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CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
CHIEF PLANNING OFFICER

CAROLL TAKAHASHI
DEPUTY CHIEF PLANNING OFFICER

June 23, 1996

Honorable Gary Gill, Director
Office of Environmental Quality Control
State of Hawaii
Central Pacific Plaza
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Gill:

Acceptance Notice for the Proposed
East Kapolei Project,
Final Environmental Impact Statement

We are notifying you of our acceptance of the Final Environmental Impact Statement (FEIS) for the proposed East Kapolei project. Pursuant to Section 11-200-23(e), Chapter 200, Title 11 ("Environmental Impact Statement Rules") of the Hawaii Administrative Rules, this acceptance notice should be published in the July 8, 1996 OEQC BULLETIN.

We have attached our Acceptance Report of the Final EIS for the East Kapolei project and the "DOCUMENT FOR PUBLICATION IN THE OEQC BULLETIN." Should you have any questions on the matter, please contact Lin Wong of our staff at 527-6044.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Chief Planning Officer

CDS:ft

Attachment

cc: Leslie Kurisaki, Helber Hastert & Fee Planners
Mike Angotti, Schuler Homes, Inc.

ACCEPTANCE REPORT: FINAL ENVIRONMENTAL IMPACT STATEMENT
EAST KAPOLEI PROJECT
SCHULER HOMES, INC.
TAX MAP KEY: 9-1-17:72; 9-1-17: POR. 4; & 9-1-18: POR 1
TOTAL ACREAGE: APPROXIMATELY 750 ACRES

A. BACKGROUND

In November 1995, the City & County of Honolulu Planning Department received a Development Plan (DP) Land Use Map and a DP Special Provisions amendment application to revise the City's DP Land Use Map for Ewa and the DP Special Provisions for Ewa. The application was submitted by Schuler Homes, Inc. and Hawaiian Trust Co., Ltd. A Final Environmental Impact Statement (FEIS) has been prepared in support of the proposed DP amendments.

The proposed Ewa Development Plan (DP) Land Use Map amendment application would redesignate approximately 750 acres from "Agriculture" to "Low Density Apartment," "Parks and Recreation," "Public and Quasi-Public" and "Commercial." The proposed amendments would allow for the development of the East Kapolei residential project that will include "affordable and market" multi-family and single-family residences, parks, neighborhood commercial development and elementary schools.

The proposed text amendment to the Ewa DP Special Provisions amendment would seek to revise Section 24-3.2., ROH, of the DP Special Provisions to: add the East Kapolei planned community as a "Special Area," and provide for urban design principles and controls to guide the development of the proposed project. The additional text amendments would include special area guidelines for development densities and permitted number of residential units.

The current project concept proposes the development of the following.

1) Residential. A total of 8,000 residential units of which an estimated 30 percent will be affordable to families below 120 percent of the City and County of Honolulu median income.

2) Parks. A 20-acre central park, which serves as the community center and overall focal point for the overall project; two 6-acre neighborhood parks adjacent to two proposed elementary schools within the project; a 2- to 3-acre mini-park in the northern portion of the project site; and additional private park areas within the project site.

3) Neighborhood Commercial/Commercial. Three sites totalling 16 acres surrounding the proposed central park will be developed as neighborhood commercial centers.

4) Schools. Two 8-acre elementary school sites and 9 acres for half an intermediate school site.

5) Various areas for roadways and traffic circulation.

The entire proposed project area is located in the State "Agricultural" land use district. The applicant is currently seeking a State Land Use District boundary amendment from "Agricultural" to "Urban".

B. PROCEDURE

1. An EIS Preparation Notice (EISPN) for the proposed project was published in the November 23, 1996, "OEQC Bulletin."

2. The 30-day consultation period for this project expired on December 23, 1995. By the date of publication of the Draft EIS in January 1996, a total of 20 agencies, organizations or individuals offered written comments. The substantive comment letters and responses are included in the Final EIS document.

3. Notice of the Draft EIS was published in the January 23, 1996, "OEQC Bulletin."

4. The 45-day public review period expired on March 8, 1996. During the period, a total of 31 written comments were received. All substantive comments were responded to by the applicant, and both comments and responses have been included in the Final EIS.

5. The Final EIS for this project was published in the May 23, 1996, "OEQC Bulletin."

C. EIS CONTENT

The Final EIS complies with the content requirements set forth in Section 11-200-18 of the Environmental Impact Statement Rules.

D. RESPONSES TO COMMENTS

The applicant responded to significant environmental comments that were raised during the consultation and public review process. These comments and responses are found in Section 14 on FINAL EIS CONSULTATION CORRESPONDENCE.

E. UNRESOLVED ISSUES

We concur with the listing of all potential unresolved issues as summarized and outlined in Section 1.8. Unresolved Issues of the document.

In addition, based on our review of the FEIS including various comments and the preparer's responses, we have identified the following issues which we believe remain unresolved at this time.

1) Transportation. The FEIS has identified the development of the North-South Road as an unresolved issue. While we concur that actual development timing of the proposed road is beyond the applicant's direct control, we note the issue of timing may be critical due to the currently limited capacity of the Farrington Highway and other regional roadways to accommodate potential traffic generated by the East Kapolei project. The need to tie in the development schedule of the East Kapolei project with the scheduling of improvements to Farrington Highway and the North-South Road should be addressed and expanded.

2) Drainage. While the FEIS drainage discussion has been expanded to address issues and concerns raised during the DEIS review process, we note that this remains an unresolved issue as the Navy has yet to approve the proposed Ewa by Gentry-East detention basin and outlet which will serve a substantial portion of the East Kapolei project.

3) Public facilities & services. While the FEIS has identified the incorporation of two 8-acre elementary school sites and half of an 18-acre intermediate school site within the project, the issue of providing for an intermediate school site and "fair-share" contribution toward a new area high school, as commented by the Department of Education, appears to be an issue that remains unresolved at this time.

   The need for additional police services related to the development of the proposed project had been identified by the Police Department.

F. DETERMINATION

The Planning Department of the City and County of Honolulu has determined this Final EIS to be ACCEPTABLE under the procedures established in Chapter 343 of the Hawaii Revised Statues.

APPROVED BY _____
CHERYL D. SOON
Chief Planning Officer
Planning Department

1996 - Oahu - FEIS -
East Kapolei I

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PLANNER

FINAL
ENVIRONMENTAL IMPACT STATEMENT

EAST KAPOLEI PROJECT

EWA, OAHU, HAWAII

VOLUME 1

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OFFICE OF PLANNING

SCHULER HOMES, INC.

APRIL 1996

FINAL
ENVIRONMENTAL IMPACT STATEMENT

EAST KAPOLEI PROJECT

EWA, ◊ OAHU, ◊ HAWAII

VOLUME 1

PREPARED FOR: SCHULER HOMES, INC.
PREPARED BY: HELBER HASTERT & FEE, PLANNERS
FOR SUBMITTAL TO: PLANNING DEPARTMENT CITY & COUNTY OF HONOLULU
IN SUPPORT OF: EWA DEVELOPMENT PLAN LAND USE MAP AMENDMENT

APRIL 1996

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APPENDICES (included in Volume 2)

A. Letter from Stephen H. MacMillan, Chief Operating Officer, The Estate of James Campbell, dated October 30, 1995.

B. Letter from Michael D. Wilson, Department of Land and Natural Resources, to Cheryl Soon, Chief Planning Officer, Planning Department, dated November 21, 1995.

C. Memorandum from Don Hibbard, Administrator, State Historic Preservation Division, Department of Land and Natural Resources, dated September 22, 1994.

Letter from Don Hibbard, Administrator, State Historic Preservation Division, Department of Land and Natural Resources, dated December 4, 1995.

D. East Kapolei Project Market Assessment Report, October 1994;
East Kapolei Project Limited Scope Update of the Market Assessment, December 1995; Gail W. Atwater, MBA, MURP, AICP

E. Socio-Economic Impact Assessment of East Kapolei Residential Project, November 1994. Community Resources, Inc.
Socio-Economic Impact Assessment of East Kapolei Residential Project, Update Memorandum, December 1995. Community Resources, a division of SMS Research and Marketing Services, Inc.

F. Environmental Noise Assessment, East Kapolei Project, September 1994; Environmental Noise Assessment, East Kapolei Project (update), December 13, 1995. Darby & Associates

G. East Kapolei Project: Impact on Agriculture, September 1994; East Kapolei Project: Impact on Agriculture (update), December 1995. Decision Analysts Hawaii, Inc.

H. Oahu Biological Resources Survey Report, July 1994; Addendum, 1995. Evangeline Funk, Ph.D.

I. Air Quality Impact Report, East Kapolei Project, October 4, 1994; Air Quality Impact Report, East Kapolei Project, December 18, 1995. J. W. Morrow.

J. Potable Water Master Plan for the East Kapolei Area, October 1994; Addendum Report for the East Kapolei Potable Water Master Plan, December 1995. Tom Nance Water Resource Engineering.

K. Traffic Impact Assessment Report for East Kapolei Project, October 1994; Updated Traffic Impact Assessment Report for East Kapolei Project, December 11, 1995. Pacific Planning and Engineering, Inc.

L. The East Kapolei and Vicinity Wastewater Collection System Master Plan, February 15, 1996. Gray, Hong, Bills & Associates.

M. Preliminary Drainage Study, West Loch Drainage Basin, East Kapolei Project, December 1, 1995. Gray, Hong, Bills & Associates.

N. Proposed Draft Revisions to Ewa DP Special Provisions

PREFACE

Since publication of the Draft EIS in January 1996, minor changes have been made to the East Kapolei Project concept plan in response to comments and further analysis. The central park has been increased in size from 16 to 20 acres, the two neighborhood parks have been reduced from eight acres to six acres each, and a two to three acre mini-park to serve the *mauka* area has been added. Other minor modifications to the loop road and intersections surrounding the central park have also been made. All land use tables and acreages in the FEIS have been revised accordingly. These revisions did not change the total number of residential units or other aspects of the plan.

Agency comments on the DEIS and the associated response letters are included in Chapter 13. Comments covered a wide range of issues, including concerns over project impacts to the Ewa by Gentry-East drainage system, potable water source, potential use of non-potable water, traffic, etc. In addition to the responses to these letters included in Chapter 13, many of the agency comments have been incorporated into the text of the FEIS.

A summary of the major changes to the EIS document is provided below:

Chapter 1. Unresolved Issues

Section 1.5, Unresolved Issues, has been revised to include a discussion of:

- potential sources of potable water
- use of non-potable water
- off-site drainage
- intermediate and high school requirements

Chapter 2. Project Description

- Section 2.6, Project Proposal, now includes a discussion of off-site infrastructure.
- Anticipated prices for the various types of units and unit sizes have been included in Table 2.
- An itemization of project infrastructure costs, Table 3, has been added.

Chapter 3. Existing Public Plans, Policies and Controls

- Discussion of all CZM policies and objectives has been added.
- Expanded discussion of the State Land Use Law.
- Discussion of the Office of State Planning's 2020 Growth Scenarios for Oahu has been added.

- Updated 2010 and 2020 population projections have been incorporated (Table 4).
- Requested development plan acreages have been updated (Table 5)

Chapter 4. Physical Environment

- Discussion of climate, Section 4.1 has been expanded.
- Section 4.5, Water Resources has been expanded to include a discussion of existing potable and non-potable water resources.
- A separate section discussing interrelationships and cumulative impact has been added.

Chapter 5. Socio-Economic Environment

- Updated 2010 and 2020 population projections have been incorporated (Section 5.1).
- A separate section discussing interrelationships and cumulative impact has been added.

Chapter 6. Public Facilities and Services

- An expanded discussion of the project's relationship to proposed regional transportation improvements (Kapolei Parkway, Farrington Highway and North-South Road) has been added.
- Options for a non-potable water system are discussed.
- Wastewater discussion updated.
- Drainage discussion updated to clarify that the project is included in the Ewa by Gentry-East drainage improvements. An expanded discussion of direct and indirect impacts is provided.
- Added discussion of concerns and recommendations raised by the Oahu Civil Defense Agency.
- A separate section discussing interrelationships and cumulative impact has been added

1

Introduction and Summary

CHAPTER 1
INTRODUCTION AND SUMMARY

1. Introduction

This Final Environmental Impact Statement (FEIS) has been prepared in support of a Development Plan (DP) Land Use Map application submitted by Schuler Homes, Inc. ("applicant") to the City and County of Honolulu Planning Department (PD). The project area consists of about 793 acres at Kapolei, Ewa, Oahu. The application seeks to amend the existing Ewa Development Plan Land Use Classification for the project area from "Agriculture" to "Low Density Apartment," "Parks and Recreation," "Public and Quasi-Public" and "Commercial." Proposed changes to the Ewa Development Plan Special Provision are also requested.

The project is presently referred to as the "East Kapolei Project," given its location in east Kapolei. The entire 793-acre project area is presently in the State Agricultural District.[1] The Estate of James Campbell (EJC) currently holds title to the entire project area, with the exception of 183 acres owned by the State of Hawaii.

The project is subject to Chapter 343, HRS (Environmental Impact Statement Law) as it requires an amendment to the City and County of Honolulu's Ewa Development Plan. The City Planning Department has determined that the project may have a significant effect on the environment and has therefore required the preparation of this Environmental Impact Statement.

An Environmental Impact Statement for a similar project in the same area was prepared in 1995, as part of a 1995 DP Land Use Map application to the Planning Department. The FEIS was accepted by the Planning Department on May 11, 1995. In its review of that proposal, the Planning Department expressed concerns on several issues, including impacts to the Kaloi Drainage basin, community design, transportation and schools. In response, the applicant has revised the boundaries of the project area and the concept plan to address those particular concerns. This EIS was prepared in support of the revised East Kapolei Project.

1.2 Development Summary

Project Name: The 793-acre development is collectively referred to as the "East Kapolei Project."

[1] A small portion of the project area (c. 0.5 acres) adjacent to Ewa Villages lies within the State Urban District. Applicant is working with LUC staff to complete a boundary interpretation in this area.

Applicant:	Schuler Homes, Inc. 828 Fort Street Mall, 4th Floor Honolulu, Hawaii 96813 Attention: Mr. Michael Angotti, Director of Land Services
Accepting Agency:	Planning Department City and County of Honolulu 850 South King Street, 8th Floor, Honolulu, Hawaii 96813 Attention: Ms. Lin Wong
Preparers of the EIS:	Helber Hastert & Fee, Planners 733 Bishop Street, Suite 2590 Honolulu, Hawaii 96813 Attention: Ms. Leslie Kurisaki, Senior Associate
Landownership:	The Estate of James Campbell 610 acres State of Hawaii 183 acres Total Project Area: 793 acres The Estate of James Campbell and the State of Hawaii have authorized Schuler Homes, Inc. to file this application with the Honolulu Planning Department to amend the Ewa Development Plan Land Use Map (See authorization letters in Appendices A and B).
Location:	Ewa (Kapolei) area of west Oahu; south of Farrington Highway and north of Ewa Villages (see Figure 1)
Tax Map Key: (see Figure 2) Project Area:	9-1-17:04 (por); 9-1-18:01 (por); 9-2-02:01 (por); 9-2-04:05 (por); and 9-1-10:02 (por)
DP Application Area:	9-1-17:04 (por); and 9-1-18:01 (por)

Total Project Area: 793 acres

DP Application Area:

Parcel	Acres
Mauka Parcel	79
Makai Parcel	671
Subtotal	750

Off-Site Infrastructure:

Parcel	Acres
440' reservoir site	7
228' reservoir site	5
Detention basin site	31
Subtotal	43

Existing State Land Use: State Agricultural District. The entire project area is presently within the State Agricultural District with the exception of a small (c. 0.5 acre) parcel along the southern boundary in the Urban District (see footnote on previous page) (see Figure 6). A Petition to redistrict 1,300 acres of land adjacent to the site (including the 183-acre State-owned portion of the project area) to the State Urban District was filed in September 1994 by Office of State Planning (LUC Docket No. A94-708). This petition is still before the Land Use Commission.

Ewa Development Plan (DP) Land Use Map Designation: Agriculture

Ewa DP Public Facilities Map Designation: Plans Beyond Six Years: Construction of the North-South Road along the western boundary of the project area, including a freeway interchange with the H-1 Freeway; widening of Farrington Highway; and a new electrical substation, Ewa Nui (recently completed).

Private Funding: Construction of a water pump station along Farrington Highway, near the northern boundary of the *makai* parcel, potable water transmission lines along Farrington Highway (now

operational) and construction of drainage facilities (Ewa by Gentry-East offsite drainage facilities) to serve the West Loch watershed.

Land Use Ordinance/Zoning: Ag-1, Restricted Agriculture

Applicant Request: Applicant requests an amendment to the Ewa Development Plan Land Use Map (and related changes to the DP Special Provisions) to support the development of a 793-acre residential community. The proposed East Kapolei project will include up to 8,000 residential units developed over an approximate 16-year period. The development will also include associated commercial, educational (elementary and intermediate schools) and recreational (parks and bikeways) facilities.

1.3 Summary of Probable Impacts and Mitigation Measures

Physical Environment

Soils. According to the U.S. Department of Agriculture, Soil Conservation Service, soils within the project area include Kunia silty clay (KyA); Honouliuli clay (HxA and HxB); Waipahu silty clay (WzA and WzB); Ewa silty clay loam (EaB); and Molokai silty clay loam (MuB and MuC). The most extensive soil type is HxA (approximately 60 percent) followed by KyA (approximately 20 percent).

Flora and Fauna. There are no threatened or endangered species of flora or fauna on the project site. Vegetation on site includes ruderal or wayside vegetation, Koa haole/grass and fallow agricultural fields. The three indigenous plants found on site (*Ilima, Popolo* and *Akulikuli*) are commonly found in the coastal lowlands. Fourteen bird species were identified on or around the site. However, because the entire site has been extensively modified by agricultural activity, it has almost no value as native bird habitat (Funk 1995)

Air Quality. The principal source of short-term air quality impact will be construction activity, including construction vehicle emissions and particulates associated with earthmoving. Long-term impacts will result from vehicular emissions, and indirect impacts associated with electrical power generation. Mitigation measures include appropriate dust control during construction and setting back residential structures from major roadway intersections. Energy conservation measures should be considered to

minimize electrical power demands, and recycling and composting should be considered to minimize solid waste generation. (Morrow 1995).

Noise. Short-term, temporary noise impacts will be generated during construction by earth-moving equipment such as bulldozers and diesel-powered trucks. The anticipated increase in vehicular traffic associated with the project may be perceptible at noise sensitive locations along Farrington Highway and in the residential areas. Mitigation of construction noise will be accomplished by compliance with Department of Health noise regulations and noise mufflers on construction equipment. The proposed residential areas, particularly the *mauka* residential area adjacent to the H-1 Freeway, may be impacted by traffic noise. These impacts can be mitigated by a combination of measures including appropriate building setbacks from roadways; noise barrier walls; carpeting/louvered closet doors/absorptive ceiling tiles in affected bedrooms; providing air conditioning; good quality window seals and double wall construction and insulation. (Darby & Associates 1995).

Visual Resources and Open Space. The development of the project will gradually and irretrievably alter existing visual resources along Farrington Highway, the H-1 Freeway and from the areas *makai* of the property. The present agricultural uses and open space will diminish as the area is developed. Due to the relatively flat topography, views of Honolulu from the site will be obstructed by multi-story development except for areas along the property's fringes. Major views of the Waianae Range from *makai* areas should not be obstructed.

Historical and Archaeological Resources. There has been extensive, agriculture-related land modification during the last century and there are no known historic, cultural or archaeological resources within the project area. Due to the absence of information to the contrary, no significant impacts to historic, cultural and archaeological resources are anticipated. The Department of Land and Natural Resources, State Historic Preservation Division (DLNR-SHPD) has concurred that the project will have "no effect" on historic sites (Hibbard 1995). The project will comply with all notification and stop work requirements if potentially historic or archaeological remains should be encountered during construction.

Socio-Economic Environment

Population and Demographics. The project's mix of multi-family and single family units will increase the resident population of the area. The development is expected to have about 22,400 residents at full buildout (assuming a projected average household size of 2.8 persons per household). The projected increase is consistent with City and County

population guidelines for 2010 and 2020, and will bring the Ewa population closer to the General Plan's target goals.

Housing. The project will increase the existing housing stock in the Ewa-Kapolei region by up to 8,000 homes over a 16 year construction period. Thirty percent of the units will be affordable to families earning up to 120 percent of (City and County of Honolulu) median income, and the developer will comply with the City's affordable housing requirements. Both single and multi-family homes will be constructed (about 2,000 single-family and 6,000 multi-family homes) with sales prices ranging from about $133,000 (multi-family affordable) to about $285,000 (single family market). Actual sales prices are subject to change as they are, in part, based on macro-economic variables such as median household income and mortgage interest rates. The annual absorption rate for the entire project is estimated at about 500 dwelling units with production of homes estimated to commence in 1998.

Employment. The project will generate both short-term construction jobs and permanent operations jobs. The project will support some 700 full-time direct construction jobs each year through project build-out in 2013. About 700 direct on-site operations jobs will be generated, primarily at the neighborhood commercial areas. Statewide, an additional 420 indirect and induced jobs will be supported by spending by project-related operations enterprises and employees. (Community Resources, Inc. 1995).

Project Costs and Fiscal Impacts. Total project infrastructure cost is estimated at $233.285 million, including $54.8 million for off-site infrastructure and $178.5 million in on-site costs.

Personal incomes of work force associated with the project (direct, indirect and induced) would reach a high of about $90 million annually (1994 dollars) after the year 2000, when construction remains at a high pitch but some operations jobs will have begun at the site. After buildout, on-site jobs would support some $10 million in payroll and another $10 million in indirect and induced jobs. The project will generate up to $5.2 million in annual property tax revenues for the City and County at buildout. State revenues from construction (excise taxes, corporate income taxes and personal income tax) are projected to reach as high as $85 million over the entire construction period. (ibid).

Agriculture. The soils are classified as "B" or prime agricultural land, according to the University of Hawaii's Land Study Bureau (LSB) Detailed Land Classification system. The Agricultural Lands of Importance to the State of Hawaii (ALISH) system identifies the project area soils as "Prime Agricultural Land." Until recently, the project site was presently leased to Oahu Sugar Company, Ltd. (OSCo) for sugar cane cultivation. In

1995, the plantation was closed for reasons unrelated to the proposed development. As such, the project will have no impact on sugar operations. The project will not have an adverse impact on the growth of diversified agriculture. (Decision Analysts Hawaii, Inc. 1995).

Public Facilities and Services

Transportation/Roads. The project will significantly impact transportation facilities in the Ewa region. In order to minimize the project impacts and provide for smoother operating conditions, several improvements are recommended by the year 2010. They include two left-turn lanes westbound at the intersection of Farrington Highway and the proposed North-South Road; the addition of an extra through lane from the project's Farrington Highway access road intersection to the western edge of the project; and two left-turn lanes entering and exiting two of the project access roads along the planned North-South Road. Sufficient right-of-way will be reserved along the entire Farrington Highway frontage to allow for future widening as proposed in the Ewa Region Highway Master Plan. Alternate transportation actions, including development of a comprehensive plan that includes both Transportation System Management and Transportation Demand Management concepts are recommended. (Pacific Planning and Engineering, Inc. 1995).

Infrastructure. The applicant will construct all major on-site project infrastructure and its share of off-site infrastructure, including potable water, wastewater collection, on-site drainage improvements and major electrical and roadway system improvements. The addendum report to the project's water master plan was approved by the Honolulu Board of Water Supply on April 17, 1996. Estimated average water demand for the entire project is 3.7 million gallons per day (Tom Nance Water Resource Engineering, 1995). A wastewater system will be constructed to collect and transport project-generated sewage to the Honouliuli Wastewater Treatment Plant. A wastewater master plan has been prepared and is now being reviewed by the City Department of Wastewater Management. The project will generate an average wastewater flow of about 1.98 million gallons per day.

The project area is confined within the West Loch drainage basin. A drainage master plan has been prepared and is now being reviewed by various City agencies. The project will provide an on-site drainage collection system and a channel from the southern project boundary passing underneath Fort Weaver Road following an existing cane haul road ("Balfour Boulevard"), connecting to an existing detention basin and the proposed Ewa by Gentry-East drainage facilities south of West Loch Fairways. The entire drainage system, from the H-1 Freeway to the Ewa by Gentry-East detention basin is planned to be

dedicated to the City and County of Honolulu. Planning of the entire drainage system is being coordinated with the City Department of Public Works.

Electrical power will be provided via Hawaiian Electric Company's new Ewa Nui substation. Underground cables will provide telephone and cable television service. (Gray Hong Bills & Associates, Inc. 1995).

Recreational Facilities. The project will significantly increase demand on recreational facilities in the Ewa area. To accommodate increased demand, the project will provide 34 to 35 acres of dedicated park space, including a 20-acre central park, two 6-acre neighborhood parks and a 2-3 acre mini-park for the *mauka* residential area. Additional open space and park areas will be provided in the form of the proposed bikeways and private recreational areas within the various condominium projects to meet City parks standards.

Schools and Libraries. The project will significantly increase demand on public educational facilities in the Ewa area which are presently insufficient to meet the growing population of the region. Two eight-acre sites for new elementary schools and a nine-acre portion of an 18-acre intermediate school will be provided within the project area. The nine acres provides for the project's share of this regional facility. It is assumed the adjacent landowner, the State of Hawaii, will provide the additional nine acres to complete the intermediate school campus. The applicant will work with the Department of Education to ensure that the intermediate school needs of the project are accommodated. Current State plans to expand library services, including construction of a new Kapolei Library, will accommodate additional project residents.

1.4 Alternatives Considered

Several alternatives to the proposed action were considered, including "no action," commercial development and other public facilities. The proposed action, affordable residential development, was deemed to be the preferred alternative. A more detailed discussion of these alternatives can be found in Chapter 7.

1.5 Unresolved Issues

<u>North-South Road</u>

This major regional highway is being developed by the State and County. The applicant is expected to contribute its fair share to fund construction. Initial phases of the project are not dependent on the roadway, and the actual development timing of the facility is beyond

the applicant's direct control. Present estimates are for the North-South Road and H-1 Freeway interchange to be operational in the 2001 to 2005 timeframe, relatively early in the anticipated 16-year project build-out period.

Potable Water Source

The developer is currently working toward securing commitments for project water source. At the present time, water source remains an unresolved issue. In addition to existing water sources within the Pearl Harbor Water Management Area, potential sources include: 1) excess allocation within the Pearl Harbor Water Management Area which may be available due to the closure of Oahu Sugar Company; and 2) development of other water sources (i.e., North Shore and Windward Oahu), or a combination of the above.

Use of Non-Potable Water

Current City policy requires use of non-potable water for irrigation of non-residential areas, including the project's schools, parks, commercial areas and along major roadways. Development of an on-site dual water system is being investigated. Potential sources of non-potable water include 1) treated effluent from the Honouliuli Wastewater Treatment Plant; 2) Ewa caprock aquifer; and 3) brackish basal aquifer.

Off-Site Drainage

The project's drainage master plan assumes the construction of the Ewa by Gentry-East drainage facility adjacent to West Loch. That project has received City EIS, SMA and DP Public Facility approvals, but still requires approval from the Army Corps of Engineers and the Department of the Navy.

Intermediate School

Plans for the intermediate school assume that the adjacent landowner, the State of Hawaii, will provide an additional nine acres to complete the school. The developer will coordinate efforts with the appropriate State entity in providing the intermediate school and will continue to work with the Department of Education to ensure that the project's intermediate school needs are met.

1.6 Compatibility with Land Use Plans and Policies

Chapter 3 include a discussion of the project's compatibility with existing government plans, policies and objectives. Because of the competing nature of many of these plans,

policies and objectives, the project supports many and is inconsistent with others. Generally, the plan is consistent with State and County growth policies related to the second city and housing policies related to the production of affordable housing.

1.7 Necessary Permits and Approvals

Development of the property as proposed will require a number of permits and approvals from State and County agencies. A summary of possible required approvals is provided below.

Approval	Authority
State of Hawaii	
Land Use District Boundary Amendment	Land Use Commission
National Pollutant Discharge Elimination System (NPDES) permit	Department of Health
Water Commission Approvals	State Water Commission
City and County of Honolulu	
Ewa DP Land Use Amendment	City Council
Ewa DP Special Provisions Amendment	City Council
Ewa DP Public Facilities Map Amendment	City Council
Zoning Change	City Council
Water Master Plan	Board of Water Supply
Wastewater Master Plan	Department of Wastewater Management
Subdivision Approvals	Department of Land Utilization
Grading Permits	Department of Public Works
Building Permits	Building Department

1.8 Statement of Purpose and Need for Action

The applicant is requesting an amendment to the Ewa DP Land Use Map to change the land use designation of the area of application from Agriculture to Low Density Apartment, Parks and Recreation, Public and Quasi-Public and Commercial. The purpose of this action is to permit the development of up to 8,000 residential units and associated

commercial, educational (elementary and intermediate schools) and recreational (parks and bikeways) facilities.

1.9 Purpose of and Need for this Environmental Impact Statement

The purpose of this Environmental Impact Statement (EIS) is to describe and assess a proposal for the development of the 793-acre East Kapolei residential project. The EIS is a disclosure document which provides information on all known or potential effects that a proposed action may have on the environment, economic and social welfare of the community and State. It includes a discussion of potential impacts of the proposed project, both beneficial and adverse, and proposes measures to either avoid or minimize adverse impacts to the environment.

An application for Development Plan Amendment and Environmental Assessment for the proposed East Kapolei Project was submitted to the City and County of Honolulu Planning Department in November 1995. The proposed action was subject to the provisions of Chapter 343, Hawaii Revised Statutes, Environmental Impact Statements, because the proposed amendment to the Ewa Development Plan would result in a designation other than agricultural, conservation or preservation.

By letter dated November 9, 1995, the Planning Department notified the Office of Environmental Quality Control (OEQC) that it had determined that the project may have a significant effect on the environment and that an EIS was required. Notice of this determination was published in the November 23, 1995 edition of *The Environmental Notice*, commencing a 30-day public review period which ended on December 23, 1995. Chapter 12 contains a listing of agencies, organizations and individuals consulted during the preparation of the Draft EIS. The chapter also contains reproductions of written comments on the EIS Preparation Notice (EISPN) and the applicant's response to those comments.

Notice of availability of the Draft EIS (DEIS) was published in the January 23, 1996 edition of *The Environmental Notice*, commencing a 45-day public comment period which ended on March 9, 1996. Chapter 13 contains a listing of agencies, organizations and individuals sent copies of the DEIS. The chapter also includes reproductions of written comments received and the responses to those comments.

2

PROJECT DESCRIPTION

CHAPTER 2
PROJECT DESCRIPTION

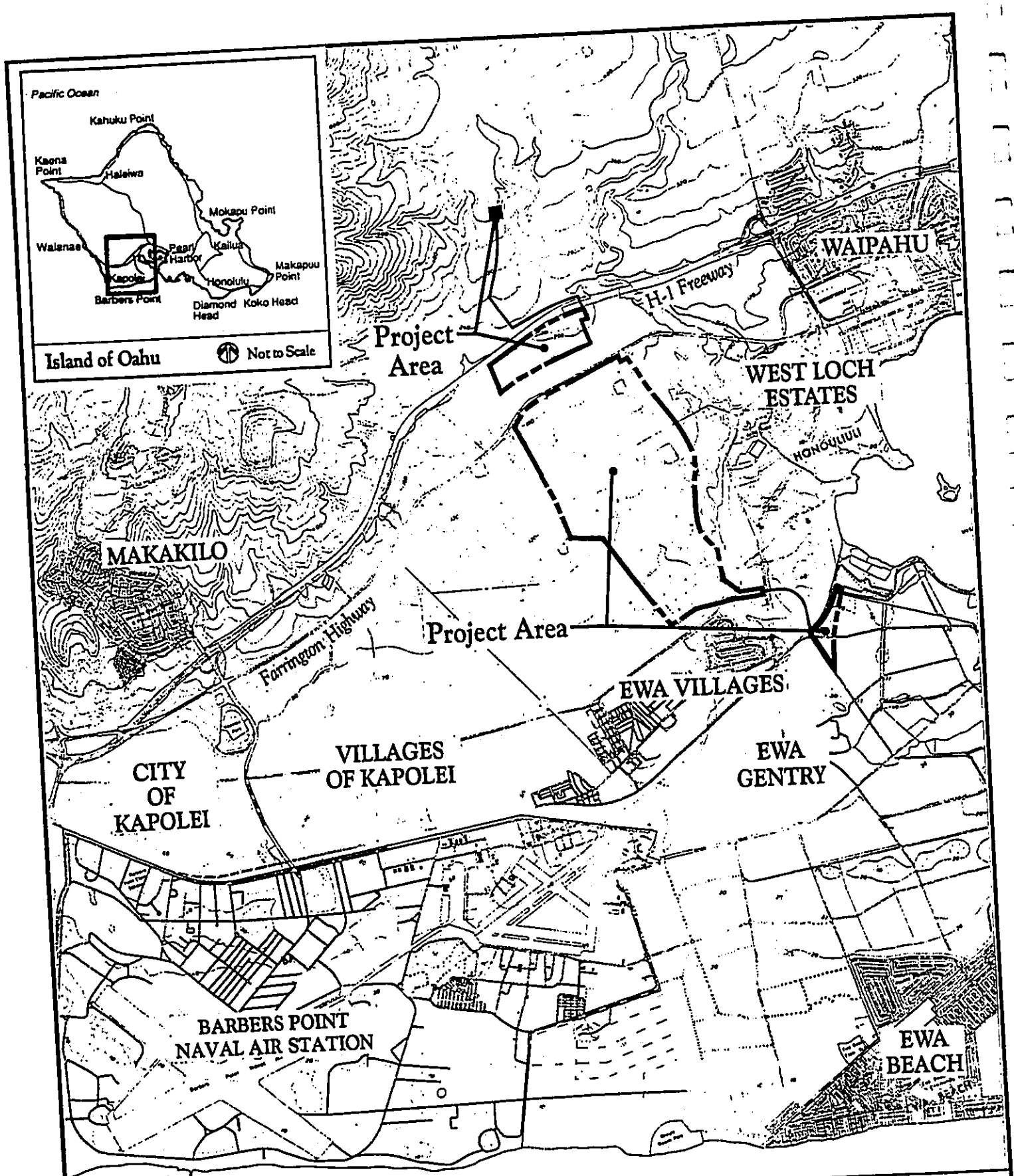
2.1 Location

The 793-acre East Kapolei Project is located in east Kapolei in the Ewa District of west Oahu. The Ewa-Kapolei area is a growing community designated in the City's General Plan as Oahu's "second city." As shown in Figure 1, the "project area" consists of four non-contiguous areas. The largest parcel, the "*makai* parcel," is bordered by Farrington Highway to the north, by agricultural lands to the east, the Ewa Villages residential area to the south, and by Estate of James Campbell-owned lands to the west, and is about 671 acres in size. The "*mauka* parcel," located between Farrington Highway and the H-1 Freeway comprises about 79 acres. A rectangular-shaped, five-acre portion of the *mauka* parcel will be used for a 228-foot water reservoir(s), but is not included in the Development Plan application (shown as the "notch" in the northeast corner of the *mauka* parcel in Figure 1). The 671-acre *makai* parcel and the 79-acre *mauka* parcel comprise the 750 acres which are the subject of the Development Plan application. The project area also includes the various infrastructure parcels, comprising approximately 43 acres. They include a seven-acre site *mauka* of the H-1 Freeway for a 440-foot water reservoir(s), the five-acre 228-foot reservoir(s) site, and a 31-acre triangular-shaped parcel for a drainage detention basin, east of Fort Weaver Road.

