: one set shall be made available to the repository established, subject to the approval of the SHPO, to maintain records of historic significance of the project; one set to the SHPO; and one set to be maintained by HUD.

HUD and SHPO agree that the execution of this Memorandum of Agreement, its subsequent approval by the Council, and implementation of its terms will evidence that HUD has acceptably afforded the Council an opportunity to comment on the demolition of the structures and its effects on historic properties, and that HUD has taken into account the effects of the undertaking on historic properties as required by Section 106.

This Agreement shall be effective NOV 18 1993, 1993

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Robert C. Bush Date: 11/18/93
 Robert C. Bush
 Executive Director, Advisory Council

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Signature] Date: NOV 5 1993
Gordon I. Fungiani
Manager, Honolulu Office

HAWAII STATE HISTORIC PRESERVATION OFFICER

[Signature] Date: NOV 10 1993
Keith Ahue
State Historic Preservation Officer, State of Hawaii

KAUAI COUNTY

[Signature] Date: 11/8/93
JoAnn A. Yukimura,
Mayor, Kauai County

[Signature] Date: 11/8/93
Dep County Attorney

JOHN WAIHEE
GOVERNOR



Date Received AUG 10 1991

File: 214

EDWARD Y. HIRATA
DIRECTOR

To: DH BG 152

DEPUTY DIRECTORS
AL PANG

Action: Mr. Charles Rivers

JOYCE T. OMINE

Jim Rappaport
Kouai Report Chris Chama

JEANNE K. SCHULTZ

CALVIN M. TSUDA

IN REPLY REFER TO:

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KALIA DISTRICT
3080 EIWA STREET, ROOM 205
LONUE, HAWAII 96766

HWY-KE 4.6666

August 6, 1991

Mr. Brian L. Gray
Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Ste. 607
Honolulu, HI 96813

Dear Mr. Gray:

SUBJECT: HANAMAULU HOUSING, TMK: 3-8-01:14

We have reviewed the preliminary plans for the Kuhio Highway Improvements and our comments/requirements are listed below:

1. Provide a fifty foot (50') curb return radius for the roadway instead of a twenty-eight foot (28') radius as shown on your plans.
2. Provide a left turn pocket for Hanamaulu Road Intersection. (Revise the existing pavement striping as required)
3. We confirm that a six-foot wide (6') sidewalk shall be constructed instead of a four-foot (4') wide sidewalk.
4. Construct paved shoulders (6' wide) on the east side of the highway between Hanamaulu Road and the north end of the project limits.

All pavement widening and paved shoulders shall conform to the following requirements and have typical sections drawn:

4" AC, Mix V
8" Aggregate Base Course
12" Aggregate Sub-base Course

5. Include complete and detailed striping plans as part of your construction plans.

EXHIBIT 4

HWY-KE 4.6666

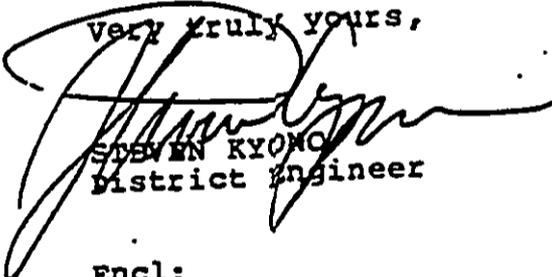
Mr. Brian L. Gray
Gray, Hong, Bills & Associates
August 6, 1991
Page 2

6. Drainage, sewer, traffic control & electrical/telephone plans for the subdivision remains subject to review by this office.
7. Improvements shall include all previously noted requirements by this office.

Enclosed is a conceptual sketch that shows our requirements for the highway improvements in the area.

If you have any questions, please call us at 241-3461.

Very truly yours,


STEVEN KYONG
District Engineer

Encl:

JOHN WAIHEE
GOVERNOR



EDWARD Y. HIRATA
DIRECTOR

DEPUTY DIRECTORS
AL FANG
JOYCE T. OMINE
JEANNE K. SCHULTZ
CALVIN M. TSUDA

IN REPLY REFER TO:

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KAUAI DISTRICT
3060 EIWA STREET, ROOM 205
LIHUE, HAWAII 96766

HWY-KE 4.6582

July 3, 1991

Date Received JUL 6 1991

File: 12147

To: DH PG 452

7/9 Approved On 7/13/91
(Signature)
(Signature)

Mr. Brian Gray
Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, HI 96813

Dear Mr. Gray:

SUBJECT: HANAMAULU HOUSING, TMK: 3-8-02:14

We return your sketches with the following comments noted in green pencil:

1. The proposed 10' wide road widening easement shall be dedicated to the State of Hawaii;
2. The transition manhole should be located off the pavement, possibly outside the shoulder area on the Kapaa side of Hanamaulu Road; and
3. Construct 6' wide concrete sidewalk, 6" high concrete curb and 2' wide concrete gutter along Kuhio Highway.

Easement for the force main gravity line and transition manhole within the highway right-of-way will be granted by the State and should be dedicated to the County of Kauai.

After you have satisfactorily addressed the above comments and the comments made on your zoning permit application, you may submit your plans for our review.

If you have any questions, please call us at 241-3461.

Very truly yours,

STEVEN KYONO
District Engineer

EXHIBIT 5

Encl:(2)

JOANN A. YUKIMURA
MAYOR



COUNTY OF KAUAI
PLANNING DEPARTMENT
4444 RICE STREET, SUITE 473
LIHUE, HAWAII 96766

*Copy to [unclear] done 11/29/93 to
DA ER MY
CET 11/26*

DEE M. CROWELL
PLANNING DIRECTOR

KEITH NITTA
ACTING DEPUTY PLANNING DIRECTOR

TELEPHONE (808) 241-6677
FAX (808) 241-6699

November 23, 1993

Mr. Chad Taniguchi, Administrator
County of Kauai Housing Agency
4193 Hardy Street
Lihue, Hawaii 96766

Subject: Charles River Project
TMK: 3-8-2:14

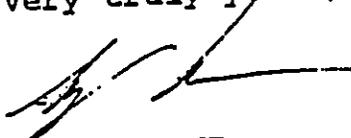
Dear Mr. Taniguchi,

-On November 18, 1993, the Planning Department went to the above mentioned site with Dennis Alkire from your office to assess the condition of the two remaining historic plantation style homes at this former plantation.

