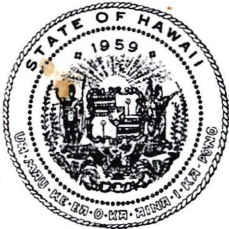


STATE'S EXHIBITS AND WITNESS LIST
A03-738 GENTRY INVESTMENT PROPERTIES
(Oahu)



DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

Bert-approach
action necessary
LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
RAYMOND M. JEFFERSON
DEPUTY DIRECTOR

Telephone: (808) 586-2355
Fax: (808) 586-2377

Ref. No. P-10225

October 2, 2003

Mr. Eric G. Crispin, AIA, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Crispin:

Subject: Gentry Investment Properties
File No. 2003/Z-9 Application for a Zone Change
Ewa Beach, Oahu
Hawaii Tax Map Keys: 9-1-10: 07 and 9-1-69: 05

The purpose of the application for a zone change by Gentry Investment Properties (applicant) is to complete the second and final phase of the Ewa by Gentry development for a master planned community consisting of approximately 7,200 homes located in the Ewa District of Oahu. The proposed final phase will add another 1,865 residential units to the master planned community.

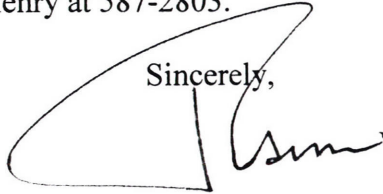
The applicant has petitioned the State Land Use Commission (LUC) to reclassify the subject parcels from the State Agricultural District to the Urban District (LUC Docket No. A03-738). During the State Land Use Commission hearings, the Office of Planning provided testimony on the petition covering State concerns. Our testimony was based on the review and analysis of information provided in the Petition, Petitioner's Planning Report for a State Land Use District Boundary Amendment and Zone Change Application, the Draft Environmental Impact Statement (DEIS), and comments received from Federal, State and County agencies. In response to your request for comments regarding the impact of the project on public facilities and/or services, we have enclosed a copy of our testimony.

2003 OCT -1 P 2:43
LAND USE COMMISSION
STATE OF HAWAII

Mr. Eric G. Crispin
Page 2
October 2, 2003

Thank you for the opportunity to review the subject application. If you have any questions, please contact Judith Henry at 587-2803.

Sincerely,

A handwritten signature in black ink, appearing to read 'Theodore E. Liu', written over a large, loopy flourish that extends to the left.

Theodore E. Liu for
Director
Office of Planning

Enclosure

c: ✓ Anthony Ching, LUC
Peter Young, DLNR

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

DIVISION OF ENGINEERING
650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
Phone: (808) 523-4341 • Fax: (808) 527-5857

ORIGINAL

JEREMY HARRIS
MAYOR



JONATHAN K. SHIMADA, PhD
DIRECTOR

TECHNICAL SOLUTION FOR POTENTIAL FLOODING IN
THE KALOI GULCH DRAINAGE BASIN

September 18, 1997

A. MEMBERS

NAME	COMPANY/REPRESENTS
Craig Arakaki	Engineering Concepts, Inc./Ewa-Makai West, Gentry
Marvin Fukagawa	Department of Public Works/City
Greg Hiyakumoto	R. M. Towill Corporation/Ewa Villages
Daniel Hong	Gray, Hong, Bills & Associates, Inc./Haseko
Felix Limtiaco	Limtiaco Consulting Group/Haseko
Kay Muranaka	Engineering Concepts, Inc./Campbell Estates
Tom Nance	Tom Nance Water Resource Engineering/Gentry & Coral Creek Golf Course
Richard Suzuki	Department of Public Works/City
Melvin Takakura	Department of Public Works/City
Dennis Toyama	Department of Public Works/City
James Yamamoto	R. M. Towill Corporation/State

2003 JUL 10 P 4: 27

LAND USE COMMISSION
STATE OF HAWAII

B. BACKGROUND

As a follow up to the September 4, 1997 meeting involving the City and developers within the Kaloi Gulch Drainage Basin, a technical group was formed to derive a technical solution for potential flooding in the Kaloi Gulch Drainage Basin. The group was given until September 18, 1997 to prepare recommendations.

As experienced in November 1996, flooding of the Ewa Villages project in the Kaloi Gulch Drainage Basin occurred due to the lack of an outlet to the ocean. Developments are presently required to provide retention basins for the storage of storm water runoff within their respective projects. During time of heavy storms, the volume of the storm water runoff may exceed the storage capacity of the retention basins and cause flooding in the area, as occurred in the November 1996 storm. As such, it is the intent of this technical group to derive a plan to pass runoff to the ocean to provide a degree of flood protection for the existing developments.

OP
EXHIBIT NO. 7a

As a starting basis, the group was faced with the following timelines:

- 1) Passing of 1,200 cfs to the ocean by January 1998.
- 2) Passing of 2,500 cfs to the ocean by January 2000.
- 3) Passing of 11,500 cfs to the ocean by the year 2005.

C. TECHNICAL SOLUTION

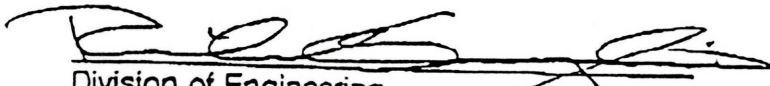
In developing the Kaloi Gulch Drainage Basin the following conditions were derived at for the stated timelines.

- 1) The maximum allowable hydraulic grade line within Haseko's basin will be limited to an elevation of 11 feet.
- 2) The access road to Oneula Park shall be raised and berms installed within Oneula Park to convey 2,500 cfs from Haseko's basin to the ocean and to protect the existing Ewa Beach residences.
- 3) The overflow weir elevation from Haseko's 15 acre retention basin (invert = 3 feet) to Oneula Park will be set at an elevation of approximately 8.5 Feet. Measures to convey the overflow to Oneula Park shall be designed to protect the existing Ewa Beach residences.
- 10-1-97
2- 4) The channel Invert at the Haseko/Ewa-Makai West interface will be set at an elevation of ¹⁵~~13~~ feet. The channel within Haseko's property shall be designed to convey 1,200 cfs with freeboard capacity of 2,500 cfs and maintaining a hydraulic grade line of ¹⁵~~13~~ feet as shown in Exhibit A.
10-6-97
10-8-97
10-19-97
10-17-97
- 5) The channel invert at the Ewa-Makai West/ Gentry interface will be set at an elevation of 14 feet. The channel within Ewa-Makai West property shall be designed to convey 1,200 cfs with a freeboard capacity of 2,500 cfs as shown in Exhibits A and B. Any modifications to the channel will require the approval of all parties involved in this agreement.
- 6) Man-made diversion of storm water runoff to the west of the existing Kaloi Gulch berms shall not be allowed.
- 7) At the Ewa Villages/Gentry interface a drainage structure designed to convey 2,500 cfs shall be constructed.
- 8) Each property owner will be responsible for the design and construction of all necessary improvements on their respective property.

The passing of 11,500 cfs will take place tentatively at the year 2005 to provide a permanent outlet to the ocean, unless otherwise noted.

D. SUBMITTED

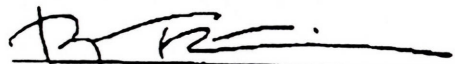
We the undersigned acknowledge and agree to the conditions presented herein and fully endorse this technical solution.


Division of Engineering
Department of Public Works
City and County of Honolulu
(Coordinator)

9/19/97
Date


Engineering Concepts, Inc.
(Ewa-Makai West by Gentry)
Subject to our letter dated 7/14/97

9/19/97
Date


R. M. Towill Corporation
(Ewa Villages) Subject to our letter dated 9-19-97

9-19-97
Date


Gray, Hong, Bills & Associates, Inc.
(Haseko)

9-18-97
Date


Engineering Concepts, Inc.
(Campbell Estates)
Subject to our letter dated 9/19/97
Tom Nance

9/19/97
Date

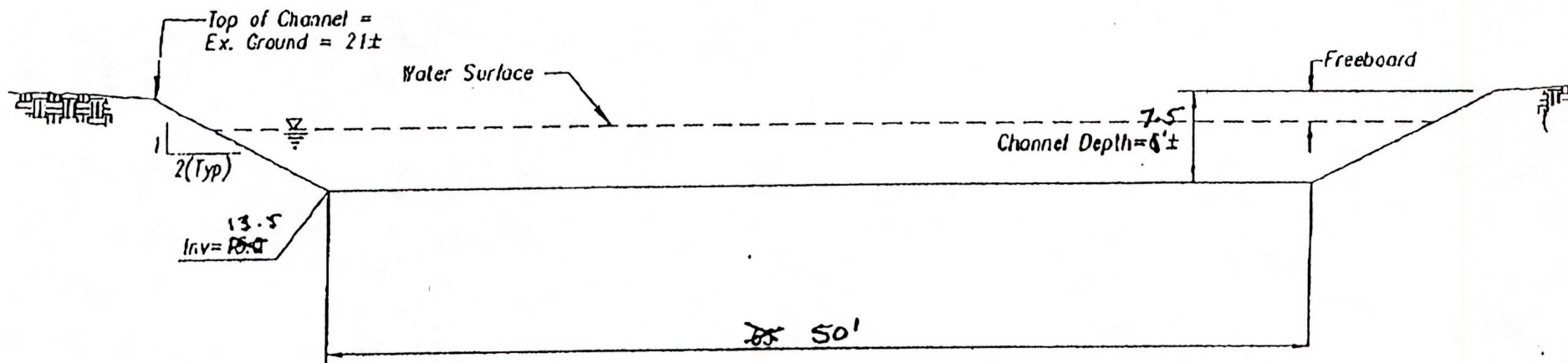
Tom Nance Water Resource Engineering
(Gentry and Coral Creek Golf Course)
SUBJECT TO MY ATTACHED LETTER OF SEPT. 23, 1997

Oct. 6, 1997
Date


R. M. Towill Corporation
(State) Subject to our letter dated 9-19-97

9-22-97
Date

cc: All Participants



CHANNEL SECTION

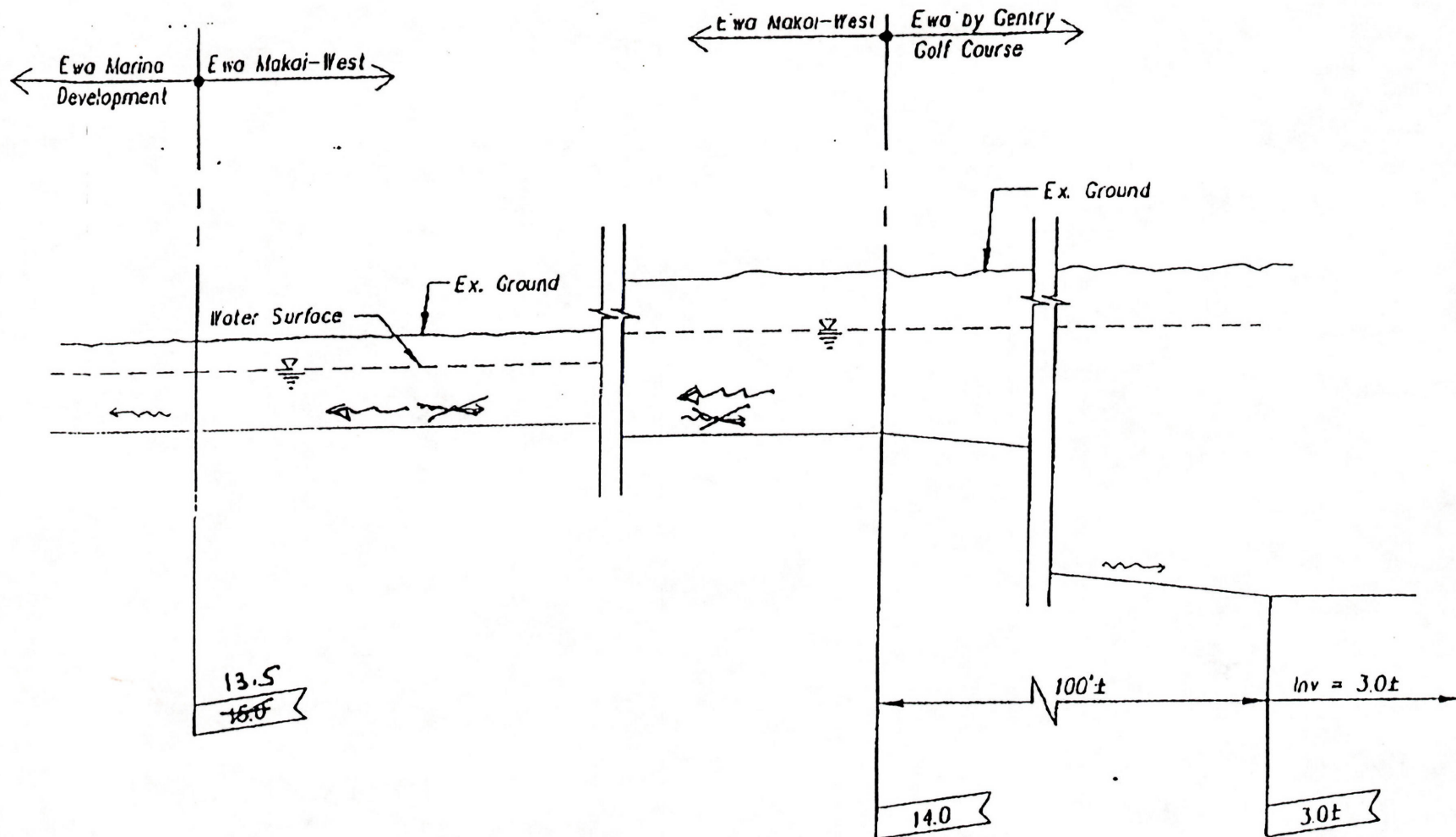
Scale: 1"=10'-0"

Slope=0.20%

Q (cfs)	Water Surface Elevation	Freeboard (ft.)
1200	18.0	3
2600 2900	21.0	0

KALOI GULCH
EXHIBIT A

In the City of Los Angeles 10/15/97
Date 10-1-97
T. Vance 10-6-97
Jhu 10/8/97
CA 10/11/97



PROFILE

Scale: 1" = 10'-0"

KALOI GULCH
EXHIBIT B

for Mr. T. D. ... 10-1-97
 10/12/97
 T. D. ... 10-6-97
 10/8/97 CA 10/12/97

LAND USE COMMISSION

DOCKET NO. A03-738 PETITIONER: GENTRY INVESTMENT PROPERTIES
PARTY: OFFICE OF PLANNING (OP)

LAND USE COMMISSION
STATE OF HAWAII

ORIGINAL

2003 JUL -8 P 2: 25

LIST OF WITNESSES

NAME/ORGANIZATION/POSITION (List in Order of Appearance)	TO BE QUALIFIED AS AN EXPERT IN:	SUBJECT MATTER	WRITTEN TESTIMONY (Yes or No)	EXHIBIT NUMBER(S)	LENGTH OF DIRECT
MARY LOU KOBAYASHI Planning Program Administrator Office of Planning AND/OR		OP Testimony	Yes	1	20 min.
ABE MITSUDA Division Head Land Use Division Office of Planning		OP Testimony	Yes	1	20 min.
RONALD TSUZUKI Engineering Program Manager Highways Division State Department of Transportation		Traffic	No	--	10 min.