2.2 Background

An Environmental Impact Statement for a similar project was completed in 1995 as part of a DP Land Use map application to the Planning Department, and accepted by the Planning Department on May 11, 1995. In its review of that proposal, the PD expressed concerns regarding several issues, including impacts on the Kaloi Drainage basin, community design, transportation and schools (1995 Development Plan Annual Amendment Review, July 1, 1995). In response, the applicant has revised the boundaries of the project area and the concept plan to address those concerns.

The project area is identified as TMK 9-1-17:04 (por); 9-1-18:01 (por); 9-2-02:01 (por); 9-2-04:05 (por); and 9-1-10:02 (por), as shown in Figure 2. The DP application includes only the two largest sites: TMK 9-1-17:04 (por) (*makai* parcel) and 9-1-18:01 (por) (*mauka* parcel). The entire 793-acre project area is located in the State Agricultural District, with the exception of a small (0.5 acre) portion near Ewa Villages which is in the Urban District. The Estate of James Campbell currently holds title to the entire project area, with the exception of 183 acres owned by the State of Hawaii. The State-owned portion was included as part of a 1,300-acre petition for State Land Use District boundary



Base Map: Ewa D.P. Base Map

FEET 0 2000 4000

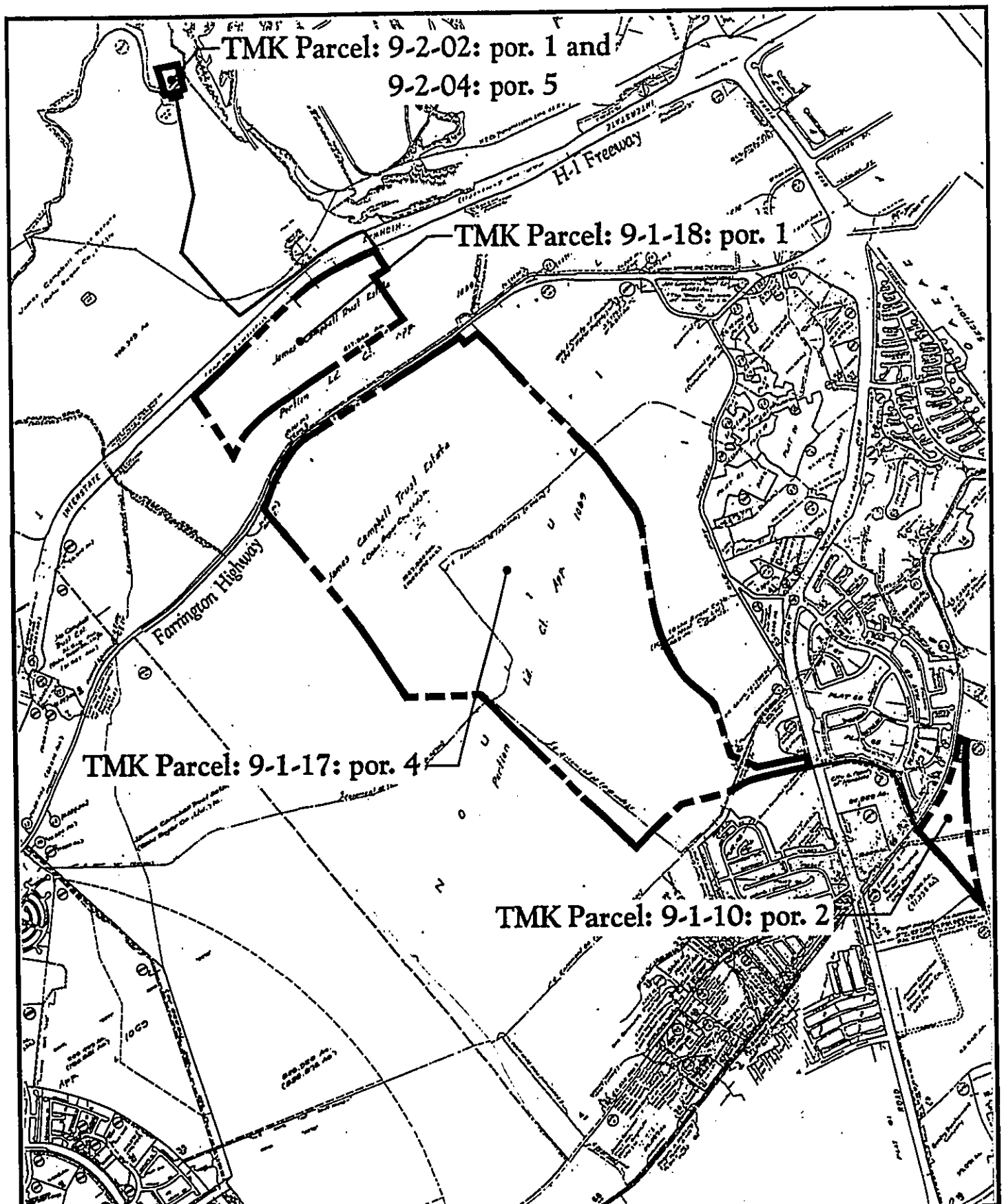
Figure 1

Location Map

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

Helber Hastert & Fee, Planners



Tax Map Parcels

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

FEET 0 1000 2000

Helber Hastert & Fee, Planners

Figure 2

amendment submitted to the State Land Use Commission (LUC) by the Office of State Planning in September 1994 (Docket No. A94- 708). A petition for a Land Use District Boundary Amendment for the Agricultural portion of the project area will shortly be submitted to the LUC by Schuler Homes, Inc.

The Estate of James Campbell and the State of Hawaii have authorized Schuler Homes, Inc. to file this application with the Honolulu Planning Department to amend the Ewa Development Plan Land Use Map (Authorization letters in Appendices A and B).

2.3 Existing and Proposed Surrounding Land Uses

The project site has been planted in sugar cane since the late 1800's, and the entire 793-acre project area was until recently under lease to Oahu Sugar Company (OSCo). Due to financial hardship, OSCo ceased sugar cane cultivation in 1995, when its leases expired.

Existing and proposed land uses in the Ewa-Kapolei region are shown in Figure 3, the Kapolei Area Long Range Master Plan (July 1993), prepared by The Estate of James Campbell. The project area is designated "agriculture" use on the map.

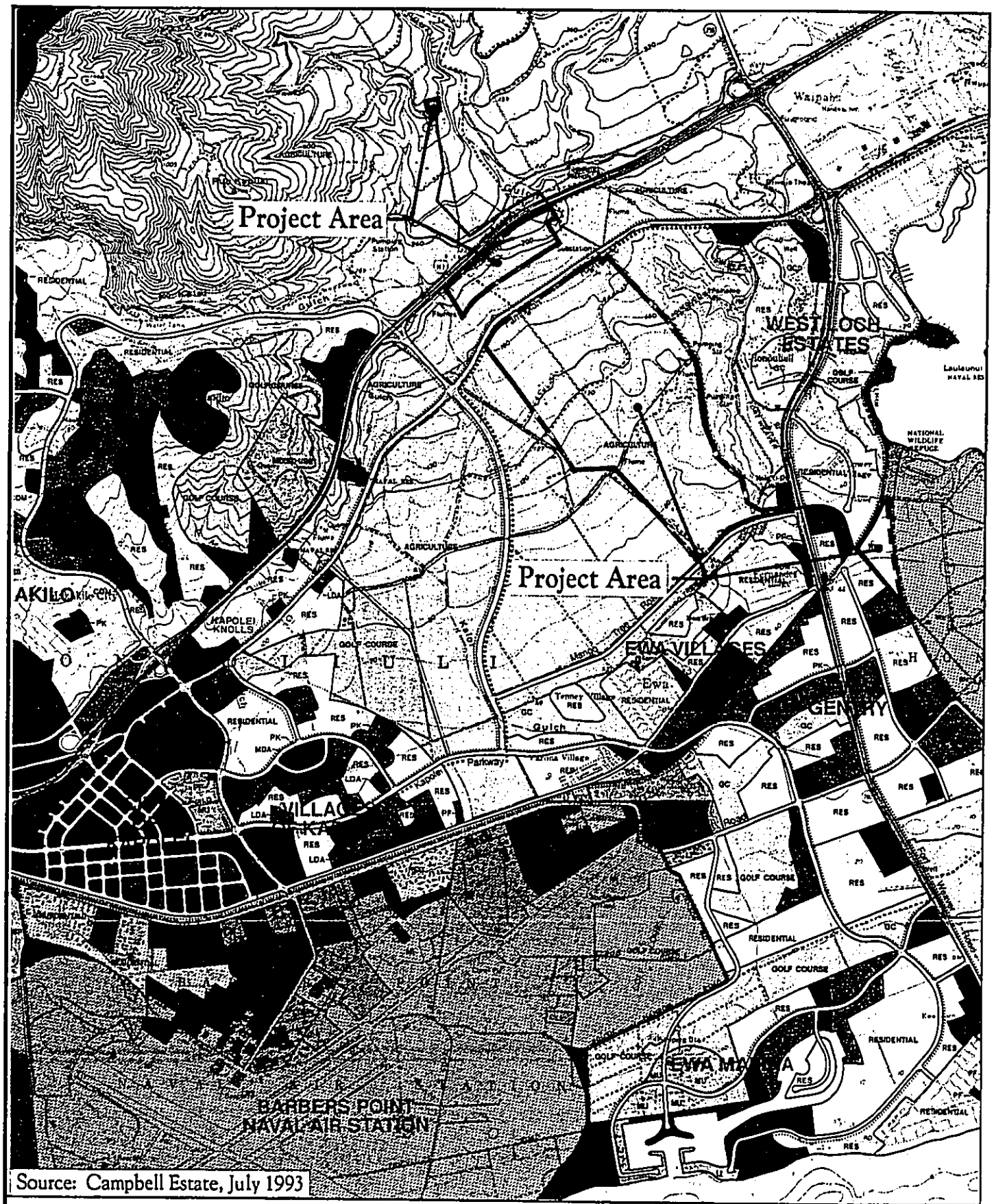
The Ewa-Kapolei area is comprised of many different and distinct communities, both old and new. Existing residential development in the vicinity of the project includes the older Honouliuli residential area and the West Loch residential development and golf course to the east, the plantation-era Ewa Villages to the south and the Villages of Kapolei to the west. The City of Kapolei, Barbers Point Naval Air Station and proposed Ewa Marina project are also within a two mile radius of the site. To the northeast lies Waipahu town, and to the northwest, the residential community of Makakilo.

A brief description of the major surrounding land uses is provided below:

2.3.1 Major Residential Communities

Ewa Villages

The Ewa Villages plantation housing, located just south (*makai*) of the subject project, developed around the Ewa sugar mill in the early part of the century. At one time, there were eight villages, housing immigrant plantation workers from Portugal, Spain, Korea, Japan and the Philippines. Four of the newer villages--Renton, Tenney, Varona and Fernandez--are still standing, while the older four have been demolished. The population of the Ewa Villages was 3,780 in 1990. The City Department of Housing and Community Development has plans for revitalizing the Ewa Villages, including developing additional



Source: Campbell Estate, July 1993

Kapolei Area Long Range Master Plan

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

FEET 0 2000 4000

Helber Hastert & Fee, Planners

Figure 3

residential units, expanding the Ewa Elementary School, creating a new golf course, district park and commercial/retail center and business park. The plan also includes rental and homeownership programs for village residents.

The project will encompass a total of 600 acres at build-out, 242-acres of which will be in residential use. There will be approximately 1,600 dwelling units at build-out, of which 277 are existing and will be rehabilitated.

Ewa Beach

The town of Ewa Beach, located about 2-1/2 miles *makai* of the project, began as a weekend recreational area in the 1940s and eventually developed into a permanent residential community. There were 3,426 housing units in Ewa Beach in 1990.

Ewa Marina

The Ewa Marina project is located adjacent to Ewa Beach, and is being developed by Haseko (Ewa), Inc. The 1,100-acre site has been master planned as a mixed-use marina community. The master plan calls for 4,850 residential units, 950 visitor units, a 27-hole golf course, a health and fitness center, and a community-scale commercial project.

Naval Air Station (NAS) Barbers Point

The NAS Barbers Point is located just over a mile to the southwest of the project site. This facility was established during World War II as a major Navy aviation station. Today, the station comprises 3,700 acres and operates on a 24-hour basis. There are three 7,000-foot runways which allow operation of fixed-winged and rotary-winged aircraft. In 1990, NAS Barbers Point had 2,218 residents. (In addition, the Iroquois Point military housing area, in east Ewa, houses about 5,000 persons). NAS Barbers Point has been scheduled to close in 1999 as part of the national base realignment initiative. However, Navy housing units, as well as recreation areas, will be retained after the Navy aviation facility closes. The airfield is being considered for civilian general aviation uses and possible continued use by the U.S. Coast Guard.

Makakilo

Residential development in Makakilo commenced in 1962, and presently encompasses 1,202 acres. Makakilo is located to the northwest of the site, on the *mauka* side of the H-1 Freeway. The area, which includes single and multi-family, mid-priced homes, was developed primarily by Finance Realty. In 1990, there were nearly 8,000 residents at

Makakilo, with two-thirds of the population having arriving after 1985. Development is more than half-way through and a total of 6,174 homes are anticipated at build-out.

Ewa by Gentry

Ewa by Gentry is located about a mile to the south (*makai*) of the project, off Fort Weaver Road. This development's first subdivision, Soda Creek, was opened in 1988. By 1990, Ewa Gentry had 752 homes and a population of 2,000. Gentry Development Company plans to ultimately construct about 8,300 homes on about 1,000 acres of land. To date, about 3,500 units have been completed, with the remainder scheduled to be built through 1999. Planned community facilities include an 18-hole golf course, elementary school, two community parks and a neighborhood commercial center.

West Loch Estates/Fairways

The West Loch Estates/Fairways was developed by the City and County of Honolulu, and encompasses 491 acres in Honouliuli, on the western edge of Pearl Harbor's West Loch. West Loch is located directly east (Diamond Head) of the subject project. Phase 1 of the West Loch project, which has a total of 593 units, was completed in 1990. A total of 1,600 residential units are planned by buildout. Other existing and planned features of community include a commercial center, church, child care facilities, Asing Community Park within the civic center, an 18-hole municipal golf course and a 40-acre shoreline park.

Villages of Kapolei

The State Housing Finance and Development Corporation is developing this master planned residential community at Kapolei. The first homes in the Villages of Kapolei were completed in 1990, with up to 5,000 units on 890 acres planned at buildout. Kapolei will include a variety of residential types, including market rate and affordable single and multi-family units, and assisted, rental and elderly housing. A full range of community support facilities are being constructed at Kapolei, including an 18-hole golf course, parks and recreational amenities, churches, schools and commercial areas.

2.3.2 Non-Residential Developments

City of Kapolei

The Estate of James Campbell is in the process of developing an approximately 890-acre commercial center in the area roughly bounded by the Barbers Point Access Road to the

east, the Naval Air Station Barbers Point to the south, the Ko Olina Resort option area to the west, and the lower slopes of Makakilo to the north. The heart of this site is the City of Kapolei, a triangular-shaped 570-acre parcel.

The development concept for the city is to provide a self-contained, urban economic center. The development program for the City of Kapolei calls for over seven million square feet of office and retail space and a 73-acre regional park. Land within the City of Kapolei will be dedicated to the State of Hawaii and City and County of Honolulu for government offices and other public facilities including parks, bus terminal, civic center, police station and regional library.

Kapolei Business Park

The Kapolei Business Park (KBP) is located on 800 acres between the James Campbell Industrial Park and the City of Kapolei. Development of this new facility will be limited to light industrial and maritime-related uses. The park is zoned I-2, and the first increment includes 135 acres. The KBP is expected to generate about 6,090 jobs by the year 2010.

James Campbell Industrial Park (JCIP)

Campbell Estate developed this park as a heavy industrial complex in 1959. Major tenants in this 1,367 acre complex include two oil refineries, a concrete manufacturing plant, cattle feed lot operation, large building material supply yards, numerous other industrial businesses and the City's H-POWER garbage to energy plant.

Barbers Point Harbor

The new State-owned harbor is located at the northwestern edge of the JCIP. The first increment of the development was completed in 1990, and ships now make regular calls at the harbor. Facilities include 1,600 feet of pier, 30 acres of paved back-up area and related infrastructure, and a bulk cargo ship unloader. Harbor development is scheduled to be completed in the next 15 to 20 years, with a total of 237 acres of developed area surrounding the basin. The harbor is being planned to accommodate Oahu's shipping needs for the next 50 years.

Ko Olina Resort

Ko Olina is a planned resort community at the southwest end of the Ewa region, being developed by West Beach Estates. To date, one hotel, a golf course and man-made

beaches and lagoons have been developed, with plans for up to 8,700 housing units within the 1,000 acre resort. A basin for a 350 to 400 slip marina has already been constructed.

Other Proposed Facilities

The State of Hawaii is planning to develop a West Oahu Campus of the University of Hawaii in the vicinity of the East Kapolei project. In 1994, the University of Hawaii Board of Regents selected a 500-acre site directly to the west of East Kapolei for the future university. That site is part of the 1,300 acres that the State acquired from The Estate of James Campbell. The State administration is presently recommending relocating the proposed campus to a 900-acre site north of the project area, centered around Puu Kapuai. The new site was recently approved by the University Board of Regents, but is yet to be formally approved by the Legislature. Until that time, the original 500-acre site remains the "official" site for the university.

The State and County also have plans for future construction of a major north-south regional roadway near the western boundary of the project area. Plans include a freeway interchange, providing direct access from the H-1 Freeway and Farrington Highway to the proposed Kapolei Parkway regional connector roadway, and the communities of Ewa Gentry and Ewa Beach. The City Department of Transportation Services (DTS) is the lead agency in charge of design and construction of the facility. Current estimates indicate the opening of the facility in the 2001 to 2005 timeframe.

The applicant will participate with other major developers in the area on the preparation and implementation of the Ewa Region Transportation Master Plan. The applicant has been coordinating its involvement through The Estate of James Campbell which is spearheading the transportation planning effort.

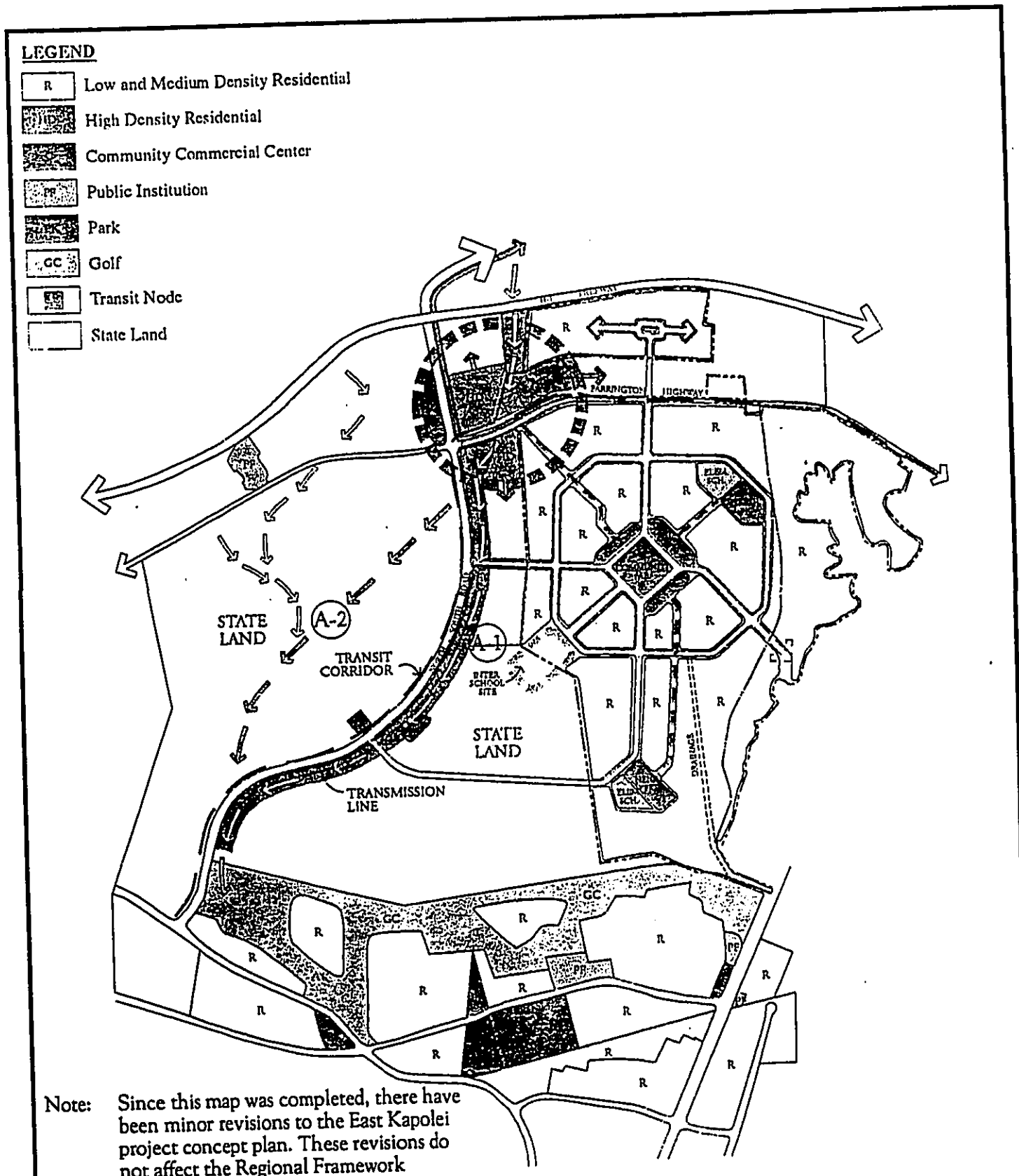
2.4 Regional Plans

Figure 4, Regional Framework, illustrates The Estate of James Campbell's current plans for the East Kapolei area. The plan locates the East Kapolei project in the center of the region, surrounded by The Estate of James Campbell and State-owned lands. To the east lies the 180-acre West Loch "bluffs" parcel identified for long-term residential development in the draft City Ewa DP revisions. To the north between Farrington Highway and the H-1 Freeway are lands owned by The Estate of James Campbell identified for long-term high density development related to a proposed major transit corridor. To the south lies the City's Ewa Villages redevelopment area which is in its final stages of construction. To the west and southwest lie State-owned lands presently before the State Land Use Commission for urban redesignation.

The plan shows the alignment of the proposed North-South Road and its H-1 Freeway interchange. The North-South Road will provide primary access from the freeway to Farrington Highway, the East Kapolei project and State-owned properties to the south. A City-proposed transit corridor is identified along Farrington Highway, continuing south along the North-South Road. A significant feature of the plan is the location of a major transit, community commercial and high density housing node near the intersection of North-South Road and Farrington Highway. Possible development of the University of Hawaii West Oahu campus in proximity to this node would further support transit, commercial and high density commercial and residential uses. Figure 4 also shows a proposed concept drainage plan for the Kaloi Gulch basin. Runoff from *mauka* areas will be directed into wide, grassed drainageway paralleling the east side of the North-South Road as represented in the City's proposed revisions to the Ewa Development Plan. In addition, flows may also be directed along Kalo Gulch's natural drainage course through the adjacent State-owned lands, particularly if the University does not occupy this site. The East Kapolei project does not impact the Kaloi Gulch drainage basin.

2.5 Project Description

The East Kapolei Project is a residential development, which will include ancillary land uses such as parks, neighborhood commercial areas and sites for elementary and intermediate schools. The proposed concept plan for the project is shown in Figure 5. The following Table 1 summarizes the proposed land uses and acreages, as designated in the plan.



Note: Since this map was completed, there have been minor revisions to the East Kapolei project concept plan. These revisions do not affect the Regional Framework illustrated here.

Source: The Estate of James Campbell, October 1995

Regional Framework

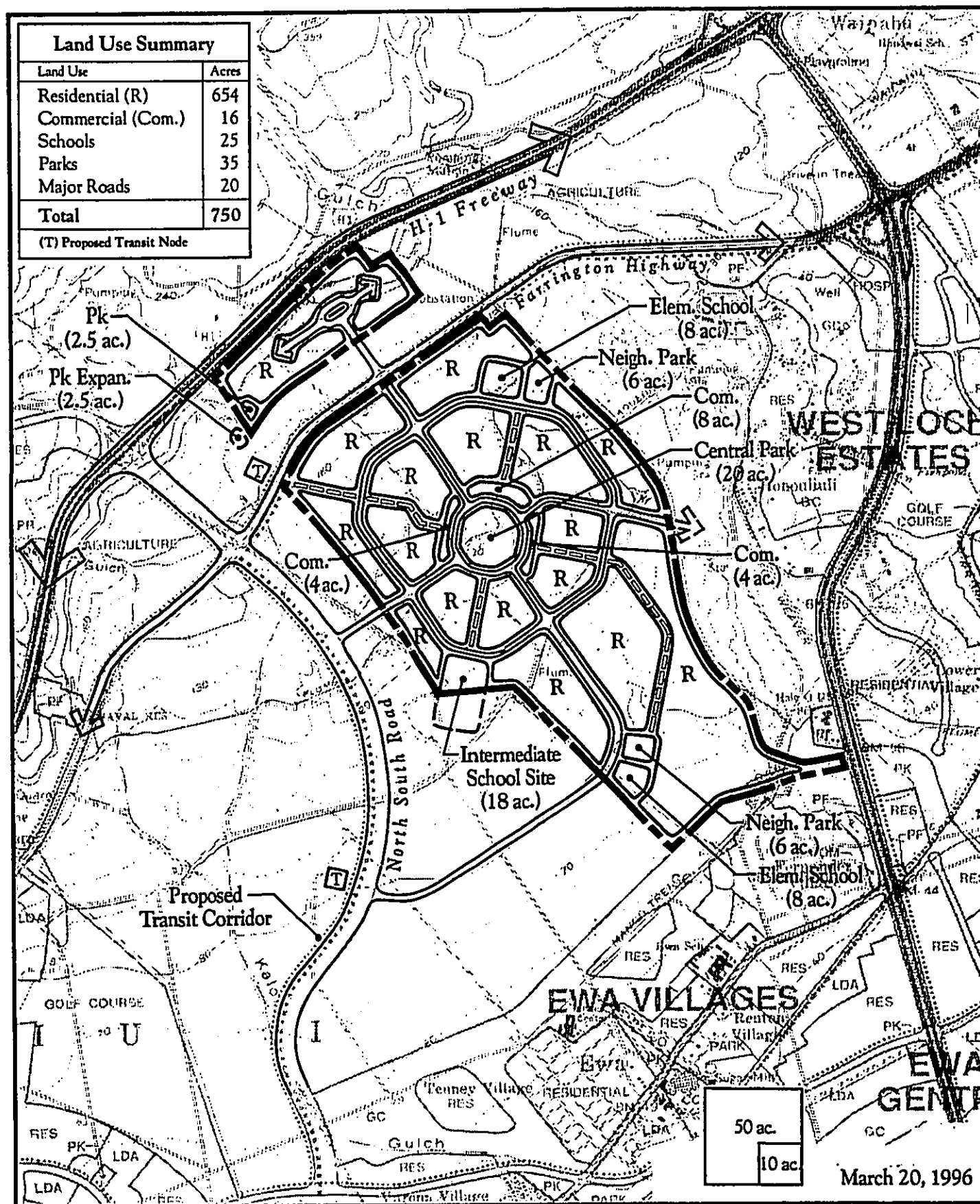
EAST KAPOLEI PROJECT

Schuler Homes, Inc.

FEET 0 1200 2400

Helber Hastert & Fee, Planners

Figure 4



Preliminary Concept Plan

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

FEET 0 1000 2000

Helber Hastert & Fee, Planners

Figure 5

Table 1:
Proposed Land Utilization

Land Use	Area (acres)	Average Density (Du/Ac)	Dwelling Units
Residential	654	12/ac.	8,000
Neighborhood Commercial	16		
Schools	25		
Parks	35		
Major Roads	20		
SUBTOTAL	750		8,000
Off-Site Infrastructure	43		
TOTAL	793		

The proposed plan implements neo-traditional town planning concepts articulated in the draft revisions to the Ewa Development Plan (City Planning Department, June 1995, pps. 4-1 et seq.) Consistent with sound community planning principals, a stronger emphasis has been placed on the close integration of land use and open space, and the design of the interior circulation system, than is found in conventional planned communities. The plan promotes a strong pedestrian orientation by clustering neighborhood-serving facilities (elementary schools, neighborhood parks and neighborhood commercial uses) within relatively short walking distances of the respective service areas, through the introduction of traffic calming design features (e.g., the proposed loop road around the central park), and by providing an interconnected, non-vehicular, bikeway/pedestrian linkage throughout the entire project. Over half of the project's 8,000 households will be within a five - minute walk of the central park and neighborhood commercial center. Relatively higher residential densities (12 du./ac. avg.) and a proposed wide mix of housing types (single detached and attached, town home, and garden apartments) will promote transit ridership and meet broad-based market demands. The successful synthesis of the foregoing design characteristics will lead to the creation of a strong sense of place and neighborhood identity.

Each element of the concept plan is reviewed below.

2.5.1 Residential

The applicant is proposing to develop up to 8,000 residential units over a 16-year period at the rate of about 500 units per year starting in 1998. The housing mix will consist of about 75 percent multi-family apartments and townhomes and 25 percent single family units. The concept plan identifies approximately 654 acres for residential uses. The proposed densities range from 20 units/acre for the affordable multi-family units to seven units/acre for the market-priced single family homes, resulting in average residential densities of about 12 units/acre. Of the total units, it is estimated that 30 percent will be affordable to families between 80 and 120 percent of (City and County of Honolulu) median income. Sales prices will range from about $133,000 (multi-family affordable) to about $285,000 (single-family market). The petitioner will be exploring the possibility of introducing residential flats over portions of the proposed neighborhood commercial uses surrounding the community park.

The following is an estimated breakdown of the number, types, sizes, and anticipated prices of homes which could be developed:

Table 2:
Residential Product Types

Product Type	Density (units/ac)	Number of Units	Average Floor Area	Average Price*
Single Family-market	7.5	2,080	1,500 SF	$285,000
Townhouse-market	12	1,440	1,200 SF	$235,000
Low Density Type 1-market	15	1,920	800-900 SF	$208,000
Low Density Type 2-market	20	160	800 SF	$185,000
Low Density Type 3-affordable				
Up to 80% of median	20	800		$133,000
Up to 120% of median	20	1,600		$175,000
Total		8,000		

*1996 dollars, subject to change

Source: Atwater, December 1995

2.5.2 Neighborhood Commercial

Three neighborhood-serving commercial parcels are shown in the preliminary concept plan: two 4-acre sites and one 8-acre site for a total of 16 acres (Figure 5). The commercial parcels are located across the loop road from the central community park (Figure 6). Typical commercial tenants would include grocery and drug stores, restaurant/fast food operations, service stations/mini marts, and professional office, such as medical, financial, insurance and real estate services. Vehicle parking is located in the rear, with access off of the four connector roadways. Storefronts fronting the park ring road sidewalk will enhance the pedestrian-orientation of the park/commercial zone. As noted above, the applicant will be exploring the potential for introducing residential flats above portions of the commercial parcels.

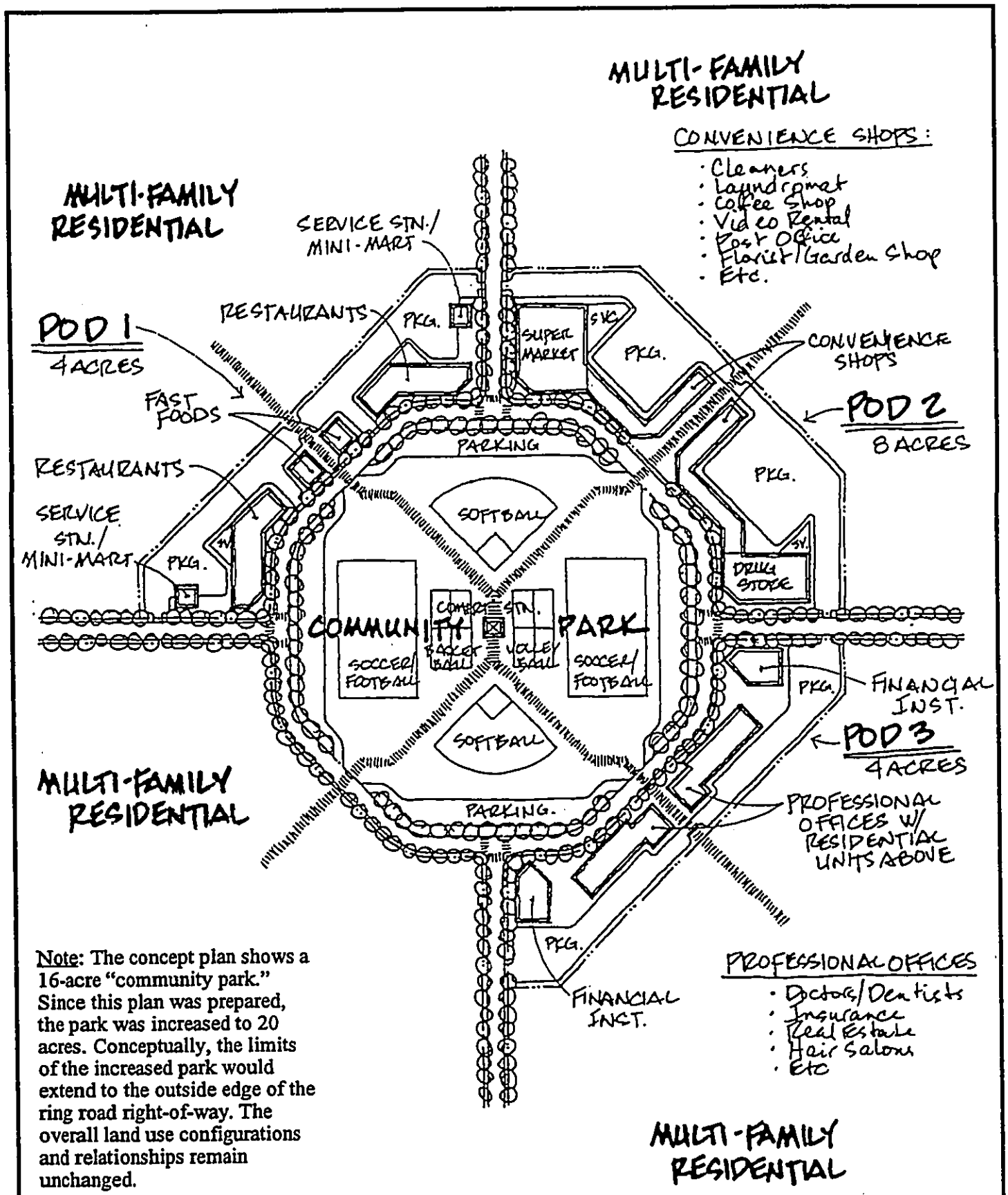
2.5.3 Parks

A primary component of the recreation plan is the 20-acre central park, which serves as the community center and focal point for the overall project. The park is surrounded by a loop road, and will include adequate automobile parking (Figure 6). Over half of the project's 8,000 households will be within a five minute walking distance of the park, making it very pedestrian accessible. Two 6-acre neighborhood parks adjacent to the two elementary schools are located within the nearby residential areas, and a 2 to 3 acre mini-park is provided in the *mauka* parcel. All parks will be readily accessible via major project roadways and a system of interconnected bikeways. Additional private park areas will be provided by project community associations.