It was determined that these structures are severely deteriorated and rehabilitation is not feasible. We recommend that prior to demolition, these structures be photographed and measured and that as-built drawings be produced according to Historic American Buildings Survey (HABS) standards.

If we can be of further assistance, please do not hesitate to contact me.

Very truly yours,


GARY CANNER,
Historic Preservation Planner

cc: Dee Crowell
Don Hibbard, Ph.D.

Dion-Magrit Coschigano
Michael A. Faye

EXHIBIT 6

JOANN A. YUKIMURA
MAYOR



COUNTY OF KAUAI
PLANNING DEPARTMENT
4200 RICE STREET
LIHUE, KAUAI, HAWAII 96766

PETER A. NAKAMURA
PLANNING DIRECTOR

XXXXXXXXXXXXXXXXXX
DEPUTY PLANNING DIRECTOR

TELEPHONE (808) 245-3919

April 6, 1992

COPY

Honorable Chairman and Members
of the Council
County of Kauai
4396 Rice Street
Lihue, Hawaii 96766

Re: Request to Amend Condition #2 of Ordinance No. PM-191-89
Charles River Hawaii Development Corporation
TMK: 3-8-02:14 Hanamaulu, Kauai

The Planning Commission at its meeting held on March 24, 1992, voted 4 to 0 (2 absent) to recommend approval of the request for extension on the deadline to commence substantial construction of a proposed 242-unit, multi-family housing project. Such extension shall be recognized by amending condition #2 of Ordinance No. PM-191-89 (ZA-89-6) to read as follows:

"Upon receiving approval from the County to allow connection of the housing project to the Lihue Sewage Treatment Plant system, the applicant shall commence substantial construction of the project within one (1) year from the date the County completes the initial improvements to the plant to accept its design capacity of 1.5 million gallons per day. Substantial construction shall mean completion of site preparation and building foundations. Failure to commence substantial construction shall result in the revocation of the zoning ordinance pursuant to proper procedures. As agreed to by applicant, if the subject property is sold by applicant to an unrelated third party prior to substantial construction, the County shall initiate proceedings to rezone the property to its zoning designations existing prior to the adoption of Ordinance No. PM-191-89."

EXHIBIT 7

DOCUMENT CAPTURED AS RECEIVED

Honorable Chairman and Members
of the Council

Page 2
April 6, 1992

The applicant is advised that adoption of the foregoing amendment into County ordinance shall also, at that time, apply to and supersede condition #7(c) of Class IV Zoning Permit Z-IV-90-7.

Transmitted herewith is staff's report covering the request for time extension.


PETER A. NAKAMURA
Planning Director

Attachment

cc: Applicant

DEPARTMENT OF WATER

COUNTY OF KAUAI
P.O. BOX 1706
LIHUE, HAWAII 96766-5706
FAX NO. 243-5813

Gate Received JUL 3 1991
File: 5147
To: DH, BG, BZ
Action: ll. u. 300 in Uehouille. Charles Rivers Hawaii Development (Kauai: K2311)
Chie: Chong (Kauai: K2311)

July 1, 1991

Mr. Brian Gray
Gray, Hong, Bills and Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, HI 96813

Re: Water Service Inquiry for Hanamaulu Housing Project, Owner Charles Rivers Hawaii Development, 240 Units, Hanamaulu, Kauai, Hawaii, TMK: 3-8-02:14, Z-IV-90-7

At the present time, the source, storage and transmission facilities are adequate for the above housing project. However, prior to building permit approvals, the developer must:

- I. Prepare and receive Department of Water's approval of construction drawings for necessary water system facilities and constructs said facilities. These facilities shall include:
 - A. The domestic service connection.
 - B. The fire service connection.
 - C. The interior plumbing plans with the appropriate backflow preventer.
- II. The developer must pay the applicable charges in effect at the time of receipt. These charges will depend on the number of dwelling units or on the approve water meter size whichever is larger.
- III. If applicable, the developer shall prepare and convey necessary easements for all Department of Water's facilities within private property. These easements shall be clearly identified on the approve construction plans and recorded with the Bureau of Conveyances prior to building permit approval.


Raymond H. Sato
Manager and Chief Engineer

GF:rm

EXHIBIT 8

**Charles River Parcel
Environmental Site Assessment**

Location:
3-4371 Kuhio Highway, Hanamaulu, Hawaii
(TMK 3-8-02, parcel 14)

January 19, 1994

CFC Job #94120

**COTTON and FRAZIER
Consultants, Inc.**



Environmental Solutions

P.O. BOX 27126
Honolulu, Hawaii 96827.

PHONE (808) 599-1993
FAX (808) 599-1502

EXHIBIT 9

**Charles River Parcel
Environmental Site Assessment
CFC JOB #94120**

**Prepared for:
Kauai County Housing Agency**

**Site location:
3-4371 Kuhio Highway, Hanamaulu, Hawaii
(TMK 3-8-02, parcel 14)**

Prepared by:

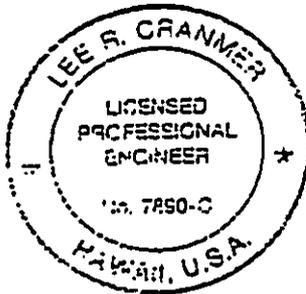


Robert W. Rooks, P.E.
Environmental Engineer

Approved by:



Lee R. Cranmer, P.E.
Project Manager



January 19, 1994

Charles River Parcel
Environmental Site Assessment
CFC Job #94120

COTTON and FRAZIER Consultants, Inc.
Environmental Solutions

EXECUTIVE SUMMARY

COTTON and FRAZIER Consultants, Inc. (C&F), was retained by the County of Kauai Housing Agency to perform a Phase I Environmental Site Assessment (ESA) of the property located at 3-4371 Kuhio Highway, Hanamaulu, Hawaii, 96715. The tax map key (TMK) for the subject property is 3-8-02, parcel 14. The assessment consisted of records review, site reconnaissance, and personal interviews.

The subject property covers 12.5 acres and is zoned Residential (R20) and Open. Vicinity properties are currently used for industrial, commercial, residential, agricultural and public (a school) purposes. The subject property has three distinct areas: the plantation camp, the flume shop area, and the lumber area. The sugar plantation camp area is the largest area and is located on the eastern portion of the parcel. This area was used historically as a housing area for plantation workers. Only two houses were standing at the time of the assessment. The flume shop area is located on the southwest corner of the parcel and was used by Lihue Plantation Company as a storage yard for irrigation flumes, portable sand filters, and other agricultural equipment. A storage shed and part of another shed are located on this area. Finally, the lumber area is located on the northwest corner of the parcel. It was used to store lumber.