LAND USE COMMISSION

PAGE NO. 1

DOCKET NO./PETITIONER: A03-738/GENTRY INVESTMENT PROPERTIES

PARTY: OFFICE OF PLANNING (OP)

LAND USE COMMISSION
STATE OF HAWAII

ORIGINAL

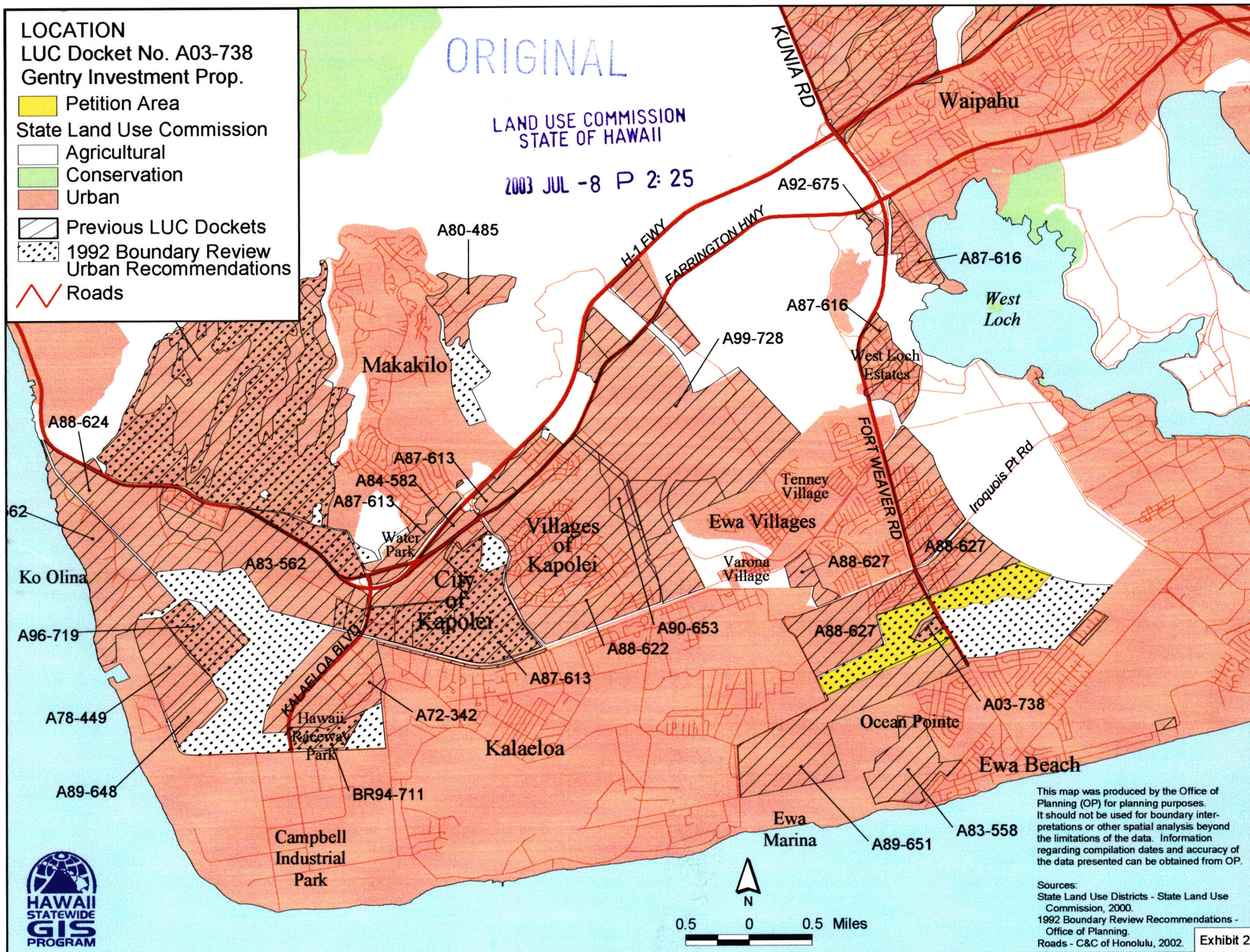
LIST OF EXHIBITS

2003 JUL -8 P 2: 25

[illegible]

 Roads

2003 JUL -8 P 2: 25

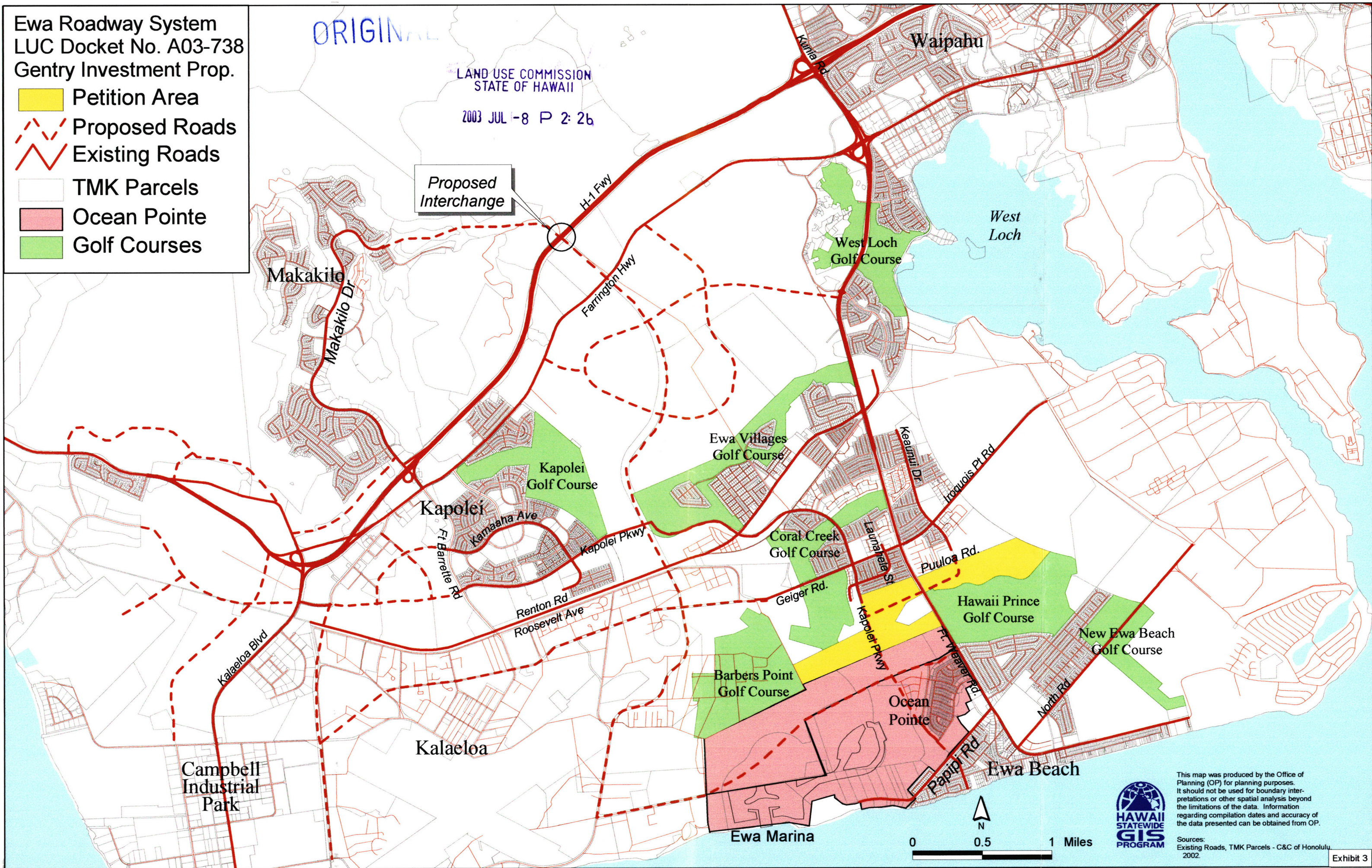


This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.

Sources:
State Land Use Districts - State Land Use Commission, 2000.
1992 Boundary Review Recommendations - Office of Planning.
Roads - C&C of Honolulu, 2002.

Ewa Roadway System
LUC Docket No. A03-738
Gentry Investment Prop.

- Petition Area
- Proposed Roads
- Existing Roads
- TMK Parcels
- Ocean Pointe
- Golf Courses



This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.

Sources:
Existing Roads, TMK Parcels - C&C of Honolulu, 2002.

ORIGINAL

LAND USE COMMISSION
STATE OF HAWAII

2003 JUL -8 P 2: 26

Coral Creek
Golf Course

Hawaii Prince
Golf Course

Recommended Roadway Improvements
LUC Docket No. A03-738

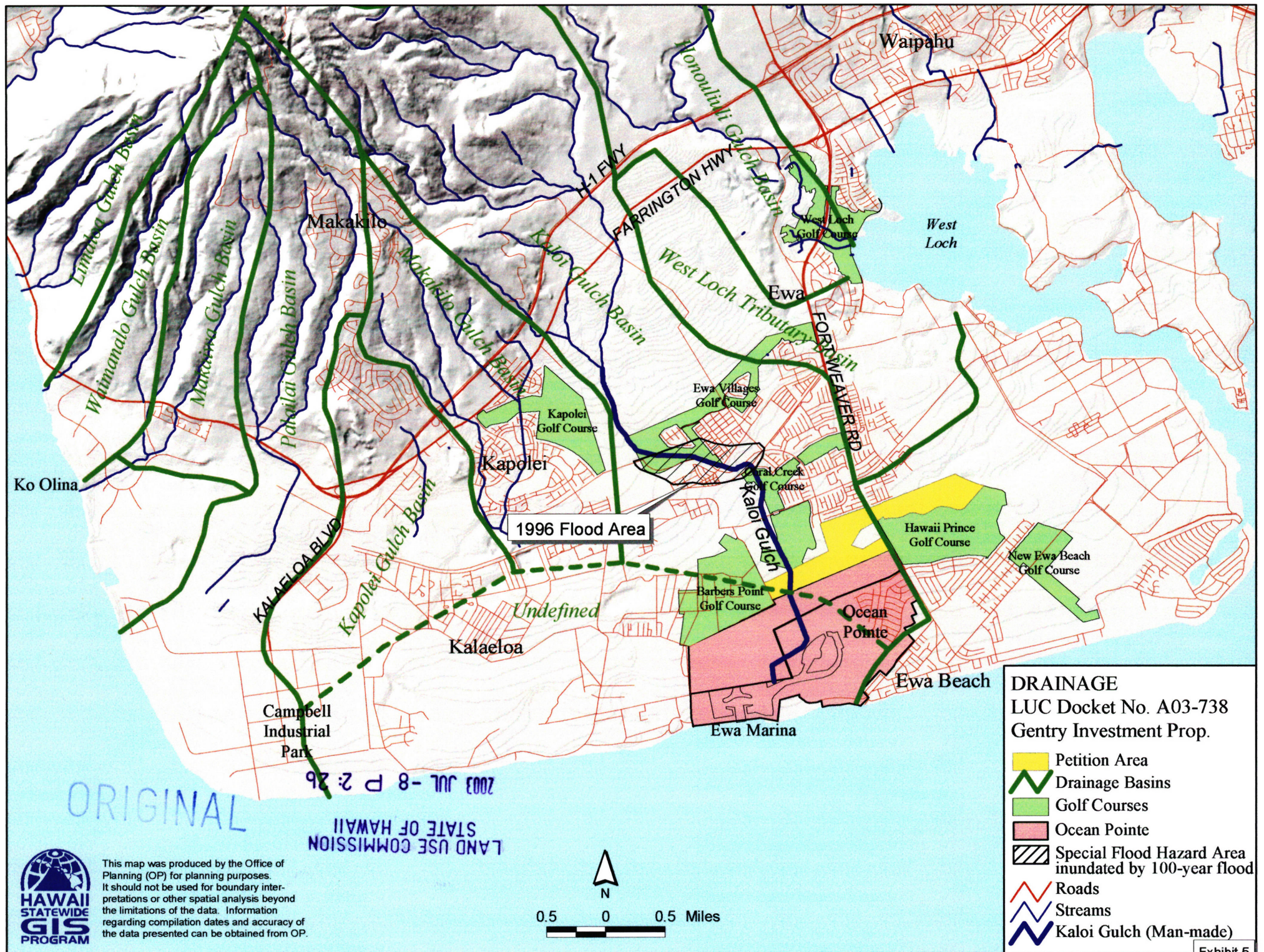
-  Petition Area
-  Proposed Traffic Signals



This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.

Sources:
Traffic Impact Analysis - Parsons Brinkerhoff,
Quade & Douglas Inc., Dec 2002.

0.25 0 0.25 Miles



Flood Zones
 LUC Docket No. A03-738
 Gentry Investment Prop.