The bikeways would be incorporated into planned residential streets where appropriate, and would also include links and short-cuts not available for automobile use. These links would be maintained by adjacent homeowner associations, and would be planned for maximum security and recreational value. The bikeway network would provide access between the major public uses of the project (schools, parks, commercial areas, etc.).

2.5.4 Schools

The project includes two 8-acre elementary school sites and a portion of a new intermediate school site. It is anticipated that the *makai*-most elementary school will be constructed during the initial phases of the project, with the second elementary school to be constructed in later phases. The elementary school service zones will be less than a one-mile radius. The concept plan also includes nine acres or half of a future 18-acre intermediate school. It is assumed that the adjacent landowner, the State of Hawaii, would provide an additional nine acres to allow eventual development of an 18-acre



Note: The concept plan shows a 16-acre "community park." Since this plan was prepared, the park was increased to 20 acres. Conceptually, the limits of the increased park would extend to the outside edge of the ring road right-of-way. The overall land use configurations and relationships remain unchanged.

Commercial/Park Concept

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

FEET 0 150 300

Helber Hastert & Fee, Planners

Figure 6

intermediate school. All three school sites are in centralized locations, accessible via the major project access roads and the bikeway network.

2.5.5 Vehicular Circulation

A City-proposed transit corridor is identified along Farrington Highway, continuing south along the North-South Road. A significant feature of the City's proposed Ewa Development Plan is the siting of a major transit, community commercial, and high-density housing node near the intersection of North-South Road and Farrington Highway. Possible development of the University of Hawaii West Oahu campus in proximity to this node would further support transit, commercial and high-density commercial and residential uses, indirectly supporting transit usage for future East Kapolei residents.

Project access will be via Farrington Highway, until completion of the North-South Road and freeway interchange. At that time, access from North-South Road will also be available. Circulation within the project area will be via four arterials radiating to/from the outside ring road, providing access to Farrington Highway, the North-South Road, and possibly, in the future, Fort Weaver Road. The Fort Weaver Road connection is problematic in that its feasibility and precise roadway alignment has not been determined, and that, at least in the short-term, a connection to Fort Weaver would not be feasible due to significant traffic congestion on this corridor and the cost of building a grade-separated interchange with Fort Weaver Road. The connection is shown to be consistent with the City's revised Development Plan roadway circulation recommendations. The project's main ring road will serve as the primary internal collector roadway, providing access between the residential areas and the Ewa region. The central park is also surrounded by a loop road. The roadway circulation system within the central core area has been deliberately designed to minimize through traffic and "short-cutting," to provide a more pedestrian/bicycle-friendly environment. Unlike traditional planned communities, the roadway network will provide the motorist with multiple roadway choices, distributing rather than concentrating vehicular movements.

2.5.6 Off-Site Infrastructure

Major off-site infrastructure parcels include:

- the 440-foot elevation reservoir site and transmission line (+/- 7 acres);
- the 228-foot elevation reservoir site (5.211 acres), and
- the 30.825-acre *makai* drainage detention area.

Total area of the off-site parcels is about 43 acres. Proposed off-site infrastructure systems are described in Chapter 6.

2.6 Project Rationale

In the residential sector, Honolulu continues to be one of the least affordable cities in the nation. While land prices account for some of this problem, there has been a long-term imbalance between supply and demand which has increased the cost of housing. The purpose of the East Kapolei project is to meet the need for affordable and moderately priced housing for Hawaii's residents within Oahu's second urban center at Kapolei. The development team has a proven track record in delivering high quality housing products in this critical segment of Hawaii's housing market. The City and County General Plan specifically identifies a policy to encourage development within the secondary urban center at Kapolei and the Ewa urban fringe to meet housing needs not provided in the primary urban center.

The East Kapolei project will bring population in the second city closer to General Plan population goals. The market study area for the East Kapolei project was defined as Oahu's residential market extending along the H-1 corridor, including the entire Ewa Development Plan area and Central Oahu's master planned communities of Royal Kunia and Waikele. Within this market study area, demand for an additional 38,000 to 44,000 housing units is estimated by the year 2020 (32,000 to 37,000 of these units are in the Ewa DP area). Without the East Kapolei project, there is expected to be a shortfall of 9,629 to 14,900 residential units by 2020 (Atwater 1995).

2.7 Project Phasing

The entire plan will be implemented over an estimated 16-year construction period. The 8,000 residential units will be developed between 1998 and 2013. Residential home production is planned to commence in the southern project area and will expand northward, at an average rate of about 500 units per year. The central park, southern neighborhood park and elementary school site and adjacent residential areas are planned to be constructed during the early phases of development. The neighborhood commercial facilities will be developed as demand dictates. Access from Farrington Highway will be constructed as part of the initial development phase. The project is expected to commence in 1998 when final regulatory approvals have been granted.

It should be noted that the overall feasibility of the East Kapolei project is not dependent on the final outcome of the proposed Kapolei land exchange between the State and The Estate of James Campbell (i.e., when the University is constructed, where the University is sited and whether the 183-acre land exchange occurs). The project, albeit perhaps 183-acres smaller, can proceed independently of the exchange.

2.8 Projected Development Costs

An itemization of the projected total costs is provided in Table 3 below. Total project costs are estimated at about $233 million.

Table 3:
Itemization of Total Project Costs
($ millions)

Off-site Infrastructure Costs	
Water	$13.435
Wastewater	$9.49
Roads	$15.0
Drainage	$16.85
Subtotal	$54.775
On-site Infrastructure Costs	
Rough Grading	$50.0
Roads	$50.0
Utility fees, etc.	$78.51
Subtotal	$178.51
Total Projected Costs	$233.285

2.9 Use of Public Funds or Lands

The proposed development will not require any new commitment of publicly supported services and facilities not compensated by increases in tax revenues. No public lands will be used with the following exception. A segment of the project's off-site drainage channel is planned to run along an abandoned cane haul road between West Loch Fairways and the future Asing Park, east of Fort Weaver Road. The right-of-way is owned by the City and under easement to Oahu Sugar Company (OSCo). The easement will terminate since OSCo is being dissolved. The petitioner intends to obtain an easement from the City to construct the off-site channel, after which it intends to dedicate the entire drainage system to the City.

3

Relationship of the Proposed Project to Existing Public Plans, Policies and Controls

CHAPTER 3
RELATIONSHIP OF THE PROPOSED PROJECT TO EXISTING PUBLIC PLANS, POLICIES AND CONTROLS

3.1 Federal

The Naval Air Station (NAS) Barbers Point is located about two miles southwest of the project site. NAS Barbers Point has been identified for closure by 1999 by the federal Base Realignment and Closure Commission. Presently, a Barbers Point Reuse Committee is investigating alternative uses for the station, including a State general aviation reliever airport, continued use by the U.S. Coast Guard, and a City and County regional park. The proposed East Kapolei project is not expected to have an impact on plans for reuse of NAS Barbers Point. However, development of regional, recreational or community support facilities at the former air station could have a positive impact on the project, expanding regional amenities available to project residents.

3.2 State of Hawaii

3.2.1 Hawaii State Plan

The Hawaii State Plan (Chapter 226, HRS, as amended) establishes a set of guidelines for the statewide planning system, and provides the overall theme, goals, objectives, policies and priority guidelines. The following describes the purpose of the State Plan. "...[it] shall serve as a guide for the future long-range development of the State; identify the goals, objectives, policies and priorities for the State; provide a basis for determining priorities and human resources, land, energy, water and other resources; improve coordination of federal, state and county plans, policies, programs, projects and regulatory activities; and to establish a system for plan formulation and program coordination to provide for an integration of all major state and county activities" (Chapter 226-1: Findings and Purpose, HRS).

The goals, objectives policies and guidelines of the Hawaii State Plan are, on occasion, in competition with one another. As a result, the proposed project supports some of the goals, while it is inconsistent with others. The following analyzes the project's impacts with respect to relevant State Plan goals, objectives, policies and priority guidelines:

Section 226-5 Objectives and policies for population.

Section 226-5(b)(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.*

Section 226-5(b)(3) *Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.*

Section 226-5(b)(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.*

Discussion: The proposed project is located in the Ewa-Kapolei region of west Oahu, designated in State and City and County policies as Oahu's "second city." The second city concept encourages future population growth and the development of employment centers within this region. In support of further urban development in Ewa-Kapolei, the City and County of Honolulu is planning a major County facility at the Kapolei Civic Center and the provision of regional municipal services such as police and fire stations. The State of Hawaii has plans for major highway improvements, including construction of the North-South Road; and has jointly constructed over 4,000 residential housing units at Kapolei. The development of the East Kapolei project is consistent with ongoing public and private efforts to develop a new urban center in the region.

Section 226-7 Objectives and policies for the economy - agriculture.

Section 226-7(a)(1) *Continued viability in Hawaii's sugar and pineapple industries.*

Section 226-7(a)(2) *Continued growth and development of diversified agriculture throughout the State.*

Section 226-7(b)(6) *Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs*

Discussion: The proposed project site was until recently used by Oahu Sugar Company (OSCo) for sugarcane cultivation. However, in 1995, OSCo ceased operations for reasons unrelated to the project, and therefore, the project will have no impact on plantation agriculture. Over the longer term, the project will not limit the growth of

diversified agriculture, since far more agricultural land has been released from plantation agriculture than has been absorbed by other activities. Ample prime agricultural land and water is available on Oahu and Statewide.

Section 226-15 Objectives and policies for facility systems - solid and liquid wastes and Section 226-16 Objectives and policies for facility systems - water.

Section 226-15(b)(1) *Encourage the adequate development of sewerage facilities that complement planned growth.*

Discussion: The City and County Department of Wastewater Management is master planning the wastewater system for a region which includes the project site, bounded by Kapolei to the west, West Loch Estates to the east, H-1 Freeway to the north and the Ewa Villages to the south. A sewer system for the project will be provided to collect and transport sewage to the Honouliuli Wastewater Treatment Plant. A wastewater collection system master plan for the East Kapolei project and vicinity is being reviewed by the City Department of Wastewater Management.

Section 226-16(b)(1) *Coordinate development of land use activities with existing and potential water supply.*

Discussion: As with the wastewater system, a water master plan, encompassing the project region was prepared and reviewed by the Honolulu Board of Water Supply in 1995. A December 1995 addendum report has been prepared specifically for the East Kapolei project, to identify the potable water system components that would be required to serve the development. That report is being reviewed by the Board of Water Supply.

Section 226-18 Objectives and policies for facility systems--energy/telecommunications.

Section 226-18(c)(3) *Promote prudent use of power and fuel supplies through conservation measures including education and energy efficient practices and technologies.*

Section 226-18(c)(4) *Promote cost-effective conservation through adoption of energy efficient practices and technologies.*

Discussion: The project will comply with all City and County building codes and ordinances applicable to residential structures. Energy efficient practices and technologies and energy conservation measures will be incorporated where feasible.

The transportation sector has been identified as the single largest consumer of energy in the State. The project will enhance the development of the "second city" in Ewa-Kapolei, which is intended to reduce the need for automobile commuting between downtown Honolulu and suburban Oahu. It is expected that many project residents will also work in the Ewa-Kapolei region, eliminating the need for lengthy home-work commuting. As the Kapolei region further develops its residential, commercial and other support facilities, overall automobile commuting and therefore, fossil fuel consumption will be reduced even further.

Section 226-19 Objectives and policies of socio-cultural advancement--housing.

Section 226-19(a)(1) *Greater opportunities for Hawaii's people to secure reasonably priced safe, sanitary, livable homes located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals.*

Section 226-19(a)(2) *The orderly development of residential areas sensitive to community needs and other land uses.*

Section 226-19(b)(3) *Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style and size of housing.*

Discussion: The primary objective of the proposed project is the provision of housing opportunities. At full build-out, the project will provide approximately 8,000 new homes for Oahu residents, 30 percent of which will be affordable to families earning from 80 to 120 percent of median income. The development will include a variety of housing types, including market-priced single family homes and townhomes; and both market and affordable multi-family units. The project's location in the expanding Ewa-Kapolei "second city" ensures that adequate public and community services as well as employment opportunities are accessible to residents.

Section 226-21 Objective and policies for socio-cultural advancement--education.

Section 226-21(b)(2) *Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.*

Section 226-21(b)(5) *Provide higher educational opportunities that enable Hawaii's people to adapt to changing employment demands.*

Discussion: The project will include the provision of two eight-acre sites for new elementary schools and a nine acre portion of an intermediate school to serve the project

and surrounding areas. It is assumed that the adjacent landowner, the State of Hawaii, will provide an additional nine acres to allow eventual development of the intermediate school. In addition, the State has plans to construct a University of Hawaii-West Oahu campus in the Kapolei region. These proposed projects will ensure that the community has accessible educational facilities, ranging from the primary to post-secondary higher education. The applicant intends to work closely with the State DOE to ensure adequate school facilities are developed in a timely manner to meet the needs of the East Kapolei community.

3.2.2 State Functional Plans

The Hawaii State Plan directs the appropriate State agencies to prepare functional plans for their respective program areas, including: agriculture, transportation, conservation lands, housing, tourism, historic preservation, energy, recreation, education, higher education and health. The State Functional Plans serve as the primary implementing vehicle for the goals, objectives and policies of the Hawaii State Plan.

The plans set forth "...the policies, statewide guidelines, and priorities within a specific field of activity, when such activity or program is proposed, administered, or funded by an agency of the State" (Section 226-2 [10] Hawaii Revised Statute). Each functional plan contains objectives to be achieved and policies to be pursued within the specified areas. "...Such policies shall address major programs and the locations of major facilities" (Section 226-57 (b) HRS).

The State Functional Plans have been adopted by the Hawaii State Legislature. The State Plan mandates that these plans "...shall be taken into consideration in amending the county general plans" (Section 226-52 (a)(3) HRS). The project generally supports the objectives and policies of the following State Functional Plans:

State Housing Functional Plan

The Housing Finance and Development Corporation coordinated the preparation of this functional plan. The Plan includes homeownership, rental housing and rental housing for the elderly and other special need groups as issue areas.

Issue area: Homeownership

Policy A(2): *Encourage increased private sector participation in the development of affordable for-sale housing units.*

Policy A(3): *Ensure that (1) housing projects and (2) projects which impact housing provide a fair share/adequate amount of affordable homeownership opportunities.*

Discussion: The project, which is being proposed by a private developer, will include up to 2,400 units (30 percent of 8,000 units) at prices affordable to families earning up to 120 percent of City and County median income.

State Transportation Functional Plan

The preparation of the Transportation Functional Plan was coordinated by the State Department of Transportation.

Issue Area I. Congestion

Policy I.B.1.: *Close the gap between where people live and work through decentralization, mixed zoning and related initiatives.*

Implementing Action I.B.1.a.: *Promote the development of the Ewa Second City to provide jobs near homes.*

Implementing Action I.B.1.c.: *Promote the development of homes near jobs.*

Discussion: The project will provide residential opportunities in the East Kapolei area of the second city, to support ongoing efforts to close the gap between living and work areas. Both the State and City and County have plans to develop public services and expand employment centers in Kapolei-Ewa to support the second city concept.

3.2.3 State Land Use Law

All lands in the State have been classified in one of four land use districts (Urban, Rural, Agricultural and Conservation) by the State Land Use Commission (LUC), pursuant to Chapter 205, HRS. The majority of the East Kapolei project area is in the Agricultural district, with the exception of a small, triangular-shaped "notch" along the southern boundary of the project area (Figure 7). This 0.5 acre parcel, adjacent to Ewa Villages, is in the Urban District. A petition for a Land Use District Boundary Amendment was filed in September 1994 by the Governor's Office of State Planning which included the 183-acre State-owned portion of the project (Docket No. A94-708). This petition is still pending before the Land Use Commission, though it may be withdrawn. A petition to urbanize the Agricultural District portion of the application area will shortly be submitted to the LUC by the applicant.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S) IMMEDIATELY FOLLOWING

Policy A(3): *Ensure that (1) housing projects and (2) projects which impact housing provide a fair share/adequate amount of affordable homeownership opportunities.*

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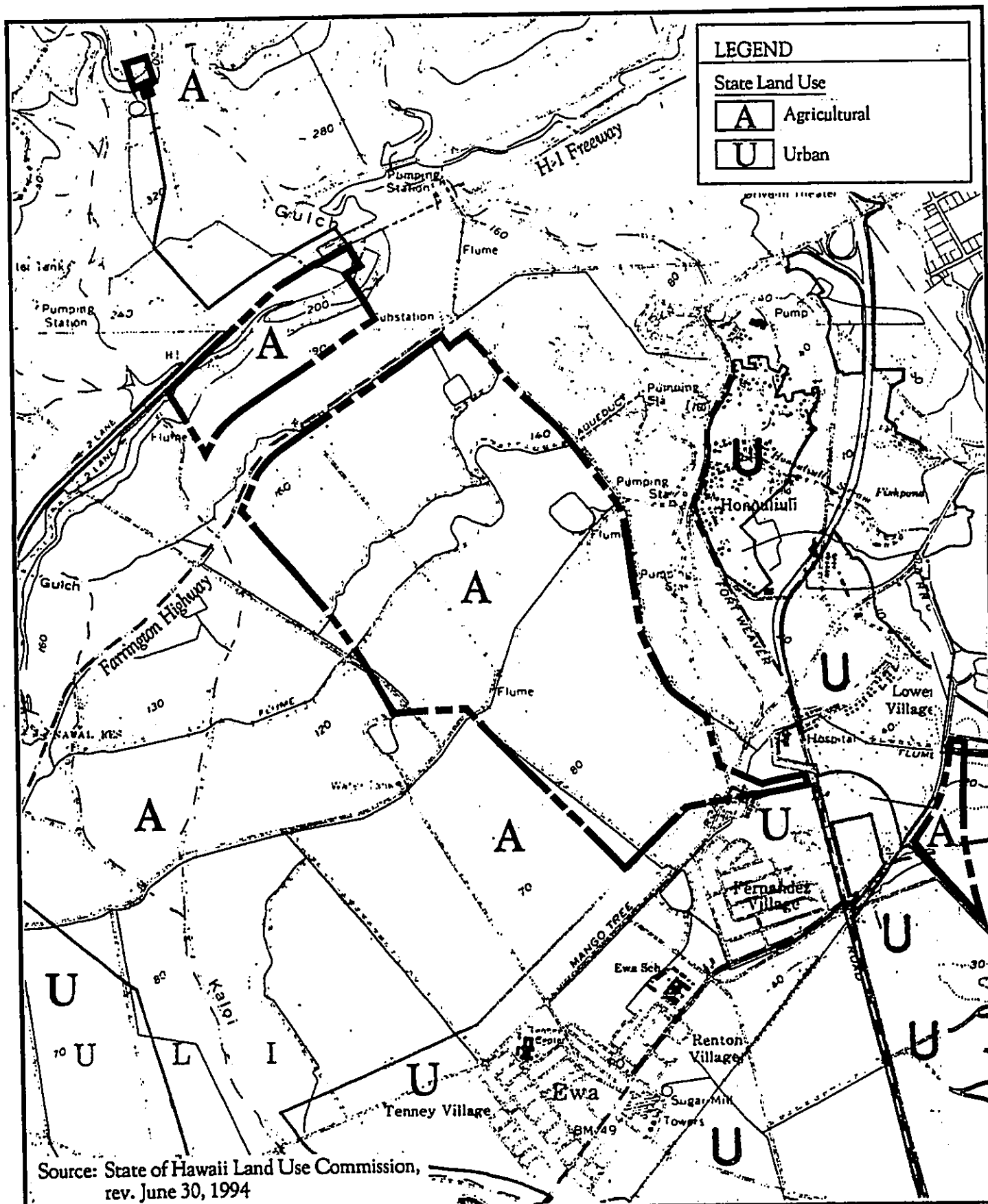


State Land Use District Boundary Map

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

FEET 0 1000 2000

Helber Hastert & Fee, Planners

Figure 7

The State Land Use Commission Rules, adopted October 1986 and now in the process of revision, require that an application for a boundary amendment show that it is "reasonable, not violative of Section 205-2[HRS] and consistent with the policies and criteria established pursuant to Sections 205-16, 205-17 and 205A-2, HRS." (Hawaii Land Use Commission Rules, Section 15-15-77). In reviewing petitions for reclassification of district boundaries, the Commission must specifically consider four criteria. The criteria are presented below, in italics, followed by a brief discussion of each criterion.

(1) *The extent to which the proposed reclassification conforms to the applicable goals, objectives and policies of the Hawaii State Plan and relates to the applicable priority guidelines of the Hawaii State Plan and the adopted functional plans;"*

Discussion: The project conforms to most applicable goals, objectives and policies and the guidelines of the State Functional Plans. Because of their competing nature, the project is not necessarily consistent with all policy areas.

(2) *The extent to which the proposed reclassification conforms to the applicable district standards.*

Discussion: The applicable standards for the Urban District are found in Section 15-15-18 of the Land Use Commission Rules. The project is consistent with the urban standards, including the proposed "city-like" concentration of people and other related land uses, and proximity to employment centers. Services such as sewers, water, sanitation, schools, parks and police and fire protection are or will be available to serve the project. The application area includes lands with satisfactory topography, drainage, which are reasonably free from danger of any flood, tsunami, unstable soil condition, and other adverse environmental effects. The project area is contiguous with existing urban areas to the south and proposed urban areas to the west. The area is indicated for future urban use by the Governor's Office of State Planning (August 1995) and proposed revisions of the City & County of Honolulu's Ewa Development Plan (Planning Department June 1995). The Ewa-Kapolei region has been designated as a primary future urban growth center on State and County General Plans.

(3) *Impact on Areas of Statewide Concern:*

- *Preservation or maintenance of important natural systems and habitats;*
- *Maintenance of valued cultural, historical, or natural resources;*
- *Maintenance of other natural resources relevant to Hawaii's economy including, but not limited to agricultural resources;*
- *Commitment of state funds and resources;*

- *Provision of employment opportunities and economic development; and,*
- *Provision for housing opportunities for all income groups, particularly the low, low-moderate, and gap groups.*

Discussion: There are no threatened or endangered species, or significant historic or archaeological resources within the project area. The Department of Land and Natural Resources, State Historic Preservation Division has concurred that the project will have "no effect" on historic sites (Hibbard 1995). Although the site is on prime agricultural land, former sugar cultivation was terminated for reasons unrelated to the project. As such, the project will have no impact on sugar operations, nor will the project have an adverse impact on the growth of diversified agriculture. (Decision Analysts Hawaii, Inc. 1995). The project is being proposed by a private development firm, and no state funds or resources are being sought. The development of up to 8,000 residential units will provide housing opportunities for all income groups. Thirty percent of the units will be affordable to families earning up to 120 percent of (City and County of Honolulu) median income.

(4) *In establishing the boundaries of the districts in each County, the commission shall give consideration to the General Plan of the County in which the land is located.*

Discussion: The Honolulu General Plan, discussed in Section 3.3 below, provides a general population distribution for the year 2010 for each of the Development Plan areas on Oahu. A population policy of the General Plan is to encourage development within the secondary urban center at Kapolei and to meet housing needs not readily provided in the primary urban center. As noted by the City's Chief Planning Officer (letter dated December 29, 1995, see Chapter 12), "The project is consistent with the existing City General Plan and Development Plan policies to direct growth to Ewa and to promote development of a secondary urban center in Kapolei."

3.2.4 Governor's Office of State Planning's Five-Year Boundary Review

The Governor's Office of State Planning (OSP) has recently completed an update of its 1991-92 Boundary Review entitled *2020 Growth Scenarios for Oahu* (OSP August 1995). The new study examines urban land requirements to the year 2020, ten years beyond the 1991-92 review, and reiterates State policy to direct future growth toward Ewa and Central Oahu. The Ewa District is identified as a priority area for urbanization for a number of reasons:

- Its proximity to Honolulu and surrounding employment centers (Campbell Industrial Park, Kapolei, Ko Olina) makes it a logical extension of growth from the Primary Urban Center.

- The Ewa Plain's subterranean caprock would protect groundwater supplies from being contaminated by urban-related uses.
- The City and County of Honolulu encourages development in Ewa and Central Oahu to relieve urbanization pressure from urban fringe and rural areas.

The updated study projected the need for urban land under two scenarios: "high urban" and "moderate urban." In light of the identified need for a additional urban lands, and the appropriateness of the project, the study specifically recommends the urbanization of the project area under both projection scenarios.

3.2.5 Environmental Impact Statements, Chapter 343, Hawaii Revised Statutes (HRS)

Section 343-5 (a)(6), HRS notes that the provisions of Chapter 343 apply to "any amendment to existing county general plans where the amendment would result in designations other than agriculture, conservation or preservation..." A State Attorney General opinion (Opinion No. 85-30) has broadened the scope of the definition of county general plans to include "...non-county initiated actions which propose amendment or change to a county's planning documents, however denominated, and development plans or otherwise, and which would result in a designation other than agriculture, conservation or preservation."

A Final Environmental Impact Statement was prepared for the previous East Kapolei concept plan in April 1995 and subsequently accepted by the Planning Department on May 11, 1995. That FEIS was in support of the previous application for an amendment to the Ewa Development Plan (DP) Land Use Map. In response to City Planning Department concerns over several issues, the East Kapolei project's boundaries and concept plan have been revised.

As with the previous application, the action requested by this current application will result in an amendment to the Ewa DP Land Use Map from the agricultural designation to the Low-Density Apartment, Parks and Recreation, Commercial and Public and Quasi-Public designations. As such, the provisions of Chapter 343 apply to the project. By letter dated November 9, 1995, the City Planning Department ("accepting agency") notified the Office of Environmental Quality Control (OEQC) that it had determined that an Environmental Impact Statement (EIS) was required for the proposed subject project. Notice of this determination was published in November 23, 1995 edition of *The Environmental Notice*. The publication of this notice began a 30-day public review period which ended on December 23, 1995.

A list of agencies, organizations and individuals consulted during preparation of the Draft EIS is found in Chapter 12 of this document. The chapter also contains reproductions of written comments on the EIS Preparation Notice and the applicants responses to the comments.

The DEIS was published in January 1996 and notice of availability was published in the January 23, 1996 edition of *The Environmental Notice*. This began a 45-day public comment period that ended March 8, 1996. Chapter 13 contains a listing of agencies, organizations and individuals who received copies of the DEIS. It also contains written comments received in the preparation of the Final EIS.

3.2.6 Coastal Zone Management/SMA Rules and Regulations

Objectives and policies of the Coastal Zone Management Program are described in Chapter 205A-2, Hawaii Revised Statutes (HRS), Part I. The site lies within the State's Coastal Zone Management Area, which includes all lands within the State with the exception of forest reserves. Potential impacts to the coastal zone relate to storm drainage and wastewater disposal. Impacts resulting from project storm drainage will be mitigated by compliance with National Pollutant Discharge Elimination System (NPDES) permit conditions. Wastewater generated from the project will be appropriately treated at the municipal Honouliuli wastewater treatment plant prior to deep ocean discharge.

Special Management Area guidelines are found in Part II of the same chapter. The site lies approximately 2.6 miles from the coastline (0.75 miles from Pearl Harbor) at its nearest point, and is well outside the City and County's Special Management Area. A Special Management Area use permit is not required.

The project's conformance with policies and objectives of the Coastal Zone Management Program is discussed below:

Recreational Resources

Objective: *Provide coastal recreational opportunities accessible to the public.*

Discussion: The project will provide two 6-acre neighborhood park sites, a 2-3 acre mini-park, and a 20-acre central park, all of which will be dedicated to the City and County of Honolulu. The total of 35 acres exceeds the City and County Park Dedication Ordinance requirements for this type of development. Additional recreation and open space areas such as bikeways and private mini-parks will be provided to meet other City and County standards. The project will have a limited, indirect impact on ocean

recreational resources (i.e., Ewa beach parks) due to the project's added residential population.

Historic Resources

Objective: *Protect, preserve, and where desirable, restore those natural and man-made historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

Discussion: The project area has had extensive agriculture-related land modification during the last century, and there are no known historic, cultural or archaeological resources within the area. The Department of Land and Natural Resources, State Historic Preservation Division has concurred that the project will have "no effect" on historic sites.

Scenic and Open Space Resources

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

Discussion: The project will alter the visual resources along Farrington Highway, the H-1 Freeway and from the Ewa Villages and *makai* areas. Present agricultural uses and open space will diminish as new urban uses are developed. The design and landscaping of the proposed development will minimize adverse visual impact. Setbacks and landscaping will be provided along major roadways, and a bikeway network will provide direct links between the residential areas and major community facilities. The three neighborhood parks and 20-acre central park will provide additional open space. Buildings will be no higher than three stories.

Economic Uses

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

Discussion: The East Kapolei residential project is appropriately located in the "second city" of Kapolei, which has been identified for future urban growth and development. The project will not have a significant adverse economic impact on the coastal zone.

Coastal Ecosystems

Objective: *Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.*

Discussion: The project drainage system will not have significant adverse impact on coastal ecosystems, including the National Wildlife Refuge West Loch unit. The analysis and supporting documentation for this conclusion is provided in the Ewa by Gentry-East Offsite Drainage Plan EA and EIS (latter accepted by the City Department of Land Utilization on 10/31/95). A discussion of the environmental issues related to the regional drainage facility is provided in Section 6.4, Drainage.

Coastal Hazards

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

Discussion: The project structures and drainage system will comply with all flood zone criteria. The site is not within the coastal high hazard area.

Managing Development

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

Discussion: The project requires a Land Use District Boundary Amendment and Development Plan Land Use Map amendment. Required environmental documentation has been prepared and is undergoing public review.

Public Participation

Objective: *Disseminate public information on coastal issues.*

Discussion: As part of the environmental review process for the Land Use District Boundary amendment and DP Land Use Map amendment, information on the project's coastal impacts and mitigation measures will be available to the public for review and comment.

Beach Protection

Objective: *Locate structures and improvements to minimize beach erosion and minimize interference with recreational and waterline activities.*

Discussion: Project drainage structures will not interfere with public recreational and waterline activities, or result in beach erosion.

3.3 City and County of Honolulu

3.3.1 General Plan

The General Plan for the City and County of Honolulu was adopted in 1977 and has been subsequently amended, most recently in 1992. The Plan is a statement of the long-range social, economic, environmental and design objectives for the general welfare and prosperity of the people of Oahu. The Plan is also a statement of broad policies which facilitate the attainment of the objectives of the plan.

Population

A population policy of the General Plan is to "encourage development within the secondary urban center at Kapolei and the Ewa and Central Oahu urban-fringe areas...to meet housing needs not readily provided in the primary urban center."

The following Table 4 compares the General Plan's population growth guidelines with population projections for Ewa, for the years 2010 and 2020. The figures are based on a projected Oahu-wide population of 1,012,100 persons in the year 2010, and 1,071,200 persons in the year 2020 (Planning Department, Preliminary Data 1995).

Table 4:
Year 2010 and 2020 Population in Ewa: Policy vs. Projection

	Share of Island Population	Population
Year 2010		
General Plan Policy	12.0% - 13.3%	121,452 to 134,609
Planning Dept. Forecast*	10.2%	103,300
Year 2020		
General Plan Policy	12.0% - 13.3%	128,544 to 142,470
Planning Dept. Forecast*	11.7%	124,800

*Preliminary Data, Honolulu Planning Department 1995. Population forecast includes DP approved and proposed projects, including East Kapolei.

Source: Planning Department

The East Kapolei project will result in about 8,000 additional residential units and up to 22,400 residents in the Kapolei/Ewa area at project build-out. As shown in the table, City planners project that even with the East Kapolei development, the population of the Ewa area is expected to fall below General Plan guidelines for the years 2010 and 2020.

Economic Activity

An economic activity objective is to "maintain the viability of agriculture on Oahu." A related policy is to "provide sufficient agricultural land in Ewa, Central Oahu...to encourage the continuation of sugar and pineapple as viable industries."

The East Kapolei site is comprised of fallow agricultural land which is has been removed from cultivation for economic reasons unrelated to the project. As a result, the development will not have an adverse impact on sugar cultivation or the sugar industry.

Housing

Housing objectives in the General Plan include the provision of decent housing for all the people of Oahu at prices they can afford and the provision of housing that is reasonably close to employment, recreation and commercial centers. The East Kapolei Project will include a mix of multi-family townhomes and condominium apartments, as well as single family homes. Approximately 30 percent of the units will be affordable to families earning up to 120 percent of County median income. The project's location in the Ewa-Kapolei

"second city" ensures that support services, commercial areas and centers of employment will be located in close proximity for residents.

Transportation and Utilities

General Plan objectives include the provision of adequate roadways, water supplies and waste disposal, and the desire to maintain a high level of service for all utilities. Project access will be via Farrington Highway until completion of the North-South Road and freeway interchange. The new North-South Road, H-1 Freeway interchange and proposed improvements to Farrington Highway will ensure that roadways are provided to meet the area's regional transportation needs. The project will provide adequate water, wastewater, drainage, electrical and other utility services, which will be designed and constructed to meet all City and County standards.

3.3.2 Development Plan

The City and County of Honolulu's Development Plan (DP) program provides a relatively detailed framework for implementing General Plan objectives and policies on an area-wide basis. A total of eight DP areas have been established on Oahu, including the Ewa DP area where the project is located. The Ewa DP area encompasses the coral plain which stretches from the Central Oahu district boundary at Waipahu and Pearl Harbor, around the southwestern corner of the island, to Nanakuli. The Ewa Development Plan is codified as Ordinance No. 81-80, as amended, Revised Ordinances of Honolulu.

The City's DP Program is undergoing comprehensive revisions based on amendments to the City Charter adopted in the 1992 General Election and the General Plan. The Planning Department is now finalizing the Ewa and Central Oahu DP's, which will then be considered by the Planning Commission and City Council prior to adoption. While the applicant has closely considered the proposed recommendations for the Ewa DP, the current DP process is still being followed.

The DP Ordinance consists of four elements: Common Provisions (applicable for all DP regions), Special Provisions, DP Land Use Maps and DP Public Facilities Maps (for each DP region).

(1) Common Provisions

Section 24-1.3 of the DP Common Provisions describes the various land use categories found within each of the eight DP regions. The following describes the DP Common Provision land use categories requested in this application:

Low-Density Apartment

"Except as otherwise specified in the special provisions of each development plan, low-density apartment areas are for low-rise, low-density multi-family residential structures."

Parks and Recreation

"Parks and recreation include all public parks and recreational facilities, including beach parks, playgrounds, playfields, district parks, botanical gardens, zoos, golf courses and pedestrian malls as well as privately owned and/or operated park and recreational facilities which are provided as integral parts of developments."

Commercial

"Except as otherwise specified in the special provisions of each development plan, commercial areas are principally for business or commercial activities, in contrast to other types of economic activities. Limited accessory uses directly related to the principal uses may also be permitted but only on the same lot and not as a principal use."

Public and Quasi-Public

"Public and quasi-public areas include those areas designated for general governmental activities; schools, colleges and universities; airports, harbors, bus yards and other terminals; major health care facilities; major utility plants and substations; landfill sites, corporation yards and maintenance yards of public agencies; religious, social and social service institutions; and other public services."