Information found during the assessment indicates that recognized environmental conditions may affect isolated portions of the subject property. Four abandoned cars were found in the plantation camp area. These cars pose a material threat of a release of motor oil or gasoline. In addition, interviews indicate that the flume shop area was used to store containers of motor oil and that at least one of these containers leaked oil onto the soil. These drums and visually contaminated soil were removed prior to this assessment, but it is unknown whether any residual oil is present in the soil.

Based on this assessment, Cotton and Frazier Consultants, Inc., makes the following recommendations:

1. The four abandoned cars should be removed from the property. At that time, the soil beneath the cars should be observed for evidence of any leaks and any contaminated soil should be removed and disposed of properly.
2. AMFAC/JMB Hawaii Inc. should be contacted for the analytical results of any soil sampling performed on soils beneath the leaking oil containers formerly stored in the flume shop area. If such data are unavailable, a soil sample should be collected at that location and analyzed. Any contaminated soil should be removed and disposed of properly.

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LIST OF APPENDICES

- Appendix A Site Maps and Figures
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Appendix D Historic Map
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1.0 INTRODUCTION

1.1 Purpose and Scope

The purpose of this Phase I Environmental Site Assessment (ESA) is to provide a professional opinion as to the potential for recognized environmental conditions to affect the property located at 3-4371 Kuhio Highway, Hanamaulu, Hawaii, 96715. "Recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release into structures on the property or into the ground, groundwater, or surface water of the property (American Society for Testing and Materials, 1993).

Hazardous substances are those substances defined under Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act and listed under Title 40 of the *Code of Federal Regulations*, Part 302. They include hazardous substances and toxic pollutants regulated under the Clean Water Act, hazardous wastes regulated under the Resource Conservation and Recovery Act, and hazardous air pollutants regulated under the Clean Air Act. Petroleum products include crude oil, gasoline, kerosene, diesel oil, jet fuels, fuel oil, natural gas, liquefied natural gas, and synthetic gas usable for fuel.

This assessment was conducted in accordance with the American Society for Testing and Materials Standard E 1527-93, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." The scope of work consisted of four major components as follows:

- 1) Site Description
 - Location and Legal Description
 - Site Vicinity and Characteristics
 - Site Description
- 2) Records Review
 - Federal
 - State
 - Local
 - Site History
- 3) Site Reconnaissance and Interview Information
 - Site Reconnaissance
 - Interview Information
- 4) Conclusions and Recommendations

1.2 Limitations and Exclusions

Cotton and Frazier Consultants, Inc., reviewed information of record from standard sources that were readily available. Occasionally, these records are incomplete or inaccurate. However, C&F has made every reasonable effort to ensure the accuracy of the information presented.

The purpose of a Phase I ESA is to identify, to the extent feasible, recognized environmental conditions that may affect the property. Phase I ESAs are not performed to determine the presence or absence of hazardous substances or petroleum products at the site.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The property is located on the island of Kauai at 3-4371 Kuhio Highway, Hanamaulu, Hawaii, 96715. The tax map key for the subject property is 3-8-02, parcel 14. A topographic map showing the property location is presented in Appendix A (Figure A-1).

2.2 Site Vicinity and Characteristics

The subject property is currently zoned Residential (R20) and Open. Prior to 1989, the subject property was zoned Agricultural, Neighborhood Commercial, Residential, and Open. Vicinity properties are zoned Neighborhood Commercial, General Industrial, Agriculture, Open, and ST-P (Special Treatment - Public Facilities).

The subject property is bordered to the north by Hulei Road, to the east by Kuhio Highway, and to the west by a private cane haul road. The site is bordered to the south by commercial and industrial properties as follows. The Lihue Plantation Company has a large vehicle maintenance compound and various workshops to the south of the property on TMK 3-8-02, parcel 1. Hanamaulu Plaza (which has office spaces, a restaurant, and a laundry) and the Hanamaulu Cafe are located on TMK 3-8-02, parcel 10. The Hanamaulu Trading Company Shopping complex, which includes Planter's Restaurant, the Big Wheel Donut Shop, Hair Vibrations, Sampaguitas, Kauai Frame, and Garden Island Oxygen Supply is located on TMK 3-8-02, parcel 11.

The property to the north across Hulei Road (TMK 3-8-02, parcel 3) is planted in sugar cane and has three single-family residences. King Kaunualii Elementary School and the Peter Rayno, Sr., Park are located to the east of the property across Kuhio Highway on TMK 3-7-03, parcels 20 and 9, respectively. Finally, the property to the west across the cane haul road (TMK 3-8-02, parcel 4) is undeveloped.

Figure A-3 (Appendix A) shows the subject and vicinity properties.

2.3 Site Description

The subject property covers 12.5 acres at the intersection of Kuhio Highway and Hulei Road. The site ranges in elevation from approximately 200 feet above sea level in the southwest corner of the property to approximately 140 feet above sea level at the northeast corner. Soils on the site are classified as Lihue silty clay on zero to eight percent slopes (USDA Soil Conservation Service, 1972). These well drained soils are generally found on uplands on the island of Kauai, and show moderately rapid permeability.

The property consists of three distinct areas: the plantation camp, the flume shop area, and the lumber area. The largest area is located on the east of the property where there were historically houses for plantation workers and their families. It is thickly vegetated except where the houses and access roads were once located. An irrigation ditch running south to north through the parcel separates this area from the other areas. These areas are shown on the Site Map presented as Figure A-2 in Appendix A.

The flume shop area is located on the southwest corner of the property. It was used by Lihue Plantation Company to store irrigation flumes, portable sand filters, and other agricultural equipment. There is a dirt access road onto this area from the cane haul road.

The lumber area is located on the northwest corner of the property along Hulei Road and the cane haul road. It was once used to store lumber and is sparsely vegetated. It appears that a dirt access road once passed through the lumber area from Hulei Road to the flume shop area.

Refer to Appendix A (Figure A-1) for a topographic map of the property and surrounding area.

3.0 RECORDS REVIEW

3.1 Federal

The Federal database for Superfund sites indicated that no sites on the National Priorities List (NPL) existed within a one mile radius of the subject property as of June 1993. Furthermore, no sites were under investigation for inclusion on the NPL within a one-half mile radius of the property as of November 1993.