 Petition Area

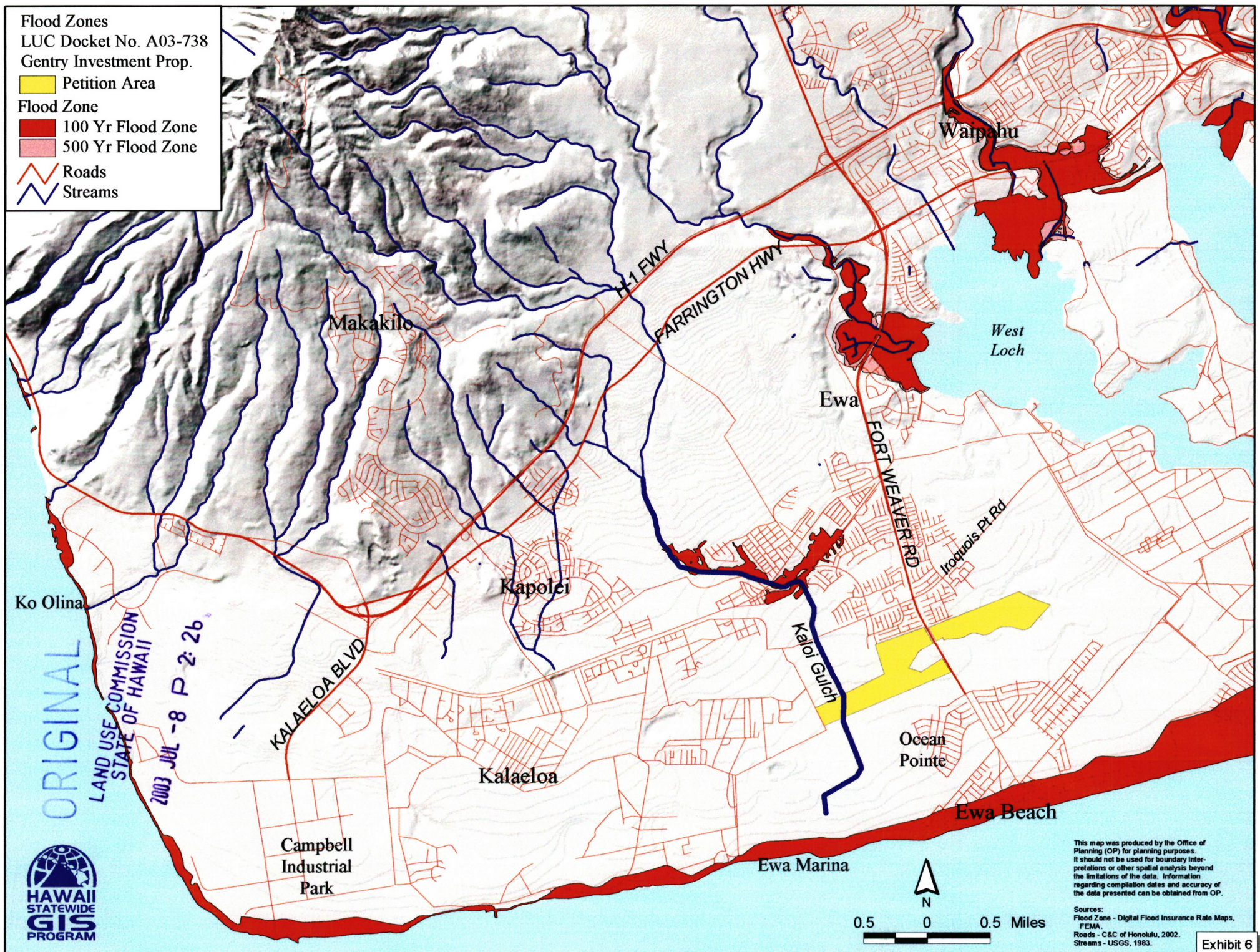
Flood Zone

 100 Yr Flood Zone

 500 Yr Flood Zone

 Roads

 Streams

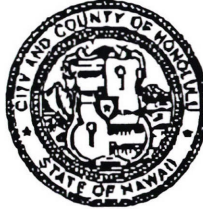


This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.

Sources:
 Flood Zone - Digital Flood Insurance Rate Maps, FEMA
 Roads - C&C of Honolulu, 2002.
 Streams - USGS, 1983.

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

ORIGINAL

DIVISION OF ENGINEERING
650 SOUTH KING STREET, 15TH FLOOR • HONOLULU, HAWAII 96813
Phone: (808) 527-5056 • Fax: (808) 527-6103JEREMY HARRIS
MAYORJONATHAN K. SHIMADA, PhD
DIRECTORMARVIN T. FUKAGAWA
CHIEFIN REPLY REFER TO:
97-10-0057

September 29, 1997

MEMORANDUMCONFIDENTIAL

TO: MR. BEN LEE, CHIEF OF STAFF
OFFICE OF THE MANAGING DIRECTOR

THROUGH: DR. JONATHAN K. SHIMADA, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: *Marvin T. Fukagawa*
MARVIN T. FUKAGAWA, CHIEF
DIVISION OF ENGINEERING

SUBJECT: KALOI GULCH DRAINAGE (INTERIM TECHNICAL AGREEMENT)

At a meeting held on September 4, 1997, regarding the subject matter, a technical group was formed to derive a solution for potential flooding within the drainage basin. The technical group consisted of engineers who represented the various developers within the basin. They were provided two weeks to prepare an interim solution to the problem.

The technical group was set up with a premise that any representative engineer (one per developer) could stipulate conditions associated with the final technical solution. Therefore, the technical solution was developed with general conditions and allowances stipulated by various engineers. Acceptance of the technical solutions were made by some of the engineers. We received stipulations from all engineers. However, the most recurrent stipulation from three engineers were made regarding the invert of the channel at the Haseko/Ewa Makai west interface. They feel that the invert of the interim channel should be lowered from 15 feet to an elevation closer to the ultimate invert of 12.0 feet.

At this time, one engineer has not agreed to the conditions of the technical solution and has presented his position for not fully endorsing it. His primary concern is based on the fact that the hydraulic efficiency is lost and that the construction costs are unnecessarily increased. Further, he maintains that the 12.0 invert channel would

OP 7
EXHIBIT NO. 7

Mr. Ben Lee
Page 2
September 29, 1997

have no adverse impact on Ewa Marina. Incidentally, this position was also expressed by the other engineers.

The next stipulation were concerns regarding Condition 7), "At the Ewa Villages/ Gentry interface, a drainage structure designed to convert 2,500 CFS shall be constructed." Two engineers were concerned with this condition, and it seems as though this condition may be deleted in its entirety or revised.

The third and final proviso stipulated by most of the engineers is the understanding that flows in excess of 2,500 CFS entering Ewa Makai-West will past through and flow overland into Ewa Marina. This condition may be inserted in lieu of Condition 7) noted above or as a new Condition 9), if 7) cannot be deleted.

Except for the foregoing items, the conditions of the technical solution seem acceptable. Therefore, we recommend that the technical committee be allowed one week to reconvene to discuss and revise Condition 4) and adopt/eliminate/revise the remaining conditions. Without the agreement on these items, we doubt whether the developer's agreement for the Kaloi Gulch Watershed can be obtained.

Regarding the status of Haseko's submittal, it should be noted that we received their material on September 22, 1997, and are reviewing them. The plans, as submitted, reflect many major changes in concept from those represented to the group. Apparently, Haseko's engineer did not act in good faith to the maximum extent possible by not sharing some important information with the technical committee. This has caused some apparent delays and difficulties for the interim technical agreement.

It may also be noted that the developer's agreement is needed by Haseko to satisfy their Unilateral Agreement Condition 9).

Attached is a copy of the document along with the stipulations submitted.

Should you have any questions, please call Richard Suzuki at Extension 5059.

RS:pto

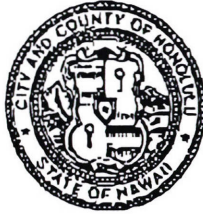
Attach.

cc: Corporation Counsel
(Maile Chun)

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

DIVISION OF ENGINEERING
650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
Phone: (808) 523-4341 • Fax: (808) 527-5857

JEREMY HARRIS
MAYOR



JONATHAN K. SHIMADA, PhD
DIRECTOR

**TECHNICAL SOLUTION FOR POTENTIAL FLOODING IN
THE KALOI GULCH DRAINAGE BASIN**

September 18, 1997

A. MEMBERS

NAME	COMPANY/REPRESENTS
Craig Arakaki	Engineering Concepts, Inc./Ewa-Makai West, Gentry
Marvin Fukagawa	Department of Public Works/City
Greg Hiyakumoto	R. M. Towill Corporation/Ewa Villages
Daniel Hong	Gray, Hong, Bills & Associates, Inc./Haseko
Felix Limtiaco	Limtiaco Consulting Group/Haseko
Kay Muranaka	Engineering Concepts, Inc./Campbell Estates
Tom Nance	Tom Nance Water Resource Engineering/Gentry & Coral Creek Golf Course
Richard Suzuki	Department of Public Works/City
Melvin Takakura	Department of Public Works/City
Dennis Toyama	Department of Public Works/City
James Yamamoto	R. M. Towill Corporation/State

B. BACKGROUND

As a follow up to the September 4, 1997 meeting involving the City and developers within the Kaloι Gulch Drainage Basin, a technical group was formed to derive a technical solution for potential flooding in the Kaloι Gulch Drainage Basin. The group was given until September 18, 1997 to prepare recommendations.

As experienced in November 1996, flooding of the Ewa Villages project in the Kaloι Gulch Drainage Basin occurred due to the lack of an outlet to the ocean. Developments are presently required to provide retention basins for the storage of storm water runoff within their respective projects. During time of heavy storms, the volume of the storm water runoff may exceed the storage capacity of the retention basins and cause flooding in the area, as occurred in the November 1996 storm. As such, it is the intent of this technical group to derive a plan to pass runoff to the ocean to provide a degree of flood protection for the existing developments.

As a starting basis, the group was faced with the following timelines:

- 1) Passing of 1,200 cfs to the ocean by January 1998.
- 2) Passing of 2,500 cfs to the ocean by January 2000.
- 3) Passing of 11,500 cfs to the ocean by the year 2005.

C. TECHNICAL SOLUTION

In developing the Kaloi Gulch Drainage Basin the following conditions were derived at for the stated timelines.

- 1) The maximum allowable hydraulic grade line within Haseko's basin will be limited to an elevation of 11 feet.
- 2) The access road to Oneula Park shall be raised and berms installed within Oneula Park to convey 2,500 cfs from Haseko's basin to the ocean and to protect the existing Ewa Beach residences.
- 3) The overflow weir elevation from Haseko's 15 acre retention basin (invert = 3 feet) to Oneula Park will be set at an elevation of approximately 8.5 Feet. Measures to convey the overflow to Oneula Park shall be designed to protect the existing Ewa Beach residences.
- 4) The channel invert at the Haseko/Ewa-Makai West interface will be set at an elevation of 15 feet. The channel within Haseko's property shall be designed to convey 1,200 cfs with freeboard capacity of 2,500 cfs and maintaining a hydraulic grade line of 19 feet as shown in Exhibit A.
- 5) The channel invert at the Ewa-Makai West/ Gentry interface will be set at an elevation of 14 feet. The channel within Ewa-Makai West property shall be designed to convey 1,200 cfs with a freeboard capacity of 2,500 cfs as shown in Exhibits A and B. Any modifications to the channel will require the approval of all parties involved in this agreement.
- 6) Man-made diversion of storm water runoff to the west of the existing Kaloi Gulch berms shall not be allowed.
- 7) At the Ewa Villages/Gentry interface a drainage structure designed to convey 2,500 cfs shall be constructed.
- 8) Each property owner will be responsible for the design and construction of all necessary improvements on their respective property.

The passing of 11,500 cfs will take place tentatively at the year 2005 to provide a permanent outlet to the ocean, unless otherwise noted.

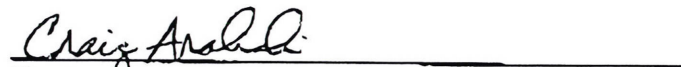
D. SUBMITTED

We the undersigned acknowledge and agree to the conditions presented herein and fully endorse this technical solution.



Division of Engineering
Department of Public Works
City and County of Honolulu
(Coordinator)

9/19/97
Date


Engineering Concepts, Inc.
(Ewa-Makai West by Gentry)
Subject to our letter dated 9/19/97

9/19/97
Date


R. M. Towill Corporation
(Ewa Villages) Subject to our letter dated 9-19-97

9-19-97
Date


Gray, Hong, Bills & Associates, Inc.
(Haseko)

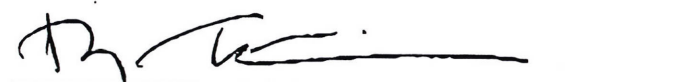
9-18-97
Date


Engineering Concepts, Inc.
(Campbell Estates)
Subject to our letter dated 9/19/97

9/19/97
Date

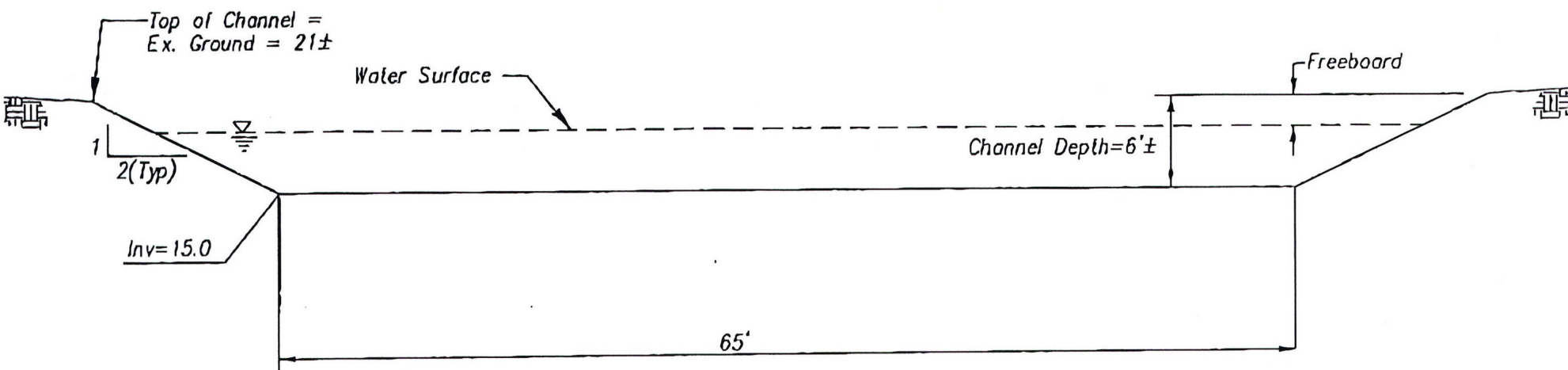
Tom Nance Water Resource Engineering
(Gentry and Coral Creek Golf Course)