Section 24-1.10 of the DP Common Provisions contains a set of social impact factors which are used in evaluating any proposed development as they pertain to the objectives of the general plan (see related discussion in Chapter 5).

(2) Special Provisions

The DP Special Provisions for Ewa set forth urban design considerations for development within the district for open space and public views. Open space urban design considerations state that the "visibility, preservation, enhancement and accessibility of open space areas as defined in Section 24-1.4 of the development plan common provisions shall be given high priority in the design of adjacent and nearby developments in Ewa..." The discussion of public views states "In order to promote pleasing and attractive living

environments in existing and new neighborhoods, *mauka* and *makai* views, and views of central Honolulu shall be protected whenever possible."

The proposed residential development will include landscaping and open space, and maintain views where possible. The proposed residential units will be set back from major roadways and will be no higher than three stories in height. Public open spaces including parks will be provided in accordance with Development Plan Common Provisions and Park Dedication Ordinance requirements.

Section 24-3.2(a)(3) and (4) of the Special Provisions for Ewa establish the following general residential height and density controls:

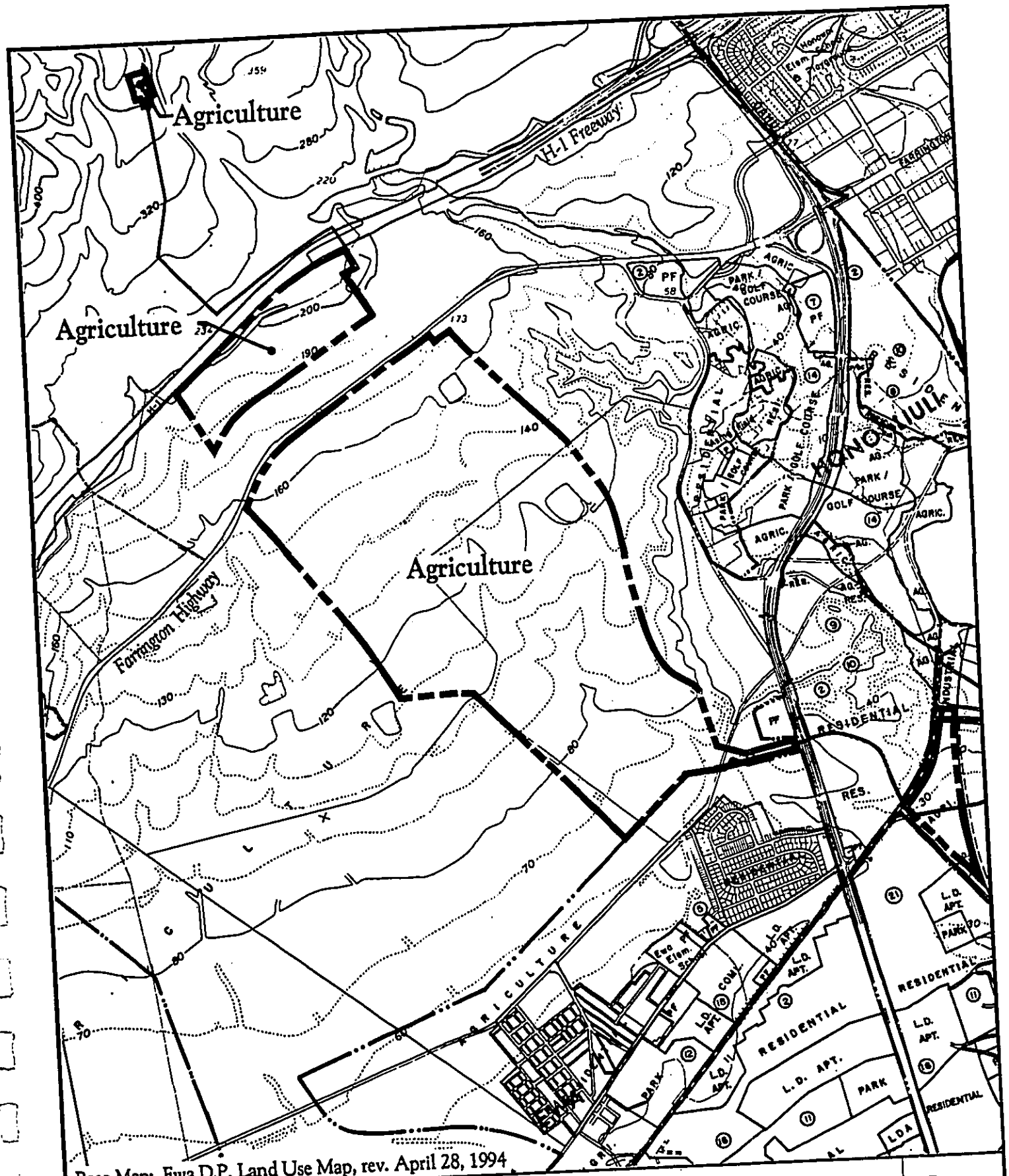
DP Land Use	Height Limit (feet)	Density Limit (units/net acre)
Residential	25	12
Low Density Apt.	30	30

As stated previously, the project will include both single family units at about 7 units/acre, townhomes at 11 units/acre and affordable multi-family homes in the 20 units/acre range. In order to maintain maximum design flexibility, the applicant has requested designation of all residential areas of the project within the Low Density Apartment category, which will allow three-story building heights and densities up to 30 units per net acre.

The applicant proposes the establishment of a new "Special Area" for the project district. Specific language is included in Appendix N.

(3) DP Land Use Map

The entire project area is designated Agricultural on the Ewa DP Land Use Map (Figure 8). The proposed DP Land Use Map designations based on the preliminary concept plan are presented in Figure 9. Requested land use designations are identified in Table 5 below.



Base Map: Ewa D.P. Land Use Map, rev. April 28, 1994

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Figure 8

Existing D.P. Land Use Map

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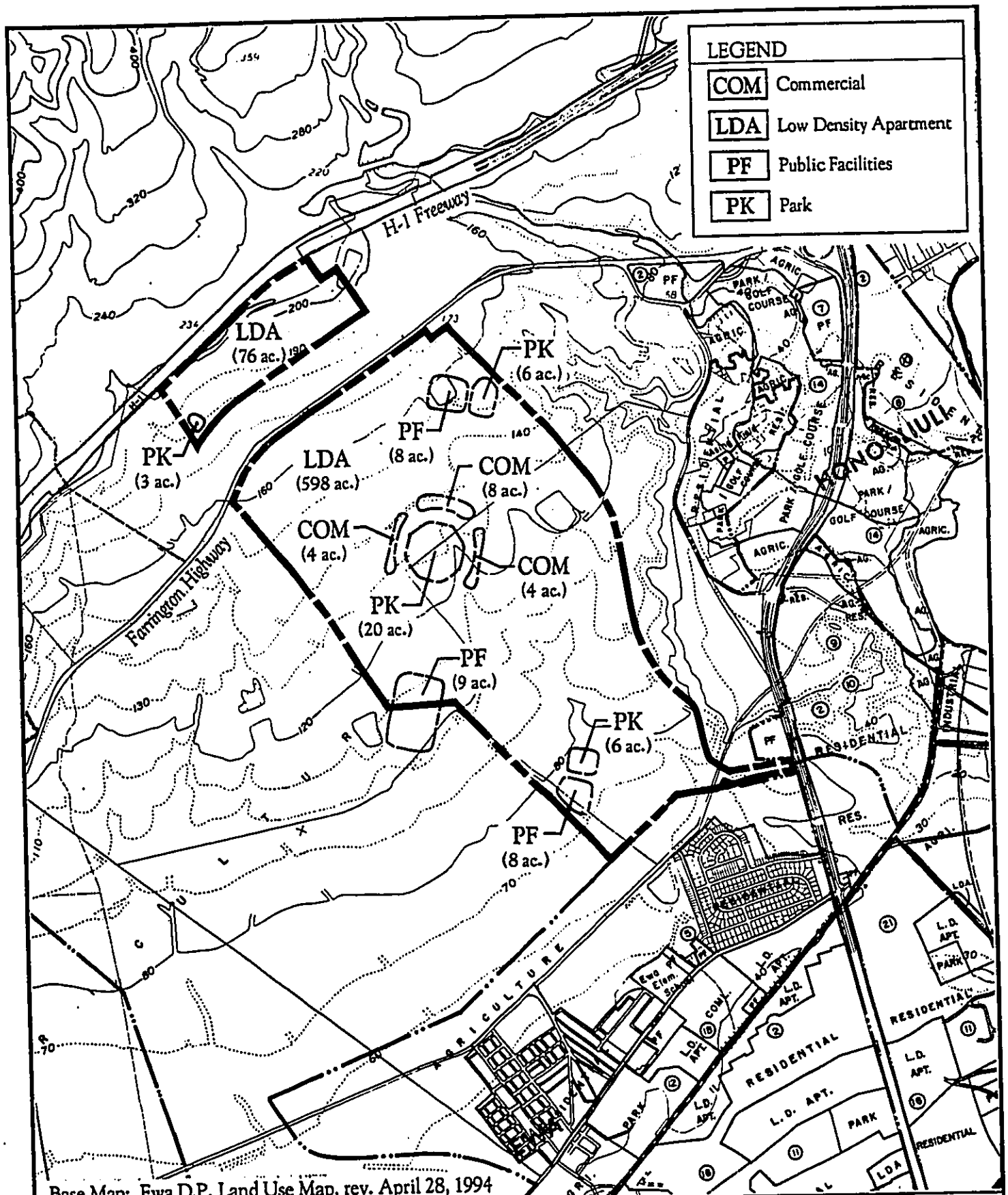

Base Map: Ewa D.P. Land Use Map, rev. April 28, 1994

Proposed DP Land Use Map

EAST KAPOLEI PROJECT

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Figure 9

Table 5:
Requested Development Plan Land Use Designations and Acreages

Land Use Category	Total Acres
Low Density Apartment	674
Commercial	16
Public and Quasi-Public	25
Parks and Recreation	35
Total (Application Area)	750
Off-Site Infrastructure	43
Total (Project Area)	793

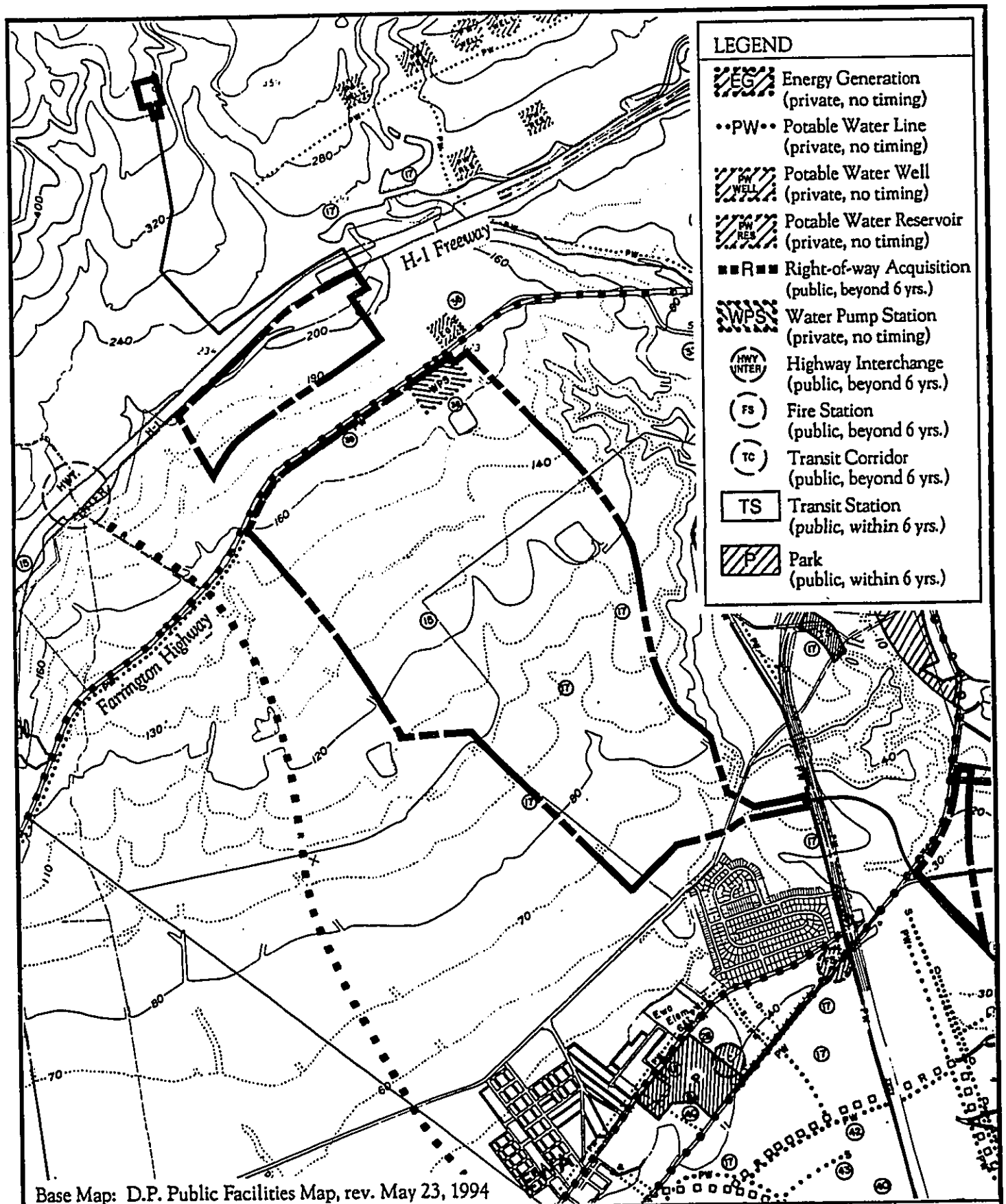
(4) DP Public Facilities Map

The DP Public Facilities Map for Ewa (Figure 10) indicates planned and ongoing improvements to roadways, water and wastewater facilities in the vicinity of the area of application area. A description of the various proposals is summarized below. Public Facility map amendments necessary to support this application will be submitted in 1996.

Public Funding, Programmed Beyond Six Years

The Public Facilities map (revised May 23, 1994) indicates a north-south access road along the western boundary of the project area; intent to acquire rights-of-way for the North-South Road/H-1 freeway interchange and widening of Farrington Highway beyond six years. Hawaiian Electric Co. has completed the Ewa Nui Substation across Farrington Highway from the northeast corner of the site, and the former Ewa substation has been removed.

The alignment of the North-South Road shown on the project concept plan varies slightly from the alignment shown on the DP Public facilities map. However, the concept plan alignment is consistent with the Department of Transportation Service's current plans for North-South Road.



Base Map: D.P. Public Facilities Map, rev. May 23, 1994

Existing D.P. Public Facilities Map

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

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Figure 10

Private Funding

Construction of a water pump station/booster pump has been completed by The Estate of James Campbell near the northeastern corner of the main project area. The booster pump and proposed potable water transmission line along Farrington Highway will serve the City of Kapolei.

3.3.3 Honolulu Land Use Ordinance

According to the City and County of Honolulu Land Use Ordinance and Zoning Maps, the entire project area is zoned AG-1, Restricted Agricultural. An application for rezoning the application area to support proposed residential development will be submitted to the City in 1996.

3.3.4 Resolution No. 94-296

Resolution No. 94-296 was adopted by the Honolulu City Council on December 1, 1994. The resolution established a new objective and policies for storm water management of the City and County of Honolulu. The objective of the storm water management policy is to "achieve a net decrease in the volume and rate of storm water runoff, to increase infiltration to groundwater supplies, and to improve the quality of storm water entering surface and groundwater supplies and receiving water."

Its policies include:

1. No overall increase in the peak flow level and volume of storm water runoff into receiving waters designated water quality limited segments by the State Department of Health by requiring that "other new developments" achieve, where feasible, no increase in storm water runoff;

2. To encourage all levels of government, agencies and developers to employ methods of retaining or detaining storm water for gradual release into the ground, as the preferred strategy for the management of storm water;

3. To require, where feasible, permanent best management practices and engineering controls at developments to reduce the discharge of pollutants in runoff into the municipal storm sewer systems; and

4. To utilize, where feasible, any open space, including parking lots, landscaped areas, mini and community parks, and golf courses, private and public, to detail or infiltrate storm water flows to reduce their volume and runoff rates.

The East Kapolei project is confined to the West Loch drainage basin. The project will provide an on-site drainage system and a channel connecting to an existing detention basin and the new Ewa by Gentry-East facilities south of the West Loch Fairways subdivision.

4

Assessment of Existing Conditions, Probable Impacts and Mitigation: Physical Environment

CHAPTER 4
ASSESSMENT OF EXISTING CONDITIONS, PROBABLE IMPACTS AND MITIGATION: PHYSICAL ENVIRONMENT

4.1 Climate

The Ewa area is semi-arid and one of the sunniest areas on Oahu. Rainfall averages just slightly over 20 inches per year. Average low temperatures range from about 60 degrees Fahrenheit in the winter to about 70 degrees in the summer. Average high temperature ranges from just under 80 degrees in winter to just under 90 degrees in the summer. Surface winds are dominated by the northeast tradewinds. Low velocities (less than 10 mph) occur frequently, and the trades tend to break down in the fall, giving way to more light, variable wind conditions through the winter and into the early spring.

Evaporation rates on the Ewa plains have heretofore only been significant for the purposes of monitoring and estimating water needs for sugarcane crops. Evaporation rates on the Ewa plain are high and primarily driven by wind energy. Due to the fact that the tradewinds will continue to be the primary influence on the climate in the area, it is not anticipated that development of the site will significantly impact regional climatic conditions.

The change in land use from a predominantly agricultural use to a residential use in part results from the closure of Oahu Sugar Company, which has already occurred without the influence of the proposed project. The urbanization of the area will significantly alter the microclimate of the project area from one associated with agriculture to one associated with a fully-developed residential area. Changes in air temperature and/or groundwater recharge which occur when sugar operations cease are not directly attributable to the East Kapolei development.

4.2 Geology and Topography

The two major land forms in the Ewa region are the Ewa Plain and the Makakilo upland. The H-1 Freeway and Farrington Highway are the general boundaries of the two land areas. The cinder cones, or *pu'u* along the Waianae Mountain Range form the peaks of that region: Manawahua, Kapuai, Makakilo, Palailai and Kapolei.

The Ewa Plain is an elevated coral reef covered by alluvium. Elevations vary from about 50 feet above mean sea level (MSL) near the southern boundary at Barbers Point to 2,300 feet above MSL at Puu Manawahua, the highest peak in the Ewa region.

The topography of the project area is relatively flat to gently sloping toward the ocean. The highest elevation is at the upper water tank site, about 440 feet above MSL. The lowest elevation is at the West Loch detention basin which lies about 10 feet above MSL (see Figure 11). The developable areas of the site are generally flat with an overall *mauka-makai* grade of about 1.4 percent.

4.3 Soils

4.3.1 U.S. Soil Conservation Service

According to the U.S. Department of Agriculture, Soil Conservation Service, soils within the project area include Kunia silty clay (KyA); Honouliuli clay (HxA and HxB); Waipahu silty clay (WzA and WzB); Ewa silty clay loam (EaB); and Molokai silty clay loam (MuB and MuC). The most extensive soil type is HxA (approximately 60 percent) followed by KyA (approximately 20 percent). The major soil types are described below and are shown in Figure 12.

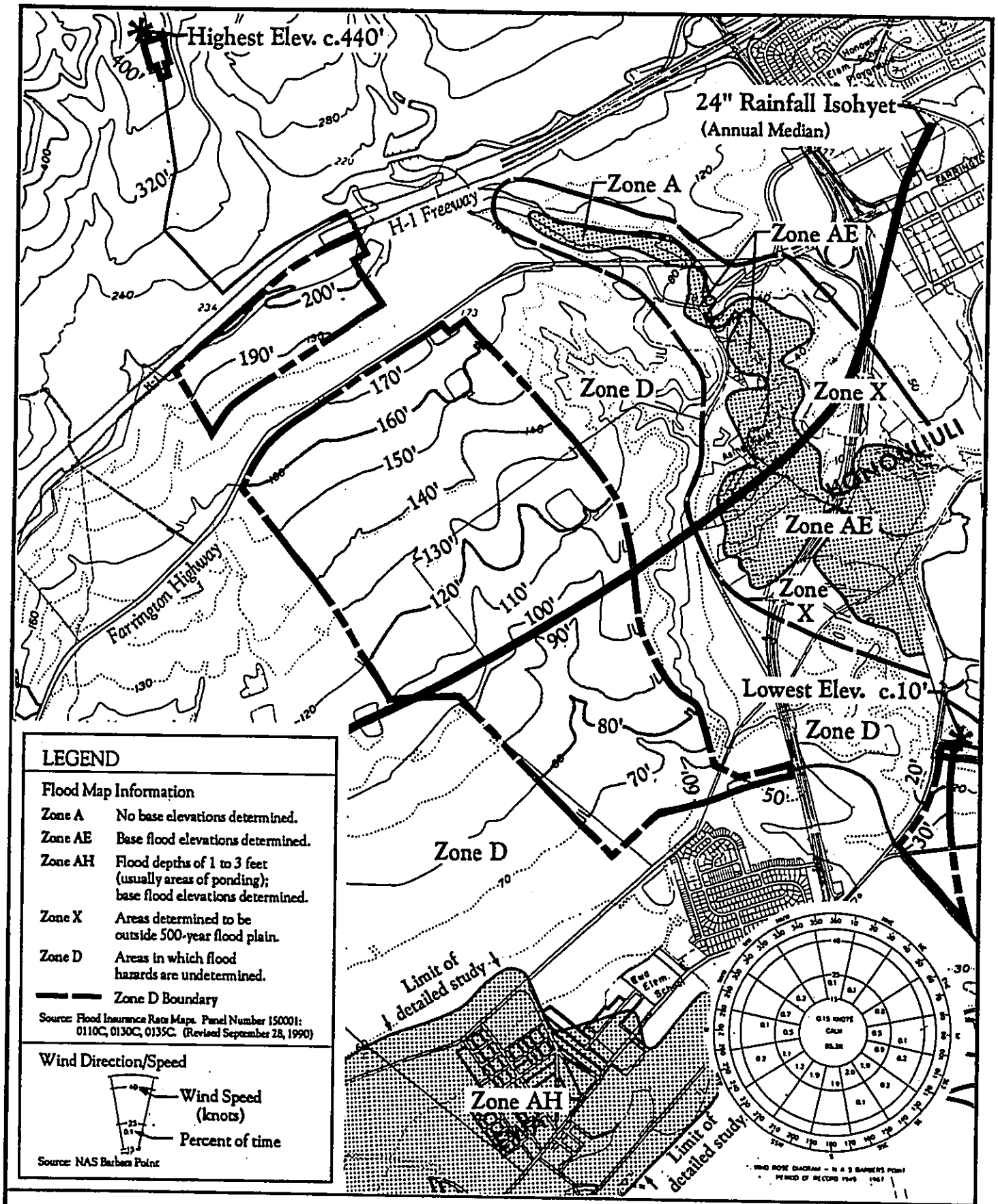
Kunia silty clay, 0-3% slopes (KyA)

The Kunia series consists of well-drained soils on upland terraces and fans on the island of Oahu. These soils developed in old alluvium. Kunia silty clay, 0-3% slopes occurs on broad smooth slopes.

In a representative profile the surface layer is dark reddish-brown silty clay about 22 inches thick. The sub-soil, 40-71 inches thick, is dark reddish-brown silty clay and silty clay loam that has subangular blocky structure. The substratum is dark reddish-brown gravelly silty clay. Permeability is moderate, runoff is slow and erosion hazard no more than slight.

Honouliuli clay, 0-2% slopes (HxA) and 2-6% slopes (HxB)

This soil series consists of well-drained soils on coastal plains in the Ewa area of Oahu. This type of soil comprises the majority of the project area. Honouliuli clay soils developed in alluvium derived from basic igneous material. Permeability is moderately slow, runoff is slow and the erosion hazard no more than slight. Workability is slightly difficult because of the very sticky and very plastic clay. The shrink-swell potential is high.



Environmental Conditions

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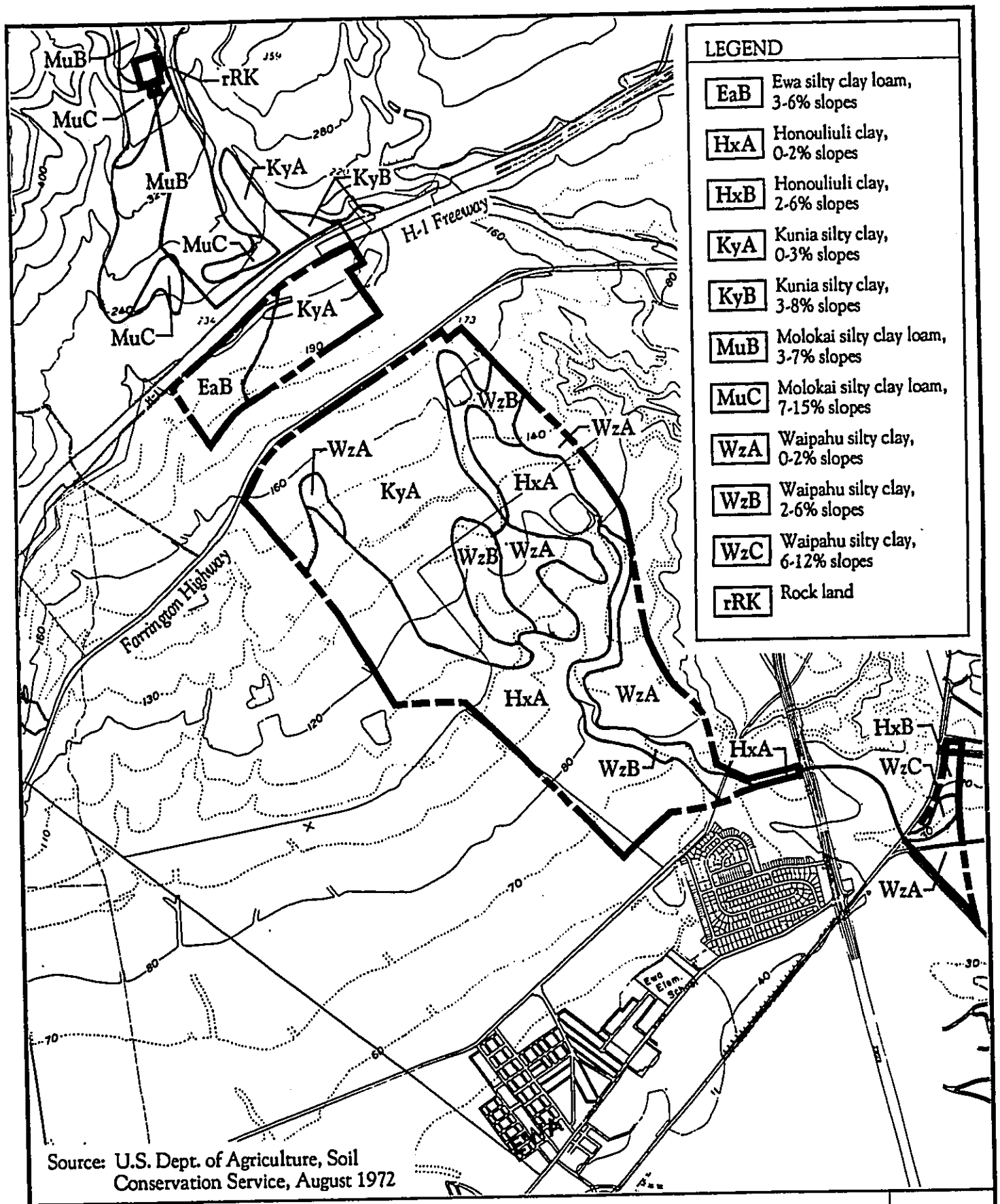
Figure 11



Source: U.S. Dept. of Agriculture, Soil Conservation Service, August 1972

SCS Soil Survey Map

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Figure 12

Waipahu silty clay, 0-2% slopes (WzA) and 2-6% slopes (WzB)

This soil series consists of well-drained soils on marine terraces on Oahu. WzA occurs on dissected terraces adjacent to the ocean. Permeability is moderately slow, runoff is slow to very slow and the erosion hazard is none to slight.

Ewa silty clay loam, 3-6% slopes (EaB)

This soil occurs on alluvial fans and terraces. Permeability is moderate, runoff is slow and the erosion hazard slight.

Molokai silty clay loam, 3-7% slopes (MuB) and 7-15% slopes (MuC)

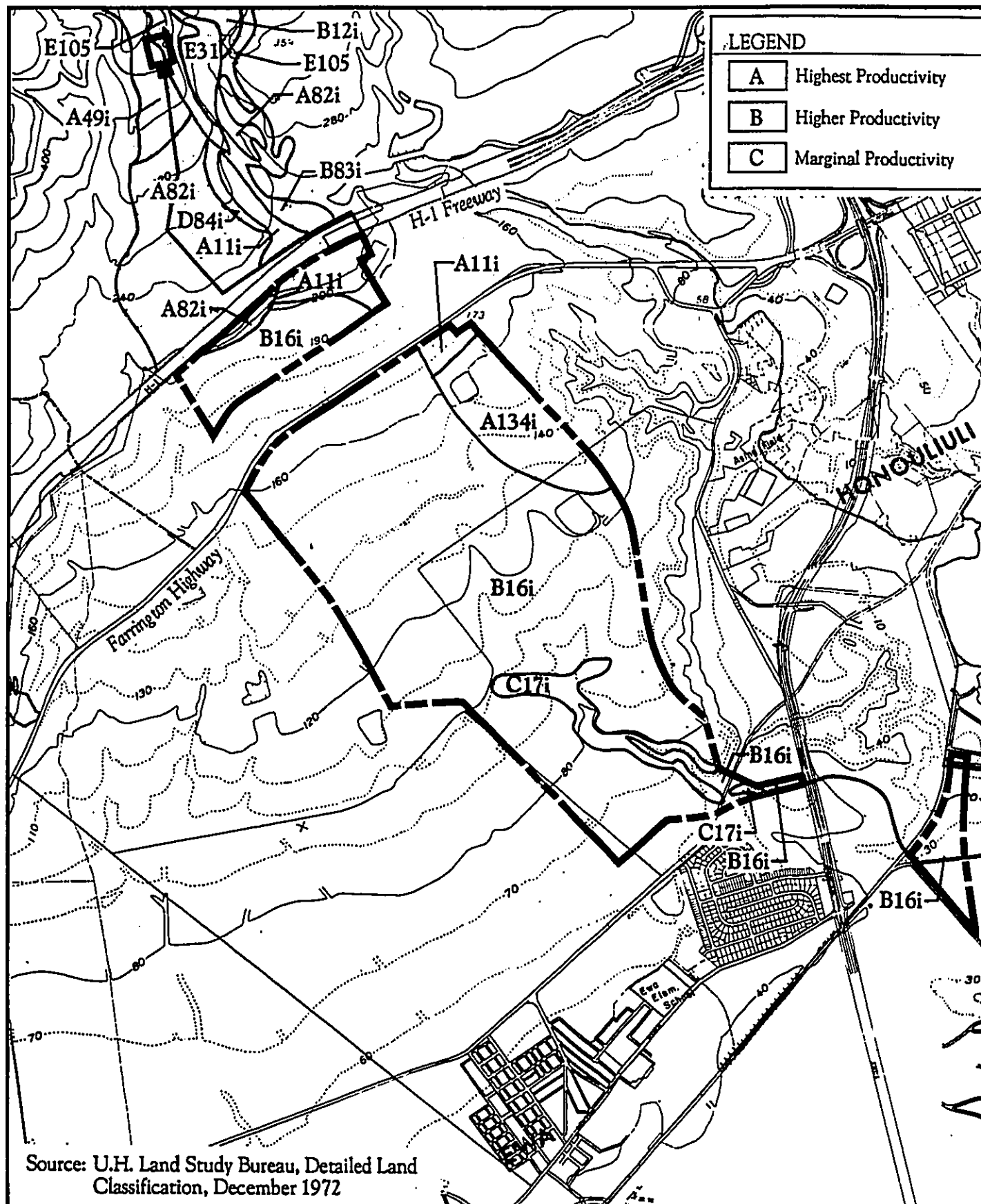
These are well drained soils on upland areas. On this soil, runoff is slow to medium and the erosion hazard is slight to moderate.

4.3.2 U.H. Land Study Bureau Detailed Land Classification

The University of Hawaii Land Study Bureau's (LSB) Detailed Land Classification classifies soils by land type in which classifications are provided for an overall crop productivity rating, with and without irrigation, and for selected crop productivity ratings for seven crops. LSB overall ratings range from A to E, with A being the best. According to the classification, most of the property is Class B or prime agricultural lands, with some Class A land near the western and eastern portions of the project area. There are patches of Class C lands within gully areas and Class E lands in the upper elevations near the water tank site. The LSB classifications are shown in Figure 13.

4.3.3 Agricultural Lands of Importance to the State of Hawaii (ALISH)

The Agricultural Lands of Importance to the State of Hawaii (ALISH) land classification system was developed by the State Department of Agriculture (1977). The ALISH system identifies three broad classes of lands, including "Prime Agricultural Land," "Unique Agricultural Land" and "Other Important Agricultural Land." As shown in Figure 14, the entire application area is designated "Prime Agricultural Land," defined as land best suited for the production of food, feed, forage and fiber crops...Prime agricultural land gives the highest yields with the lowest inputs of energy or money and with the least damage to the environment."