No large quantity generators or small quantity generators of hazardous waste existed within a one-quarter mile radius of the site as of July 1993. Large quantity generators are those who generate at least 1000 kilograms (kg) per month of non acutely hazardous waste or 1 kg per month of acutely hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA). Small quantity generators are those that generate more than 100 kg per month but less than 1000 kg per month of non acutely hazardous waste as defined under RCRA.

No transporters of hazardous waste were identified within a one-quarter mile radius of the site. In addition, no hazardous waste treatment, storage, or disposal facilities were identified within a one mile radius of the property as of July 1993.

According to the Emergency Response Notification System database, no oil or hazardous substance release reports have been made to Federal authorities as of September 1993 for sites within the same zip code area as the subject property.

A summary of the Federal records database search results is included in Appendix B.

3.2 State

The State of Hawaii databases listed no leaking underground storage tanks (LUSTs) within a one-half mile radius of the property as of July 1993.

The database listed no registered underground storage tank (UST) sites within a one-quarter mile radius of the site as of May 1993. However, the site reconnaissance revealed that two UST sites are located within one-quarter mile of the site. These are as follows:

- Hanamaulu Service Center at 3-1280 Kuhio Highway with six USTs, and
- Lihue Plantation Company's Hanamaulu Motor Pool with four USTs.

In addition, GTE Hawaiian Tel has two USTs at the Kalepa Radio Station. The location of these USTs was not provided in the state records and was not observed during the site reconnaissance.

No solid waste landfills, incinerators, or transfer stations existed within a one-half mile radius of the site as of March 1993.

The State database search results are presented in Appendix C.

3.3 Local

As of 11 January 1994, the Hawaii Real Property Assessment Division records identified Hanamaulu Associates, Limited, as the current owner of TMK 3-8-02, parcel 14. Local zoning and regulatory offices had no record of environmental rules violations or concerns.

3.4 Site History

3.4.1 Title and Lease Records

The first available recorded transaction for TMK 3-8-02, parcel 14, was in 1986 when the parcel was formed from TMK 3-8-02, parcel 1. The Lihue Plantation Company was identified as the owner. AMFAC Hawaii Inc., acquired the parcel in 1987, and Hanamaulu Associates, Limited, acquired the property in 1990.

The first record for TMK 3-9-02, parcel 1, was in 1958 and identified the Lihue Plantation Company, Limited, as the owner. Lihue Plantation Company appears to have owned this parcel as early as 1938, as shown by a 1938 tax record for TMK 3-8-02, parcel 6.

3.4.2 Aerial Photographs

Aerial photographs of the site area for 1950, 1960, 1975, 1976, 1986, and 1992 were reviewed. In the 1950 photograph, the subject property is occupied by a plantation camp with many small houses and an access road off of Kuhio Highway north of its intersection with Hanamaulu Bay Road. Likewise, TMK 3-8-02, parcels 10 and 11 also had plantation houses. The lumber area on the northwest corner of the property was bare, and no structures are visible in the photograph. The flume shop area contained two sheds, and a dirt road appeared to connect Hulei Road and the flume shop area through the lumber area. Large buildings are visible on TMK 3-8-02, parcel 1, where the Lihue Plantation Company Hanamaulu Motor Pool is currently located. Properties to the north and to the east of the site are sugar cane fields, and the park currently on TMK 3-7-03, parcel 9, is visible.

Several houses are visible on the subject property in the 1986 photograph, but only two houses are visible in the 1992 photograph. No structures or objects are visible in the lumber area in any of the photographs. Buildings first appear on TMK 3-8-02, parcel 11, in the 1960 photograph and TMK 3-8-02, parcel 11, in the 1975 photograph. King Kaunualii Elementary School first appears in the 1992 photograph.

3.4.3 Historic Maps

A review of Sanborn Fire Insurance Company maps for 1914, 1927, and 1947 was conducted. No maps were available that showed the Hanamaulu area and the subject property.

A review of historic United States Geologic Survey topographic maps ... A 1963 topographic map was found that depicted the subject property. This map has approximately twenty-five houses and an access road off Kuhio Highway on the subject property.

See Appendix D for a copy of the 1963 topographic map.

4.0 SITE RECONNAISSANCE AND INTERVIEW INFORMATION

4.1 Site Reconnaissance

The site reconnaissance was conducted on 13 January 1994 by Beth Hyder, Regulatory Specialist. The site reconnaissance included an inspection of the property, the two houses along Kuhio Highway, and the sheds at the flume shop area. All roads and paths onto the property were walked during the investigation to search for visible signs of their use as an avenue for the disposal of petroleum products or hazardous substances.

4.1.1 Plantation Camp

The eastern portion of the parcel was the location of the plantation camp. Two vacant houses were standing along Kuhio Highway at the time of the assessment. Both houses are constructed of wood with tin roofs. No potential asbestos containing building materials were observed. Three old refrigerators were observed in the houses.

Access roads led from Kuhio Highway north and west into the parcel and from Hulei Road south into the parcel. A fence across both access roads limited access to the area. House foundations and tin roofing panels were observed along the access roads and in the southern part of the parcel near TMK 3-8-02, parcel 10. Rubbish, two tires, and a crankcase were observed at the intersection of the access road and Hulei Road. No soil stains or stressed vegetation were observed.

Bare soil was present where houses were formerly located and along access roads. The remainder of this portion was thickly vegetated. Four abandoned cars were observed in the southeast corner of the parcel at the end of paths leading northward from TMK 3-8-02, parcel 10.

4.1.2 Flume Shop Area

The southwest corner of the parcel was the flume shop area and was used by Lihue Plantation Company as a storage area. At the time of the assessment, personnel from Lihue Plantation Company were removing damaged irrigation flumes from this area. They were also bulldozing surface soil into piles at the edge of the area. In addition to flumes, metal piping, portable sand filters, and six metal tanks were observed there. No odors were detected, and no soil stains were observed.

One wooden shed was present in this area. It was used to store lumber, cardboard, and silica sand bags. The property line ran through another shed, such that a portion of the shed was located within the parcel. This shed was also constructed of wood with a tin roof and was used to store black plastic sheeting. Both sheds had earthen floors. No potential asbestos containing building materials were observed.