Date


R. M. Towill Corporation
(State). Subject to our letter dated 9-19-97

9-22-97
Date

cc: All Participants



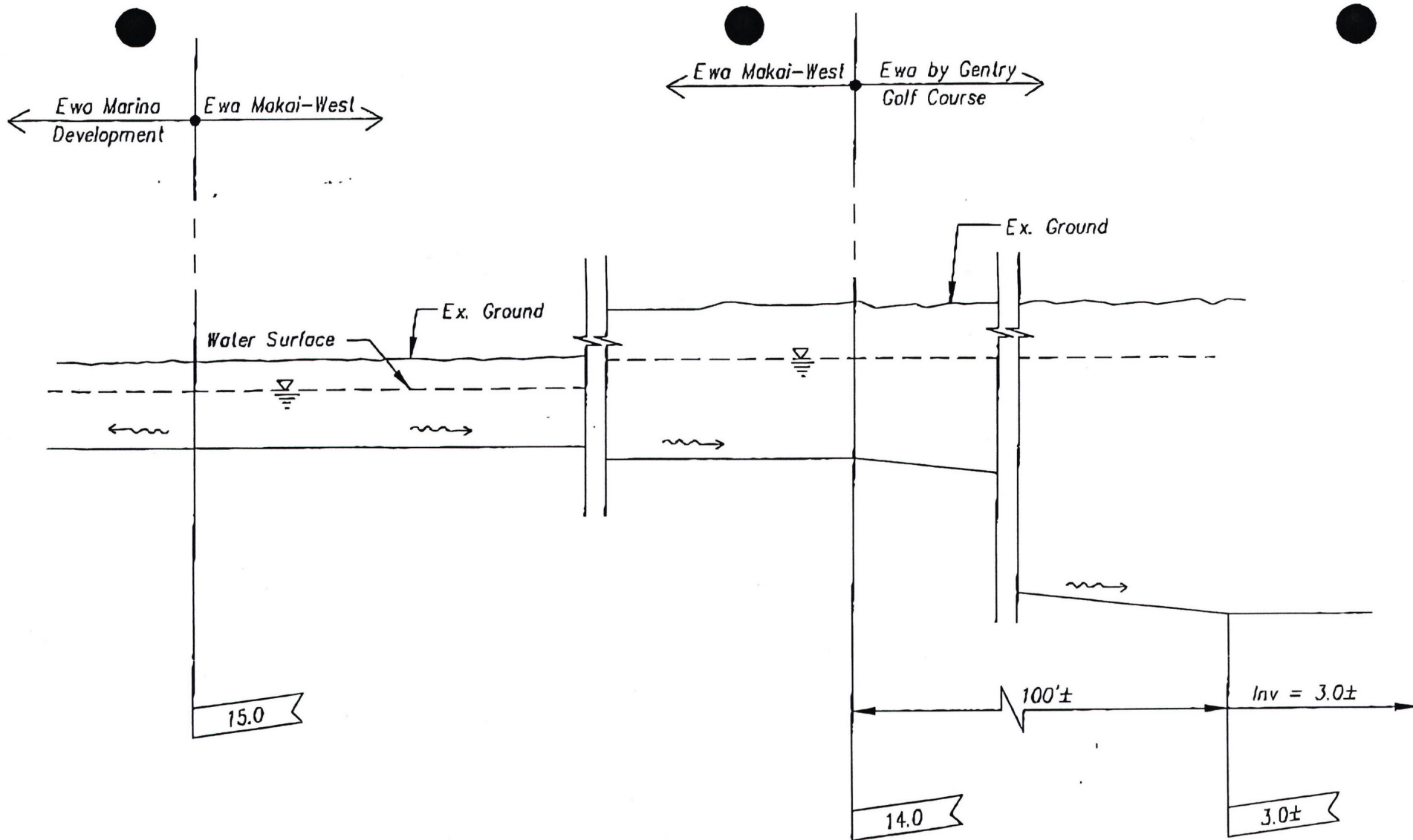
CHANNEL SECTION

Scale: 1"=10'-0"

Slope=0.20%

Q (cfs)	Water Surface Elevation	Freeboard (ft.)
1200	19.0	2
2500	21.0	0

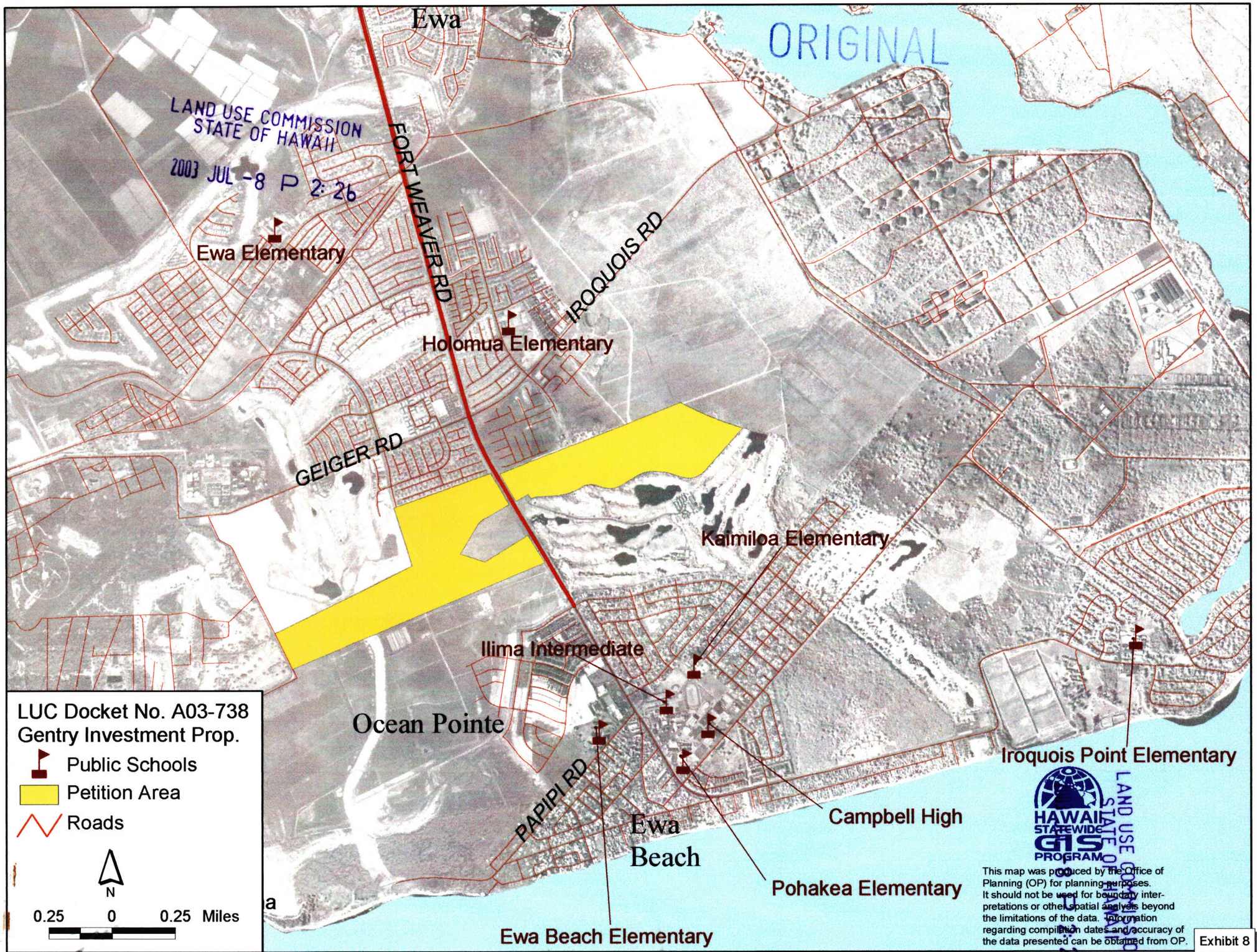
KALOI GULCH
EXHIBIT A



PROFILE

Scale: 1"=10'-0"

KALOI GULCH
EXHIBIT B



ORIGINAL

**BEFORE THE LAND USE COMMISSION
OF THE STATE OF HAWAII**

In the Matter of the Petition of)

DOCKET NO. A03-738

GENTRY INVESTMENT PROPERTIES)

**GENTRY INVESTMENT
PROPERTIES**

To Amend the Agricultural Land Use District
Boundary of Certain Lands Situated in Ewa,
Honolulu, Island of Oahu, State of Hawaii,
Consisting of Approximately 283 Acres,
TMK: 9-1-69: 05, and 9-1-10: 07 from the
Agricultural District to the Urban District)

LAND USE COMMISSION
STATE OF HAWAII
2003 JUL -8 P 2:28

TESTIMONY OF THE OFFICE OF PLANNING

The Office of Planning (hereinafter referred to as "OP") recommends conditional approval of the Petition by Gentry Investment Properties (Petitioner), to reclassify approximately 283 acres at Ewa, Honolulu, Island of Oahu, City and County of Honolulu, identified by Tax Map Key Numbers 9-1-69: 05, and 9-1-10: 07 from the Agricultural District to the Urban District.

OP's Testimony is based on the following review and analysis of information provided in the Petition, Petitioner's Planning Report for a State Land Use District Boundary Amendment and Zone Change Application, Petitioner's Draft Environmental Impact Statement (DEIS) and comments received from Federal, State and County agencies to date.

GENERAL INFORMATION

Gentry Investment Properties (Petitioner) is a Hawaii limited Partnership, whose principal place of business is 560 North Nimitz Highway, Suite 300, Honolulu, Hawaii 96817, and whose mailing address is P.O. Box 295, Honolulu, Hawaii 96809-0295. The Petitioner focuses on housing development and is under the umbrella of Gentry Pacific Ltd. Under this arrangement, the Petitioner is a general partner of Gentry Pacific Ltd., Gentry Properties in Hawaii, and Gentry Investments in California. Gentry Homes is a separate entity and not under the umbrella of Gentry Pacific Ltd.

The fee simple ownership of the subject property is vested in the Estate of James Campbell, whose principal place of business is 1001 Kamokila Boulevard, Kapolei,

**OP
EXHIBIT NO. 1**

Hawaii. Under a Memorandum of Agreement (See Petitioner's Petition, Exhibit 1 Appendix B) between the trustees of The Estate of James Campbell and Gentry Investment Properties, the Estate and the Petitioner have concurrently entered into a development/purchase agreement that will ultimately require the Petitioner to acquire the Petition Area (formerly known as "Laulani Property" and the "Fairway Properties"). Petitioner's Exhibit 1, Appendix D is a copy of the written authorization from The Estate of James Campbell authorizing the Petitioner to obtain the necessary governmental approvals and prepare the project's master plan and amendments as required for the Petition Area.

DESCRIPTION OF THE AREA

Project Location

The Petition Area is located in Ewa, Oahu, Hawaii, within the Agricultural Land Use District. The eastern boundary of the Petition Area is adjacent to the U.S. Navy Explosive Safety Quantity Distance boundary (ESQD). The Petition Area is adjacent to existing and proposed urban uses that include industrial, commercial, residential, and recreational activities and is within close proximity to various centers of trading and employment (Hawaiian Waters Adventure Park, Mililani, Waipahu, Pearl Ridge Shopping Center, and Honolulu International Airport). (*See OP Exhibit 2*).

Existing Land Uses

The Petition Area consists of fallow agricultural lands previously leased from The Campbell Estate by the Oahu Sugar Company, Ltd. for sugar cane cultivation. The vegetation on the Petition Area includes introduced alien species and grasses. The Petition Area is used for grazing. Nearly all of the Petition Area is leased on a month to month basis to Ralph's Ranch, which also leases approximately 500 acres in Kunia and Kahuku. The ranch is operated as a hobby by a father and son and has no employees.

Existing and Proposed Adjacent Land Uses

The Ewa Plain is the location of the City of Kapolei, designated by Honolulu City Council as Hawaii's Second City in 1977, the Kalaeloa Community – (formerly the Barbers Point Naval Air Station) and several master planned suburban residential communities including Ewa by Gentry. The Ewa-Kapolei region has become Oahu's

prime growth area in terms of population and development. Together with the existing phases of the Ewa by Gentry projects, ongoing development projects in the region include:

- The Kalaeloa Community Development District (KCDD) consisting of approximately 2,235 acres in the Urban District. Currently zoned F-1 Military and Federal on the City and County of Honolulu zoning maps, the area is approximately 1½ miles west of the last development phase for the Gentry Makai project. The KCDD Plan seeks to integrate Barbers Point into the surrounding region through employment, aviation uses housing for the homeless, parks and other important themes.
- The urban center of Kapolei consisting of approximately 32,000 acres planned to become Oahu's "second city".
- The Villages of Kapolei consisting of eight privately developed residential villages, three schools, a senior housing center, a golf course, neighborhood parks and two recreation centers.
- Ocean Pointe, a 1,100-acre master-planned residential development is a 15 to 20-year project that will include Ewa Marina, the largest marina in the state.
- West Loch Estates, developed by the City's Department of Housing and Community Development. The subdivision is located on the shores of Pearl Harbor, northeast of the subject proposed Ewa by Gentry project. *(See OP Exhibit 2).*

PETITIONER'S PROPOSED USE OF THE PROPERTY

Proposed Land Uses

The Ewa Makai project to be developed within the Petition Area represents the Petitioner's second and final phase for the development of Ewa by Gentry. The Petition Area consists of two parcels identified by tax map key 9-1-10: 07 consisting of 114.617 acres (Ewa Makai-East/aka Fairway Properties) and tax map key 9-1-69: 05 consisting of 167.997 acres (Ewa Makai-West/aka Laulani Property)

Proposed land uses for the parcels will primarily be residential and will include a mix of residential uses totaling 1,865 units with single family, cluster and multi-family housing types over approximately 189 acres. The remaining acres will be used for mixed use (commercial/industrial) development, open space, community facilities, and roads.

Ewa Makai East - 114.617 Acres, TMK: 9-1-10: 07

All of the area described as Ewa Makai East is east of Fort Weaver Road. This portion of the Petition area is adjacent to the single family housing development proposed for the Ewa by Gentry (Ewa Mauka) to the north, and the Hawaii Prince golf course to the South. Approximately 68 acres will be used to develop 360 single-family housing units. Many of these single family homes will border the Hawaii Prince Golf Course. Three hundred and fifty-five (355) cluster housing units will be developed on approximately 38 acres (140 units on 11 acres and 215 units on 27 acres). The remaining 8.617 acres in Ewa Makai East will be used for infrastructure, and community facilities including 3.5 acres for a park.

Ewa Makai West - 167.997 Acres, TMK: 9-1-69: 05

The largest and most densely populated portion of the proposed project will be located west of Fort Weaver Road. Approximately 83 acres will be used for the development of housing units and approximately 30 acres will be used to develop an area for commercial/industrial mixed uses. The remaining 54.997 acres will be used to develop infrastructure, open space, and community facilities including a park, and 18 acres for a middle school. Residential uses will consist of 190 single family units on 25 acres, 320 clustered units on 26 acres, and 640 multi-family units on 32 acres.