Source: U.H. Land Study Bureau, Detailed Land Classification, December 1972

UH LSB Soil Productivity Ratings

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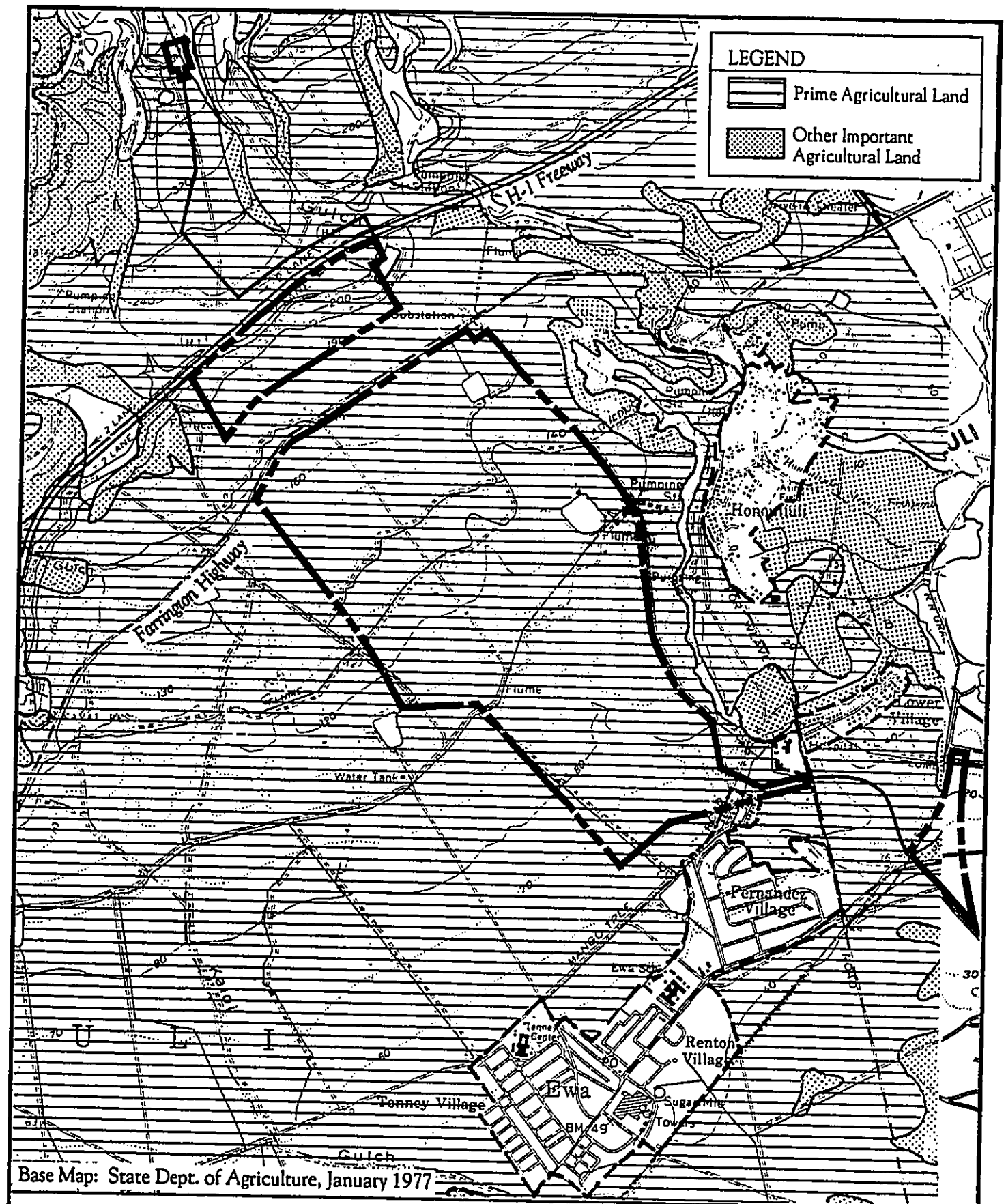
Figure 13



ALISH Map

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Figure 14

4.4 Flooding

Existing Conditions

According to the Flood Insurance Rate Maps (Federal Emergency Management Agency 1990) shown in Figure 10, the project area is designated Zone D, areas in which flood hazard is undetermined. The project site is not located within the coastal high hazard area.

The entire project area lies in the West Loch watershed which drains into the West Loch of Pearl Harbor. Drainage conditions and improvements are discussed in Section 6.4.

Probable Impacts

As discussed in Section 6.4, Drainage, the project drainage system will be designed to minimize on-site and off-site flooding and downstream flood hazards.

4.5 Water Resources

In 1987, the State enacted the State Water Code in order to protect, control and regulate the use of the State's water resources. The State Commission on Water Resource Management (CWRM) is responsible for the administration of the State Water Code, and has designated water management areas (WMAs) in those areas where water resources may be threatened by existing or proposed withdrawals or diversion. The East Kapolei project area is located within the Pearl Harbor Water Management Area (WMA), the largest groundwater body on Oahu, which supplies over 50 percent of Oahu's municipal water demand. Groundwater withdrawals within the Pearl Harbor WMA are regulated by the CWRM. The City and County Board of Water Supply (BWS) coordinates the development and allocation of potable water for urban use on Oahu.

Current City and State policies encourage the conservation of potable water resources and require the establishment of dual water systems in the Ewa area, to allow the use of non-potable water for irrigation and other appropriate uses. Non-potable systems in single family residential areas are not encouraged due to potential health and liability issues. However, current City policies require development of an adequate non-potable water supply for the project's schools, parks, commercial areas and for irrigation along major roadways. Water efficient landscaping should be used whenever and wherever possible to reduce irrigation demand. BWS has also noted that installation of a dual water system may be an option within multi-family residential areas, to further decrease potable water demand.

The project is located *mauka* of the State Department of Health's Underground Injection Control Line. Most of the project area, with the exception of the *mauka* residential parcel, is located *makai* of the Board of Water Supply's "pass-no pass" line, which runs along/*makai* of Farrington Highway. As such, use of non-potable water, particularly in the *makai* parcel would not threaten potable groundwater resources.

4.5.1 Potable Water

There are two primary potential sources of potable water for the East Kapolei project: 1) aquifers within the Pearl Harbor Water Management Area (WMA) and 2) other ground water sources.

Pearl Harbor Water Management Area (WMA)

The Pearl Harbor WMA is comprised of 3 aquifers: Waimalu, Waipahu/Waiawa, and Ewa/Kunia. These aquifers are all nearly fully allocated to existing uses with little excess capacity for new development. However, the Honolulu Board of Water Supply (BWS) has noted that excess allocation is potentially available because of the closure of Oahu Sugar Company (OSCo), formerly a major water user in the Ewa area.

OSCo's former basal groundwater allocation could now be available for diversified agriculture or municipal use. However, because of the substantial reduction of agricultural activity and its associated recharge to the underlying basal aquifer, the Pearl Harbor sustainable yield is expected to decrease from its current level of 184 mgd. A reduction in basal allocation is necessary and this will affect the amount of OSCo's allocation that will be made available to other users. The availability of this excess allocation for municipal use depends on a number of factors, including whether Waiahole Ditch water continues to be available for diversified agriculture in the Ewa plain, and CWRM approval for the water's reallocation to urban use.

If a portion of OSCo's freed-up allocation becomes available for municipal use, BWS has identified new well sites in the Pearl Harbor WMA that could utilize over 30 mgd. These municipal and private well sites include, from east to west, Mililani IV, Waiawa I-III, Waipahu III and IV, Kunia III and IV and the Ewa Shaft. (Personal communication, Barry Usagawa, Board of Water Supply).

Other Water Sources

If potable water from the Pearl Harbor WMA is not available for the East Kapolei project, a second option would be to develop source from other areas of Oahu, particularly the

North Sector (North Shore) and windward sector. Although additional source is available in these areas, this option is likely to involve significant development and transmission costs. Ecological and environmental issues need to be addressed prior to any regional water development plans.

4.5.2 Non-Potable Water

There are several sources of non-potable water which are being investigated to meet East Kapolei's irrigation requirements. They include: 1) use of treated wastewater effluent; 2) Ewa caprock aquifer; and 3) brackish basal aquifer.

Use of Treated Effluent from Honouliuli WWTP

The City Department of Wastewater Management is currently planning to reclaim and make available 10 mgd of treated effluent from the Honouliuli Wastewater Treatment Plant for non-potable water requirements by the year 2001. The City's recently completed *Non-Potable Water Master Plan for Central Oahu* has proposed a 13 mgd secondary treatment facility and a transmission ditch 12,000 feet in length, extending from the Honouliuli WWTP along Geiger Road. A 12,000-foot long backup system is also proposed. The transmission system would provide water to recharge the Ewa caprock aquifer. In fiscal year 1997-98, the City will initiate a year-long pilot project to study the potential for aquifer recharge with reclaimed water, and to evaluate the resulting nearshore water quality impacts. The pilot project will have a capacity of 5 to 6 mgd. If the pilot project indicates the water quality of the Ewa caprock can be improved with effluent recharge with no detrimental effects to nearshore waters, the project will be expanded to provide 13 mgd of recharge, provided that customers can be found to pay for the capital costs of the distribution system and the cost of operating and maintaining the facility and distribution system.

Ewa Caprock and Basal Aquifer

Other potential sources of non-potable water include the Ewa caprock and the brackish basal aquifer. On-site wells would be utilized to tap these sources of non-potable water.

The BWS has indicated that at present, the Ewa caprock is over utilized and that salinity levels of caprock water have risen, primarily due to a reduction in recharge following the closure of OSCo, as well as over commitments of the caprock resource. The methods by which the caprock aquifer may be recharged include rainfall, irrigation and basalt leakage. Researchers such as T. Giambellucca, University of Hawaii Water Resources Research Center, have studied Central Oahu and the Ewa Plain and suggested that recharge through

residential and commercial irrigation can be significant in dry areas. In particular, recharge potential was measurable as compared to areas where no irrigation was occurring (i.e., fallow sugarcane fields). The proposed use of reclaimed wastewater for irrigation discussed above provides significant potential for recharge of the caprock aquifer. Pending the results of the City's proposed year-long pilot project, the caprock could receive recharge of up to 13 mgd, restoring it as a source of non-potable water for East Kapolei.

Use of the brackish basal aquifer is also another option for non-potable water, subject to approval by the CWRM. Potential sources of brackish basal water include OSCo wells in lower Honouliuli EP 3, 4, 5, 6, and 7 and 8; and State No. 2102-02; 04 to 22; 2202-03 to 14; and 2202-15 to 20. (Tom Nance Water Resource Engineering, October 1994). However, the commitment of basal water for non-potable uses will directly compete with basal allocation for potable needs. The utilization of a non-potable basal resource will also require an extensive regional dual water system.

4.6 Flora

Existing Conditions

A biological survey of the former project area was conducted by Evangeline Funk, Ph.D. (July, 1994). An addendum to that study was conducted in November 1995 to include the new areas (*mauka* residential area and upper water tank site). Both studies are included as Appendix H. No proposed or listed, threatened or endangered species were found during field surveys of the site. Three vegetation types can be found in the study area: 1) ruderal or wayside vegetation, 2) Koa haole/grass, and 3) (now fallow) agricultural fields. None of these vegetation types contained endemic (native only to Hawaii) or indigenous (native to Hawaii and other places) plant species in great numbers. The three indigenous plants found on site, Ilima (*Sida fallax* L.), Popolo (*Solanium americanum* Mill.) and Akulikuli (*Sesuvium portulacastrum* L.) are still very common in the coastal lowlands of most of the Hawaiian Islands. The remaining botanical resources on the site are introduced plants, most of which are considered to be weeds.

Probable Impacts

The development of the site will not have a significant impact on the flora of the area. The project area has been under cultivation for many years, and as a result, the native plant community has completely disappeared. The type of vegetation found on the site is common throughout the islands.

4.7 Terrestrial Fauna

Existing Conditions

Appendix H also includes a discussion of the terrestrial fauna inhabiting the site. Only one species of mammal was found during the field survey, a Mongoose (*Herpestes auropunctatus*). During the second (1995) field survey, the tracks of a single, small pig (*Sus scrofa*) were identified in the *mauka* residential site, although no pig was seen.

During the initial field survey, fourteen species of birds were found on and around the study site. No threatened or endangered species were found. The identified birds included White-eyes *(Zosterops japonicus)*, house sparrow (*Passer domesticus*), common waxbill (*Estrilda astrild*), chestnut mannikin (*Lonchura malacca*), nutmeg mannikin (*Lonchura punctlata*), red crested cardinal (*Paroaria coronata*), northern cardinal (*Cardinalis cardinalis*), bulbul (*Pycnonotus cafer*), cattle egret (*Bubulcus ibis*), house finch (*Carpodacus mexicanus*), spotted dove (*Streptopelia chinensis*), zebra dove (*Geopelia striata*), rock dove (*Columba livia*) and common myna (*Acridotheres tristis*). On the second field survey, a single lesser golden plover *(Pluvialis dominica)* was also noted; but no other plovers were seen.

Because the entire site has been extensively modified by agricultural activities, it has almost no value as native bird habitat. However, it does support a variety of non-native species. In the 1994 report, Dr. Funk noted that the two most important bird observation areas were along the flumes and water ways and in the Koa haole/grass vegetation type found along Kaloi Gulch. The current project area no longer abuts the Kaloi Gulch.

Probable Impacts

The project will not have an impact on threatened or endangered species of terrestrial fauna.

4.8 Air Quality

An analysis of potential air quality impacts was conducted by J. W. Morrow, Environmental Management Consultant (October 1994) and updated in December 1995 for the current concept plan. Both the original and update studies are included as Appendix I. The purpose of the study was to assess the impact of the proposed development on air quality on a local and regional scale; particularly, the project's ability to generate traffic and the resultant impact on air quality. In the 1995 study, air quality was evaluated for the year 2010 with and without the project.

Existing Conditions

There are no State Department of Health air monitoring sites in the immediate vicinity of the project site. The nearest monitoring stations are at Pearl City and Barbers Point, which measure particulate matter. Particulate matter levels are well below the State standard levels. Likewise, monitoring results from the Department of Health building in downtown Honolulu indicates compliance with all other standards. Air quality at the project area was expected to be comparable or somewhat better, given the site's more rural location.

Probable Impacts

Short-Term Impacts. The principal source of short-term air quality impacts will be construction activity, including construction vehicle emissions and particulate emissions associated with earth moving operations. The fine soils and dry climate found in the project area suggest an increased potential for fugitive dust emissions. During construction, there will also be off-site air quality impacts due to the operation of concrete and asphalt batching plants needed for construction.

Operational Period Impacts. Potential operational-period impacts are limited to vehicular emissions and indirect impacts associated with electrical power generation (fossil-fuel emissions) and solid waste disposal (H-POWER combustion emissions). Air quality impact was evaluated based on traffic projections for the years 2005 and 2011, with and without the project The analysis indicates there is some potential for exceeding the state's one-hour carbon monoxide (CO) standard in close proximity (i.e., within 10-meters) of planned intersections along the proposed North South Road during both a.m. and p.m. peak traffic hours. Even without the project, exceedances are predicted during the a.m. peak hour at the intersection with Farrington Highway. No exceedences of the federal CO standard are predicted.

Off-site, electrical power demands and solid waste disposal are not expected to have a significant impact on air quality.

Mitigation

Appropriate dust control measures will be employed during construction activities to minimize potential for fugitive dust emissions. Dust control could be accomplished through frequent watering of unpaved roads and areas of exposed soil. Landscaping at the earliest time possible will also mitigate fugitive dust impacts.

As noted in the study, possible exceedances of state carbon monoxide standards are predicted for 2010 with the project. Factors which mitigate against this being a serious

concern for the project are that the predicted exceedances were found only very close to the intersection (within 10 meters of the roadway) and only at particularly receptor locations. Also, the probability of "worst case" conditions occurring and persisting for one to eight hours is low. Potential automobile CO impacts will be mitigated by setting back residential uses beyond 10 meters of the proposed North South Road intersections.

Appropriate energy conservation measures (i.e., use of solar water heaters, heat pumps, energy-efficient design, etc.) should be considered to minimize electrical power demands. Recycling and composting measures should be considered to minimize solid waste generation.

4.9 Noise

Existing Conditions

An Environmental Noise Assessment was completed for the project by Darby and Associates (September 1994), and updated in December 1995 for the current concept plan. The original and update studies are included as Appendix F. The Noise Assessment found that the project site is currently exposed to low ambient noise levels of approximately 48 dBA, which is typical of rural areas. The dominant noise sources include traffic, wind in foliage and occasional distant aircraft flyovers.

Probable Impacts

Construction Noise. Short-term, temporary noise impacts will be generated during project construction by earth moving equipment such as bulldozers and diesel-powered trucks. This may impact nearby residential areas. The actual noise depends on the methods employed during each stage of the construction process. Blasting, if required, could also produce noise impacts.

Traffic Noise. The Noise Assessment estimated traffic noise increase as a result of the project. The projected future traffic noise increases during peak traffic along Farrington Highway due to the project were determined to be 2.1 dB. This noise level increase may be perceptible by some people at noise sensitive locations along Farrington Highway, but to most people, such a small increase would be imperceptible. Noise increases along the H-1 Freeway due to project-generated traffic were estimated to be 0.2 dB, which is considered insignificant.

The proposed residential areas may also be impacted by traffic noise. The Federal Highway Administration's Traffic Noise Prediction Model was used along with traffic data to predict future noise levels along the H-1 Freeway, Farrington Highway, North-South Road and interior arterials. Table 6 shows the "worst case" setback distances at various

locations required in order to meet federal Department of Housing and Urban Development's (HUD) "Acceptable" site criteria. The noted "locations" are shown in the December 1995 Noise Assessment Study (Appendix F). The estimated setback distances are "worst case" and detailed analysis may allow smaller setbacks.

Table 6:
Estimated Minimum Setback Distances for Residences*

		HUD "Acceptable" Site	HUD "Normally Unacceptable" Site		HUD "Unacceptable" Site
Location	Roadway	Ldn < 65	Ldn 65-70	Ldn 70-75	Ldn > 75
1.	H-1 Freeway	>2235'	2235' to 717'	717' to 239'	239' to ROW
2.	Farrington Hwy	>291'	291' to 100'	100' to ROW	N/A
3.	Farrington Hwy	>210'	210' to 73'	73' to ROW	N/A
4.	North-South Rd.	>210'	207' to 74'	74' to ROW	N/A
5.	Interior Arterial	>39'	39' to ROW	N/A	N/A
6.	Interior Arterial	>62'	62' to ROW	N/A	N/A
7.	Interior Arterial	>57'	57' to ROW	N/A	N/A

Source: Darby & Associates, December 1995

*For multi-story, naturally ventilated residences. Based on HUD traffic noise criteria. Noise based on distance from right-of-way (ROW) centerline and 6.5 feet HUD requirement between noise level prediction location and the building setback line.

Aircraft. The project site is within approximately four to eight miles of Honolulu International Airport/Hickam AFB and Barbers Point Naval Air Station. Due to the distance from the site, the overall day-night average sound level (Ldn) due to air traffic will be less than 55 dBA, which is compatible with State Department of Transportation residential guidelines. However, infrequent aircraft flyovers may at times be audible at the site.

Sugarcane Agriculture. All sugarcane operations in the area terminated in 1995. There should be no noise impacts from agricultural activities on the proposed residential areas.

Mitigation

During construction, all State Department of Health noise regulations and conditions for construction activities will be followed. Construction equipment and on-site vehicles

requiring an exhaust of gas or air will be equipped with mufflers. Construction-related blasting, if required, will utilize appropriate blast design techniques to minimize noise impacts on populated areas (i.e., using numerous small charges detonated with small time delays, and blast mats to direct the explosive energy into the rock, controlling flying debris and muffling noise).

Detailed analysis of specific building projects may allow smaller setbacks than the "worst case" distances indicated in Table 6. For example, if portions of specific roadways are elevated above the future housing, e.g., along the H-1 Freeway, a barrier may effectively shield windows of second floor units allowing substantially less setback, if optimum planning, grading and design are incorporated. In general, traffic noise level exposures vary with building setback, height of building and fenestration, local topography, foliage and possible shielding from neighboring structures.

As indicated in the table, residential units requiring the greatest noise mitigation are those that will be located closest to the H-1 Freeway (i.e., *mauka* residential area). HUD standards (for HUD/FHA financing) for housing exposed to 65 to 70 dBA require a minimum of 5 dB attenuation. A minimum of 10 dB attenuation is required for housing areas exposed to sound levels between 70 and 75 dBA.

An additional 5 dB of attenuation can usually be achieved by one of the following measures:

- Constructing a noise barrier wall which blocks the line-of-sight between the noise source and the unit's windows.
- Installing carpeting with minimum 40 oz. padding, louvered closet doors, and/or absorptive ceiling tiles in the affected bedrooms.

An additional 10 dB of attenuation can usually be achieved by implementing both measures above or providing air conditioning and using standard windows with good seals in conjunction with normal double wall construction and insulation. Jalousie windows should not be used in the impacted dwellings.

4.10 Visual Resources and Open Space

Existing Conditions

At present, most of the project area is fallow sugar cane fields. The property is visible but not easily defined from the H-1 Freeway and Farrington Highway. When traveling northbound, the project area is visible from the Ewa Villages golf course and residential areas. Major viewplanes from the site are toward downtown Honolulu and Diamond Head to the southeast and toward the Waianae Mountain Range to the north of the site.

Probable Impacts

Development of the project will gradually and irretrievably alter the visual resources along Farrington Highway, the H-1 Freeway, and from the Ewa Villages and *makai* areas. The present agricultural fields/open space will diminish as new urban uses are developed.

Due to the relatively flat topography of the developable areas, views of Honolulu will be obstructed by multi-story development for all parcels except those along the property's fringes. From areas *makai* of the project site, major views of the Waianae Range should not be obstructed by the development.

Mitigation

The design and landscaping of the proposed development will minimize adverse visual impacts. Setbacks and landscaping will be provided along the major roadways and Farrington Highway. Two 6-acre neighborhood parks, a 2-3 acre mini-park and a 20-acre central park will be included to provide additional open space. Landscaped greenbelts throughout the development will allow pedestrian and bicycle access and provide open space corridors. The project will avoid visually intrusive development, with buildings no higher than three stories.

4.11 Historic, Cultural and Archaeological Resources

Existing Conditions

The entire project area is part of the Honouliuli *ahupua'a* purchased by James Campbell in 1877. The project area has been under intensive and continuous sugar cultivation since the late 1890's. No archaeological, cultural or historic resources are known to exist within the project area.

The earliest detailed map of the area shows no habitation closer than the western edge of West Loch in the vicinity of Papapapuhi Point (Hoaeae Peninsula). The Monsarrat survey map of 1878 documents substantial settlement at the "Honouliuli Taro Lands" in the Papapapuhi Point area, and it seems clear that in early historic times, that was the focus of the population of the Honouliuli ahupua'a. The amenities of that area, such as fishponds, taro lo'i, shellfish collecting and salt drying would have focused population there in prehistoric times, and the name of that place must have secondarily come to apply to the entire ahupua'a. (Cultural Surveys Hawaii, 1990).

The earliest archaeological study in Honouliuli by McAllister (1933) noted, "*The Ewa coral plains contain many sites throughout the area. The greatest extent of old stone*

walls, particularly near the Puuloa Salt Works, belongs to the ranching period of about 75 years ago [circa 1858]". The only other early documented site in the vicinity was a heiau on Puu Kapolei.

The Oahu Railway and Land (OR&L) right-of-way (ROW) is an historic resource in the general vicinity of the project area. The 40-foot wide ROW was constructed in the late nineteenth century and extends for 15 miles from near Kahe Point to just *mauka* of NAS Barbers Point, and then follows Renton Road to Honouliuli. Most of the ROW is owned by the State Department of Transportation.

Probable Impacts

Due to the absence of information to the contrary, no significant impact on historic, cultural or archaeological resources is anticipated. The Department of Land and Natural Resources, State Historic Preservation Division (DLNR-SHPD) has concurred that the project will have "no effect" on historic sites (Hibbard, September 22, 1994 and December 4, 1995--Appendix C).

The project will comply with all notification and stop work requirements if potentially historic or archaeological remains should be encountered during construction.

4.12 Interrelationships and Cumulative Impact: Physical Environment

Chapter 200 of Title 11, Environmental Impact Statement Rules (11-200-17(I)) requires a discussion of the interrelationships and cumulative impacts of the proposed action and other related projects, and of the project's secondary effects. The project will alter the physical environment of the project area, from an open, former agricultural area to an urban setting. There will no significant cumulative impact on climate, geology, soils, flood conditions or groundwater resources. The transformation of the area from an agricultural to an urban environment will alter the region's flora and fauna, but will not have any significant adverse cumulative effects on any existing species. The project will directly result in an increased number of vehicles within the project area and surrounding areas, which will have a cumulative impact on the region's air quality and traffic-related noise.

5

Assessment of Existing Conditions, Probable Impacts and Mitigation: Socio-Economic Environment

CHAPTER 5
ASSESSMENT OF EXISTING CONDITIONS, PROBABLE IMPACTS AND MITIGATION: SOCIO-ECONOMIC ENVIRONMENT

A Socio-Economic Impact Assessment for the former East Kapolei concept plan was completed by Community Resources, Inc. (CRI), a division of SMS Research and Marketing Services, Inc., in November 1994, and updated in December 1995 for the present plan. Both the original study and the update are included as Appendix E. The studies examined population, demographic, employment and income characteristics and project impacts. CRI's findings are discussed in the first four sections of this chapter.

5.1 Population and Potential Impact on Surrounding Communities

Existing Conditions

The Ewa area of the island of Oahu is comprised of many different and distinct communities, including the older communities of Ewa Beach and Ewa Villages, and the newer developments at Kapolei, Ewa Gentry and Makakilo. In 1990, 42,983 people lived in Ewa, or about 5 percent of Oahu's population. The average annual growth rate for the City and County of Honolulu's Ewa Development Plan (DP) area from 1980 to 1990 was 1.87 percent, and is forecast at about 4 percent between 1990 and 2010 (The City and County uses various projections. The State's "M-K Series" (Department of Business & Economic Development, 1988) continues to be official, but various updates are under review).

The last year has seen continuing growth in the Ewa district. Residential development continues to lead overall development, although there has also been some commercial development in the City of Kapolei.

Future Without Project

State and City population policies have called for the development of a "second city" in Ewa with increased residential and commercial development. The Population guidelines for the City and County DP areas reflect a policy of directing growth to Ewa, with slow growth or stable populations in other regions.

The Ewa Development Plan, which is currently undergoing revision by the City, presents a vision that by the year 2020, the City of Kapolei will provide work sites for 25,000 private jobs and 5,000 City and State jobs, and house over 7,000 residents. Substantial residential

growth (almost 28,000 new units by 2020) is anticipated to occur in the master planned communities of East Kapolei, the city of Kapolei, Ewa by Gentry, Ewa Marina, Ewa Villages, Laulani, Makaiwa Hills, Makakilo and the Villages of Kapolei.

The City and County Planning Department's preliminary estimate of Ewa's 2010 population, if current trends continue, is 103,300, or 10.2 percent of the islandwide population. This estimate is well below the General Plan guidelines for 2010 The projected population for Ewa for the year 2020 is 124,800, or 11.7 percent of the islandwide population. (Planning Department, Preliminary Data 1995).

While housing development has been slower than proposed, Ewa residents comment that housing development has far outstripped job creation and development of needed infrastructure and facilities. Planned public and commercial facilities will help to make Kapolei a regional center, if these are developed as scheduled.

Probable Impacts

Residential Population. The project will provide a mix of multi-family and single family housing and will increase the resident population of the area. At full build-out, the total population would be about 22,400 (assumes 2.8 persons per household)[1]. The project will contribute toward relieving the limited supply and increasing cost of housing on Oahu.

The project will house Oahu residents, and will not attract potential residents from off-island. Even with the project, the population of the Ewa DP area will be well within General Plan guidelines. This was indicated previously in Table 4, and shown again here as Table 7:

[1] Projected household size for the project was estimated by CRI using projected 2010 household size estimates for West Loch Estates and Ewa by Gentry master-planned communities, prepared by the City Planning Department (Planning Department 1993).

Table 7:
Year 2010 and 2020 Population in Ewa: Policy vs. Projection

	Share of Island Population	Population
Year 2010		
General Plan Policy	12.0% - 13.3%	121,452 to 134,609
Planning Dept. Forecast*	10.2%	103,300
Year 2020		
General Plan Policy	12.0% - 13.3%	128,544 to 142,470
Planning Dept. Forecast*	11.7%	124,800

*Preliminary Data, Honolulu Planning Department 1995. Population forecast includes DP approved and proposed projects, including East Kapolei.

By helping to achieve the General Plan population guidelines for Ewa, the project will also help to limit population growth in other areas.

Continuing population growth will bring to Ewa a customer base for proposed commercial developments and a citizenry needing planned improvements. Development of the project will add to the number of residents needing public facilities and services. In the short run, this may mean increased frustration over such problems as traffic congestion. In the long run, the greater the regional population, the more justification will exist for expensive infrastructure (such as the North-South Road) and for locating public services in Ewa.

De Facto Population. The project will have no effect on visitor population, as it has no facilities to attract persons from other areas.

5.2 Housing

Existing Conditions

As Oahu's designated "second city," the Ewa area is experiencing a boom in housing development. In the mid 1980's, new residential construction began with the first phases of these projects: Ewa by Gentry, Villages of Kapolei and West Loch. In 1990, there were 11,734 housing units. By mid-1993, 15,301 units had been built (Honolulu Planning Department, September 1994).

Section 2.3 of this document presented a brief description of several major residential areas within the Ewa-Kapolei region, including older, established communities as well as

newer planned communities which are still expanding. The plantation-era Ewa Villages is located immediately south of the project area. Two thirds of the households are owner-occupants, with one-third renters. Ewa Beach, just further south, was developed in the 1940's and had 3,426 housing units in 1990. The Naval Air Station (NAS) Barbers Point is a Navy aviation facility which had 2,218 residents in 1990. Although the air station is scheduled to close in 1999, the existing Navy housing units, as well as recreation areas will be retained. The residential area of Makakilo is located *mauka* of the H-1 Freeway. Up to 6,174 homes are anticipated at Makakilo at build-out.

More recent residential development in Ewa includes Ewa by Gentry, which in by mid-1994 had over 3,000 homes. The West Loch project was developed by the City and County of Honolulu, and encompasses 491 acres in Honouliuli, on the western edge of Pearl Harbor's West Loch. A total of 1,421 units were completed through the middle of 1994, with a total of 1,600 residential units planned by buildout. The Villages of Kapolei is being developed by the State Housing Finance and Development Corporation. The first homes were completed in 1990, with up to 5,000 units planned at buildout. As of the end of 1994, there were about 1,400 units completed at the Villages of Kapolei.

Future Without Project

Between 1993 and 2010, an estimated 23,075 new units will be built for Hawaii residents in Ewa.

Probable Impacts

At full build-out, the East Kapolei project will provide approximately 8,000 new homes for Oahu residents, with about 75 percent of the units consisting of multi-family apartments and townhomes and 25 percent single family homes. Of the 8,000 units, 30 percent will be affordable to families earning up to 120 percent of median income.

The project will result in a significant addition to the housing stock in the region. The new homes will expand the range of available housing choice, and will address the needs of gap and moderate income households. Other factors contributing to the project's social impact include:

- The project will provide thousands of units of affordable housing in response to islandwide need;
- The increased population associated with the project will serve as a catalyst for regional infrastructure, including the North-South Road, needed to support regional institutions and other housing areas; and

- The project could reinforce the existing development trend, of housing development in advance of employment centers and community facilities.

5.3 Employment

Existing Conditions

For most of this century, agriculture, specifically sugar cane, has been the primary source of employment in the Ewa-Kapolei area. Another major employer has been the Naval Air Station (NAS) Barbers Point, which in 1990 provided 56 percent of the jobs in the Ewa Development Plan area. The anticipated closure of NAS Barbers Point in 1999 will result in the loss of most civilian jobs in support of existing military operations. Other major employers in the Ewa region include the James Campbell Industrial Park, the new State-owned Barbers Point Harbor; and the Ko Olina Resort, a planned resort community at the southwest end of the Ewa region.

Future Without Project

One-third of Oahu's projected employment growth by 2010 is expected to occur in the Ewa area. By the year 2010, about 7 percent of all jobs on Oahu will be in the Ewa Development Plan area (Planning Department, June 1995). These projections anticipate successful relocation of government offices to the Kapolei Civic Center, formation of a strong employment base by light and heavy industrial uses, fully operational maritime activity at Barbers Point Deep Draft Harbor, and replacement of the Barbers Point military base with new job centers. At build-out, the Ko Olina Resort, is expected to employ 9,000 persons.

Probable Impacts

The project's employment impacts involve short-term construction related jobs, as well as long-term jobs associated with continuing operations. Employment impacts for both construction and operations are of three types:

- Direct jobs; immediately involved with construction of a project or its operations;
- Indirect jobs; created as businesses directly involved with a project purchase goods and services in the local economy;
- Induced jobs; created as workers spend their income for goods and services.

Construction. The development of the East Kapolei project is expected to support a large number of construction jobs from 1998 through 2013. The project will support some 700

full-time direct construction jobs annually, and support another 1,600 indirect and induced jobs per year during the construction phase.

Operations. Development of the project will also result in direct on-site operations jobs, primarily at the neighborhood commercial areas of the project. As stores are built, the number of permanent on-site jobs would eventually grow to more than 700 jobs. These in turn would support an additional 420 indirect and induced jobs statewide supported by spending by direct operations enterprises and workers.

The project will provide housing for Oahu residents who will patronize local stores and shops wherever they live. Therefore, most of the operations jobs associated with the project would exist somewhere on Oahu, even without the project, and are not "created" by the project. The operations jobs do not create an "impact" on islandwide employment; although the project causes these jobs to be located in Ewa.

5.4 Fiscal Impacts

5.4.1 Income

Personal incomes of work force associated with the project (direct, induced and indirect) would reach a high of about $90 million annually (1994 dollars) after the year 2000, when construction remains at a high pitch but some operations jobs will have begun at the site. After build-out in 2013, the on-site jobs would support some $10 million in payrolls. Indirect and induced jobs would support another $10 million annually. (Community Resources, 1995).

5.4.2 Public Costs and Revenues

The project will generate revenues for the City and County of Honolulu, primarily from real property taxes on developed land and buildings. By project build-out, property tax revenues would climb to about $5.2 million annually. The cumulative increases in revenues by 2015 would reach $56 million.

Revenues will accrue to the State of Hawaii from project construction (excise taxes, corporate income taxes, personal income tax). State revenues associated with construction are projected to reach about $85 million over the entire construction period.

Because the project will not attract new residents to the City and County, it will have little or no impact on City and County operating costs. Some concerns have been expressed by the City that new development such as the project will increase public costs due to

demand for capital improvements and added costs in delivering services to out-of-the-way locations. However, because the project is located in Ewa, it will contribute to the funding of already-planned capital improvements. In addition, by helping to bring the planned population to Ewa (in keeping with City and State policies), the provision of public services in Ewa will likely become more cost effective.

As a participant in planning and development of infrastructure in central Ewa, the project is likely to *lower* government costs. This is due to the developer's participation in regional roadway improvements, which the State is committed to, in order to support its proposed West Oahu university campus.

5.5 Market Analysis

A Market Assessment for the project was prepared by Gail W. Atwater, AICP (October 1994) and a Limited Scope Update was completed in December 1995. Both the original Market Assessment and the 1995 Update are included as Appendix D.

The objectives of the Market Assessments were to analyze existing site conditions, evaluate market potential via supply and demand for residential development, estimate residential absorption and pricing for residential development and evaluate the market potential for neighborhood commercial development on the subject property. The analysis included extensive interviews with brokers, builders and landowners in 1994 and limited follow-up in 1995. The market study area for residential development on the project site was defined as the master planned communities in the Ewa Development Plan Area and along the western H-1 corridor including the Central Oahu communities of Waikele and Royal Kunia.

Key findings of the Market Assessment include:

- There is demonstrated demand for an additional 38,000 to 44,000 units within the market study area by 2020 (of which 32,000 to 37,000 are in the Ewa Development Plan area). The East Kapolei Project is expected to capture 25 to 30 percent of the market study area demand, which compares favorably with similar projects in the region.

- An imbalance will occur between overall supply and demand within the market study area, indicating a shortfall of approximately 9,600 to 15,000 units by 2020.

- Demand for an additional 43 acres of neighborhood-serving retail uses is expected to be generated by 2010 on the parcel. More than adequate demand is demonstrated for

this use because the property is subject to a deed restriction which limits commercial to 16 acres (two acres per 1,000 units). (See Section 5.5.3).

5.5.1 Site Characteristics and Area Review

The subject site is well-positioned for development by virtue of its location within the second urban center in Ewa. Development of the site is consistent with governmental population allocation policy, specifically General Plan guidelines indicating 12.0 to 13.3 percent of Oahu population in Ewa in 2010. The site's relatively flat terrain will facilitate residential and commercial development. The project has good access to the Primary Urban Center from Farrington Highway and its nearby H-1 interchanges. Further, the project developer, Schuler Homes, Inc., has been a key contributor to the success of other master planned communities, such as Waikele in Central Oahu.