4.1.3 Lumber Area

The northwest corner of the parcel is enclosed by a chain-link fence that runs along Hulei Road to the north and the cane haul road to the west and between this portion and the flume shop area. The irrigation ditch runs along the eastern edge of this area which is only sparsely vegetated. Several pieces of lumber and metal packing straps were observed. Metal piping, a small metal cylinder, and a portion of a rusty 55-gallon container were observed along the fence line with the flume shop area. No soil stains or stressed vegetation were observed, and no odors were detected.

Photographs of the site are presented in Appendix E.

4.2 Interview Information

A personal interview was held on 13 January 1994 with Mr. Steve Gomes, Irrigation Supervisor, representing Lihue Plantation Company, the most recent occupant and previous owner of the property. Mr. Gomes has worked at the site for approximately 20 years and remembers the subject property when he was a child. Mr. Gomes indicated that the houses at the plantation camp were demolished one at a time over many years. He stated that the flumes being stored at the flume shop area were damaged in the cane fields during Hurricane Iniki (September 1992). Finally, he noted that the northwest corner of the subject property had been used for storing lumber.

A personal interview was held on 13 January 1994 with Mr. Dennis Alkire, Public Housing and Development Specialist, County of Kauai Housing Agency. Mr. Alkire first visited the property approximately one month prior to this assessment. He expressed concern about possible contamination in the flume shop area. He indicated that the Lihue Plantation Company had used this portion of the property to store damaged and new flumes, sand traps, and some 55-gallon containers of oil and brake drums. He noted that an oil stain was evident beneath one of the drums. Lihue Plantation Company personnel removed these drums and the stained soil one week before the site reconnaissance.

Numerous attempts were made to arrange an interview with a representative of the current property owner, Hanamaulu Associates, Limited. These attempts were unsuccessful.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Cotton and Frazier Consultants, Inc., has performed a Phase I Environmental Site Assessment within the scope and limitations of ASTM Standard Practice E 1527-93 of the property located at 3-4371 Kuhio Highway, Hanamaulu, Hawaii, 96715, TMK 3-8-02, parcel 14.

Information found during the assessment indicates that recognized environmental conditions may affect isolated portions of the subject property. Four abandoned cars were found on the southeast corner of the parcel at the time of the assessment. These cars pose a material threat of a release of motor oil or gasoline onto the property. However, the impact of any possible leaks should be geographically limited. In addition, interviews indicate that the flume shop area was used to store containers of motor oil and that at least one of these containers leaked oil onto the soil. These drums and visually contaminated soil were removed prior to this assessment. C&F is aware that soil sampling was performed at the time of drum removal, but is unaware of the results of this work.

Based on this assessment, COTTON and FRAZIER Consultants, Inc., makes the following recommendations:

1. The four abandoned cars should be removed from the property. The soil beneath the cars should be observed for evidence of leaks and any contaminated soil should be removed and disposed of properly.
2. AMFAC/JMB Hawaii Inc. should be contacted to acquire results of any soil analyses performed on soils beneath the leaking oil container or containers. If such data are unavailable, a soil sample should be collected at that location and analyzed. Any contaminated soil should be removed and disposed of properly.

6.0 SOURCES OF INFORMATION

- Procedures:** American Society for Testing and Materials, 1993,
Standard Practice for Environmental Site Assessments:
Phase I Environmental Site Assessment Process,
Standard E 1527-93.
- TMK Information:** Hawaii Real Property Assessment Division
- Physical Setting:** USDA Soil Conservation Service, 1972,
Soil Survey of Islands of Kauai, Oahu, Maui, Molokai,
and Lanai, State of Hawaii,
Government Printing Office, Washington D.C.
- U.S. Geologic Service 7.5 Minute
Topographic Map, Honolulu Quadrangle
- Zoning Information:** Department of Planning, County of Kauai
- Database Search:** Vista Environmental Information
San Diego, CA
- Local Records:** Hawaii Real Property Assessment Division
Sanborn Fire Insurance Maps,
Sanborn Map Company, 1914, 1927, 1947
- Aerial Photography:** R.M. Towill Corporation
Photographs # 437-19, 2033-5, 6812-2, 6970-6, 437-78, and 8838-73
- Interviews:** Mr. Dennis Alkire
Public Housing and Development Specialist
County of Kauai Housing Agency
Mr. Steve Gomes
Irrigation Supervisor
Lihue Plantation Company



COTTON and FRAZIER Consultants, Inc.

P.O. Box 27126 Honolulu, Hawaii 96827
Phone: (808) 599-1993 Fax: (808) 599-1507

January 26, 1993 1994

Don Gerbig
AMFAC/JMB Hawaii, Inc.
Agricultural Operations
P. O. Box 3230
Honolulu, Hawaii 96801

RECEIVED
THE COUNTY ATTORNEY
THE COUNTY OF HAWAII

94 FEB -2 AM 2:27

REC'D - P.F.

Re: Lihue Plantation - Hanamaulu Drum Sampling and Soil Removal
Letter Report
CFC Job #94119

Dear Mr. Gerbig:

This letter summarizes work performed on the property which was utilized as the former Hanamaulu Flume Shop area of the Lihue Plantation on Kauai with Tax Map Key 3-8-02:14. Thirteen 55 gallon drums were located, sampled and removed from the property. Impacted soils observed around the drums were excavated and removed from the site and confirmation sampling was conducted to document removal. This letter report covers only a summary of work performed on January 6, 1994, to remove thirteen drums and apparent minimal associated "gross" soil contamination from a limited area near the Flume Shop. The Hawaii Department of Health defines "gross" contamination using visual and olfactory cues. This report also includes the results of drum testing and confirmation soil sampling.

Drum Sampling

On January 6, 1994, COTTON and FRAZIER Consultants Inc. (C&F) representative Darrell Robertson joined Don Gerbig representing AMFAC/JMB Hawaii, Inc. (AMFAC) at the former Hanamaulu Flume Shop area of the Lihue Plantation on Kauai. At the time, three pallets (identified as pallets A, B and C) were located near a dirt road and each pallet had four 55 gallon drums strapped to it (see Attachment A, Figure 1 and Attachment B, Photos 1 and 2). A total of twelve drums were located on the three pallets. One additional 55 gallon drum was located near a small wood storage shed approximately 75 feet to the northwest of the three pallets (see Attachment A, Figure 1).