NEED FOR THE PROPOSED DEVELOPMENT

The projected demand for housing in the Ewa District, and the Petitioner's share of that demand is based on an overall population growth of 18 percent for Oahu from 872,915 to 1,020,807 by the year 2025. The projected population growth was distributed to areas on Oahu based on the City's plans and policies for specific development areas. Based on the City's plans and policies for Ewa, including designation of Kapolei as the center of major economic activity and housing development, a population growth of 67.4% is projected for the area by 2025. Given that the projected population growth for the Ewa district is correct, the Petitioner's market analysis and its methodology appear reasonable.

The Petitioner's market study prepared by John Child & Company determined that about 4,400 new homes would be required by 2010. As of January 1, 2001 Gentry

had 1,616 existing and planned housing units for the existing Ewa Gentry neighborhoods. The inventory excludes 545 units planned for Areas 14 and 17, and 284 units planned for Area 31. Access and utilities are not in place for Areas 14 and 17, and Gentry has not acquired ownership for Area 31. Therefore development of these areas will be postponed until after development of Ewa-Makai. (See *Petitioner's Market Study, Appendix KK, Exhibit III-J Land Use Plan for the location of Areas 14, 17 and 31*)

From 2001, the projected absorption of Gentry's existing and planned units is projected at about 287 units annually. Therefore the 1,616 existing and planned units will be sold by 2006. The 1,865 units planned for Ewa Makai are projected to be sold between 2006 and 2013. The 829 units planned for Areas 14, 17 and 31 are projected to be sold between 2013 and 2016.

Affordable Housing

The Oahu Effective Demand Model (OEDM) made projections of the median household income for a family of four out to 2013 based on HUD estimates of median income for FY1997. The medium household income projected on the OEDM for 2003 is \$64,247, short of, but very close to the medium household income determined by HUD for FY 2003 of \$65,200 - a difference of \$953. Using OEDM projections for 2013 (estimated time for project completion of the project), for which the median household income is projected at \$82,242, the number of households estimated to earn up to and including 80% of the median household income is 1,350. The allocation of 186 units would meet 13.7% of this demand. For that same year the number of households estimated to earn up to and including 120% of the median income is estimated at 2,330. The project's allocation of 372 residential units to address this category could fulfill 15.9% of the demand for affordable units.

Distribution of Affordable Housing

The Petitioner has stated that the City and County will probably recommend that ten percent (186.5 units) of the total number of residential units to be developed within the Petition Area must be affordable to households earning up to and including 80% of the median income as determined by the U.S. Department of Housing and Urban Development (HUD).

Twenty percent (373 units) of the total number of units must be affordable to households earning up to and including 120% of the median income as determined by HUD.

The Office of Planning recommends that the above percentages be distributed by the different housing types throughout Ewa Makai East and Ewa Makai West.

Integrating the affordable units would disperse the different economic levels throughout the project and lessen the tendency to group families qualifying for affordable housing within one area or housing type.

PETITIONER'S FINANCIAL CAPABILITY TO UNDERTAKE THE PROPOSED DEVELOPMENT

Exhibit AA of Exhibit 1 contains the Petitioner's un-audited Balance Sheet and Statement of Income as of December 31, 2002, and Financing Strategy for development of the Petition Area. Exhibit AA of Exhibit 1 includes a letter dated January 17, 2003 from the Bank of Hawaii verifying the Petitioner's management capability and expertise in real estate developments. The letter further verifies Bank of Hawaii's continued financial backing for Petitioner's real estate projects including Ewa by Gentry.

The Petitioner (Gentry Investment Properties) proposes to use a combination of cash reserves and financing to acquire the two parcels comprising the Petition Area. Gentry Homes, Ltd. will acquire the land in smaller increments, and will finance the infrastructure and development costs with its current \$34 million line of credit. The Petition Area will serve as additional collateral for the line of credit which will be used to finance all site and building improvements planned for the project.

IMPACTS UPON THE RESOURCES OF THE AREA

Agricultural Resources

The Petition Area contains Agricultural Lands of Importance to the State of Hawaii (ALISH). According to the ALISH map approximately 30 percent of the Petition incorporating soil types EmA and EmB is rated "Prime" and approximately 69.4 (soil type MnC) is rated "Other".

The Petition Area is under month to month lease to Ralph's Ranch which currently uses the Petition Area to graze about 75 head of cattle and horses. The Petition

Area provides enough grass to graze about 20 head of cattle. According to the Petitioner's Draft Environmental Impact Statement (DEIS) the Petition Area is not well suited for grazing, but horses have been seen within the Petition area foraging for edible plants.

The proposed project will remove approximately 283 acres of agricultural lands to non-agricultural uses, and eliminate the opportunity to use that acreage for the cultivation of diversified crops. Although former sugar lands in Kunia, Ewa, and the North Shore have been leased, and various crops are being cultivated, most of the 22,500 acres of agricultural lands released from sugar cultivation during the 1990's still remain fallow. The Petitioner concludes that development of the Petition Area for residential and commercial uses will not limit the potential growth of diversified agriculture.

The Petitioner further believes that any loss of potential agricultural productivity from the Petition Area will be far outweighed by the benefits resulting from the proposed residential and commercial development of the Petition Area. The current ranching operations on the Petition support one job. Two hundred and eighty-three (283) acres planted in crops would support about 35 jobs. On the other hand, when fully developed as represented in the supporting documents, the Petition Area would provide homes for 1,865 families, 1,500 jobs, 30 acres of community facilities, and 11.5 acres of new parks.

Groundwater Resources

The Project is located within the Pearl Harbor Watershed. According to the Petitioner's DEIS, the State Commission on Water Resource Management (CWRM) reconfirmed its 1993 approval of the source requirements for the total Ewa by Gentry Master Plan. Further, the Board of Water Supply (BWS) has indicated that an adequate supply to serve the entire Ewa Region is available through existing and soon to be completed facilities, including the proposed desalination facility in Kalaeloa.

The Petitioner has indicated that a dual water system will be used and water conservation programs will be implemented.

Cultural and Archaeological Resources

Pacific Legacy, Inc. conducted a Cultural Impact Assessment and Archaeological Survey for the proposed Gentry Ewa Makai development project.

Archival and oral historical research indicates that the Petition Area is located within an area having a rich cultural and legendary history and was known as a place for mischievous wandering spirits. At one time a traditional trail existed between two small hills - Pu'u Kapolei and Pu'u Palailai. Pu'u Kapolei was a mythically significant heiau, and a celestial landmark for the change of seasons and sighting point for the summer solstice.

Extensive land alterations associated with approximately 100 years of sugar cane cultivation, and more recently cattle grazing, have destroyed the material evidence of the traditional cultural activities that occurred in the area. Further, because of the land alterations, it is unlikely that any *surface* archaeological sites or cultural remains would be present. The study concluded that the proposed development will not have any adverse effect on traditional activities in the area.

There is the possibility that construction activities may uncover subsurface resources from sinkholes containing cultural materials and possibly human burials. The study recommended that an archaeologist be retained on an on-call basis to assist the contractor in the event that subsurface cultural or archaeological materials are uncovered.

In response to the Petitioner's EISP, the Department of Land and Natural Resources, State Historic Preservation Office, determined that no historic properties would be affected by the proposed development due to the following:

- Intensive cultivation has altered the land;
- Residential development/urbanization has altered the land;
- Previous grubbing/grading has altered the land; and
- An acceptable archaeological assessment or inventory survey found no historic properties.

The Office of Hawaiian Affairs (OHA) recommended that the Petitioner incorporate several features into the development plans for Ewa Makai that made the Ewa Plain an important place in Hawaiian Culture. These features include preserving view planes, trail alignments, and the use of proper place names. OHA's recommendations are as follows:

- The Petitioner should ensure that the project does not impede view planes important to the solstice observances on Pu'u Kapolei or between Waikiki and

Pu'u Palailai for the Mahina'ona. The Petition area is in the direct path of the traditional viewing direction for the Mahina'ona Crown (the bright glowing crown visible during a certain time during the year around May 1, when the position of the sunset behind Pu'u Palailai and Pu'u Kapolei creates the illusion of a glowing crown;

- The Petitioner should strive to incorporate any remnants or known alignments of the traditional lateral trail into its design for pedestrian paths; and
- In keeping with the kupuna's advice on page 11 of the Cultural Impact Assessment, Petitioner should conduct research to find names that are applicable to the area and make every effort to provide proper place names within the project.

Flora

A Botanical Survey of the Petition Area was conducted by Winona Char and Associates on June 7, and 14, 2001. Due to extensive land alterations (sugar cane cultivation and grazing), vegetation on the site consists largely of introduced or alien plant species. Of the 62 species inventoried on the site, 56 were found to be introduced.

Only a few native species occur on the site, some of them in fairly large numbers. They are the 'uhaloa, 'ilima, pa'uohi'iaka, kepukai, hoary abutilon, and popolo. Of these only the pa'uohi'iaka is endemic (native only to the Hawaiian Islands). The Department of Land and Natural Resources, Division of Forestry and Wildlife was concerned that three endangered plants (*Chamaesyce skottsbergii* var. *skottsbergii*, *Achyranthes splendens* var. *rotundata*, and *Abutilon meniesii*) which are known to exist in the Kapolei-Kalaheo-Ewa plains area may be present in the Petition Area. The study determined that the proposed development of the site is not expected to have a significant negative impact on the botanical resources. The study recommended that landscaping be installed as soon as possible to prevent dust problems and soil erosion.

Fauna

An avifaunal and feral mammal survey of the Petition Area was conducted by Phil Bruner, environmental consultant on April 17, and 14, 2001. No native birds or unique resources important to native birds were found on the Petition Area. The only

native bird that may occur in this area is the endangered Pueo or short-eared Owl. The Pueo are known to occur in Ewa. An avian survey conducted by Bruner in 1994 sighted Pueo on the Haseko property to the south.

Two common migratory species - the Pacific Golden Plover and the Ruddy Turnstone were present on the Petition Area. These species commonly use open fields to forage, are not endangered or threatened and are the two most common migrants to Hawaii.

The endangered Hoary Bat is rarely seen on Oahu and none were sighted on the Petition Area. The only mammals sighted on the Petition Area were three mongooses. Although not seen on the Petition Area, feral cats and rats are like to occur on the property.

Air Quality and Noise

Ambient concentrations of air pollution are regulated by both national and state Ambient Air Quality Standards (AAQS). Potential air quality and noise impacts will be controlled in compliance with the Department of Health's Administrative Rules.

During construction of the proposed project, two potential types of air quality pollution emissions may occur, resulting in air quality impacts from the following sources: airborne dust from vehicle movement and grading activities; and carbon monoxide and nitrogen oxide emissions from on-site construction equipment traveling to and from the work site.

Existing background ambient noise in the vicinity of the Petition Area is attributed to motor vehicles on Fort Weaver and Geiger Roads, aircraft noise from airport operations at Honolulu International and Kalaeloa Airports and natural sounds resulting from birds, insects, wind, foliage, and people.

Temporary noise impacts may occur during construction. The study recommended the use of quiet equipment and construction curfew periods as required under the State Department of Health noise regulations to minimize adverse impacts from construction noise.

The unit commonly used for describing the magnitude of a sound is the decibel (dB). In order to approximate the response of the ear, a weighting scale is sometimes used because the human ear is less sensitive to sounds in the high and low frequency

ranges. This is called A-weighting and is abbreviated as dBA. Whereas sound levels vary with time, several methods are used to quantify sound over a given period. One method uses the equivalent sound level (Leq) and the day-night sound level (Ldn). Leq describes the energy average of the sound pressure level for a stated period of time. Ldn describes a 24 hour average sound level with an additional 10 dBA added to night time sound levels to account for increased human sensitivity to night time noise. Noise levels over 70 decibels are considered unpleasant by most and levels of 50 decibels are generally perceived as acceptably quiet.

Along the existing roadways which will service the project, traffic noise levels are predicted to increase by 0.8 Ldn to 1.6 Ldn in 2010. Traffic noise level increases from 0 to 1.0 Ldn are considered to be insignificant. A traffic noise level increase of 1.6 Ldn is considered to be moderate. All locations which front Fort Weaver Road, Geiger Road, Kapolei Parkway, Iroquois Road and a new street within the project area will experience relatively high noise levels above 65 Ldn, and will require traffic noise mitigation measures.

Only the commercial and industrial portions of the project site are located inside the 60 Ldn aircraft noise contours. Planned residential and other noise sensitive uses planned for the project are located outside of the airport's existing and forecasted 60 Ldn noise contours.

Coastal Water Quality

The National Pollutant Discharge Elimination System (NPDES) permit program authorized by the Clean Water Act, controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are isolated conveyances such as pipes or man-made ditches such as portions of the Kaloi Gulch System.

The Department of Health, Clean Water Branch (CWB) provided the following comments:

1. The Army Corps of Engineers should be contacted to identify whether a Federal license or permit (including a Department of Army permit) is required for this project. Pursuant to Section 401(a) (1) of the Federal Water Pollution Act (commonly known as the "Clean Water Act"), a Section 401 Water Quality Certification is required for "any applicant for Federal license or permit to conduct

any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters”

2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following activities:

- Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26 (b)(14) (i) through Sections 122.26 (b) (14)(ix) and Sections 122.26 (b) (14)(xi).
- Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the commencement of the construction activities
- Discharge of treated effluent from leaking underground storage tank remedial activities.
- Discharge of once through cooling water less than one (1) million gallons per day.
- Discharge of hydro-testing water.
- Discharge of construction dewatering effluent.
- Discharge of treated effluent from petroleum bulk stations and terminals.
- Discharge of treated effluent from well drilling activities.
- Discharges of treated effluent from recycled water distribution systems.
- Discharges of storm water from a small municipal separate storm sewer system.
- Discharge of circulation water from decorative ponds or tanks.

The CWB requires that a Notice of Intent (NOI), to be covered by a NPDES general permit for any of the above activities, be submitted at least 30 days before the commencement of the respective activities. The NOI forms may be picked up at the CWB office or downloaded from our website at <http://www.state.hi.us/doh/eh/ewb/forms/genl-index.html>.

3. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which wastewater is discharged from the project into State waters and/or coverage of the discharger(s) under the NPDES general permit(s) is not permissible (i.e. discharges into Class I or Class AA waters). An application for the NPDES permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at the Clean Water Branch or downloaded from the DOH website at <http://www.State.hi.us/doh/eh/cwb/forms/indiv-index.html>.