Macro and microeconomic conditions examined in the "area review" of the Market Assessment and Update indicate that continued long-term support is expected for the project through moderate but steady growth. Furthermore, demand is expected to continue for lower end, market-priced and affordable residential product. More specific conclusions of the area review include the following:

- The State of Hawaii, especially the island of Oahu, has demonstrated substantial growth in all sectors of the economy over time, with a continuing expansion expected.
- The overall outlook for Hawaii's economy is for steady growth of about 2.5 percent per year, which is close to the projection for the nation as a whole. This growth will result in sustained demand for additional residential development.
- Pent-up demand and documented overcrowding of Oahu families will continue to drive the need for additional affordable and moderately priced housing.
- Inflation and cost of living factors in Hawaii have been declining in recent years, along with relatively sustained low interest rates. These factors will continue to increase the purchasing power of potential homebuyers.
- Home pricing is expected remain relatively stable on Oahu, with no major "spikes" in prices foreseen.
- Hawaii's pattern of real estate "peaks and plateaus" is favorable to "peaks and valleys" experienced in other markets. For example, local economists interviewed for the

analysis noted that several locations on the Mainland have seen a 20 to 30 percent decline in real estate values in the last few years.

- The new home market is currently experiencing a slow-down that appears to be more related to consumer confidence in the economy than a lack of demand. Since early 1995 when events such as the announcement of the State of Hawaii's budget shortfall occurred, sales of market-priced homes dipped and were sustained at lower levels than in early 1995. It appears that some buyers are holding back on large purchases, exhibiting a "wait and see" attitude.

- According to a September 1995 interview with Dr. Michael Sklarz of Prudential Locations, Inc., the next Hawaii real estate market peak is now expected in 1998, which is the targeted timeframe for early market entry of the East Kapolei Project.

5.5.2 Residential Market Assessment

The Market Assessment included an analysis of the residential market forces which will determine the viability of the East Kapolei project. The analysis concluded that there is sufficient demand for the residential units proposed for the East Kapolei project based on economic conditions and the expected growth in population within Oahu's second city.

- An additional 38,329 to 43,600 units are expected to be needed by 2020 (of which 32,200 to 36,600 are located in the Ewa Development Plan Area);

- There is estimated to be a shortfall of 9,629 to 14,900 residential units within the market study area by the year 2020.

- The East Kapolei project's capture rate of 25 to 30 percent of the market study area compares favorably with past performance of other projects with similar pricing and product mix. The project's capture rate of Oahu's total new home market is expected to be in the range of 13 to 14 percent.

- The expected absorption rate of 500 to 550 units per year is consistent with sales history of similar developments in the region and conservative compared to the developer's own sales record.

The above conclusions were based on analysis of supply and demand conditions and other market forces within the designated market study area. Total adjusted demand for the market study area (Ewa Development Plan Area plus H-1 corridor developments of Royal Kunia and Waikele) was estimated at 57,690 to 62,961 units by the year 2020, including

existing homes. Of these, approximately 48,500 to 52,900 are estimated within the Ewa Development Plan Area. This demand is based on expected population growth and a five percent vacancy factor to provide a healthy real estate market.

The Planning Department has issued a forecast for the year 2020, referred to as "an interim replacement for the [State of Hawaii] M-K projections (*Issue Paper on General Plan Population Distribution Policies*, Planning Department, 1995). This forecast was utilized in the Market Assessment Update as the basis for estimating future population and housing units. These Oahu-wide estimates were allocated to the study area based on accepted population distribution policy. Consistent with the 1994 Market Assessment methodology, the General Plan allocation factor for the Ewa Development Plan Area was expanded to include future population projections for Waikele and Royal Kunia.

The 1994 Market Assessment contained a small (300 unit) upward adjustment to future residential demand to recognize the expected impact of the University of Hawaii West Oahu campus. This small adjustment is not expected to materially affect the market viability of the project because it represents less than one percent of the estimated additional demand for the market study area. Based on the lack of certainty regarding the location and timing of the university, and its immaterial impact on project demand, the adjustment for university-related demand was excluded from the updated analysis.

Total adjusted supply for the market study area, including existing units, was estimated at 48,061 units by 2020 in the 1995 Update. Of these, 31,546 are expected in the Ewa Development Plan Area. Expected additions to the supply of residential units within the market study area were based on construction schedules reported to the Planning Department by 13 relevant master planned communities. Updated adjustments to developer-provided unit estimates were based on (1) the history of chronic delays in certain projects, (2) level of "committed" versus "proposed" units, (3) recent City Council initiatives toward a "use it or lose it" policy on Development Plan-approved projects, and (4) recent market conditions. A further adjustment to future supply was made to reflect the impact of non-resident (resort) occupancy of residential units within resort areas such as Ko Olina and Ewa Marina.

The result of total adjusted supply versus demand is an estimated shortfall of 9,629 to 14,900 residential units within the market study area by the year 2020.

Market capture of future demand within the market study area will be shared by the East Kapolei project and other area developments. In order to assess the development's potential to capture future residential demand, a comparative analysis was conducted using seven-year sales performance of master planned communities within the market

study area. Projects included in this analysis were Ewa by Gentry, West Loch, Makakilo, Waikele and Royal Kunia. The results of this investigation showed average project capture rates during active sales periods ranging from approximately 15 to 44 percent of new home sales within the market area.

The Market Assessment and Update assume a 25 to 30 percent market capture rate for the East Kapolei project within the market study area by 2020. This capture reflects a hypothetical annual absorption of 550 units during the most active sales periods or an average of 500 units per year over the 16-year buildout period ending in 2013.

Anticipated residential offerings, pricing and market performance of the East Kapolei project were based on an analysis of target markets and the actual sales performance of similar developments in the market study area offering affordable and moderate-priced residences. The project developer has demonstrated a commitment to providing well-designed housing to this segment of the market.

Approximately 75 percent of the units will be multi-family. The price range for market units is $185,000 to $285,000. Multi-family market-priced homes are expected to attract both first-time and move-up buyers, aged 25 to 40. Single family market-priced homes will be targeted primarily to the move-up market, aged 30 to 45. Affordable offerings are in keeping with the City and County rules for unilateral agreements requiring affordable housing.

5.5.3 Retail Market Assessment

The Market Assessment's retail analysis concluded that the proposed development appears to be well positioned to serve a variety of community retail needs. Demand for an additional 43 acres or 468,300 square feet of neighborhood commercial space was estimated. Tenants drawn to the neo-traditional commercial core of the subject property will primarily provide goods and services for its residents through neighborhood shopping center facilities. Potential retail users which could be included in the project's neighborhood commercial area include supermarkets, drug stores, restaurants, apparel shops and dry cleaners.

The Market Assessment noted that a deed restriction in the purchase agreements between Schuler Homes, Inc. and The Estate of James Campbell limits commercial use within the project to two acres for every 1,000 residential units. The resulting 16 acres of allowable commercial space are well within the estimated demand of 43 acres.

5.6 Agricultural Impacts

An agricultural impact study (September 1994) and update (December 1995) was conducted for the project by Decision Analysts Hawaii, Inc. The studies are included as Appendix G.

Existing Conditions

The soils within the project are well suited for agricultural activities. In addition, the area is serviced by high quality dirt roads, a drip irrigation system and electrical power to drive large-volume pumps used for irrigation. The site is in a highly desirable location, with relative proximity to consumer markets and suppliers. Historically, the central Ewa plain was referred to as the "golden triangle," due to its relatively high sugarcane yields and low farming costs. (Decision Analysts Hawaii, Inc., September 1994).

The project site was formerly leased to Oahu Sugar Company, Ltd. (OSCo), and was used for the cultivation of sugarcane. However, Amfac/JMB Hawaii, owners of OSCo, closed this unprofitable plantation after its 1995 harvest. The fields are now fallow.

Probable Impacts

Sugarcane Operations. Because OSCo closed for reasons unrelated to the proposed project, the project will have no impact on sugar operations. The project may precipitate the development of 63 additional acres of agricultural land which separates the main project area from the *mauka* residential area. Although not a part of this project, this land, which fronts Farrington Highway, could eventually be utilized for commercial development.

Growth of Diversified Agriculture. The project will not have an adverse impact on the growth of diversified agriculture. Ample prime agricultural land and water is available to accommodate diversified agriculture, as much land on Oahu and Statewide has been recently freed from sugar and pineapple production. Moreover, the limiting factor in the growth of diversified agriculture is not land supply but the size of the market for those crops that can be grown profitably in Hawaii. The proposed project involves far too little land to impact the diversified agriculture industry.

Mitigation

No mitigation measures are required, as the project will not have an adverse impact on sugar production or diversified agriculture. Overall, the project is consistent with State and County plans and policies concerning agriculture, population growth and housing.

5.7 Interrelationships and Cumulative Impact: Socio-Economic Environment

Chapter 200 of Title 11, Environmental Impact Statement Rules (11-200-17(I)) requires a discussion of the interrelationships and cumulative impacts of the proposed action and other related projects, and of the project's secondary effects. The availability of the East Kapolei residential units will contribute toward relieving the limited supply of affordable housing on Oahu. The project is expected to include a total population of about 22,400 persons at full-buildout, bringing the Ewa area population closer to General Plan population guidelines. Cumulatively, the increased population in the Ewa region will provide additional justification for already-proposed regional infrastructure improvements, public services and commercial development. Although the project will not result in a net "increase" in Oahu's population or employment, it will cause population and jobs to be located in Ewa. This growth of the Ewa region is consistent with City and State population policy objectives.

6

Assessment of Existing Conditions, Probable Impacts and Mitigation: Public Facilities and Services

CHAPTER 6
ASSESSMENT OF EXISTING CONDITIONS, PROBABLE IMPACTS AND MITIGATION: PUBLIC FACILITIES AND SERVICES

6.1 Transportation

Transportation impacts for the former East Kapolei concept plan were addressed in a Traffic Impact Assessment completed by Pacific Planning and Engineering, Inc. (October 1994). The study was updated for the current concept plan (December 1995). Both the original Traffic Impact Assessment and the 1995 update are included in Appendix K. The update report identifies and describes study describes the probable impact of traffic generated by the proposed development in the year 2010.

Existing Conditions

The project area is located west of Fort Weaver Road in Ewa, and east of the proposed North-South Road. The majority of the project area is located south of Farrington Highway. The balance of the project area is located between Farrington Highway and the H-1 Freeway. The project area is presently fallow sugar cane fields with no existing traffic. The site is currently served by Farrington Highway, a two-lane highway connecting Waipahu and Kapolei. Just north of Farrington Highway, the H-1 Freeway provides major east-west access.

Probable Impacts

Vehicular access to the project will be provided by three intersections, which were the primary focus of the traffic impact assessment. The first intersection will be located on Farrington Highway when a major access road is constructed. Two other intersections will be connected to the proposed North-South Road at points serving the proposed University site (to the west)[1] forming four-legged intersections. If the University is not located west of North-South Road, the intersections would be T-intersections with higher levels of service, since there would be no conflicting movements into and out of the University roadway. Traffic movement (from project area) at those T-intersections would then be right turns onto North-South Road instead of straight throughs in the AM, and left turns instead of straight throughs in the PM.

[1] Since the Traffic Impact Assessment was completed, there has been a proposal to relocate the university to a site *mauka* of the H-1 Freeway. However, because these plans are still not firm, the original site west of the project area was retained in the analysis.

Study Methodology. The Traffic Impact Analysis and update identify and describe the probable impact of the traffic generated by the proposed development in the year 2010. The analysis primarily focuses on the following intersections:

- Farrington Highway and Project Access Road
- Proposed North-South Road at Secondary Project Road
- Proposed North-South Road at Project Access Road
- Ramps at H-1 Freeway interchange with proposed North-South Road

Traffic was forecasted for the year 2010 at the study intersections and freeway ramps by:

- adjusting trips for current development absorption rates as calculated based on the City Planning Department population estimates for areas within the Ewa region;
- updating land uses and roadway plans for the year 2010 prepared for the Ewa Region Highway Master Plan;
- preparing aggregated zonal trip tables for the year 2010 for the morning and afternoon peak hours;
- estimating traffic assignments to study roadways and balancing volumes for capacity restraints;
- forecast traffic generated by proposed commercial areas and University;
- estimating traffic generated by the project and assigning traffic to study roadways; and
- adding the traffic forecasts for the project and other developments.

The analysis indicated that the proposed project will significantly change the traffic flow quality at the study intersections when the project is completed. Major road improvements have been identified in the Ewa Region Highway Master Plan and adopted by the Oahu Metropolitan Planning Organization (OMPO). These improvements (Farrington Highway improvements, construction of North-South Road, Kapolei Parkway) are assumed as part of the roadway network by 2010 in the traffic assessment.

Project's Relationship to Proposed Regional Transportation Improvements

The Oahu Regional Transportation Plan (ORTP) identifies various highway improvements for Oahu for different time periods. The major arterials (and scheduled improvement timeframes) that would be impacted by the East Kapolei Project are North-South Road (Year 2001-2005), Farrington Highway (Year 1995-2000) and Kapolei Parkway (Year 1995-2000). These are all County facilities, under the jurisdiction of the Department of Transportation Services (DTS).

Farrington Highway widening is occurring in several phases. The State Housing Finance and Development Corporation (HFDC) is taking a lead role in widening the segment between the Makakilo Interchange and the proposed North-South Road; the Makakilo Interchange to Kapolei Villages Golf Course Access Road segment is in final design with construction expected to begin around the end of this year. A Legislative funding request for the Golf Course Road to North-South Road intersection segment has been made with construction expected by 2000. The North-South Road to Fort Weaver Road segment of Farrington Highway (a segment of which fronts the project site) is identified in the ORTP as being widened in the 1995-2000 timeframe.

To compare anticipated project-generated vehicular demand levels with ORTP highway capacities, selected highway segments were considered. The critical capacity impact on the ORTP improvements would occur at the intersection of the North-South Road with Farrington Highway. An estimate of the ratio of project-generated trips to North-South Road Intersection capacity is provided below (Table 8), based on the following assumptions:

- Project-generated vehicular demand is based on a best-guess project absorption schedule (see Exhibit 7, *Limited Scope Update of the East Kapolei Market Assessment*, Atwater, December 1995).
- Capacity of the North-South Road/Farrington Highway intersection is based on build-out laneage as determined in the traffic impact report, and expressed in vehicles per hour. (Intersection capacity is a function of roadway and operational variables, and thus, the estimate is approximate).
- Project trip estimates are based on typical weekday afternoon peak hour since this period would generate the largest number of trips.

Currently, the City and State are undertaking an EIS for the North-South Road. Subject to funding, the road would likely be completed before the year 2005. Assuming the North-South Road construction starts in 1998 and takes four years, the project's absorption schedule indicates that the project traffic would consist of about 12% of the intersection's capacity during the afternoon peak hour when the North-South Road is completed (see year 2002 below).

Table 8:
Ratio of East Kapolei Trips to Intersection Capacity
(Assuming Intersection Exists Today)

Year	% of Intersection Capacity
1998	1%
1999	3%
2000	6%
2001 (Farr. Hwy & Kap. Pkwy completed*)	9%
2002	12%
2003	15%
2004	18%
2005 (N-S Rd. completed*)	22%
2006	25%
2007	29%
2008	33%
2009	37%
2010	41%
2011	45%
2012	46%
2013 (project buildout)	52%

*ORTP Estimate
Pacific Planning & Engineering, 1996

Mitigation

The following actions were recommended by Pacific Planning and Engineering, Inc. by the year 2010 to minimize the impact of the project and provide for smoother traffic operating conditions (see December 1995 update report, included as Appendix K):

- Two left-turn lanes westbound at the intersection of Farrington Highway and the North-South Road.
- Addition of an extra through lane from the project's Farrington Highway access road intersection west to the western edge of the project.
- Two left-turn lanes entering and exiting two of the project access roads along the proposed North-South Road.

Sufficient rights-of-way will be reserved along the entire Farrington Highway frontage to allow for future widening as proposed in the Ewa Region Highway Master Plan. Traffic signals will be planned. Exact implementation dates depend on when traffic volumes meet established signal warrants.

A comprehensive plan, including both Transportation System Management and Transportation Demand Management concepts should be developed for the area. Integrated transit services, roadway plans and construction schedules, computer controlled traffic lights, remote parking areas, shuttle services, paratransit, bicycle and pedestrian ways and some form of exclusive way transit should be considered in a comprehensive plan.

In addition to the improvements recommended above, the project concept plan itself mitigates potential traffic impacts. The incorporation of convenience retail and commercial, schools and parks within the project area will eliminate the need to travel on external roads for those activities. The project's extensive bikeway network will facilitate pedestrian and bicycle access within the project area.

The Pacific Planning and Engineering, Inc. studies also note that plans for reuse of Naval Air Station Barbers Point will have regional traffic impacts, and that 2010 impacts should be reevaluated when more information is available. In fact, much of the future growth in traffic demand will be due to other developments in the interim period. State and City agencies have considered roadway improvements throughout the Ewa region, as the City of Kapolei and its environs grow over time. The OMPO has incorporated specific highway improvements in its long range development plan, and member agencies are continuing to evaluate the changes in land use plans and effects on the future road network. Elements of the roadway plans are still preliminary, for example, the final planning for the proposed North-South Road paralleling Fort Weaver Road has not yet been completed.

The approved land use schedule and access points for the East Kapolei project will be incorporated into these long range plans. Public transit and other transportation management plans would need to be developed in concert with the highway long range plans for the region.

The applicant is participating in the preparation and implementation of the Ewa Regional Transportation Master Plan and is coordinating its involvement through The Estate of James Campbell, which is spearheading the master plan effort.

6.2 Water Supply

A Potable Water Master Plan for the area bounded by the H-1 Freeway, Ewa Villages, Kapolei and West Loch has been prepared by Tom Nance Water Resource Engineering (*Addendum Report for the East Kapolei Potable Water Master Plan*, December 1995) and was recently approved by the Honolulu Board of Water Supply (BWS) (see letter from BWS dated April 17, 1996 in Chapter 13). The original water master plan for East Kapolei and surrounding areas was prepared in October 1994. This master plan included areas outside of the East Kapolei project area, including the proposed University of Hawaii site, a high school site, Department of Hawaiian Home Lands and remainder lands owned by The Estate of James Campbell (EJC). The addendum report was prepared to identify the potable water system components required to serve the current land use plan of the East Kapolei project and addresses the water system requirements to serve the East Kapolei project exclusively. The water master plan identifies source, storage and major transmission requirements to provide potable water to the planning area (Figure 15).

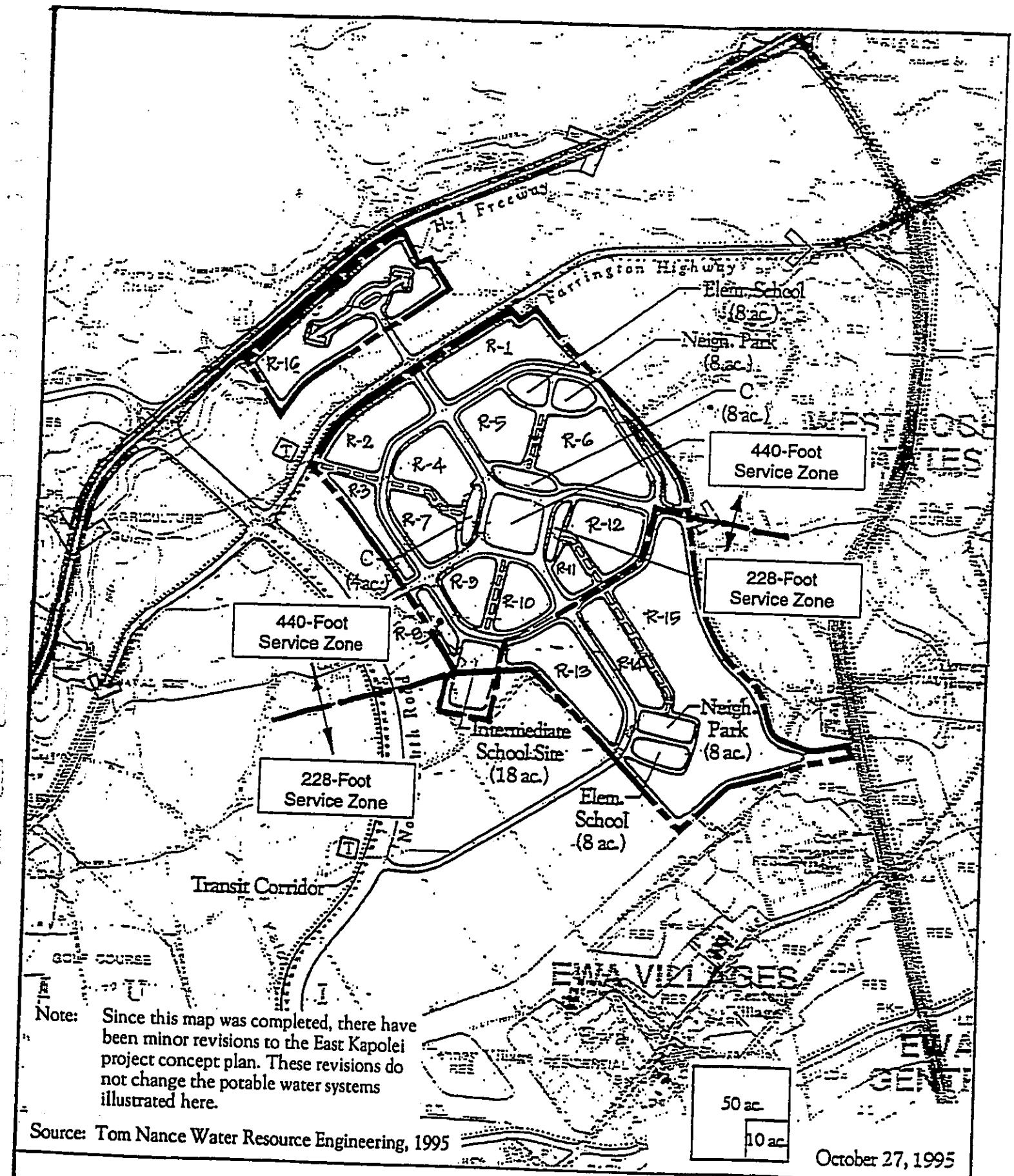
Existing Conditions

The project area is presently served by an agricultural water system formerly maintained by Oahu Sugar Company.

Proposed Potable Water System

Estimated average water demand for the entire project is 3.7 million gallons per day (mgd), with a peak of 11.2 mgd. The project site will be served by two separate water service zones: a 440-foot service area and a 228-foot service area. About two-thirds of the project site would be served by the upper, 440-foot service zone. The 440-foot system features a tank (or tanks) *mauka* of the H-1 Freeway and a distribution main into the project site. The required storage for this zone is 3.6 million gallons with average and peak daily demand of 2.4 mgd and 7.2 mgd, respectively.

The 228-foot system will serve the lower third of the project area and adjacent lands. The reservoir site features a tank (or tanks) located on the promontory on the *makai* side of the freeway east of the *mauka* residential area. The required storage for the 228- foot zone is 2.0 million gallons. The primary distribution main follows the eastern boundary of the East Kapolei project site along "Pipeline Road." The average and peak daily demand is 1.3 mgd and 4.0 mgd, respectively.



Note: Since this map was completed, there have been minor revisions to the East Kapolei project concept plan. These revisions do not change the potable water systems illustrated here.

Source: Tom Nance Water Resource Engineering, 1995

October 27, 1995

Potable Water Systems

FEET 0 1000 2000

Figure 15

Water Source

At present, firm commitments for water source have not been obtained, and water source remains an unresolved issue. The applicant is diligently working to secure sufficient water source for the project, and is confident water commitments will be obtained. Once a source commitment has been obtained, it will be the applicant's responsibility to design, construct, and dedicate the water system to the BWS in accordance with its standards and requirements. Although a specific source cannot be committed at present, several options for potable water exist, as discussed in Section 4.5 Water Resources. Potential sources of water include aquifers within the Pearl Harbor Water Management Area and development of ground water sources in the North Shore area and/or Windward Oahu (or a combination of the above).

Non-Potable Water System

Current City policies require developments to establish non-potable (dual) systems for irrigation and other appropriate uses in non-residential areas. These areas include the project's schools, parks, commercial areas and along major roadways.

Using a BWS demand estimate of 4,000 gallons per acre, the non-potable water requirements for the project's schools and park sites (60 acres total) would be 240,000 gallons per day. Requirements for commercial area and roadside landscaping would be additional. BWS has also noted that installation of a dual water system may be an option for the multi-family residential areas, to further decrease potable water demand. This possibility will be investigated further.

The design of the non-potable water system will depend largely on the source of non-potable water available to the project. Optional sources of non-potable water include 1) use of treated effluent from Honouliuli WWTP; 2) Ewa caprock aquifer; and 3) brackish basal aquifer, discussed in Section 4.5, Water Resources.

The applicant will continue to work with the State and City and County agencies (i.e., Board of Water Supply, Planning Department, Department of Wastewater Management) to implement the best and most feasible system.

6.3 Wastewater

A wastewater collection system master plan has been prepared by Gray Hong Bills & Associates, Inc. (February 15, 1996) and is now being reviewed by the Department of Wastewater Management and The Estate of James Campbell. This document is included

as Appendix L. An analysis of the wastewater infrastructure and mitigation is summarized below.

Existing Conditions

There is currently no wastewater collection system within the project area to serve the East Kapolei Project. The greater Ewa-Kapolei area is served by the City and County's Honouliuli Wastewater Treatment Plant (WWTP), adjacent to the NAS Barbers Point. The Honouliuli WWTP also services Central Oahu and the Primary Urban Center areas west of Red Hill, with the exception of military installations and facilities. Wastewater currently receives advanced primary treatment and is disposed via the Barbers Point Ocean Outfall.

The secondary treatment system at Honouliuli is currently under construction and is scheduled for completion by December 1996. It is designed to accommodate 13 mgd of sewage for secondary treatment. The City plans to reclaim and distribute this wastewater effluent, provided that paying customers can be found for the non-potable water. This is consistent with current policies requiring that treated effluent be used for irrigation and other uses where feasible. In fiscal year 1997-98, the Department of Wastewater Management will conduct a pilot project at Honouliuli to study the potential of using the reclaimed water for Ewa caprock aquifer recharge. The pilot project will have a capacity of 5 mgd. If the effluent can successfully be used to recharge the caprock aquifer with no adverse effects to near shore waters, the pilot project will be expanded to provide the full 13 mgd of recharge, provided that customers can be found to pay for the capital costs of the distribution system and for operating and maintaining the facility. (This issue was also discussed in Section 4.4, Water Resources).

Probable Impacts

As with the water system, the area bounded by Kapolei to the west, West Loch Estates to the east, H-1 Freeway on the upper side and Ewa Villages on the lower side is being master-planned. This will ensure that the Department of Wastewater Management (DWM) does not have to accept numerous interceptors from the unsewered area defined in the Wastewater Master Plan. The project engineers have consulted with the DWM which has indicated its general concurrence with the Wastewater Master Plan.

The East Kapolei Project will ultimately generate an average daily flow of 1.98 mgd and design peak flow of 6.27 mgd of sewage. The entire master-planned area, including the East Kapolei Project, will generate an average daily flow of 8.0 mgd and a design peak flow of 19.9 mgd.

A sewer system will be provided to collect and transport project-generated sewage to the Honouliuli Wastewater Treatment Plant. Figure 16 shows the major off-site interceptor sewer which would deliver sewage to the Honouliuli Treatment Plant. This system is identified as the proposed 42-inch east Kapolei ultimate sewer connection.

The City and County Department of Wastewater Management will include the project-generated sewage to the Honouliuli Wastewater Treatment Plant in the West Mamala Bay Facilities Plan, currently being prepared. (Correspondence from Felix B. Limtiaco, Director, Department of Wastewater Management, December 29, 1994).

6.4 Drainage

A drainage study for the project area was conducted by Gray Hong Bills & Associates, Inc. (December 1, 1995) and is now being reviewed by the City Departments of Public Works (DPW), Housing and Community Development (DHCD), Parks and Recreation (DPR), and The Estate of James Campbell and Gentry Homes, Ltd. The Drainage Study is included as Appendix M. The study discusses drainage improvements proposed for the East Kapolei project and adjacent Estate of James Campbell property, as illustrated in Figure 17. The findings are summarized below.

Existing Conditions

The East Kapolei Project is contained within the West Loch drainage basin. The entire West Loch drainage basin extends from below the H-1 Freeway to the West Loch shoreline, encompassing approximately 2.6 square miles and several different developments. The areas west of Fort Weaver Road and north of Ewa Villages (including the project site and adjacent property owned by the State of Hawaii and The Estate of James Campbell) presently contribute very low flows because they are undeveloped. However, upon development of these areas, storm runoff will increase substantially.

Existing runoff from the upper limits of the drainage area flows from the H-1 Freeway, across Farrington Highway, through the project site and to the northeast Ewa Village boundary. Storm runoff then flows either along the cane haul road (Balfour Boulevard), which crosses under Fort Weaver Road or over Fort Weaver Road in the vicinity just *mauka* of the West Loch Elderly Housing project.

To the east of Fort Weaver Road, Balfour Boulevard lies within easement no. 2680 which runs around the periphery of the future Asing Park site. The roadway passes under Fort Weaver Road 30 or more feet below surrounding grades, and gradually rises to grade as it

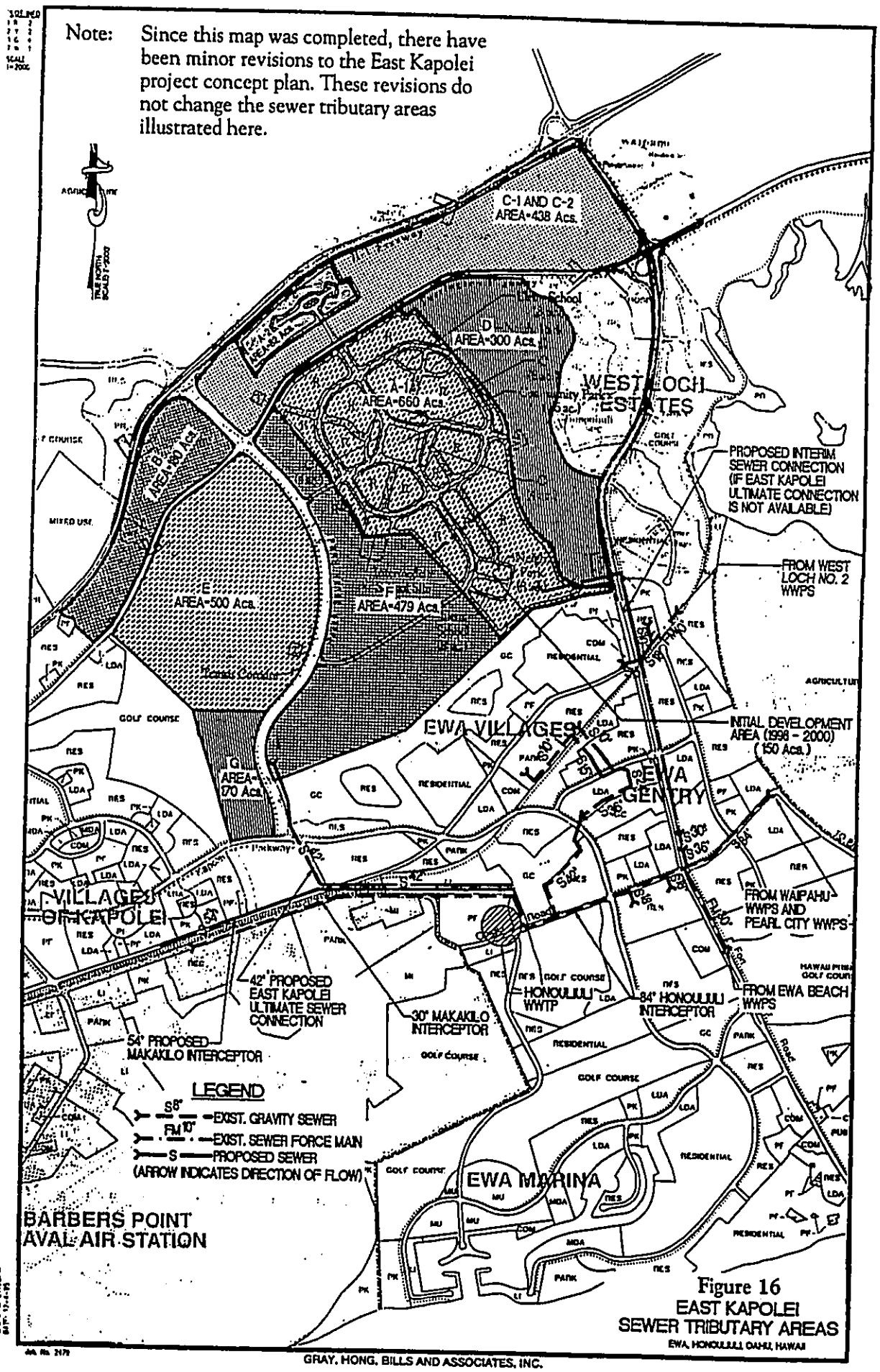


Figure 16
EAST KAPOLEI
SEWER TRIBUTARY AREAS
EWA, HONOLULU, OAHU, HAWAII

GRAY, HONG, BILLS AND ASSOCIATES, INC.