Eleven drums were found to contain used motor oil and hydraulic fluid and one drum contained gasoline. The one drum by the shed appeared to contain diesel fuel which was sampled and identified by the laboratory to contain mostly diesel range

EXHIBIT 10

Hanamaulu Flume Shop, Lihue Plantation
Drum Sampling and Soil Removal
CFC Job #94119

- 1 -

COTTON and FRAZIER Consultants, Inc.
Environmental Solutions

hydrocarbons with some oil range hydrocarbons. The eleven drums containing used oil and hydraulic fluid were field tested with Chlor-D-Tect test kits to identify the presence of any chlorinated compounds in the product. Two of these drums (B2 and B4) tested positive for chlorinated compounds at a concentration greater than 1000 parts per million (see Attachment A, Figure 2). Additional quantitative field testing with Chlor-D-Tect Q4000 test kits identified the level of chlorinated compounds to range from 1200 ppm (B2) to 1600 ppm (B4).

Five of the stored drums appeared to have some overflow from the top, down the drums, and onto the adjacent soil surface. The drums were found to be in good condition and were full of product. No evidence of a significant release of product from any of the drums was observed and no holes or structural failures were identified. Six of the drums were constructed of plastic and seven of the drums were constructed of steel. Two of the steel drum tops on pallet A were partially rusted and full to the top with product. Lihue Plantation employees pumped half of the product out of these damaged drums into two newer 55 gallon drums to avoid spilling product while transporting them off site (see Attachment B, Photo 3). All the drums were transported with a fork lift off site to a plastic lined area constructed on Lihue Plantation property.

"Grossly" Contaminated Soil Removal

After the drums were removed, a Lihue Plantation Company equipment operator scraped obviously impacted soils up with a front end loader and transported the soils to the plastic lined area off site (see Attachment B, Photo 4). The impacted soils were visually obvious and were observed to be removed. No apparent odor was detected that could indicate the presence of additional "gross" contamination. The impacted soils were excavated until no further visual evidence was obvious and then an additional scrape was conducted to ensure removal. A total of approximately three cubic yards of soil was removed.

Two shallow scrapes resulted from over excavation in this area labeled scrape A and scrape B/C as associated with the three pallets. The resulting excavation at scrape A was 9 feet wide by 8 feet long to an average depth of 9 inches below ground surface (bgs). The excavation of scrape B/C was 9 feet wide by 12 feet long to a average depth of 12 inches bgs (see the plan view in Attachment A as well as Attachment B, Photos 4 and 5).

Confirmation Soil Sampling

Soil sampling was conducted at the bottom of the scrapes to provide evidence that the "grossly" contaminated soils were removed. Following excavation, a total of two composite confirmation soil samples (19SA and 19SBC) were collected on January 6, 1994, around the perimeter of the excavation and from the bottom of the scrapes (see Attachment A, Figure 1). The soil samples were collected in precleaned brass liners, with no head space, and capped with Teflon tape and plastic caps. No

ground water was encountered and no water samples were taken. The two soil samples were labeled on site and immediately placed in a cooler with blue ice. A dedicated chain-of-custody was prepared for the samples and the cooler was delivered by Federal Express to the Superior Precision Analytical, Inc. in San Francisco, California for laboratory analysis.

Laboratory Analysis

The soil samples were received on January 8, 1993 and were analyzed for Total Petroleum Hydrocarbons as Oil (TPH-O) on January 14 and 15, 1994, using EPA Modified Method 8015. TPH-O readings were detected at 390 ppm in scrape A and at 34 ppm in scrape B/C. Additional release response analysis, as recommended by the DOH, was conducted on the same samples for polynuclear aromatic hydrocarbons (PAH's) and PCB's which were all not-detected. Total lead and total cadmium were detected at levels below the DOH recommended clean-up criteria for soils. The three drums that indicated a positive response for chlorinated compounds were additionally sampled and analyzed for halogenated volatile organics and PCB's. No PCB's were found in the oil and certain chlorinated compounds were identified. Table 1 presents a summary of laboratory results. Composite sample locations can be found in Attachment A, Figures 1. Complete laboratory results are located in Attachment C.

Table 1
Laboratory Results (ppm)

Sample Matrix Location	19SA Soil A	19SBC Soil B/C	19LD1 Liquid D1	19LB2 Liquid B2	19LB4 Liquid B4	MDL	DOH
TPH Diesel	-	-	-	-	-	10	NS
Oil/Grease	390	34	-	-	-	10	NS
TPH scan	-	-	diesel/oil	-	-	NS	NS
Metals Total Lead	46	100	-	-	-	5	400
Total Cadmium	0.6	1	-	-	-	0.5	2
PCBs	ND	ND	ND	ND	ND	0.003	1
PAHs	ND	ND	-	-	-	1	1-500
HVOs Chloromethane/Vinyl	-	-	0.0054	-	-	0.02	NS
1,1,1 Trichloroethane	-	-	ND	0.52	0.55	0.01	1
Trichloroethene	-	-	0.0016	ND	ND	0.01	NS
Tetrachloroethene	-	-	0.00078	ND	ND	0.01	0.05
Flash Point	-	-	70 C	-	-	NS	

ND = Non Detect

- = Not Analyzed

NS = No Standard

MDL = Minimum Detection Limit

DOH = State of Hawaii Department of Health Recommended Criteria for Cleanup

Stockpiled Material

Drums removed and soils excavated during site activity were stockpiled on plastic. Approximately three cubic yards of impacted soils were excavated and fifteen drums were stockpiled off site on a plastic lined area constructed on Lihue Plantation property (see Attachment A, Figure 2 and Attachment B, Photo 6).

Conclusions and Recommendations

Based on the above information, it is the opinion of COTTON and FRAZIER Consultants, Inc. (C&F) that the "grossly" contaminated soils and their source were sufficiently removed from the property at the site of the former Hanamaulu Flume Shop. Although laboratory analysis detected limited amounts of residual TPH as oil in the soil samples, no regulated constituents were identified and no obvious contamination was observed remaining in the excavations. C&F recommends that no further action at the site where the previous drums were located. The gasoline, diesel, oil and hydraulic fluid contained in the drums were not found to contain significant quantities of chlorinated compounds or other characteristics of hazardous waste and can be appropriately recycled.

Limitations

The conclusions and recommendations presented in this report are professional opinions based solely upon visual site observations, olfactory site observations, site interviews, research, field instrumentation and laboratory results. Even with extensive sampling and testing, it is never quite possible to absolutely dismiss the possibility that contamination may exist in non-sampled areas.