4. Hawaii Administrative Rules (HAR), Section 11-55-38, also requires the owner to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. To show compliance with HAR Section 11-55-38, the Petitioner is requested to submit a copy of the request for review by SHPD or SHPD's determination letter for the project.

ADEQUACY OF PUBLIC SERVICE AND FACILITIES

Highway and Roadway Facilities

Parsons Brinckerhoff Quade & Douglas, Inc. prepared a Traffic Impact Analysis Report dated December 2002. The complete report is provided as Exhibit GG of the Petitioner's Planning Report for a State Land Use Boundary Amendment and Zone Change Application.

Existing regional and sub-regional access to Ewa is provided by the H-1 Freeway, Farrington Highway, and Fort Weaver/Kunia Road.

Within the study area, Geiger Road/Iroquois Point Road provide the primary east-west access between Kalaeloa to the west and the U.S. Naval magazine -Lualualei West Loch Branch.

Fort Weaver Road is currently the principal north-south arterial providing access to Ewa, including the existing Ewa by Gentry project mauka of the Petition Area, and Ewa Beach. This principal arterial together with Kapolei Parkway and Keaunui Drive provide north-south access through the study area and portions of the Petition Area.

Launahele Street is a north-south collector roadway providing access to Geiger Road for the multi-family residential development located north of Geiger Road. South of Geiger Road, Launahele Street serves the single family residential development and curves west to connect with Kapolei Parkway. *See OP Exhibit 3*

The Honolulu Public Transit Authority operates "The Bus" which provides several bus routes within and to and from the region. Three bus routes (Route 431, Route 421, and Route 41) provide access within the Ewa region. Two bus routes (Route 91 and Route 101) are express routes that operate from specific locations within Ewa and Ewa Beach to downtown Honolulu. One route (Route 42) travels from Ewa Beach via Fort Weaver Road, Farrington Highway, Kamehameha Highway, Nimitz Highway, Dillingham Boulevard King/Beretania Streets and Ala Moana Boulevard, providing access to the major business/commercial centers of Downtown Honolulu, Ala Moana Center, and Waikiki. Route A is another city express bus that also provides access to Downtown Honolulu, Ala Moana, and the University of Hawaii at Manoa.

Several improvements will be made to interstate H-1 Freeway, Farrington Highway, and Fort Weaver Road. Kapolei Parkway and the North-South Road are planned for completion by the year 2010. The State projects include the new H-1 Freeway interchanges in Kapolei and Makakilo, construction of a north-south road from Kapolei to H-1, and the widening of Fort Barrett and Fort Weaver Roads. The City project involves completion of the Kapolei Parkway from Ewa Beach to Ko Olina. All of the projects are in the design stage.

The Petitioner's Traffic Impact Analysis conducted surveys of existing traffic patterns at signalized and unsignalized intersections within the study area to compare future traffic patterns with and without the project. Unsignalized intersections in the study area are Keaunui Drive/Iroquois Road, and Kapolei Parkway/Geiger Road.

The Traffic Impact Analysis conducted turning movement counts at the following intersections:

- Geiger Road and Kapolei Parkway
- Geiger Road and Launahele Street
- Fort Weaver Road and Geiger Road
- Iroquois Road and Keaunui Road

During the peak morning and evening hours, the study found that most traffic movements at the intersections along Geiger Road and Iroquois Road operated at an acceptable level of service during both peak hours. There are selected movements at the intersections of Geiger Road/Kapolei Parkway, Fort Weaver Road/Geiger Road/Iroquois Point Road, and Keaunui Drive that experienced delays.

The Gentry Ewa Makai project falls within the area covered by the City and County of Honolulu's impact fee ordinance - Chapter 33A, Revised Ordinances of Honolulu (*See County's Exhibit 8*), and will therefore contribute its share to the improvement fund. Improvements covered by the impact fee ordinance include widening of Fort Weaver Road between Farrington Highway and North Road; completion of Kapolei Parkway between Papipi Road and Ko Olina; and the proposed North-South Road and interchange. (*See City and County of Honolulu's Exhibit 8, Ordinance 02-5,2 Relating to Impact Fees for Traffic and Roadway Improvements*).

The Ewa Highway Impact Fee Program is comprised of the following parts:

- Ewa Region Development Forecasts through 2010 includes the number of single family and multi-family dwelling units and for non-residential uses (retail, office, industrial/other, hotel and timeshare), the number of square feet for each use;
- Roadway Master Plan for Ewa and the estimated cost of highway improvements for the Ewa Region; and
- Vehicular Trip Forecasts for new vehicular trips, per hour, for the Ewa region.

Ewa Region Development Forecasts through 2010

Development of the Petition Area is expected to take 15 to 20 years. The Petitioner used 2010 as the basis for future traffic analysis because it was used to develop the County's Ewa Impact Fee Ordinance. The Ordinance (Chapter 33A, Revised Ordinances of Honolulu), establishes a scheme for the assessment and collection of impact fees to be carried on a pro-rata share basis by landowners, developers, home builders, and others who directly contribute to expanding the population, services and need for infrastructure improvements.

Proposed land uses for Ewa Makai will include a mix of residential uses totaling 1,865 units comprising single family, cluster and multi-family housing types over approximately 189 acres. The remaining acres will be used for mixed use (commercial/industrial) development, open space, community facilities, and roads.

According to Table on page 9 of County's Exhibit 8, impact fees for single family residential use are \$1,836 per unit, and \$1,245 per unit for multi-family residential uses. Impact fees for non-residential uses are based on the per square footage for each use and range from \$2,018 per square foot for industrial/other, to \$4,053 per square foot for retail use.

Roadway Master Plan for Ewa

Future roadway improvements include:

- Construction of the North-South Road that will provide alternative access to the H-1 Freeway for Ewa and Ewa Beach communities;
- Construction of a new North-South Road interchange on the H-1 Freeway;
- Completion of Kapolei Parkway from Papipi Road to Fort Barrette Road. The portion of Kapolei Parkway through existing Ewa by Gentry development has already been completed. The completion of all portions of Kapolei Parkway will provide a major corridor from the Ewa Beach community to the Ko Olina Resort;
- Widening of Fort Weaver Road, currently in the design phase, from a 4 to 6 lane facility between Farrington Highway and Geiger Road;
- Widening of Farrington Highway from Kapolei; and
- Widening of Fort Barrett Road from Farrington Highway to Roosevelt Avenue.

Total cost for these improvements are estimated at \$193,964,400. Based on policy considerations which include those contained in the Ewa Highway Master Plan, the Ewa Highway Impact Fee Program, the Oahu Regional Transportation Plan, and the Ewa Development Plan, the portion of the estimated cost of the Ewa Highway Master Plan improvements attributable to new development and to be collected according to the specifications of the Impact Fee Ordinance is \$38,792, 880.

See OP Exhibits 3, and 4, and Petitioner's Exhibit 1, Appendix GG, p. 3, and City and County of Honolulu's Exhibit 8).

Vehicular Trip Forecasts

The Petitioner's traffic assessment used the Institute of Transportation Engineers (ITE), Trip Generation to estimate the number of trips generated by the development of Ewa Makai by each land use (single family, cluster, multi-family, middle school, and light industrial uses). Table 3, page 19 of the Traffic Analysis report, summarizes site generated traffic according to AM and PM peak hour trips attributed to each land use within proposed development. Total AM Peak Hour vehicular movement entering and exiting the project was estimated at 645 and 1,042 respectively. Total PM Peak Hour vehicular movement entering and exiting the project was estimated at 900 (entering) and 684 (exiting).

(See Petition, Exhibit 1, Appendix GG, pages 16 -20).

Gentry Homes, Ltd. has already implemented major roadway improvements as part of the Ewa by Gentry Development. As these major roadway improvements progress into the Ewa Gentry Makai Development, Gentry Homes, Ltd. will continue to implement internal roadway and intersection improvements that will include road widening, pedestrian crosswalks, bikeway, and traffic signals. Petitioner's recommended Roadway improvements include:

- Extending Keaunui Drive to intersect Fort Weaver Road at the Hawaii Prince Golf Course access;
- Widening a section of Geiger Road to 3 lanes and providing a right-of-way to allow widening to 4 lanes.
- Widening a segment of Iroquois Point Road (from Keaunui Drive to the eastern boundary of the Ewa by Gentry north of the Petition Area; and the
- Extension of Kapolei Parkway from south of Geiger Road to the Makai Boundary of the Petition Area.
- Proposed traffic signals at the intersections of Geiger Road/Keaunui Drive; Geiger Road/Kapolei Parkway; Keaunui Drive extension/Kapolei Parkway; and Keaunui Drive extension/Fort Weaver Road.

(See OP Exhibits 3 and 4 and Petitioner's Traffic Analysis, Appendix GG, p. 31).

The Petitioner has concluded that implementation of the roadway and traffic improvements recommended in the Traffic Impact Analysis Ewa by Gentry-Makai Development report will accommodate the traffic generated by the proposed land uses identified for the Petition Area. Further, since new roadways which will be constructed as part of the Ewa by Gentry Makai Development, traffic conditions on Fort Weaver Road are projected to provide improved levels of service and development of the Petition Area will contribute a roadway system that will help to ease traffic circulation patterns in the Ewa region.

DOT comments are as follows:

1. The Fort Weaver Road widening project will provide 6 lanes from Geiger Road to Farrington Highway. Construction is expected to begin in 2004 with an anticipated completion date sometime in 2006.
2. The Ewa North-South Road project initially will provide one (1) northbound lane, one (1) southbound lane, and one (1) reversible lane between the Kapolei Parkway and H-1, with a Honolulu-bound on-ramp, and an Ewa-bound off-ramp on H-1. Provided that endangered species within the project right-of-way can be successfully established at other sites, construction may begin in late 2004 and be completed within roughly two years.
3. Assumptions for traffic forecasting should be included in the project's traffic impact analysis report. For example, assumptions for internal trip capture and more detailed roadway conditions should be provided. Details should include the assumed laneage of the North-South Road and its interchange with H-1.
4. Table I in the project's traffic impact analysis report should be revised to reflect the timing of several projects. These include Fort Weaver Road Widening; the North-South Road; Extension of Kapolei Parkway to Papipi Road; Extension of Kapolei Parkway to Kamaaha Avenue, and the Extension of Keaunui Drive from the Hawaii Prince Golf Course to Kapolei Parkway.
5. To provide flexibility in accommodating future transportation needs, along the route and to buffer roadway noise, DOT requests that a landscaped building setback (approximately 12 feet) along the subject project's Fort Weaver Road frontage be provided.
6. The project's traffic impact analysis report should incorporate queuing analysis to estimate the length of left-turn storage lanes needed at Keaunui.

Drive intersections with Iroquois Point Road and Fort Weaver Road. The developer must also construct all required improvements to Keaunui Drive's intersection with Iroquois Point Road at no cost to the State.

7. The proposed Keaunui Drive extension intersection with Fort Weaver Road must replace the existing driveway intersection from the Hawaii Prince Golf Course. The developer must dedicate required right-of-way and construct all required intersection improvements at no cost to the State. Appropriate queuing analysis as part of the developer's traffic study needs to be done to ensure that the proposed golf course driveway and any other driveways from Keaunui Drive (including the extension west of Fort Weaver Road) be spaced far enough away from Fort Weaver Road. Locating driveways or access points too close to Keaunui Drive's intersection with Fort Weaver Road may cause operational problems.
8. DOT disagrees with the cycle lengths used in the developer's traffic analysis. For example: the reduction of cycle lengths from 240 seconds to 100 seconds for study intersections on Fort Weaver Road, do not seem appropriate. This analysis should be redone using a more appropriate signal cycle length.
9. Plans for work within State highway/road right-of-ways must be submitted to DOT Highways Division, Traffic Branch, for review and approval. If the North-South Road is constructed before the proposed Keaunui Drive intersection with Fort Weaver Road, DOT requests that an updated traffic impact analysis report re-evaluate the proposed intersection design.
10. Because of the project's close proximity to the aviation activity from the Runways 4L and 4R at Kalaeloa Airport, DOT request that DOT- Airports Division be granted an aviation easement for the Gentry Ewa Makai development. An aviation easement is a grant of property interest in land, over which a right of unobstructed flight in the airspace is established with potential for noise, fumes, smoke, vibrations, other substances, and phenomena from the aircraft. Also, the Petitioner should be aware that the property may be impacted by noise from aircraft approaching and departing Kalaeloa Airport.
11. AFAA Form 7460-1, a Notice of Proposed Construction or Alteration, should be submitted to the Federal Aviation Administration, Airports District Office, so that they may assess the impacts of the development on Kalaeloa Airport.

Since the Ewa Makai project is the final increment of Gentry's Ewa development, it is important to also reflect on and review the entire development (Ewa by Gentry) and its impacts along with the subject project. DOT has no objection to the subject project moving forward, but DOT would like to maintain the ability to monitor the project's

progress and growth within the overall development to ensure that the effects of both local and regional impacts by the project and the overall development can be assessed as updated or new information comes forth. DOT recognizes that the communities in Ewa are part of the changes in the Ewa Plain area and DOT wishes to contribute guidance to the area's development as necessary on a continuing basis.

The Department of Hawaiian Home Lands (DHHL) had no objections to the subject petition. DHHL has acquired several parcels at East Kapolei totaling approximately 200 acres and anticipates future development of these parcels for residential uses. The parcels comprise a portion of a 1,300-acre area reclassified from the Agricultural District to the Urban District in September, 1999 under LUC Docket A99-728. The parcels are located north of Gentry's Ewa Makai project. One parcel (9-1-16: 8) is located between the H-1 Freeway and Farrington Highway. The other area acquired by DHHL occupies the southern portion of a parcel (9-1-16: 108) situated west of and adjacent to the proposed alignment for the North-South Road.

DHHL further commented that the provision of adequate infrastructure and community facilities are regional concerns that need to be addressed by each developer and the Ewa Makai report appears to adequately cover environmental and infrastructure concerns, and provides sufficient information to support redistricting to allow the project to move forward. Consequently, DHHL has no objections to the subject petition.

Drainage and Flood Hazard

The Corps of Engineers commented that based on the information provided, a Department of the Army Permit will not be required for the project and further concurred with the flood hazard information provided on page 13 of the Petitioner's Planning Report for a State Land Use District Boundary Amendment and Zone Change Application.

The Petition Area is located within the Kaloi Drainage Basin. The Kaloi Drainage Basin encompasses an area of approximately 7,140 acres and has a peak design flow of approximately 11,500 cubic feet per second (cfs). Mauka of the H-1 Freeway, storm water runoff has carved out a natural gulch over relatively steep lands. Makai of the H-1 Freeway, surface flows are directed towards the ocean through the man-made portion of Kaloi Gulch system terminating on Haseko's Ewa Marina Property.