Source: Gray, Hong, Bills & Associates, Inc.
1995

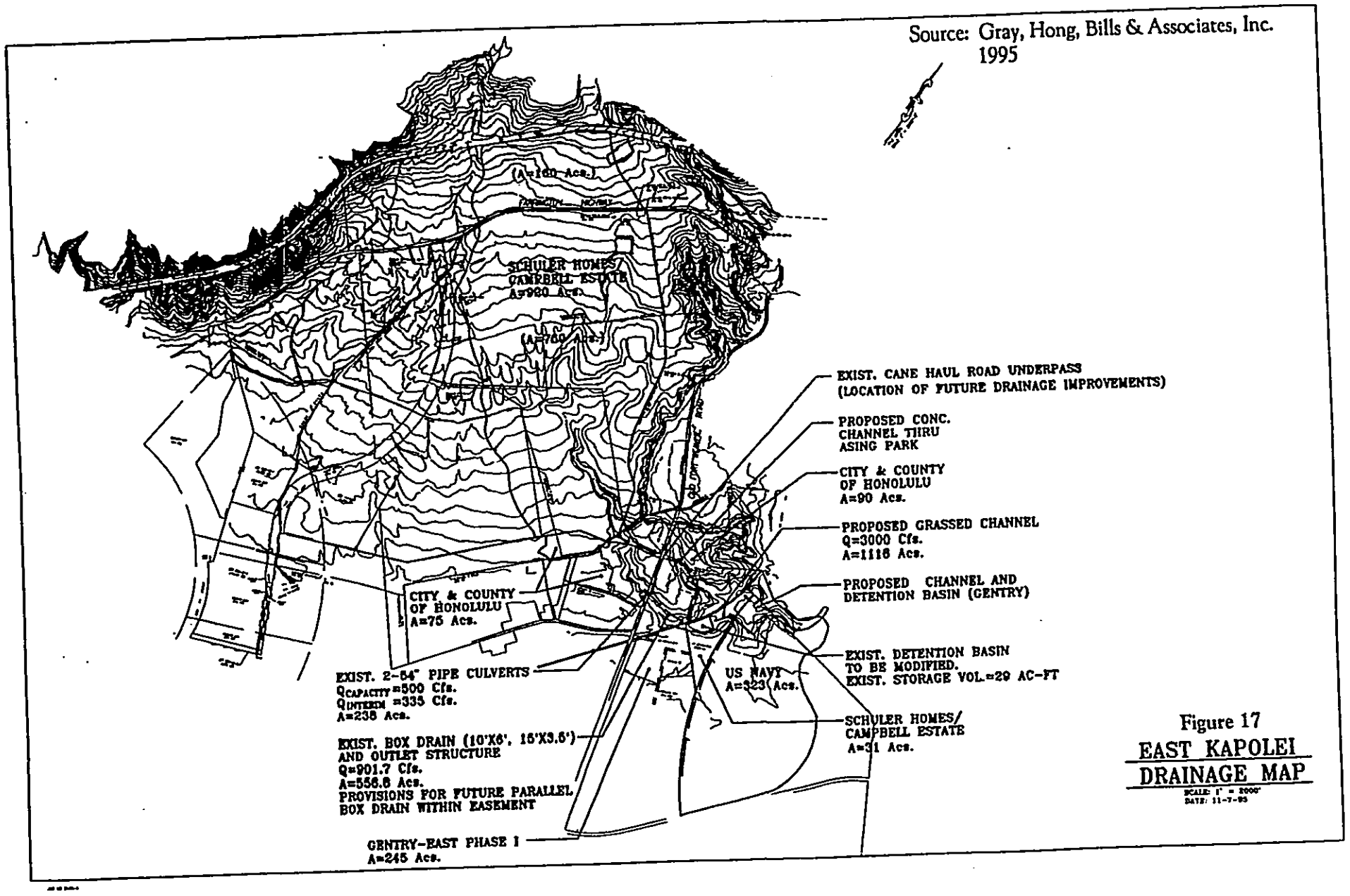


Figure 17
EAST KAPOLEI
DRAINAGE MAP
SCALE: 1" = 2000'
DATE: 11-7-95

nears the OR&L right-of-way (ROW). Approximately 25 homes within West Loch Fairways back onto this segment of the Balfour Boulevard ROW. The main subdivision collector road, Aawa Drive, terminates in a cul-de-sac abutting the Balfour Boulevard ROW. There is no vehicular access between Balfour Boulevard and the existing homes, subdivision roadway network or the proposed park site due in part to the significant grade differential between the roadbed and adjacent areas. Balfour Boulevard and the park are owned by the DHCD and DPR, respectively. Although Oahu Sugar Company has an easement for the cane haul road, the easement will probably be terminated since the Oahu Sugar Company is being dissolved. Any runoff presently collected by the road passes through an inlet structure at the low point of the road and then into the West Loch Fairway's drainage system.

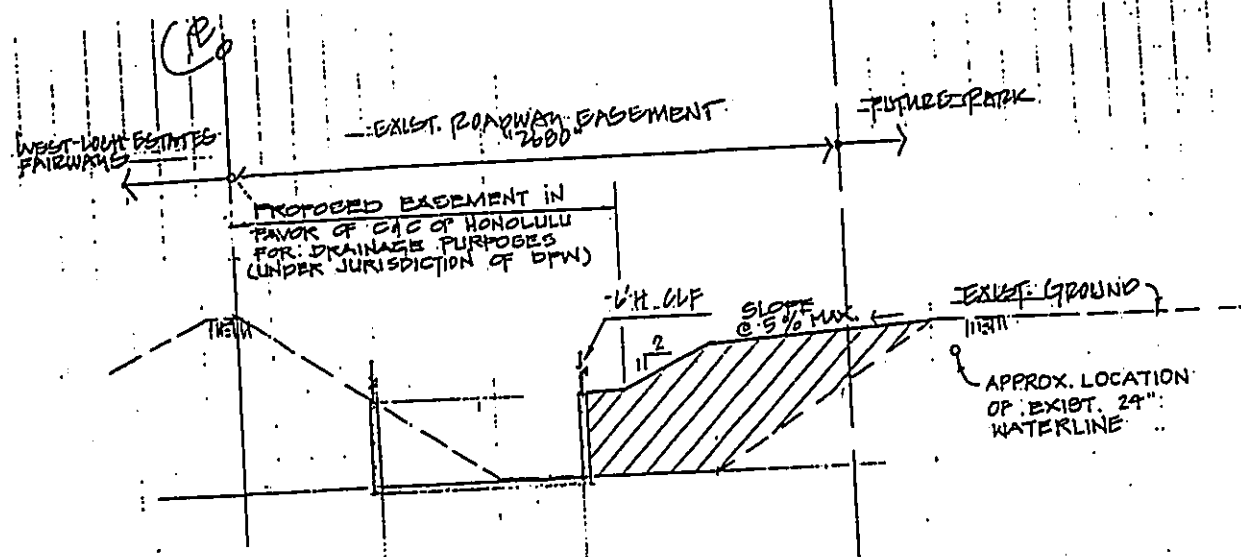
Currently, storm runoff from the West Loch Elderly Housing site, a portion of the Ewa Villages site (via two 54-inch pipe culverts under Fort Weaver Road), the East Kapolei site, and adjacent State of Hawaii and Estate of James Campbell land flows into an existing 29-acre-foot siltation/detention basin constructed by DHCD. This basin was built just southeast of the West Loch subdivision in conjunction with the West Loch Estates project. Overflow from the basin sheet-flows toward the West Loch of Pearl Harbor. The DHCD basin is located within a 31-acre parcel (TMK 9-1-10:por 2) east of Fort Weaver being purchased by Schuler Homes, Inc. from The Estate of James Campbell as part of the East Kapolei project, and is considered part of the "project area."

Proposed Drainage Improvements

Onsite drainage improvements include catch basins, underground drain lines, culverts and channels. All improvements would be designed in accordance with applicable drainage standards of the City and County of Honolulu.

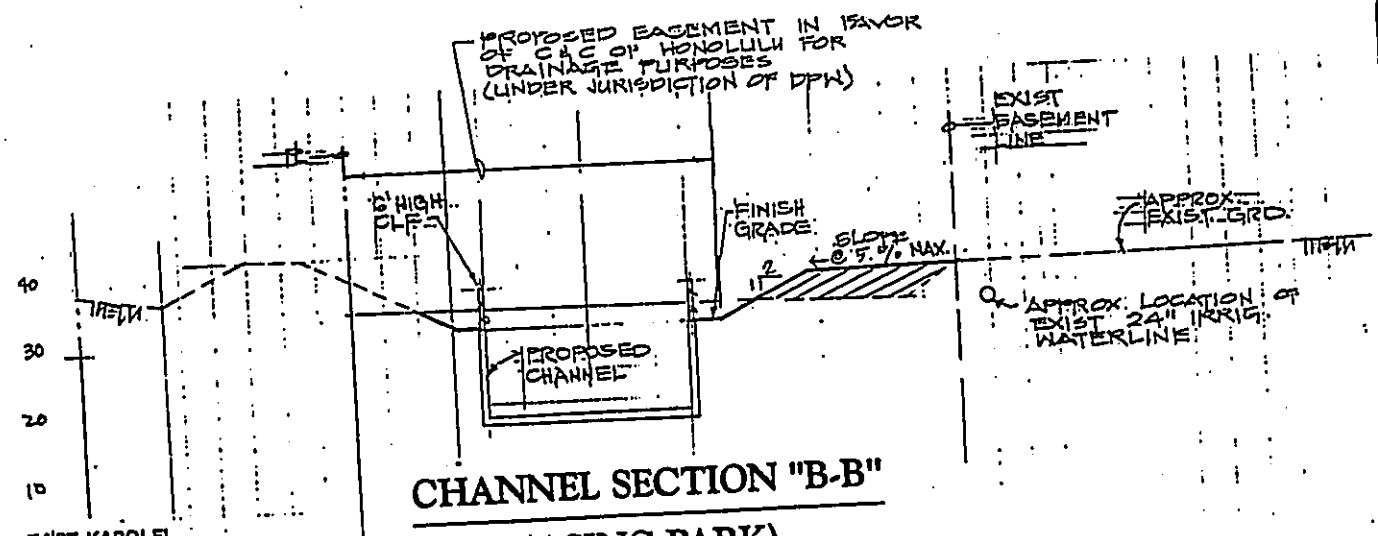
The major offsite improvement consists of a new transmission channel connecting the project to a new regional drainage control facility being planned by Gentry Homes, Ltd. adjacent to the West Loch of Pearl Harbor, referred to as the Ewa by Gentry-East Drainage Facility. The transmission channel would follow the Balfour Boulevard ROW under Fort Weaver Road and around the periphery of the proposed Asing Park. The reinforced concrete, rectangular channel (approximately 30 feet wide by 15 feet tall) will be sized to carry the 100-year peak flow from the West Loch watershed west of Fort Weaver Road (see Figure 18). A six-foot high chain link fence will be installed along both walls, and the ground alongside the channel will be graded to drain towards the channel.

The City Department of Parks and Recreation reviewed the drainage channel proposal fronting the proposed Asing Park (DPR letter dated December 27, 1994). It requested



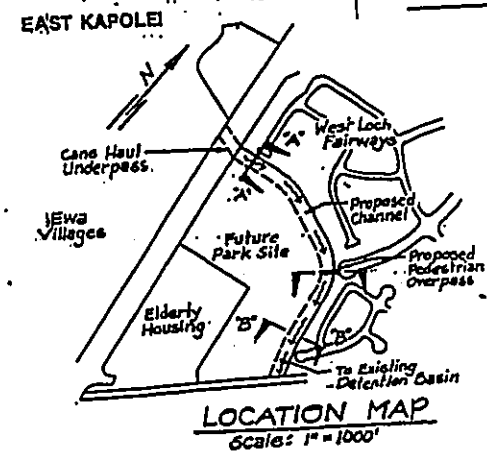
CHANNEL SECTION "A-A"

(ASING PARK)



CHANNEL SECTION "B-B"

(ASING PARK)



Source: Gray, Hong, Bills & Associates, 1995

Drainage Channel Sections

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

Helber Hastert & Fee, Planners

Figure 18

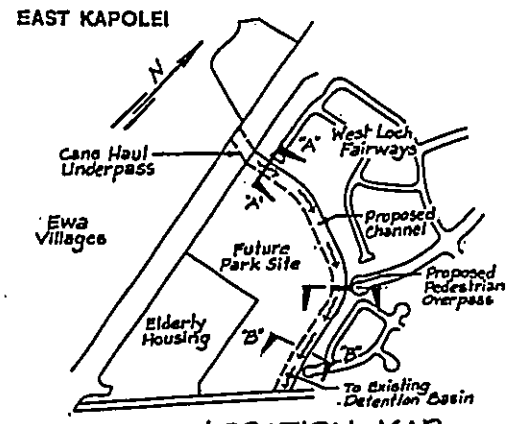
that the area between the channel and the park be graded level, thereby creating new useable park land. Due to the grade differences involved, a level grade would be cost prohibitive. Changes in the design were made however, to provide for a gradual slope down to the edge of the channel which will make this area easier to maintain this area as part of the adjacent park. Comments from the City Department of Public Works (June 5, 1995) provide the following direction: The land adjacent to the channel fronting the proposed Asing Park would need to be improved to enable the City Department of Parks and Recreation to maintain the area (addressed in preceding discussion). Concurrence from the City Department of Transportation Services and the State Department of Transportation will be required to use the Balfour Boulevard ROW.

A pedestrian bridge over the proposed transmission channel linking the West Loch Subdivision Phase 2 to the proposed Asing Park is recommended (see Figure 19). Without the overpass, access from the West Loch subdivision to the park is currently not possible due to elevation differences discussed earlier.

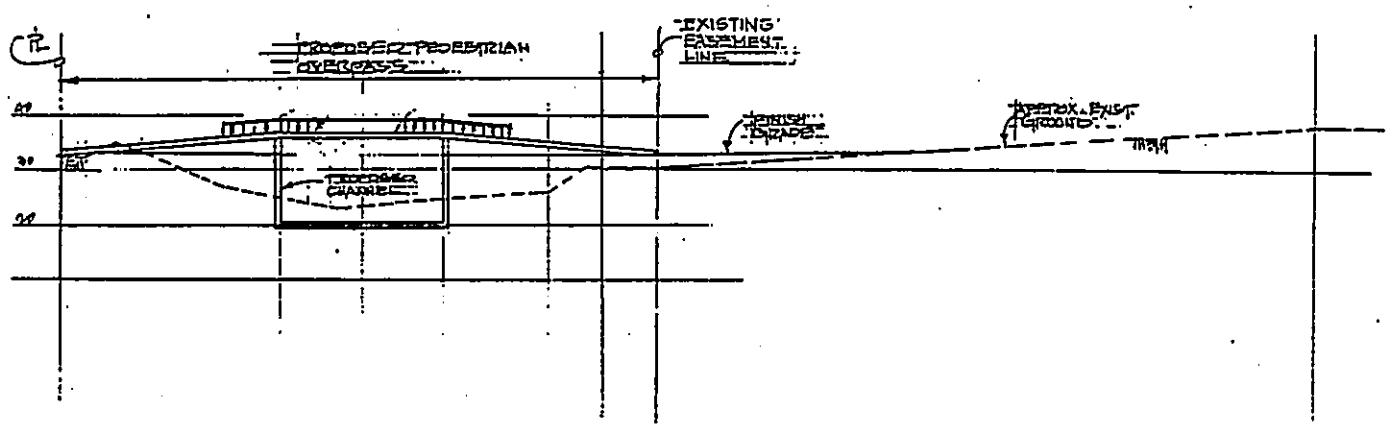
A box culvert will be constructed under the OR&L right-of-way to connect the transmission channel to the existing DHCD detention basin. The DHCD detention basin is proposed to be enlarged and modified to meet City Department of Public Works detention requirements and will serve to link the proposed transmission channel with the proposed Ewa by Gentry-East detention basin and outlet.

As reported in the *Drainage Report for Ewa by Gentry-East, Phase 1* (Park Engineering, 1995), the Gentry-East drainage facility has always been conceptually designed to accommodate runoff from the entire West Loch watershed, which includes the East Kapolei project (see letter from Gentry Homes, Ltd. dated April 16, 1996 in Chapter 13). As discussed in the *Addendum to the Preliminary Drainage Study, West Loch Drainage Basin* (Gray Hong Bills & Associates, April 18, 1996), Schuler Homes, Inc. and Gentry are currently negotiating terms for a joint detention basin, constructed to accommodate the runoff from the total West Loch watershed. Additional storage will be provided within the 31-acre site, which when combined with the proposed Gentry detention basin will accommodate the total runoff. Schuler Homes, Inc. is working with Gentry to confirm the limits to the watershed and hydraulic grade line (HGL). The berm proposed by Gentry for protection of the Wildlife Refuge and the berm proposed in the 31-acre parcel will have one-foot minimum freeboard above the HGL. The portion of the 31-acre site used for the drainage improvements will be dedicated to the City and County of Honolulu.

The proposed drainage channel along the Balfour Boulevard ROW will be constructed within property owned by DHCD and maintenance would be under the jurisdiction of the



LOCATION MAP
Scale: 1" = 1000'



PEDESTRIAN OVERPASS
(ASING PARK)

Source: Gray, Hong, Bills & Associates, 1995

Pedestrian Overpass Over Drainage Channel

EAST KAPOLEI PROJECT

Schuler Homes, Inc.

Helber Hastert & Fee, Planners

Figure 19

City and County of Honolulu. It is proposed that the entire onsite and offsite drainage system be dedicated to the City and County of Honolulu.

Probable Impacts

Direct Impacts

Construction of the transmission channel will commit the former cane haul roadway ROW (Balfour Boulevard) to drainage purposes. The transmission channel will pass under the OR&L ROW, and will not impact its potential future use as a transportation corridor.

The proposed channel alignment between the proposed Asing Park and West Loch Fairways subdivision will not significantly decrease the already poor connection between the two properties due to the topographical constraints imposed by the depressed Balfour Boulevard roadbed and the "backyard" condition along the 25 or so homes which front the ROW.

Improvements to the existing DHCD detention basin and connection to the Ewa by Gentry-East basin within the 31-acre parcel are consistent with established uses.

Indirect Impacts

Indirect impacts include the project's contribution to the proposed Ewa by Gentry-East drainage facility which were analyzed in the latter's environmental assessment and final EIS (Environmental Communications, December 1994, and September 1995, respectively). The Final EIS for the Gentry project was accepted by the City Department of Land Utilization on October 31, 1995. A review of key issues discussed in the referenced environmental documents is presented below.

Impact on the Honouliuli Unit of the Pearl Harbor National Wildlife Refuge. The U.S. Fish & Wildlife Service (USFWS) maintains the Honouliuli Unit of the Pearl Harbor National Wildlife Refuge located on the West Loch shoreline, immediately *makai* of the proposed Ewa by Gentry-East drainage facility. The Refuge provides important year round nesting and foraging habitat for four endangered Hawaiian waterbirds. It also provides foraging and loafing habitat for numerous species of migratory shorebirds and waterfowl. The USFWS has expressed concern that unexpected flooding associated with the Ewa by Gentry-East drainage facility and proposed East Kapolei project improvements may alter habitat conditions and adversely affect the reproductive success of the above-mentioned bird species.

Planning and design of the proposed Ewa by Gentry-East drainage project has been coordinated with the USFWS, which is currently undergoing an informal Section 7 Endangered Species Act consultation with the project developer, Gentry Homes, Ltd., as part of the Department of Army permit process. By letter to the U.S. Navy dated February 24, 1994 regarding the *Drainage Report for Ewa by Gentry-East, Phase I* (Park Engineering, May 1995), the USFWS indicated it had "no objections with the concept plan which attempts to provide flood protection to the Refuge..." In comments to the East Kapolei Project DEIS (letter to Cheryl D. Soon, dated March 29, 1996), the USFWS raised a concern that the East Kapolei Project was "not initially included in the study, and that the overall holding capacity of the proposed Ewa by Gentry-East drainage system may not be sufficient to accommodate the additional runoff from the East Kapolei Project." As noted earlier, the entire West Loch watershed (which includes the East Kapolei Project) was included in the basis of design for the Ewa by Gentry-East drainage facility. Schuler Homes, Inc. and Gentry are negotiating terms for the construction of a joint detention basin, incorporating the 31-acre parcel into the design for additional storage. As noted, the present intent is to maintain a minimum one-foot freeboard over the HGL to protect the adjacent Wildlife Refuge from inundation by the 100-year flood.

hydraulic grade line

Impact on West Loch Marine Environment. An environmental assessment of chemical and biological effects of the proposed regional drainage facility on the West Loch marine environment was conducted as part of the Ewa by Gentry-East drainage facility EA conducted by O.I. Consultants, Inc. (December 1993). The comprehensive study found the proposed improvements will "have no negative impacts on the adjacent nearshore marine environment. In fact, the proposed drainage improvements will result in a significant decrease in sediment discharge to West Loch from the project drainage basin. However, because West Loch is impacted primarily from drainage basins to the north of the project, no change in water quality from the proposed site improvements is likely" (p.16).

Other Environmental Issues. Other major environmental areas examined in the environmental documents included flora, fauna, archaeology and land use compatibility. Each subject is briefly reviewed below.

The botanical survey (Funk, August 1993) concluded as follows: "The flora of the proposed Ewa by Gentry-East facility is composed entirely of introduced species. There are no endemic or indigenous plants in the area except for *Alena* which is very common. Similar vegetation is to be found on many other sites in the Islands, and except for the sugarcane, vegetation of this type is frequently treated with herbicides. Therefore, nothing of botanical significance would be lost should this development go forward."

The faunal survey (Bruner, September 1993) concluded that the proposed improvements were not a significant concern to avifauna and could, in fact, provide additional foraging and feeding areas, especially after periods of heavy rain. The consultant reiterated the USFWS concern that the wildlife refuge may suffer a potentially adverse impact if sufficient grading and a protective berm of adequate size were not provided.

An archaeological inventory survey of the site was conducted (Sinoto, 1993). The study determined that no further archaeological work was recommended prior to the start of construction, based on the high degree of disturbance in the area and the negative results of previous archaeological investigations in the vicinity. Archaeological monitoring during construction was recommended with emphasis on the low-lying shoreline areas.

The site lies within the Navy's West Loch blast zone emanating from the West Loch Naval Magazine, and is therefore unsuitable for urban uses such as housing and commercial uses. Development of the grass-lined detention basin would preserve the open space character of the area which would be periodically subject to flooding.

Mitigation

The proposed project will provide a safe and efficient means of conveying runoff from the undeveloped areas west of Fort Weaver Road to West Loch, as originally master planned. The improvements will reduce the risk of injury, disease and property damage resulting from inadequate drainage facilities.

A new pedestrian bridge is recommended to connect the Aawa Drive cul-de-sac with the future Asing Park. This will provide a safe, all-weather pedestrian connection between the West Loch Fairways subdivision and the park at its most appropriate and useful location.

During construction, the contractor will be required to mitigate potentially adverse effects as part of the National Pollutant Discharge Elimination System (NPDES) permit "Best Management Practices." On a long term basis, the project's detention basin and the Ewa by Gentry-East detention basin are the primary mitigating features to be used to minimize water quality impacts to receiving waters.

6.5 Solid Waste

Existing Conditions

Refuse collection from residential areas in the Ewa-Kapolei area near the project site is provided by the City and County of Honolulu. Non-residential uses and multi-family

residential areas are serviced by private refuse collection companies. Residential waste is transported to the City and County of Honolulu's H-POWER (Honolulu Program of Waste Energy Recovery) waste-to-energy combuster, located at the James Campbell Industrial Park. Ash residue and nonprocessible waste are then disposed of at the Waimanalo Gulch Landfill in west Oahu.

Probable Impacts

The East Kapolei project will ultimately generate approximately 63 tons of solid waste per day, based on a generation factor of 4.2 pounds/person/day. The City and County of Honolulu will provide curbside refuse pickup service to single-family residences. Multi-family areas will typically hire a private waste company to collect and ultimately dispose of refuse.

The primary site of disposal will be the H-POWER facility. To accommodate future disposal requirements, the City plans to stress recycling efforts followed by physical expansion of existing facilities such as H-POWER.

Mitigation

During construction, project contractors will be encouraged to reduce waste generation to minimize waste disposal activities. Waste generation can be reduced by reusing or recycling certain construction materials such as ground cover and silt fences. Contractors will be encouraged to use secondary resources such as use of crushed glass in pavement base course and locally-produced greenwaste compost such as a soil amendment in landscaping as allowed by City specifications.

The developer will comply with all requirements of the City and County Department of Public Works (DPW) related to solid waste disposal facilities, and with waste diversion programs initiated by the DPW.

6.6 Schools and Libraries

The Social Impact Assessment conducted by Community Resources, Inc. prepared in 1994 and updated in 1995 also analyzed schools and libraries. The 1994 study described existing conditions and estimated project demand for these facilities, as summarized below.

Existing Conditions

Primary and Secondary Schools. The project is located within the State Department of Education's (DOE) Leeward School District and is within the Ewa Elementary School service area. According to the DOE, the rapid development in the Ewa-Kapolei area has created a pressing need for additional schools and classroom space. The proposed and projected Capital Improvements Program (CIP) budgets for the next three bienniums are already severely strained by the lack of CIP funds to build adequate classrooms. (Correspondence from Herman M. Aizawa, Superintendent of Education, December 29, 1994).

The Ewa area is currently served by one high school (Campbell High School); one intermediate school (Ilima Intermediate School) and five elementary schools (Ewa, Mauka Lani, Ewa Beach, Makakilo and Kapolei). The recently opened Kapolei Elementary School is still under construction, and will be completed by Fall 1997. For the 1994-95 school year, Kapolei Elementary had an enrollment of 350 students, with a projected enrollment between 800 and 850 when the school is completed. A new elementary school within the Ewa by Gentry project, Holomua Elementary, is scheduled to open in August 1996.

The Department of Education has plans to open a new Kapolei Intermediate School and Kapolei High School on a 20-acre and 45-acre site, respectively, in the Villages of Kapolei. Other elementary schools planned for the Leeward District (e.g., Ko Olina, Waikele, Royal Kunia) will also accommodate the increasing regional population.

Post-Secondary Education. The nearest post-secondary educational facility is the University of Hawaii West Oahu, located in temporary quarters at the Leeward Community College in Pearl City. The location of a permanent university is still uncertain, with the State's most recent proposal being construction on a 900-acre site north of the H-1 Freeway. That site, which the State would acquire through a land exchange with The Estate of James Campbell, has been approved by the University Board of Regents, but is still pending approval by the Legislature. As a condition of the land exchange, The Estate of James Campbell would require a 2011 start-up deadline on the project.

Library Services. Ewa Beach Public Library serves approximately 40,000 residents within the Ewa area. The combination school and public library is a full-service library situated on the Campbell High School campus. There are currently plans to construct a major new Kapolei Library within the City of Kapolei, to serve as a "second anchor" to Honolulu's Downtown library. There are also long-term plans to separate the Ewa Beach School and public library into two facilities.

Probable Impacts and Mitigation

Primary and Secondary Schools. The project will significantly increase demands on public educational facilities in the Ewa area, which are already insufficient to meet the growing population in the region. Based on the student ratios per 100 dwelling units provided by the DOE for the East Kapolei project in November 1994, it is estimated that at buildout (year 2013), the project would generate a total enrollment of 2,386. In a subsequent January 1996 letter (see Chapter 10), the DOE provided slightly different ratios per 100 dwelling units, resulting in a total enrollment of 2,950.

The revised (1996) DOE projections utilize student/dwelling unit ratios which are between 13 percent (elementary school) and 50 percent (intermediate school) higher than those cited in their previous correspondence. Although the reason for the higher ratios was not explained, it can be estimated that total student population at build-out will be somewhere between 2,386 and 2,950.

Table 9 provides projections of school enrollment at project build-out, using both the November 1994 and January 1996 ratios. Using either ratios, the table shows elementary school pupil counts greater than the total enrollment of a single school, and counts of intermediate and high school students that are nearly half the enrollment of such schools.

When the ratios shown are used with the project construction schedule, estimated enrollments for various years can be derived (see Community Resources, 1995; Appendix E). This analysis notes that project enrollments could well justify construction of an elementary school before the year 2000, and a second school in 2005 or soon afterwards. Project residents would significantly contribute to intermediate and high school populations.

Table 9:
Projected School Enrollment at Buildout
(8,000 residential units)

Facility	11/94 Ratio	Projected Enrollment	1/96 Ratio	Projected Enrollment
Elementary (Grades K-6)	17.72	1,418	20.0	1,600
Intermediate (Grades 7-8)	5.00	400	7.5	600
High (Grades 9-12)	7.10	568	9.4	750
Total		2,386		2,950

The two planned elementary schools will accommodate the elementary school demands of the proposed project. Table 9 indicates the project will generate a need for between 400 and 600 intermediate school "seats," about one-third to half the size of a "desirable" enrollment per school of 1,200 students (Draft Ewa DP Report, Planning Department, June 1995, p. 8-3). Based on this demand, the concept plan provides half of an intermediate school site or 9 acres of an 18-acre site (upper range of school size per Ewa DP Report, p. 8-2), with the other half of the school site extending into the adjacent land area owned by the State and also planned for residential uses. This "sharing" of responsibility for providing the intermediate school assumes the adjacent property will be developed for residential uses, and thereby generate additional needs for intermediate school facilities. The applicant has committed to working with DOE to ensure that adequate intermediate school facilities are developed to serve the needs of future East Kapolei residents, in a timely and efficient manner.

It is recognized however, that the actual provision of the school facilities is DOE's ultimate responsibility, and is subject to a number of factors outside the applicant's control including, the number of students generated by other residential developments in the area and the allocation of DOE planning and construction funds.

Post Secondary Education. The East Kapolei project will contribute to the development and operation of the proposed University of Hawaii West Oahu by participating in regional infrastructure development (lowering overall costs to the State and other landowners) and by providing convenient housing for university students, faculty and staff. The feasibility of the East Kapolei project will not be affected by the proposed university's location or timing, or even if it is not constructed at all.

Libraries. Current plans to expand the Waipahu Library, to build the Kapolei Library and to separate the Ewa School and Public Library are expected to accommodate any additional demand generated by the proposed project.

6.7 Recreational Facilities

Existing Facilities

Existing public parks in the project region include Ewa Mahiko Neighborhood Park, Puuloa Neighborhood Park, Makakilo Community Park, Geiger Park Gentry, and the new Kapolei Park. In addition, the City is planning a new district park at either Ewa Mahiko or near Ewa Villages. The City also expects to acquire a major new regional beach park within the Barbers Point Naval Air Station upon closure of the base in 1997.

Probable Impacts

The proposed project will increase demands on existing public recreational facilities. A review of the City and County of Honolulu's Park Dedication Ordinance Requirements indicates a need for 31 acres of park based on the proposed single vs. multi-family mix. This is illustrated in Table 10 below.

Table 10:
Park Dedication Ordinance (PDO) Calculation

Unit Type	Estimated Mix	Proposed Dwelling Units (du)	Ratio (sf/du)	Estimated PDO Reqt. (acres)
Single-Family	25%	2,000	350	16
Multi-Family	75%	6,000	110*	15
Total	100%	8,000		31

*Alternate PDO method (10% of floor area) would result in reduced requirements, given projected size of multi-family units.

The Development Plan Common Provisions require that "Suburban and new development areas shall include land for open space and recreation purposes at a minimum of two acres per thousand persons" (Section 24-1.5(a)(2)(c)). Given a projected ultimate residential population of approximately 22,400 residents (8,000 dwelling units x 2.8 persons per household), a minimum of 45 acres of open space and recreation areas will ultimately be required.

By increasing the population in the Ewa region, the project will increase the use of public beaches in that region. The project will not bring additional people into the City and County of Honolulu, but rather "redistribute" the existing population. Therefore, while the project may increase the overall use of Ewa beaches, there should be a corresponding drop in the use of beaches these individuals currently utilize.

Mitigation

The project provides a 20-acre central park, two 6-acre neighborhood parks and a 2-3 acre mini-park in the *mauka* parcel, for a total of 35 acres, exceeding the 31 acre PDO

requirement. Additional acreage will be provided in the form of private recreational areas within the various condominium projects, thus meeting the DP park standard.

6.8 Police Protection

Existing Conditions

The area is presently served by the Pearl City Police Station in the Honolulu Police Department's District 3. The Pearl City station services the area from Red Hill to Kahe Point. There are five beats in the Ewa area with one officer per beat, 24 hours a day, seven days a week. The police officers assigned to the Ewa area work with the community through two channels: the volunteer Neighborhood Security Watch and the Community Policing Team, the latter an effort to directly involve the community with crime prevention efforts.

Future Without Project

Because of the anticipated growth in the Ewa area, in 1995-1996, the number of police beats in Ewa will increase from five to nine, and the officers on duty will increase to 22. A Kapolei regional station is planned as the headquarters for a new District 8. Although the Kapolei regional station will meet the Police Department's *facility* needs, the Department continues to be concerned about adequate *staffing*. The Department notes that police protection for the area is already barely adequate, and that staffing shortfalls will continue to be a concern as new development is proposed. (Correspondence from Eugene Uemura, Assistant Chief, Administrative Bureau, December 18, 1995 and March 5, 1996).

Probable Impacts

The addition of up to 8,000 residential units and up to 22,400 new residents over a 16-year period will increase the demand for police services--officers on call--but is not expected to create demand for new facilities (i.e., stations).

It is estimated that the East Kapolei project will require less than two Police Department personnel per 1,000 residents, or up to 45 Police Department personnel (in all branches of the Department) after the project is fully occupied. The East Kapolei project will not attract additional people to the island; but will provide new homes in a new community for Hawaii's growing population. Therefore, the need for police services in the project area is not an impact of the project, but simply a consequence of expected population growth.

The developer will support the Honolulu Police Department in its ongoing efforts to provide adequate police protection for the project and for the greater Ewa area.

6.9 Fire Protection

Existing Conditions

The Ewa area is served by four fire stations: Makakilo Station, serving Makakilo, upper Kapolei and Ko Olina Estates; the Waipahu Station, serving lower Kapolei, Ewa by Gentry and Ewa area to Renton Road; the Ewa Beach Station, serving all of lower Ewa Beach up to Renton Road; and the recently completed Kapolei Fire Station. The Waipahu Station, which has 23 firefighters, assists the Ewa Beach Station when necessary.

Future Without Project

A new fire station has been completed in the Kapolei Business Park (approx. 3.5 miles southwest of the project site) to serve the Ewa plain. The fire station currently has an engine company, with a ladder company to be added in 1996 to serve the Kapolei and Nanakuli areas. (Correspondence from Chief Richard R. Seto-Mook, December 14, 1994; and updated personal communication by Community Resources, 1995).

Probable Impacts

The project will increase demand on existing fire protection facilities. If the new ladder company is added at the Kapolei Fire Station, it will be adequate to serve the project area. Fire protection services provided from Kapolei and Waipahu engine companies with ladder service from Waipahu are adequate to serve the project. (Correspondence from Chief Anthony J. Lopez, Jr., November 29, 1995).

6.10 Power, Communications and Civil Defense

A consolidated duct system consisting of ducts, manholes, handholes, pullboxes, and equipment pads will be installed for the electric, telephone, cable television and street lighting systems. It is anticipated that there will be two major trunks for the duct system to serve the East Kapolei Project. One trunk will start from Farrington Highway and go south through the center of the development along the main collector road, and the second trunk will go south from Farrington Highway along the North-South Road. Duct lines branching off the main trunks will extend along the collector and smaller roadways to serve the individual facilities.

6.10.1 Electrical System

The new Ewa Nui Substation has been constructed on the north side of Farrington Highway, replacing the former Ewa substation. New aerial 138 kV transmission lines have been installed between the Ewa Nui Substation and Campbell Industrial Park. These lines run southwest along Farrington Highway from the new substation and then go south along the proposed North-South Road Energy Corridor.

It is anticipated that HECo's Ewa Nui Substation will serve the East Kapolei Project. Distribution circuits will originate from the substation and enter the new development from Farrington Highway, and will be routed along the major corridors to serve the development. Underground duct systems will be required along all the roadways, and easements for the installation of switches and transformers will also be required.

All roadways which will ultimately be dedicated to the State of Hawaii or the City and County of Honolulu will be illuminated in accordance with their standards. Generally, street lighting luminaries of the "cobra-head" design will be installed on galvanized steel poles.

6.10.2 Communications

Telephone System. GTE Hawaiian Telephone Company intends to serve the development by bringing its cable system in from Farrington Highway. GTE Hawaiian Tel must construct a new central office building to serve the development, and have requested a 150' x 150' lot for this purpose. The central office building will house new switching and related equipment.

Telephone cables will originate from the central office and will be installed in underground duct systems to serve the development. In addition to the underground duct line system, the telephone company requires easements for their cross-connect equipment. One cross-connect easement will be required for each ground of about 500 homes and for each commercial area.

Cable Television System. Oceanic Cablevision will serve the new development by installing its cables in an underground duct system which parallels the electrical and telephone duct systems. They will require easements for their equipment power supplies throughout the subdivision. At the writing of this report, they had not determined where cable service will enter the development.