Please call me if you have any questions on this matter.

Sincerely,

Darrell R. Robertson

Darrell R. Robertson, M.S.
Project Manager

Stuart Cotton

Stuart Cotton
President

Attachments



COTTON and FRAZIER Consultants, Inc.

P.O. Box 27128 Honolulu, Hawaii 96827
Phone: (808) 599-1993 Fax: (808) 599-1502

February 1, 1994

Ms. Jill Vellis
Cahina Chun Fong and Chung
541 Bishop Street, Suite 400
Honolulu, Hawaii 96813

RE: Removal of Abandoned Cars
Charles River Parcel, Hanamaulu, Kauai.
C&F Job # 94127

Dear Ms. Vellis:

This letter documents the removal of eighteen abandoned cars from the subject property (TMK 3-8-02, parcel 14) on January 31 and February 1, 1994. At no time were visual or olfactory indications observed which would have suggested that the soils of the site were impacted by petroleum hydrocarbons. No further actions are recommended at this time.

On January 31, 1994, I obtained the most recent property survey map for the subject parcel from Dennis Albire of the Kauai County Housing Agency, located boundary stakes existing at the corners of the property, and verified the extents of property boundaries. After confirming property extents, I verified that a total of eighteen abandoned cars were located on the southwestern quadrant of the property.

Prior to my arrival on site, Mr. Marvin Moura of Marvin's Yard Service (822-5499) had already cleared pathways to each of the vehicles. The eighteen abandoned cars were found to be in various states of decay. The most recent registration decal observed was for the year of 1980. Every indication suggested that the cars had been on the property for ten or more years.

Prior to my departure at 4:30 p.m., I witnessed the removal of ten cars from the property and the staging of an additional four cars at the edge of the property to await removal. Four cars remained on the interior of the property awaiting staging at the time of my departure. The procedure for removal was as follows:

1. Using a "Bobcat" equipped with a front loading bucket, Mr. Moura cleared vegetation around each car.
2. Each car was then dragged by Mr. Moura from its initial resting place to a staging area along Kuhio Highway. As each car was moved from its initial resting place, the ground surface was examined for the presence of staining or hydrocarbon odors.

EXHIBIT 11

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3. From the staging area, the cars were pulled onto a flatbed tow truck operated by Mr. Roger Ridgley of A Tow In Paradise (245-8818) and transported off site. The enclosed packet of photos documents the condition of several cars upon arrival, methods used to remove the cars from site, and representative conditions of site soils beneath the car's initial resting places.

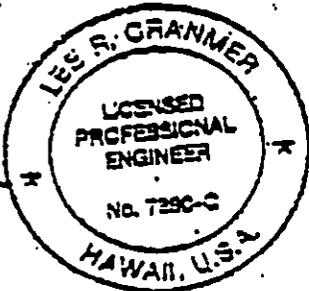
During the entire process, care was taken not to rupture oil pans, batteries, differentials, or gas tanks. At no time were visual or olfactory indications observed which would have suggested that the soils of the site were impacted by petroleum hydrocarbons.

A call to Mr. Ridgley on February 1, 1994, confirmed that the remaining cars were removed from the property without encountering any visual or olfactory indications of site soils being impacted by petroleum hydrocarbons.

Although, due to heavy vegetation overgrowth, it was impossible to search the entire parcel for the presence of abandoned vehicles, every reasonable effort was made to do so. All vehicles observed were removed from site without any indication of petroleum hydrocarbon impact to site soils. Based on the above observations, no further actions are recommended at this time.

Sincerely,


Lee R. Cranmer, P.E.
Project Manager



LRC/ems

Enclosure

CITIZENS

UTILITIES
KAUAI ELECTRIC DIVISION
P.O. BOX 278 • ELEELE, KAUAI, HAWAII 96705

August 2, 1991

In reply refer to:
File #91-1-302AMU

M K Engineers, Ltd.
900 Fort Street Mall, Suite 930
Honolulu, HI 96813

Attention: Mr. R. C. Katahara

SUBJECT: OVERHEAD ESTIMATE FOR "BUDGET PURPOSES ONLY" FOR
HANAMAULU HOUSING

Dear Mr. Katahara:

We have developed "For Budget Purposes Only" our cost to provide service to the subject project at \$33,000.

The estimate stated herein is an estimate only and any reliance on said figure is at your own risk. We cannot and do not guarantee that the firm cost of the project will be as estimated. Please contact GTE Hawaiian Telephone Company, Incorporated for their costs.

We can begin final engineering and provide you with a firm cost for this project after the following have been provided by you:

1. Name of person, title, and firm who has the legal authority to sign any necessary documents.
2. A partial payment received of \$3,300 which will be credited toward the advance necessary for this project. This partial payment is nonassignable and is applicable only to the present project by your organization. In the event the project is cancelled, changed materially after we begin our final engineering, or taken over by another entity prior to completion, no refund of this partial payment will be made.

EXHIBIT 12

KAUAI ELECTRIC
A DIVISION OF CITIZENS UTILITIES COMPANY
ELECTRIC, TELEPHONE, WATER AND GAS SERVICE TO CUSTOMERS IN OVER 500 COMMUNITIES IN MANY STATES ACROSS THE NATION

M K Engineers, Ltd.
August 2, 1991

File #91-1-302AMU
Page Two

We can begin material procurement and schedule construction on this project as soon as you:

1. Enter into a formal line extension agreement with Kauai Electric.
2. Provide the remainder of the advance developed during our engineering phase.
3. Provide a Grant of Easement document. To expedite the installation, we will accept a notarized Right-of-Entry in lieu of an easement with the understanding that you will provide, at no cost to us, the required easement as specified in the Right-of-Entry.

Enclosed is a copy of our standard Right-of-Entry document for your reference. Also attached is a copy of the red-line drawing of Exhibit A for your use in preparing the document.

Enclosed are our Tariffs, Rules 2-C and 13, as filed with the Public Utilities Commission of the State of Hawaii which will govern all aspects of this agreement. Rule 2-C merits your careful study of our requirements and makes it your responsibility to provide adequate protection for your equipment from conditions that can occur in a utility system such as, but not limited to, single phasing, low and high voltage, and transients that may affect sensitive electronic equipment.

Rule 13 explains our advance and refund requirements. The maximum amount of refund will in no case exceed the advance or the estimated 60-month revenue from our new customers, whichever is least in accordance with the Rule. No refund will be made until all aspects of this agreement have been fulfilled.