From its beginning at approximately the 80-foot contour to its terminus at approximately 1,700 feet from the ocean, the Kaloi Gulch drainage system is a private man-made drainage channel. Landowners and developers in the region are responsible for the portion of the system that falls within their project area.

(See OP Exhibit 5).

The Petition Area and Ewa by Gentry to the north are generally level. Slopes on the Petition Area range from 0 to 6 percent slope. Except for two sumps near the eastern boundary of the Petition Area, (Ewa Makai-East) the ground slopes are approximately 1 percent.

Flood hazards are primarily identified by the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA). According to FIRM, the Petition Area is not located in a flood zone designated area. The Petition Area is located in Zone D, a designation reserved for understudied areas in which flood hazards are undetermined but possible. The Petition Area is not indicated as a vulnerable inundation area on the Civil Defense Tsunami Inundation Maps.

(See OP Exhibit 6).

The capacity of Kaloi Gulch is limited because it was not designed to handle storm water runoff. The original primary use of Kaloi Gulch was as an irrigation ditch for the sugar fields. The system consists of two levees built up above the adjacent ground. Haseko's Ocean Point and Ewa Marina are at the end of Kaloi Gulch. The Ewa Development Plan recognizes Ewa Marina as a key element within the Kaloi Gulch system. All storm waters that are not retained upstream will eventually end up on or pass through Haseko's Ocean Pointe. The proposed Marina is intended to be part of the regional drainage infrastructure and will be the final storage and detention basin before storm water is discharged into the ocean.

The general policies and planning principles of the Ewa Development Plan include the use of golf courses to be incorporated into the Ewa drainage system for the retention and detention of surface water flows. Ewa has several courses (West Loch, Kapolei, Ewa, Coral Creek, Hawaii Prince, New Ewa Beach, and Barbers Point Golf Courses) which have been designed to detain or infiltrate storm water flows to reduce

their volume and runoff rates, and to reduce the amounts of sediments and pollutants which may be transported.

There are still concerns regarding whether the interim improvements described in the Technical Solution are sufficient to mitigate the potential for another occurrence of flooding that occurred in Varona Village and Ewa Villages in 1996. Drainage flow through the Villages is constrained by the elevation of the Oahu Railway & Land Co. (OR&L) right-of-way which forms a man-made barrier that impedes storm water runoff. During heavy rainfall in November of 1996, the barrier created by the right-of-way channeled storm water flows into a narrow drainage culvert between Tenney and Varona Villages. Due to the lack of an outlet to the ocean, flooding occurred in the Ewa Villages area. (See *OP Exhibits 5 and 6*).

Drainage Improvements for the Petition Area

The Petition Area is generally level, therefore major permanent and interim drainage systems are required to prevent flooding in both Ewa Makai-East and Ewa Makai-West. The Gentry Ewa Makai project is subject to overall drainage and sewer plans that have been revised for Ewa Makai-East and approved by the City and County of Honolulu. The Petitioner's proposed drainage improvement design for Ewa Makai-East will be based upon the revised plans. (See *Petitioner's Petition Exhibit 1, Appendix K*).

The Ewa Makai-West project area is included in the Drainage Master Plan for the Gentry-Ewa project approved by the City and County of Honolulu Department of Public Works on April 8, 1991. In the Petition it is stated that surface runoff from Ewa Makai-West will be discharged into the Kaloi Gulch improvements and/or into existing greenway/sumps on Gentry lands. As presented on page 25, Exhibit 1 of the Petition, the improvements will consist of a wide, landscaped, grassed-lined open space area that will ultimately connect the makai end of the Coral Creek Golf Course with Ocean Point's planned golf course.

A task group consisting of representatives from the City and County of Honolulu Department of Public Works, and developers with projects within the Kaloi Gulch Drainage Basin worked together to develop an interim solution (*Technical Solution for Potential Flooding in the Kaloi Gulch Drainage Basin*) that would pass runoff to the ocean and "provide a degree of flood protection for existing developments". Drainage

improvements for the portion of the Kaloi gulch channel within Ewa Makai-West are addressed by conditions 4 and 5 of the *Technical Solution* document. (See *OP Exhibit 7*).

According to the conditions stated in the *Technical Solution*, the design for the Kaloi Gulch drainage improvements to discharge surface runoff from Ewa Makai-West include a drainage channel that will connect Coral Creek Golf Course with Ocean Point's planned golf course. The channel invert at the Haseko/Ewa-Makai West portion of the Petition Area is proposed to be set at an elevation of 15 feet. The channel within Haseko's property is proposed to be designed to convey 1,200 cubic feet per second (cfs) with a freeboard capacity¹ of 2,500 cfs and a hydraulic grade line² of 19 feet.

The channel at the Ewa-Makai West/Gentry interface will be set at an elevation of 14 feet. The channel within the Ewa-Makai West portion of the Petition Area will be designed to convey 1,200 cfs with a freeboard capacity of 2,500 cfs. (See *OP Exhibit 7, Exhibits A and B*).

Ewa Makai-East will be designed to release surface runoff into large sumps on the property with excess water flowing into the adjacent Hawaii Prince Golf Course. A landscaped drainageway, recreation area, and large retention basin will be built as part of the residential subdivision. The Retention/detention basins may be developed as part of a landscaped walkway that will also provide visual and open-space amenities, and passive and active recreational areas for residents.

Drainage improvements proposed for both Ewa Makai-East and Ewa Makai-West are still preliminary and haven't been finalized.

Comments received from the Corps of Engineers stated their concurrence with the flood hazard information provided on page 13 of the Petitioner's Planning Report for a State Land Use District Boundary Amendment and Zone Change Application and that based on the information provided, a Department of the Army Permit will not be required for the project.

¹ **Freeboard capacity** refers to the vertical distance from the normal water surface to the top of the confining wall.

² **Hydraulic grade line** refers to the slope of the water surface in an open channel.

Schools

The Department of Education (DOE) has 8 schools in the Ewa region (6 elementary, 1 intermediate, and 1 high school). The Ewa Development Plan has projected a need for two new intermediate schools, and at least one new high school in Ewa. An additional high school will be needed after 2020.

The Petitioner identified six public schools within the vicinity of the proposed Ewa-Makai (Ewa Beach Elementary, Ewa Elementary, Holomua Elementary, Pohakea Elementary, Ilima Intermediate, and the James Campbell High School). Discussions with DOE revealed that Iroquois Point Elementary School and Kaimiloa Elementary School would also be considered as “within the vicinity” of the Petition Area. (*See OP Exhibit 8*).

The table below shows that of the eight (8) schools located within the vicinity of the Petition Area, three (3) are exceeding their enrollment capacity (Ewa Elementary, Ewa Beach Elementary, and Holomua Elementary). The table further shows that by 2007 without the addition of new schools in the region, four (4) schools within the vicinity of the project could exceed their enrollment capacity (Ewa Elementary, Ewa Beach Elementary, Holomua Elementary, and Campbell High School).

The Petitioner, with the consent of the DOE, has set aside an 18-acre site on the west side of the project along the Kapolei Parkway extension for a middle school. Farther east, Haseko has reserved a 12-acre site within the Ocean Pointe Community for a future elementary school. According to the Petitioner’s DEIS these proposed facilities will provide for the long-term educational needs of the community.

School	2003 Capacity	2002-03 Actual Enrollment	2007 Projected Enrollment	Change
Ewa Elementary	659	831	831	0
Ewa Beach Elementary	579	604	847	243
Holomua Elementary	958	1,071	1,290	219
Iroquois Point Elementary	833	513	492	-21
Kaimiloa Elementary	740	717	715	-2
Pohakea Elementary	669	588	649	63
Ilima Intermediate	1,318	1,161	1,243	82
Campbell High	2,099	1,942	2,289	347

Source: Hawaii State Department of Education February 2003

Comments received from the Department of Education (DOE) indicated that the 18-acre site addresses a portion of Gentry's fair-share contribution for the schools that will serve the children living in Gentry Ewa Makai. The Petitioner's total contribution will be determined by the fair-share formula in place when the Petitioner and the DOE have a written education contribution agreement.

DOE further requested the State Land Use Commission include as a condition of approval for boundary amendments the following standard fair-share language. The proposed wording is as follows:

“The Petitioner shall contribute to the development, funding, and/or construction of school facilities, on a fair-share basis, as determined by and to the satisfaction of the Department of Education. Terms of the contribution shall be agreed upon in writing by the Petitioner and the Department of Education prior to obtaining county rezoning.”

Water Service

In 1987, the State enacted the State Water Code in order to protect, control, and to regulate the use of the State's water resources. Under the Code, each county is responsible for the preparation of a water use and development plan. Accordingly, the Oahu Water Management Plan (OWMP) for the City and County of Honolulu was prepared by the Department of Planning and Permitting with the assistance of the State Commission on Water Resource Management (CWRM) and the Board of Water Supply. The OWMP was approved by the City Council and adopted by the State CWRM and the City Council in 1990.

With future developments and anticipated population growth, Oahu is expected to reach its water capacity by the year 2020, pumping nearly 98 percent of its available water supply. The Board of Water Supply projects that an additional 17 million gallons per day (mgd) of potable (or drinkable) water will be needed in Ewa and Central Oahu by 2025 to meet projected growth in residential and commercial demand. In addition, long-term demand for non-potable water for existing and new urban irrigation and other urban requirements for water is estimated to be approximately 26 mgd. Agricultural demand for non-potable water for the 13,500 acres of agricultural land in Ewa and Central Oahu protected from development by the new Ewa Development Plan is estimated to be 38

mgd Meeting this demand will require reallocation of water within the island-wide system, as well as development of new sources.

The Petitioner is a member of the Ewa Plain Water Development Corporation (EPWDC). The EPDC has identified sources and will dedicate facilities, storage, and transmission systems to the City and County of Honolulu to ensure that there will be an adequate supply of potable water for its members' existing and future projects.

The City and County of Honolulu, Board of Water Supply (BWS), has several water system improvement projects in the construction and design stages that will provide adequate source capacity to accommodate the Petitioner's Ewa Makai project. Water improvement projects include:

- Expanding the capacity of the Ewa Shaft. The Ewa shaft's estimated yield is 15 mgd with the potential to expand to 35 mgd in the future.
- The BWS proposed desalination facility in Kalaeloa, Ewa. The proposed facility will produce 5 mgd of fresh water that will add to Oahu's potable water supply. The desalination facility will occupy a portion of an undeveloped 20-acre parcel that was previously part of the Barbers Point Naval Air Station.
- The installation of wells at the Waipahu Wells II Station and completion of Waipahu Wells IV Station will add 4.21 mgd to the BWS capacity to deliver water.

Groundwater for Oahu occurs in perched water tables, deep basalt aquifers, and shallow aquifers within the caprock. Potable artesian groundwater in the basal aquifer is recharged in the Waianae Mountains and the central plain by direct rainfall, infiltration of stream runoff and irrigation water.

Potable artesian groundwater occurs in the Southern Oahu Basal Aquifer which is an EPA designated Sole Source Aquifer within the Waipahu system of the Pearl Harbor aquifer sector. The Pearl Harbor aquifer serves as one of the main sources of drinking water for Oahu. A Sole Source Aquifer (SSA) is an aquifer designated by US EPA as the 'sole or principal source' of drinking water for a given aquifer service area; that is, an aquifer which is needed to supply 50% or more of the drinking water for that area and for

which there are no reasonably available alternative sources should that aquifer become contaminated.

Non-potable water for the entire Ewa by Gentry development (Ewa Makai included) is available through the Petitioner's participation in the Puuloa Caprock Users Group (PCUG). The caprock aquifer is too saline for potable use and is used for urban irrigation and industrial uses.

The Petitioner has received assurances from the BWS, that water will be available for the project from the Ewa Shaft. The Proposed average demand for potable water for the Project is estimated at .5026 million gallons per day (mgd). This represents a relatively small portion of the 4.2274 mgd average demand for the entire Ewa by Gentry upon final build-out.

The Board of Water Supply, City and County of Honolulu, indicated that it has no objections to the proposed Ewa-Makai project and provided the following comments:

- The developer will be required to install the water system improvements to serve the proposed development. Construction drawings for the system should be submitted for Board of Water Supply's approval to ensure conformance with the approved master plan.
- The availability of additional water will be confirmed when the building permit or construction plans are approved. When water is made available, the applicant will be required to pay Water System Facilities Charges for resource development, transmission, and daily storage.
- Once the non-potable water demands have been determined, the developer should contact the Business Development Unit of the Board of Water Supply for non-potable water availability.

Wastewater Disposal

Gentry Ewa Makai will be connected to the municipal sewer service system at the Honouliuli Wastewater Plant. Two independent pump systems will service Ewa Makai – East and Ewa Makai-West project areas. The pump station and force main for Ewa Makai-East is proposed to be located at the end of Keaunui Drive at the southeast corner of Area 19. (*See Ewa Makai Master Plan, Petitioner's DEIS*). The facility will have a design flow of .38 mgd and a peak flow capacity of 1.47 mgd. The pump system for Ewa

Makai-West is proposed to be located at the end of the Kapolei Parkway extension road. The facility will be designed to have an average flow of .816 mgd with a peak flow capacity of 2.760 mgd. These systems will ensure the efficient conveyance of wastewater to the Honouliuli Wastewater Treatment Plant.

Comments from the Department of Health (DOH), Wastewater Branch indicate that wastewater treatment and disposal have been adequately addressed in the Petition. All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems". DOH reserves the right to review the detailed wastewater plans for conformance to applicable rules.

The Department of Design and Construction, City and County of Honolulu, estimates treatment/disposal capacity at the Honouliuli Wastewater Treatment Plant (WTP) will need to be increased from its existing capacity for primary treatment of 38 million gallons per day (mgd) to 51 mgd by 2025 in order to meet projected population and economic growth in Ewa and Central Oahu resulting from implementation of the revised Plans. In addition, the capacity of specific sewer lines and pump stations will need to be increased.

Solid Waste Disposal

There are two solid waste handling and disposal facilities located in Ewa: the H-Power plant at Campbell Industrial Park; and the Waimanalo Gulch Sanitary Landfill. The H-Power plant is operating at maximum capacity receiving over 600,000 tons of solid waste a year. Waimanalo Landfill, the major waste disposal site for Oahu, is projected to close in 5 years.