If this proposal meets with your approval, please indicate your acceptance by executing and returning this original agreement to our office accompanied by your payment.

M K Engineers, Ltd.
August 2, 1991

File #91-1-302AMU
Page Three

Mr. Alvin Uchida is the individual assigned to your project and the Supervising Engineer is Ms. Patty Finlay, both of whom can be reached at our Engineering office at 335-6247 or 335-6254, respectively, should you have any further questions on this matter.

Very truly yours,


BOYD T. TOWNSLEY
Vice President
Kauai Electric Division

BTT:do

Enclosures: Rules 2-C and 13
Sample Right-of-Entry for TMK #3-8-02:14/Exhibit A

ACCEPTED AND AGREED TO:

By _____

Date _____

July 26, 1991

Mr. Steven Kyono, District Engineer
Department of Transportation
Highways Division, Kauai District
State of Hawaii
3060 Eiwa Street, Room 205
Lihue, Hawaii 96766

SUBJECT: Hanamaulu Housing
TMK: 3-8-01:14

Dear Mr. Kyono:

Enclosed for your review and comment is a preliminary plan for proposed Kuhio Highway improvements to be made as part of the Hanamaulu Housing project. In accordance with your comments made during review of the Class IV zoning permit improvements will include:

1. within the State right-of-way, a non-signalized intersection with a left turn lane and acceleration and deceleration lanes,
2. a 10' wide road widening easement to be dedicated to the State of Hawaii, and
3. a 5' high plastic-coated chain line fence along the proposed highway right-of-way.

A striping plan will be submitted with the construction plans. However, concerning pedestrian access, it is proposed at this time that the existing crosswalk location along Kuhio Highway remain as shown on the enclosed plan.

Your letter dated July 3, 1991 requested that a 6' wide concrete sidewalk, 6" high concrete curb and a 2' wide gutter be constructed along Kuhio Highway. We request confirmation of this requirement since it differs from your original requirement of a 4' wide sidewalk and a 6" curb.

A Traffic Impact Assessment Report for the project is also enclosed for your review and comment.

Should you have any questions, please contact our office.

Very truly yours,

GRAY, HONG, BILLS & ASSOCIATES, INC.

Brian L. Gray

BI:BG:am
2147
Encl.:

cc with Encl.: Darrin McAuliffe, Charles River Properties, Ltd.
Chris Chang, Kauai Resort
Fritz Johnson

EXHIBIT 13

See DOT
RESPONSE 8/6/91

**TRAFFIC IMPACT ASSESSMENT FOR
HANAMAULU HOUSING
TMK: 3-8-02: POR.1
HANAMAULU, KAUAI, HAWAII**

**PREPARED BY
GRAY, HONG, BILLS & ASSOCIATES
119 MERCHANT STREET, SUITE 607
HONOLULU, HAWAII 96813
JULY 1991**

TRAFFIC IMPACT ASSESSMENT

Project Description

The project site is located in Hanamaulu, Kauai on the northerly side of Kuhio Highway, between Hulei Road on the east and Hanamaulu Cafe and the Lihue Plantation Company's baseyard on the west. The property is approximately 12.175 acres and is identified as TMK: 3-8-02: portion of parcel 1. Located on the property are homes that have been rented to Lihue Plantation employees and retirees.

The proposed development consists of 240 multi-family residential rental apartments built in a series of one- to three-story buildings. The project will contain 84 one-bedroom and 156 two-bedroom units.

Access to the site is currently off Kuhio Highway and Hulei Road. The proposed development will access directly off Kuhio Highway. Other requirements of the project's Class IV zoning permit include:

1. Dedication of land (10 feet wide) for road widening and sidewalk improvements within the dedicated land area.
2. Within the highway right-of-way, a left-turn storage lane, acceleration-deceleration lanes and a 5-foot high plastic-coated chain link fence.
3. Improvements within the dedicated land include a 4'-wide sidewalk and 6" curb.
4. A striping plan and crosswalk location plan shall be submitted to State Highways to indicate how pedestrian traffic generated by the area will be

accommodated. The frontage along the project site consists of a 60-foot wide right-of-way with two 12' wide A.C. lanes. Shoulders are paved and are approximately 4' wide.

Project Traffic

Dwelling unit type:	1 bedroom	
Number of units:		84
Dwelling unit type:	2 bedroom	
Number of units:		<u>156</u>
Total no. of units:		240

For design purposes, peak traffic is assumed to be 0.6 vehicles per hour (VPH) per dwelling unit. Distribution is assumed as 80% - 20%.

Traffic generated by the project = $240 \times 0.6 = 144$ VPH

With 80%-20% distribution, say 115/29 VPH.

It is further assumed that during peak hours, 70% of the traffic will be heading towards/coming from Lihue with the remainder heading towards/coming from Kapaa.

The proposed project entrance, a channelized T-intersection with divisional island and turning roadways, is shown on Figure 1. Geometrics were based on the following:

Posted speed limit: 25 MPH

Design speed: 30 MPH

Lane width: 12'

AUXILIARY LANES

(2% grade, stop condition)

Decel length: 235' min.

Length of taper: 8:1

Accel lane (level condition, initial speed = 0,
final speed = 30)

Distance traveled = length = 220'

LEFT-TURN LANE

Storage length: (unsignalized intersection)

3 vehicles per 2 minute period within peak hour

Length = $3 \times 22 = 66'$

TURNING RADIUS

90 degree, simple curve, P design vehicle

R = 30' min.

Curb return radii = 28' min.

Site Distance Analysis

Based on the Hawaii Statewide Uniform Design Manual for Street and Highways Kuhio Highway falls within the urban collector street designation, calling for a design speed of 25-35 MPH. The portion of Kuhio Highway fronting the site has a posted speed limit of 25 MPH, therefore, a design speed of 30 MPH will be used for analysis of sight distance.

Horizontal sight distance at an at-grade intersection for passenger cars turning left into a 2-lane major highway is 350 feet to the left and 260 feet to the right. Sight distance at the proposed entrance exceeds these requirements.

Conclusion & Recommendations

Based on the above analysis, the proposed development will not have a significant impact on the volume of traffic and will provide safe access to and from the site. Roadway improvements, including the acceleration/deceleration and left turn lanes will mitigate any impacts the project may have on the existing traffic flow.