The Solid Waste Integrated Management (SWIM) Plan prepared by the Department of Public Works, City and County of Honolulu and adopted in 1995 identifies existing landfills which can be expanded and potential sites for the development of new landfills to provide new capacity. The Waimanalo Gulch Sanitary Landfill at Honouliuli (Tax Map Key Nos.: 9-2-3: Por. 72 & 73) is identified as having potential for expansion. Condition No. 10 of the Special Use Permit identified by LUC Docket No. SP-362, states that within five years from the date of the Special Use Permit Amendment Approval, but not beyond May 1, 2008, the landfill shall be closed in accordance with an approved closure plan.

The solid waste situation is becoming very critical as demonstrated by the adoption of Senate Concurrent Resolution (S.C.R.) No. 153 which requests an investigation of several issues surrounding State and Counties policies with regard to solid waste programs, including the urgency of establishing another landfill on Oahu.

Using a formula based on the average household size of 3.25 occupants multiplied by the number of residential units proposed (1,865) and another formula provided by the Department of Public Works, the proposed Ewa Makai development could add in excess of 10.2 tons of solid waste material to the landfills at full build-out based on the Department of Public Works estimate of 3.37 lbs. of solid waste per person per day.

Civil Defense

There is currently a siren adjacent to the Coral Creek Golf Course located west of Fort Weaver Road and north of Ewa Makai-West. According to the Department of Defense, Office of Civil Defense, this siren has never been activated.

In response to the Petitioner's Environmental Impact Statement Preparation Notice (EISPN) the State Department of Defense requested that a solar-powered outdoor warning siren capable of 2,400 watts of power driving four each 121 DBC directional speaker arrays be installed before the first home is occupied. The location recommended for the location of the new siren is within a 3.5-acre park along Puuloa Road on the Pearl City side of Fort Weaver Road. The department further recommended that the siren fronting Coral Creek Golf Course that was installed but never activated, be activated immediately using the same solar powered system recommended for the new location.

Fire Protection

The nearest fire station is the Waipahu Fire Station. The response time to the Petition Area is approximately 4 to 6 minutes. If a backup company is needed, backup can come from the Waipahu, Ewa Beach, and Kapolei fire stations. In the event of a second alarm in a multiple incident, two additional engine companies from the Waikale and Pearl City Fire Stations would respond, as well as a ladder company from the Kapolei Fire Stations.

Emergency Services

The Ewa region is primarily serviced by two ambulances from St. Francis West and the Waipahu Fire Station. There is also a Single Rapid Response Unit based at Kalaeloa. The Single Rapid Response Unit does not transport patients. If needed, additional Emergency Medical Service vehicles will respond from Waianae and Aiea. Response time to the Petition is approximately 6 to 9 minutes.

Electrical and Telephone Service

Hawaii Electric Company's (HECO) Fort Weaver Substation was installed during the development of the early phases of the Gentry by Ewa Project. After the installation of additional substation transformer capacity and extension of cables, ducts, and associated electrical facilities needed to service the Petition Area, HECO indicated that it will be able to provide reliable service to the Ewa Makai master planned community.

Verizon will provide telephone service to the community.

CONFORMANCE WITH THE STATE LAND USE COMMISSION RULES

The proposed reclassification is in general conformance with §15-15-18 of the Land Use Commission rules, Standards for Determining "U" Urban District boundaries. The Petition Area is located adjacent to existing residential and industrial uses and is in close proximity to centers of trading and employment, including the Second City at Kapolei, James Campbell Industrial Park, and the Kalaeloa Community Development District.

CONFORMANCE WITH STATE PLANS

The Hawaii State Plan

Objectives and policies of the State Plan most applicable to the proposed reclassification are the following:

226-5 Objectives and policies for the population

§226-5 Objective and policies for population. (a) It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic, and social objectives contained in this chapter.

(b) To achieve the population objective, it shall be the policy of this State to:

- (1) Manage population growth statewide in a manner that provides increased opportunities for Hawaii's people to pursue their physical, social, and economic aspirations while recognizing the unique needs of each county.
- (3) Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.
- (7) Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.

§226-6 Objectives and policies for the economy--in general.

- (a) Planning for the State's economy in general shall be directed toward achievement of the following objectives:
 - (1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people.
 - (2) A steadily growing and diversified economic base that is not overly dependent on a few industries.
- (b) To achieve the general economic objectives, it shall be the policy of this State to:
 - (3) Seek broader outlets for new or expanded Hawaii business investments.
 - (6) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.
 - (16) Foster a business climate in Hawaii--including attitudes, tax and regulatory policies, and financial and technical assistance programs--that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry. [L 1978, c 100, pt of §2; am L 1986, c 276, §5; am L 1988, c 70, §4]

226-11 Objectives and policies for the physical environment—land based

- 226-11 (b) (1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.
- 226-11 (b) (2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.
- 226-11 (b) (3) Take into account the physical attributes of areas when planning and designing activities and facilities.
- 226-11 (b) (6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.
- 226-11 (b) (8) Pursue compatible relationships among activities, facilities, and natural resources.

226-12 Objectives and policies for the physical environment -- scenic, natural beauty, and historic resources

- 226-12 (b) (1) Promote the preservation and restoration of significant natural and historic resources.
- 226-12 (b) (3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.
- 226-12 (b) (4) Protect those special areas, structures, and elements that are an integral and functional part of Hawaii's ethnic and cultural heritage.
- 226-12 (b) (5) Encourage the design of developments and activities that complement the natural beauty of the islands.

226-13 Objectives and policies for the physical environment--land, air, and water quality

- 226-13 (b) (2) Promote the proper management of Hawaii's land and water resources.
- 226-13 (b) (3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters.
- 226-13 (b) (4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaii's people.
- 226-13 (b) (5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.
- 226-13 (b) (6) Encourage design and construction practices that enhance the physical qualities of Hawaii's communities.
- 226-13 (b) (7) Encourage urban developments in close proximity to existing services and facilities.

§226-103 Economic priority guidelines.

- (a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawaii's people and achieve a stable and diversified economy:
- (e) Priority guidelines for water use and development:
 - (1) Maintain and improve water conservation programs to reduce the overall water consumption rate.

§226-104 Population growth and land resources priority guidelines.

- (b) Priority guidelines for regional growth distribution and land resource utilization:
 - (1) Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other

important benefits are present, such as protection of important agricultural land or preservation of lifestyles.

(2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.

(6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.

(9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.

(10) Identify critical environmental areas in Hawaii to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.

§226-106 Affordable housing. Priority guidelines for the provision of affordable housing:

(1) Seek to use marginal or nonessential agricultural land and public land to meet housing needs of low- and moderate- income and gap-group households.

(2) Encourage the use of alternative construction and development methods as a means of reducing production costs.

(5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaii's people for the purchase of initial owner-occupied housing.

(8) Give higher priority to the provision of quality housing that is affordable for Hawaii's residents and less priority to development of housing intended primarily for individuals outside of Hawaii.

The Five-Year Boundary Review

In 1992, the Five-Year Boundary Review recommended approximately 1,823 acres in the Ewa Plain for reclassification from the Agricultural District to the Urban District. Approximately 594.7 acres of this recommendation are east of the Barber's Point Golf Course and includes the Petition Area. (*See OP Exhibit 2*).

Although the Petition Area contains soils rated A and B by the Land Study Bureau and lands rated Prime under the ALISH system, the Five-Year Boundary Review determined that these lands are needed to meet urban land requirements and to address the "overriding public need for the development of affordable housing."

CONFORMANCE WITH COUNTY PLANS

The Ewa Development Plan

The Petition Area is within the Urban Growth Boundary designated in the Ewa Development Plan. The Urban Growth Boundary was drawn to protect over 3,000 acres of prime agricultural land from urbanization. No urban uses will be considered for developments that are proposed outside of the Urban Growth Boundary.

The proposed development is in conformance with the general policies and guidelines provided in the Ewa Development Plan regarding land use, the development of new communities and the expansion or renovation of existing communities. The uses proposed for Ewa Makai are consistent with the land uses in the Ewa Development Plan: Low and medium density residential; commercial/industrial, parks and golf courses, community and recreational facilities; and open space.

General Plan

The General Plan is a comprehensive statement of objectives and policies for Honolulu's future development. The Plan sets out the basic growth policies for Oahu which includes development of the Secondary Urban Center at Kapolei and the Ewa and Central Oahu urban-fringe areas.

Petitioner's Exhibit 1, Section VI. B.1 sets forth the project's conformance with applicable objectives and policies for population distribution, economic activity, natural environment, housing, transportation and utilities, and physical development and urban design which are defined under the General Plan. Development of the Petition Area as represented in the Petition is consistent with the General Plan's population policy that encourages development within the secondary urban center at Kapolei and the Ewa urban fringe areas to relieve development pressures in rural areas and to meet housing needs not readily provided in the Primary Urban Center.

County Zoning Code

Under the City and County of Honolulu Comprehensive Zoning Code, the Ewa Makai-East portion of the Petition Area (115 acres) is zoned AG-1 Restricted Agriculture, and Ewa Makai-West (168 acres) portion is zoned AG-2 General

Agriculture. Development of the Petition Area will require rezoning of the Petition Area into the following districts:

R-5 Residential (93 acres), A-1 Apartment (146 acres), P-2 General Preservation (14 acres), and IMX-1 Industrial-Commercial Mixed Use (30 Acres).

Revised Ordinances of Honolulu

The Revised Ordinances of Honolulu Chapter 33A - Impact Fees For Traffic and Roadway Improvements in Ewa, provides a regulatory scheme for the assessment and collection of impact fees to be borne on a pro-rata share basis by landowners, developers and others who directly contribute to expanding the population and increasing economic activity in the Ewa region through new land development activities. The provision is intended to recover only a portion of the governmental expenditures related to growth and implements the Ewa development plan and the Ewa highway master plan.

RECOMMENDATION

Based on the foregoing information, the Office of Planning recommends that the Petition by Gentry Investment Properties to reclassify approximately 283 acres of land in the Ewa District, Island of Oahu, City and County of Honolulu, Hawaii, identified by TMK: 9-1-69: 05, and 9-1-10: 07 from the Agricultural District to the Urban District be approved subject to the following conditions:

CONDITIONS

1. Petitioner shall provide affordable housing opportunities for low, low-moderate, and gap group income residents of the State of Hawaii to the satisfaction of the City and County of Honolulu. The location and distribution of the affordable housing or other provisions for affordable housing shall be under such terms as may be mutually agreeable between the Petitioner and the County.
2. Petitioner shall contribute to the development, funding, and/or construction of school facilities, on a fair-share basis, as determined by and to the satisfaction of the Department of Education. Terms of the contribution shall be agreed upon in writing by the Petitioner and the Department of Education prior to obtaining county rezoning.

3. Petitioner shall fund and construct adequate wastewater transmission and disposal facilities, as determined by the City and County of Honolulu Department of Public Works (DPW) and the State Department of Health (DOH).
4. Petitioner shall participate in the pro-rata funding and construction of local and regional transportation improvements and programs necessitated by the proposed development according to the regulatory scheme and factors covered by the City and County of Honolulu's impact fee ordinance – Chapter 33A, Revised Ordinances of Honolulu and as determined by the State Department of Transportation.
5. The Petitioner shall provide a landscaped building setback (approximately 12 feet) along the subject project's Fort Weaver Road frontage to provide flexibility in accommodating future transportation needs along the route and to buffer roadway noise.
6. Should any previously unidentified burials, archaeological or historic sites such as artifacts, marine shell concentrations, charcoal deposits, or stone platforms, pavings or walls be found, the Petitioner, developers and/or landowners of the affected properties shall comply with all applicable statutory provisions of Chapter 6E Hawaii Revised Statutes and administrative rules of the Department of Land and Natural Resources (DLNR).
7. Petitioner shall coordinate and discuss with the Office of Hawaiian Affairs the incorporation of appropriate Hawaiian cultural elements such as trail alignments and the use of proper place names for the proposed development.
8. Petitioner shall develop a Solid Waste Management Plan in conformance with the Integrated Solid Waste Management Act, Chapter 342G, Hawaii Revised Statutes. Petitioner's Solid Waste Management Plan shall be approved by the City and County of Honolulu Department of Environmental Services. The Plan shall address and encourage an awareness of the need to divert the maximum amount of waste material caused by developments away from the County's landfills.
9. Petitioner shall participate in an air quality monitoring program as specified by the State Department of Health.

10. Petitioner shall coordinate and fund the design and construction of drainage improvements for Ewa Makai-East and Ewa Makai West required as a result of the development of Petition Area to the satisfaction of Federal, State and County agencies. Petitioner shall participate in the planning and coordination of off-site improvements with Haseko Properties, Hawaii Prince Hotel, Estate of James Campbell (Landowner), State Department of Health, City and County of Honolulu, and other Federal and County agencies as appropriate.

11. Petitioner shall work with the City and County of Honolulu, Department of Public Works to implement interim and long-range regional drainage solutions as follows:

- a. Petitioner shall submit a drainage master plan for the property to the City for its review and approval prior to any subdivision approvals other than for minor matters, such as easements.
- b. Drainage solutions for Property shall be compatible with the Ewa Villages Drainage Master Plan, and drainage designs for other developments in the Kaloi Gulch drainage basin incorporating the Interim Technical Agreement dated September 29, 1997.
- c. Drainage improvements for the Petition Area shall be consistent with the general policies and planning principals for drainage systems in the Ewa Development Plan.

12. Petitioner shall participate in the funding and construction of adequate water source, storage, and transmission facilities and improvements to accommodate the proposed project. Water transmission facilities and improvements shall be coordinated and approved by appropriate State and County agencies.

13. Petitioner shall grant to the state of Hawaii an avigation (right of flight) and noise easement in a form prescribed by the State Department of Transportation on any portion of the Property subject to noise levels exceeding 55 Ldn.

14. Petitioner shall not construct residential components within areas exposed to noise levels of 60 Ldn or greater.

15. Petitioner, developers and/or landowners of the affected properties shall fund and construct adequate solar powered civil defense systems as determined by the County and

State Civil Defense agencies including immediate activation of the siren fronting Coral Creek Golf Course using the same solar powered system.

DATED at Honolulu, Hawaii, this 8th day of July, 2003.

OFFICE OF PLANNING
STATE OF HAWAII

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THEODORE E. LIU for
Director
Office of Planning

ORIGINAL

A03-738
CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Testimony was served upon the following by either hand delivery or depositing the same in the U. S. Postal Service:

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STATE OF HAWAII
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DATED at Honolulu, Hawaii, this 8th day of July, 2003.

A handwritten signature in dark ink, appearing to read 'Theodore E. Liu', written over a horizontal line.

THEODORE E. LIU for
Director
Office of Planning