6.10.3 Civil Defense

At the present time, one civil defense siren located near Ewa Elementary School provides marginal coverage for a portion of the project area. The Oahu Civil Defense Agency has recommended that the East Kapolei project include two 115 dB solar powered sirens and the necessary support infrastructure, to provide emergency warning for residents and workers in the area. The sirens should be located within the park sites.

The Oahu Civil Defense Agency has also recommended that hurricane mitigation design considerations be included in any multi-use buildings in schools, parks or community centers, to provide local emergency shelter capabilities.

The applicant will work closely with civil defense officials to ensure that adequate civil defense measures are included in the project.

6.11 Health Care Facilities

Existing Conditions

Saint Francis-West Medical Center is the full-service hospital closest to the proposed project. The hospital is approximately five to 15 minutes from the site, depending on traffic conditions. St. Francis-West provides a full range of hospital services, including emergency care, outpatient treatment, laboratory and x-ray facilities and medical offices. The hospital has 79 licensed beds available and has plans to expand capacity to 84 beds. Ambulance service is coordinated with the City and County and the hospital has a helipad for medivac transport. Saint Francis-West is currently operating at 80 to 85 percent of capacity.

Other medical facilities within a 20 to 30 minute drive include the Waianae Coast Comprehensive Health Center, Pali Momi Medical Center at Pearlridge, and Wahiawa General Hospital.

Non-emergency services are provided by local general physicians.

Probable Impacts

The increased population associated with the project will increase demand on existing medical care facilities. According to St. Francis-West staff, the demand for hospital service by project residents can be accommodated by the hospital. This is due the increase in managed care, the fact that the facility can be readily expanded and that the length of

stay by traditional hospital users (e.g., women giving birth) has declined in recent years and is projected to decline even further in the future. (Community Resources, Inc., November 1994, updated 1995).

6.12 Interrelationships and Cumulative Impact: Public Facilities and Services

Chapter 200 of Title 11, Environmental Impact Statement Rules (11-200-17(I)) requires a discussion of the interrelationships and cumulative impacts of the proposed action and other related projects, and of the project's secondary effects. The increase in population and vehicular trips associated with the project will have a cumulative impact on regional traffic. The project, together with other proposed developments in Ewa, provide justification for currently-proposed, regional roadway improvements, including the H-1 Freeway interchange, Kapolei Parkway, North-South Road and Farrington Highway improvements. The proposed reuse of Naval Air Station Barbers Point will also contribute to the region's cumulative traffic conditions, although specific plans for the air station are unknown. East Kapolei's proposed traffic mitigation recommendations will minimize the project's direct impact on roadway conditions. The Ewa Region Highway Master Plan, being prepared by Ewa-area developers and the State DOT takes specific development projects, including East Kapolei, into consideration. The applicant, along with other area developers, is participating in the preparation of this transportation master plan, in an effort to address these interrelationships and cumulative traffic impacts.

The project's water demand will have a cumulative effect on water resources in the area, and wastewater flows will affect the Honouliuli Wastewater Treatment Plant. The project's impact is being considered by the City Department of Wastewater Management in its facilities planning. East Kapolei, cumulatively with other proposed developments, may provide a viable market for treated effluent (for irrigation), ultimately supporting the City's efforts to reuse up to 13 mgd Honouliuli's reclaimed wastewater. Cumulatively, this could also have a positive effect in recharging the Ewa caprock aquifer. Drainage from the project area is a component of the overall flow into the planned Ewa by Gentry-East detention basin and into West Loch. The project's drainage contribution has been considered in plans for the Ewa by Gentry-East facilities, and the proposed drainage structures will, in the long term, reduce the risk of injury, disease and property damage from flooding in the area.

East Kapolei residents will increase local demand for schools, libraries, parks, public services (police, fire protection, etc.) and utility service. The project will provide schools and parks to serve its residents, and therefore, will not have an adverse cumulative impact on existing facilities and services. However, the Police Department's existing staffing shortfalls will grow more acute as the Ewa area continues to develop.

7

Alternatives to the Proposed Action

CHAPTER 7
ALTERNATIVES TO THE PROPOSED ACTION

Chapter 200 of Title 11, Environmental Impact Statement Rules, requires a discussion of "any known alternatives...which could feasibly attain the objectives of the action." The rules further specify that the alternatives be explored and evaluated in light of enhancement to environmental quality or the avoidance or reduction of adverse environmental effects. As stated in Section 2.4, the objective of the action (Ewa DP Land Use Map amendment) is to allow the development of up to 8,000 residential units and associated commercial, school and recreational facilities.

Several alternatives were analyzed including: no-action, commercial development and major public facilities development. A review of each alternative is presented below.

7.1 No-Action

The no-action alternative analyzes the impacts of taking no-action; which for purposes of this EIS, simply assumes that the East Kapolei project is not proposed on the present site. As previously discussed, a 183-acre portion of the site is owned by the State of Hawaii with the remainder of the site owned by The Estate of James Campbell. The former lessee, Oahu Sugar Company, has completely ceased its operations, leaving the land fallow and available for alternative uses. Without the present East Kapolei project, the landowners would need to assume direct management control of the lands. In the mid- to long-term, in view of the closure of the sugar plantation, State and City plans to develop Kapolei as Oahu's second city, and the strategic location of the site relative to the proposed University, North-South Road and the existing Farrington Highway, it is clear that the site has significant urban development potential. Thus, if no-action is taken by the applicant, it is likely that new developers will take the applicant's place and make similar proposals to develop the site.

The no-action alternative would therefore only delay the urbanization of the site. It would not return the land to former sugarcane cultivation. The loss of the site for agricultural purposes resulting from its urbanization has been fully discussed in Section 5.6 and it is concluded that the impact to agriculture would be not be significant.

7.2 Commercial Development

Commercial development is an alternative which was considered but eliminated. Regional retail commercial use would have similar, but somewhat greater environmental impacts in

terms of urbanization and infrastructure demand. Traffic impacts, in particular, would be greater than the proposed project. Although the Ewa-Kapolei region is experiencing much population growth which could possibly support commercial/retail development, a condition of the sale of the subject property by The Estate of James Campbell was that commercial acreage would be limited to two acres for every 1,000 housing units constructed. In addition, EJC is developing the nearby City of Kapolei, which includes a large retail commercial area, to support the growing regional population. The City of Kapolei provides a more centralized location for regional commercial development which is consistent with the long range land use plans for the second city. Development of major commercial uses on the site would place undue and perhaps destructive competitive pressures on the new City of Kapolei, possibly jeopardizing State and County policies to support the growth of the second city. As a result, the alternative for extensive commercial development of the site was discarded.

7.3 Major Public Facilities

The University of Hawaii Board of Regents has been seeking a site for a West Oahu campus to support the growing population in the Central Oahu and Ewa regions. The university development would also likely include associated residential and support facilities. Although the subject site provides sufficient acreage and an accessible location for a university, two other sites are being considered. In 1994, the State identified a parcel located to the west of the site for development of the university campus. Subsequently, in 1996, the Governor proposed an alternate 900-acre site, *mauka* of the H-1 Freeway. The alternate site has recently been approved by the University Board of Regents, and is awaiting formal approval by the Legislature.

Other regional public facilities and civic uses such as police and fire stations, libraries, government and commercial offices, etc., are being planned within the City of Kapolei. According to the EJC's Long Range Master Plan, the City of Kapolei is to be the primary commercial and civic center for the Ewa area, providing regional support to the surrounding residential communities. The development of public facilities at the subject site would be contrary to the concept of consolidating public services and facilities in the City of Kapolei. Therefore, development of major public facilities on the project site was perceived as being inconsistent with the Long Range Master Plan and was eliminated as an alternative.

7.4 Conclusion

Three alternative development scenarios were analyzed, including a no-action scenario. All three alternatives had the potential for equal or greater adverse environmental impact

compared to the recommended plan of constructing 8,000 homes on the site. Furthermore, and perhaps most importantly, none of the alternatives supports the State and County policies to develop Kapolei as the second city more than the recommended plan. The No-Action alternative would only delay the eventual development of the site and would not reinstate the former agricultural use of the site. The Commercial Development scenario would threaten the success of the City of Kapolei with undue competitive pressures and could significantly increase regional traffic impacts. The development of Major Public Facilities on the site such as a university, regional library, police and fire stations, etc., is not feasible as these facilities are already being planned or constructed in nearby areas.

8

Irreversible and Irretrievable Commitments of Resources

CHAPTER 8
IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Chapter 200 of Title 11, Environmental Impact Statement Rules (11-200-17(k)) requires the "identification of unavoidable impacts and the extent to which the action makes use of non-renewable resources during phases of the action , or irreversibly curtails the range of potential uses of the environment.."

The construction of the proposed project will result in an irreversible and irretrievable commitment of capital, land, labor and energy for the design and development of the project. The commitment of these resources, however, should be evaluated in light of expected benefits to the community accruing from the project.

The development of the project will transform the subject property from its present fallow agricultural/open state to an urban environment. However, the termination of active cultivation of the site occurred independent of the proposed development. There is ample prime agricultural land in other locations for diversified agriculture on Oahu. The housing opportunities provided by the project, the associated employment created and public tax revenues generated appear to justify the loss of agricultural land.

The development of up to 8,000 residential units will create a demand on potable water source and will contribute to regional demands on wastewater and other infrastructure systems.

The project will not require any new commitment of publicly supported services and facilities that will not be compensated by increases in tax revenues.

9

Relationship Between Local Short-Term Uses of the Environment and Maintenance and Enhancement of Long-Term Productivity

CHAPTER 9
RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Chapter 200 of Title 11, Environmental Impact Statement Rules (11-200-17(j)) requires a brief discussion of the "extent to which the proposed action involves tradeoffs between short-term losses and long-term losses or vice-versa, and a discussion of the extent to which the proposed action forecloses future options, narrows the range of beneficial uses of the environment, or poses long-term risks to health or safety..."

Short-term tradeoffs related to the proposed action are associated with the development of urban uses on the property. The project area consists of undeveloped, sugar cane fields, and provides open space and the potential for alternative future uses. The proposed action will commit the site to a particular urban use thereby potentially "narrowing the range of [potential] beneficial uses" and possibly foreclosing future options. However, the project will provide a significant number of affordable housing units, addressing an acknowledged existing and projected shortfall in the Ewa area.

Long-term impacts associated with the project are expected to be favorable, given that the project is consistent with State and City growth policies to establish a secondary urban center in Ewa. Any short-term construction-related impacts will be mitigated by the enhancement of long-term productivity of the site.

10

References

CHAPTER 10
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11

PREPARERS OF THE FEIS

CHAPTER 11
PREPARERS OF THE FEIS

The East Kapolei Project Final EIS (April 1996) was prepared for the applicant, Schuler Homes, Inc. by Helber Hastert & Fee, Planners. The following list identifies individuals and organizations involved in the preparation of this report and their respective contributions.

Schuler Homes, Inc.
Mr. Michael Angotti, Director of Land Services

Helber Hastert & Fee, Planners
Thomas A. Fee, AICP (Principal-in-charge and Project Manager)
Leslie Kurisaki (Principal Author)

Technical Consultants

Consultant	Technical Area
Gail W. Atwater, MBA, MURP, AICP	Market Assessment
Community Resources, a division of SMS Research & Marketing Services, Inc.	Socio-Economic/Fiscal Assessment
Darby and Associates	Acoustical Engineering
Decision Analysts Hawaii, Inc.	Agriculture
Evangeline Funk, Ph.D.	Biological Resources
Gray Hong Bills & Associates, Inc.	Drainage, Wastewater, Electrical, Solid Waste and Civil
J.W. Morrow, Environmental Management Consultant	Air Quality
Tom Nance, Water Resources Engineering	Potable Water Master Plan
Pacific Planning and Engineering, Inc.	Traffic Impact Assessment

12

CONSULTED PARTIES AND PARTICIPANTS IN THE DEIS PREPARATION PROCESS

CHAPTER 12
CONSULTED PARTIES AND PARTICIPANTS IN THE DEIS PREPARATION PROCESS

The City and County of Honolulu Planning Department (accepting authority) determined that the proposed project may have a significant effect on the environment. On November 9, 1995, the Planning Department notified the Office of Environmental Quality Control (OEQC) that it had determined that an EIS was required for the subject project. This notice of determination is reproduced in this chapter. An EIS Preparation Notice (EISPN) was subsequently published in the November 23, 1995 edition of *The Environmental Notice* (formerly the *OEQC Bulletin*). The publication of the EISPN began a 30-day public review period which ended on December 23, 1995. A copy of the EISPN and/or notice of the project was mailed to the agencies and organizations listed below. The list contains parties believed to have an interest in the project.

A total of 20 agencies, organizations or individuals provided written comments on the EISPN. The parties who responded to the EISPN are identified by an asterisk (*) and their respective comments are reproduced in the following pages.

<u>Federal Agencies</u>

Army Engineer District
*Department of the Interior, U.S. Geological Survey
Commander, Naval Base Pearl Harbor

<u>State Agencies</u>

Department of Land and Natural Resources
-Director
* -State Historic Preservation Division
*Housing Finance and Development Corporation
Department of Business, Economic Development and Tourism
-Director
* -Energy Division
* -State Land Use Commission
*Department of Labor and Industrial Relations
*Department of Accounting and General Services
State Public Works Engineer
Department of Hawaiian Home Lands
Department of Defense
*Department of Transportation

*Department of Education

University of Hawaii
Senior V.P. for Administration

City and County of Honolulu
Building Department
*Department of Transportation Services
*Board of Water Supply
*Department of Parks and Recreation
*Planning Department
Department of Land Utilization
*Department of Public Works
*Department of Wastewater Management
*Department of Human Resources
*Director of Housing and Community Development
*Police Department
*Fire Department

Other Agencies, Organizations and Individuals
Haseko (Ewa), Inc.
*Gentry Homes, Ltd.
Senator Brian Kanno
Representative Annelle C. Amaral
Councilman John DeSoto

Ahahui Siwila Hawaii O Kapolei
Chevron USA, Inc.
Ewa Beach Community Association
Ewa Neighborhood Board
Ewa Village Community Association
Friends for Ewa
Friendship Bible Church
Hawaiian Electric Company, Inc.
Honokai Hale/Nanakai Gardens Community Association
Hui Aloha Senior Citizens
Kaleopuu Elementary School PTA
Kapolei Elementary School PTA

Makakilo Elementary School
Makakilo School PTA
Makakilo Senior Citizens Club
Palehua Community Association
Puuloa Hawaiian Civic Club
Village Park Community Association
West Oahu Employment Corporation
Westloch Estates Community Association

United States Department of the Interior

U.S. GEOLOGICAL SURVEY

WATER RESOURCES DIVISION
677 Ala Moana Boulevard, Suite 415
Honolulu, Hawaii 96813

December 5, 1995

DEC - 8 1995

Ms. Leslie Kurisaki
Project Planner
Helbert Hastert and Fee
733 Bishop St., Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

Subject: Environmental Impact Statement Preparation Notice
East Kapolei Project

The staff of the U.S. Geological Survey, Water Resources Division, Hawaii District, has reviewed the Environmental Impact Statement, Preparation Notice (EISPN), and we have no comments to offer at this time.

Thank you for allowing us to review the EISPN.

Sincerely,

William Meyer
District Chief

Helber Hastert
Planners

January 5, 1996

Mr. William Meyer, District Chief
U.S. Geological Survey
Water Resources Division
U.S. Department of the Interior
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 5, 1995

Dear Mr. Meyer:

Thank you for your letter dated December 5, 1995 in response to the East Kapolei Project EISPN. We note that the USGS Water Resources Division has no comments at this time. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY
GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
CONSERVATION AND ENVIRONMENTAL AFFAIRS
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

December 4, 1995

DEC 6

Leslie Kurisaki
Project Planner
Helber Hastert & Fee
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

LOG NO: 16007
DOC NO: 9511TD31

Dear Ms. Kurisaki:

SUBJECT: **East Kapolei Project**
Honouliuli, `Ewa, O`ahu
TMK: 9-1-17: por. 4; 9-1-18: por. 1; 9-2-2: por. 1; 9-2-4: por. 5; 9-1-10: por. 2

Thank you for the opportunity to review the revised concept plan for this development with the new project boundaries. A review of our records shows that the new project boundaries take in old sugar cane lands. Thus, our original review of this project is adequate.

A review of our records shows that there are no known historic sites at the project location shown on your map. These lands were commercially cultivated with sugar cane for many years and it is unlikely that significant historic sites will be found on them. We believe that this project will have "no effect" on historic sites.

If you have any questions please call Tom Dye at 587-0014.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

TD:jk

Helber Hastert
Planners

January 5, 1996

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
33 S. King St., 6th Floor
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 4, 1995

Dear Mr. Hibbard:

Thank you for your letter dated December 4, 1995 in response to the East Kapolei Project EISPN. We note your comment that your original review of this project was adequate, and that this revised project will have "no effect" on historic sites. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
Facsimile 808 545-2050

BENJAMIN J. CAYETANO
[redacted]
GOVERNOR

ROY S. OSHIRO
[redacted]T
EXECUTIVE DIRECTOR

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
HOUSING FINANCE AND DEVELOPMENT CORPORATION
677 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813
FAX (808) 587-0600

IN REPLY REFER TO:
95:PPE/7002

December 22, 1995

JAN - 2

Ms. Leslie Kurisaki
Helber Hastert & Fee
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for East Kapolei Project, Ewa, Oahu

We have reviewed the subject EISPN and have the following comment to offer:

Additional information is needed to describe the housing component, such as the number and types, targeted income groups, and development timetable.

Policies A(3) and B(3) of the State Housing Functional Plan seek to ensure that (1) housing projects and (2) projects which impact housing provide a fair share/adequate amount of affordable homeownership or rental housing opportunities. We believe that the proposed housing project should address the affordable housing policies of the State housing plan. The EIS should fully address this issue.

We look forward to working with the applicant to formulate an affordable housing program for the proposed project.

Thank you for the opportunity to comment on the EISPN.

Sincerely,

ROY S. OSHIRO
Executive Director

HFDC

Helber Hastert
Planners

January 8, 1996

Mr. Roy S. Oshiro, Executive Director
Housing Finance and Development Corporation
Department of Budget and Finance
State of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 22, 1995

Dear Mr. Oshiro:

Thank you for your letter dated December 22, 1995 in response to the East Kapolei Project EISPN. We have reviewed your comments and offer the following responses:

The DEIS will provide an estimated development timetable of the units by type of housing and targeted income group and will discuss the project's relationship to the affordable housing policies of the State housing plan.

We appreciate your comments. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
Facsimile 808 545-2050

BENJAMIN J. CAYETANO
Governor
SELJI F. NAYA
Director
RICK EGGED
Deputy Director

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, AND TOURISM

ENERGY DIVISION, 335 MERCHANT ST., RM. 110, HONOLULU, HAWAII 96813 PHONE: (808) 587-3800 FAX: (808) 587-3820

089 Fee

December 6, 1995

DEC 12 1995

Mr. Tom Fee
Vice President
Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Mr. Fee:

SUBJECT: East Kapolei Project, Environmental Impact Statement Preparation Notice (EISPN)
Tax Map Key: 9-1-17:04 (por); 9-1-18:01 (por); 9-2-02:01 (por); 9-2-04:05 (por); and 9-1-10:02 (por)
9-1-17:04 (por); and 9-1-18:01 (por)

We wish to inform you that we have no comments regarding the subject East Kapolei Project, EISPN.

Thank you for the opportunity to submit any comments or recommendations.

Sincerely,

Maurice H. Kaya
Energy Program Administrator

MHK:aw

Helber Hastert
Planners

January 5, 1996

Mr. Maurice H. Kaya
Energy Program Administrator
Energy Division
Department of Business, Economic Development and Tourism
State of Hawaii
335 Merchant St., Rm. 110
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 6, 1995

Dear Mr. Kaya:

Thank you for your letter dated December 6, 1995 in response to the East Kapolei Project EISPN. We note that the Energy Division has no comments regarding the EISPN. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

BENJAMIN J. CAYETANO
GOVERNOR

ESTHER UEDA
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
Room 104, Old Federal Building
335 Merchant Street
Honolulu, Hawaii 96813
Telephone: 587-3822

December 8, 1995

DEC 12 1995

Ms. Leslie Kurisaki
Helber, Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for the East Kapolei Project

We have reviewed the EISPN for the East Kapolei project transmitted with your memorandum of November 22, 1995, and have the following comments:

1) As represented on the location map, the majority of the project area is located within the State Land Use Agricultural District. It appears that a small portion of the project area above Ewa Villages is located within the State Land Use Urban District. We have enclosed a copy of the State Land Use District Boundaries Map O-6, Ewa, with that portion of the project area in the Urban District highlighted.

   We note that Page 2 of the EISPN incorrectly references the Agricultural District as "Agriculture."

2) Based on the location of the project's boundaries, the project area appears to include portions of the petition area in LUC Docket No. A94-708/Office of State Planning, which is currently before the Commission. This docket proposes the reclassification of approximately 1,300 acres from the Agricultural District to the Urban District for land exchange, the University of Hawaii-West Oahu campus, housing, and public facility uses. Clarification on the relationship between the East Kapolei project and the above docket should be provided.

3) We note that on the location map, the project area includes a triangular portion east of Ewa Villages.

However, this site does not appear to be included in the preliminary concept plan and proposed DP Land Use map.

4) We understand that a land use district boundary amendment petition for this project will be filed with the Commission in the future. In light of the Office of State Planning's boundary amendment petition, clarification should be provided as to what portion of the project area will be the subject of the boundary amendment.

We have no further comments to offer at this time. We appreciate the opportunity to comment on this matter.

Should you have any questions, please feel free to call me or Bert Saruwatari of our office at 587-3822.

Sincerely,

ESTHER UEDA
Executive Officer

EU:th

encl.

cc: OSP (w/o encl.)

LAND USE DISTRICT BOUNDARIES

DISTRICT MAP

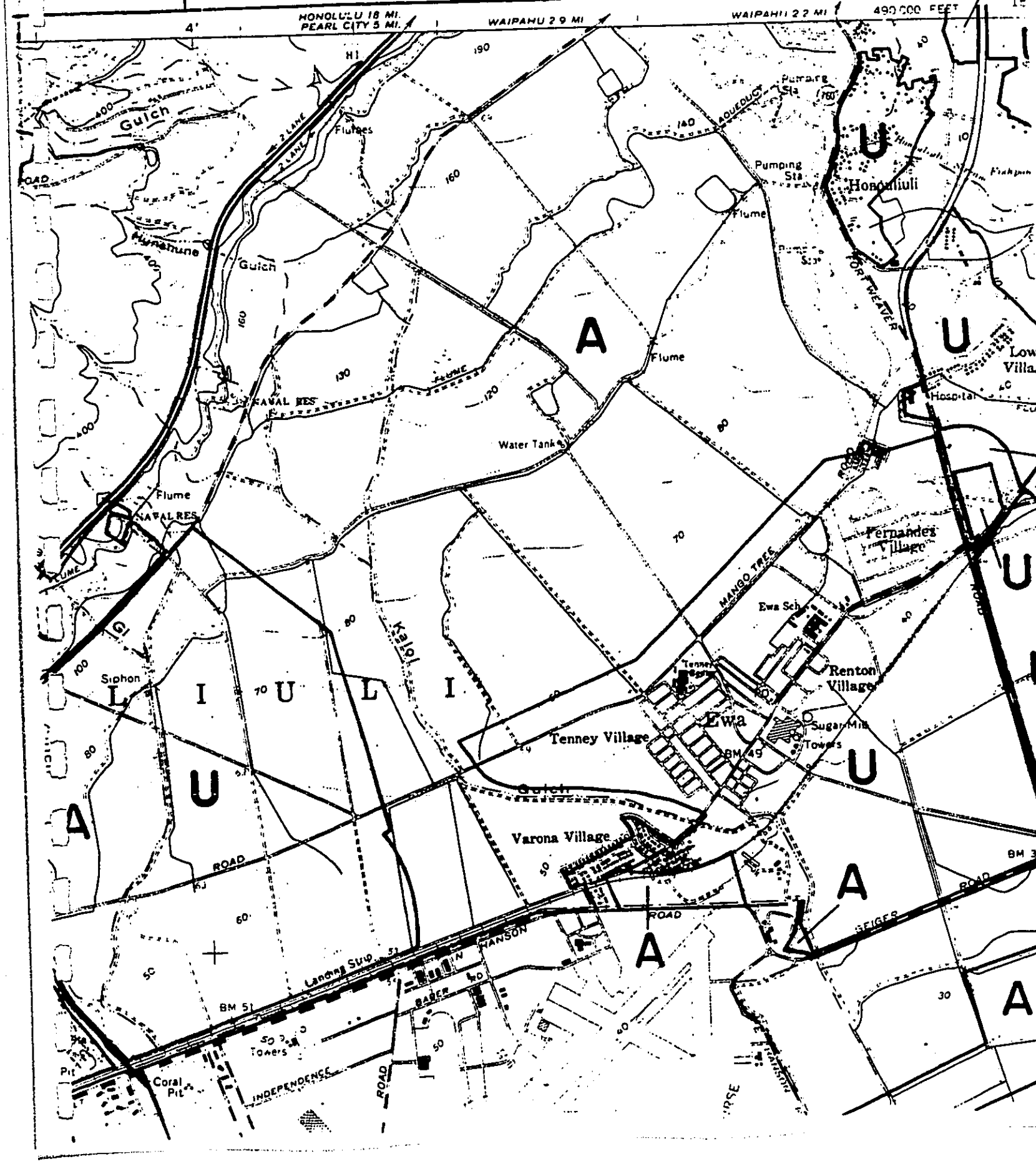
O-6

STATE OF HAWAII
LAND USE COMMISSION
DEPT. OF PLANNING & ECONOMIC DEVELOPMENT
EFFECTIVE DATE: DEC 2 0 1974

DISTRICTS

U = URBAN
R = RURAL
A = AGRICULTURAL
C = CONSERVATION

EWA QUADRANGLE
HAWAII–HONOLULU CO.
ISLAND OF OAHU
7.5 MINUTE SERIES (TOPOGRAPH



Helber Hastert
Planners

January 5, 1996

Ms. Esther Ueda, Executive Officer
State of Hawaii
Department of Business, Economic Development and Tourism
Land Use Commission
Room 104, Old Federal Building
335 Merchant Street
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 8, 1995

Dear Ms. Ueda:

Thank you for your letter dated December 8, 1995 in response to the East Kapolei Project EISPN. We have reviewed your comments and offer the following responses:

1. As you stated, a small portion of the southern project area above Ewa Villages may be within the State Land Use Urban District. As discussed with Bert Saruwatari of your staff, we will request a boundary interpretation for this area to determine the exact Urban-Agricultural boundary. All references to "Agriculture District" will be replaced with "Agricultural District."

2. The 183-acre, State-owned portion of the project area is included in the LUC Docket No. A94-708/Office of State Planning, which is currently before the Commission. Authorization to include the parcel was granted by DLNR by letter dated November 21, 1995 (copy of letter to be included in Draft EIS). Schuler Homes will request Urban District redesignation for the remainder of the application area.

3. The 31-acre triangular portion of the project area east of Fort Weaver Road is one of several small parcels to be used only for off-site infrastructure. These "off-site" parcels, comprising a total of 48 acres, are not shown in the concept plan. The triangular parcel will be used for drainage purposes only. None of these off-site infrastructure parcels are included in the application for Development Plan amendment, although they are discussed as part of the Chapter 343 HRS process.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

4. A land use district boundary amendment petition for the non-urban portions of the project area (exclusive of the off-site infrastructure parcels mentioned in (3) above) will be filed with the Commission in the near future. As mentioned in (1) above, consultation with your staff regarding the boundary interpretation will occur prior to submittal of the petition.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

LORRAINE H. AKIB
DIRECTOR

DAYTON M. NAKANELU
DEPUTY DIRECTO

STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
OFFICE OF THE DIRECTOR
830 PUNCHBOWL STREET, ROOM 321
HONOLULU, HAWAII 96813

December 7, 1995

2

Ms. Leslie Kurisaki
Project Planner
Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

The Department of Labor and Industrial Relations has received the Environmental Impact Statement Preparation Notice (EISPN) for the East Kapolei Project. We have reviewed the notice and have no comments to offer.

Thank you for the opportunity to review the document. If you have any questions, please call Naomi Harada, Chief of our Research and Statistics Office, at 586-8999.

Very truly yours,

Dayton M. Nakanelua
for Lorraine H. Akiba
Director

Helber Hastert
Planners

January 5, 1996

Ms. Lorraine H. Akiba, Director
Department of Labor and Industrial Relations
State of Hawaii
830 Punchbowl St., Rm. 321
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 7, 1995

Dear Ms. Akiba:

Thank you for your letter dated December 7, 1995 in response to the East Kapolei Project EISPN. We note that the your department has no comments to offer at this time. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

BENJAMIN J. CAYETANO
GOVERNOR

SAM CALLEJO
COMPTROLLER

MARY PATRICIA WATERHOUSE
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. (P) 1879.5

DEC 19 1995

Helber Hastert & Fee, Planners
733 Bishop Street, Suite 2590
Grosvenor Center, Makai Tower
Honolulu, Hawaii 96813

Attention: Mr. Tom Fee

Dear Sirs:

Subject: East Kapolei Project
EIS Preparation Notice

We have reviewed the EIS Preparation Notice for the subject project and have the following comments:

1. The Department of Education (DOE) has experienced difficulties with the respective counties relative to dual usage of park sites adjacent to their schools. These difficulties are in the areas of construction timetables, times of park use, equipment types, etc. Therefore, the eight acres set aside for elementary schools should be increased to twelve and likewise, the area set aside for intermediate schools should be increased to 18 acres.

2. Location of schools on street corners and curves is less than desirable due to limitations on sight distances for vehicles leaving the school site.

3. Developer should coordinate closely with DOE's staff when projecting utility requirements for school sites.

4. Discussions between the developer and DOE should continue in order to address the above concerns.

Thank you for the opportunity to comment on the subject project. If there are any questions regarding the above items, please have your staff call Mr. Ralph Yukumoto of the Planning Branch at 586-0488.

Very truly yours,

GORDON MATSUOKA
State Public Works Engineer

RY:jk
cc: Mr. Lester Chuck

Helber Hastert
Planners

January 8, 1996

Mr. Gordon Matsuoka, State Public Works Engineer
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 19, 1995

Dear Mr. Matsuoka:

Thank you for your letter dated December 19, 1995 in response to the East Kapolei Project EISPN. Your comments are addressed below:

1. In previous discussions between Schuler Homes, Inc. and the Department of Education, the DOE has indicated that elementary schools may be collocated with a public park. The draft Ewa Development Plan Report (City Planning Department, June 1995) advocates the collocation of elementary schools with neighborhood or community parks (p. 8-5). From the community planning perspective, the collocation of neighborhood-serving park and school facilities makes a lot of sense. It provides an important focus for neighborhood-based activities, and becomes an important organizing land use element for each of the major neighborhoods within the project. Stand-alone facilities will increase the overall land requirement (as you note), reduce residential densities (by directly displacing homes), and increase the relative distances between the facilities, reducing the pedestrian orientation of the project.

   The applicant appreciates your concern about coordinating the development and operation of these facilities as the timely and coordinated delivery of these facilities is vital to overall project success. The applicant looks forward to working closely with the various government agencies to ensure the timely and coordinated delivery of these important community facilities.

2. The applicant will work with your Department to assure safe ingress/egress to the school sites.

3. The Draft Environmental Impact Statement will include various utility master plans with projected time schedules, in part to allow coordination with agencies such as the Department of Education (Planning Branch and Facilities Branch).

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

4. Discussions between the developer and DOE will continue in order to address the concerns expressed in your letter.

We appreciate your interest in the project and comments. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
JERRY M. MATSUDA
GLENN M. OKIMOTO

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

IN REPLY REFER TO:
STP 8.7161

January 8, 1996

JAN 10 1996

Ms. Leslie Kurasaki, Project Planner
Helber Hastert and Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurasaki:

Subject: East Kapolei Project
Environmental Impact Statement Preparation Notice

Thank you for your memorandum dated November 22, 1995, requesting our review on the subject project.

Our comments of March 22, 1995, (STP 8.6656) to the Planning Department are still applicable (copy attached).

We defer further comments until we have had the opportunity to review updates to the Traffic Impact Assessment and Traffic Operations Analysis.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation

Enc.

DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION

MAR 22 11 37 AM '95

DIR 2069
DIR 0133
STP 8.6656

March 22, 1995

Ms. Cheryl D. Soon
Chief Planning Officer
Planning Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: East Kapolei Project
Draft Environmental Impact Statement (DEIS)
To Amend the Ewa Development Plan Land Use Map

Thank you for your transmittal requesting our review of the subject DEIS. We have the following comments:

1. Schuler Homes, Inc. should be required to participate with the other major developers in the area on the preparation and implementation of the Ewa Region transportation master plan. This is a combined effort between the developers and all levels of government to identify and implement the transportation improvements required for the entire Ewa Region.

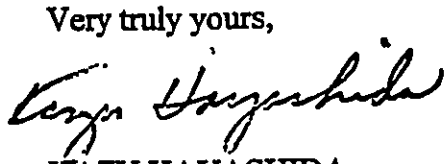
   The roadway requirements for this proposed project should be contingent upon the results of the master plan.

   The applicant should coordinate their involvement through Campbell Estate, who has been spearheading the master plan effort.

2. The State is proposing to acquire a portion of the Barbers Point Naval Air Station for a future general aviation reliever airport that will also serve the U.S. Coast Guard and the Hawaii National Guard. Consequently, the proposed development may be subject to potential aircraft overflights in and out of the airport.

We appreciate the opportunity to provide comments.

Very truly yours,



KAZU HAYASHIDA
Director of Transportation

EKT/JT/KH:sy

c: Mr. Mike Angotti - Schuler Homes, Inc.
Ms. Leslie Kurisaki - Helber Hastert & Fee
Mr. Gary Gill - OEQC

bc: HWY-P (EIS 95-17)
AIR-EP
STP (EKT)

Helber Hastert
Planners

January 17, 1996

Mr. Kazu Hayashida, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated January 8, 1996

Dear Mr. Hayashida:

Thank you for your letter dated January 8, 1996 in response to the East Kapolei Project EISPN. We note your previous comments of March 22, 1995 to the Planning Department are still applicable.

Regarding your previous comment that Schuler Homes should participate in the Ewa Region Transportation master plan, as noted in our March 27, 1995 response, Schuler Homes is currently a participant, with other major developers, in the preparation and implementation of the master plan. The developer has been coordinating its involvement through the Estate of James Campbell which is spearheading the master plan effort.

You also noted that the development may be subject to aircraft overflights if a general aviation reliever airport is developed at the Barbers Point Naval Air Station. The developer is monitoring the status of current plans and proposals for Barbers Point Naval Air Station, particularly as they may impact the East Kapolei Project.

Thank you for your comments. Your letter will be included in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

Benjamin J. Cayetano
GOVERNOR

HERMAN M. AIZAWA, PH.D.
SUPERINTENDENT
[redacted]

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P. O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

JAN 16 1996

January 8, 1996

Ms. Leslie Kurisaki
Project Planner
Helber Hastert & Fee, Planners
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

SUBJECT: Environmental Impact Statement Preparation Notice
East Kapolei Project

We have reviewed the subject preparation notice and have determined that the proposed project will have a severe impact on the schools in the area. The proposed 8,000 residential units in East Kapolei will generate the following number of students:

School	Grades	Projected Students
Elementary School	K-5	1600
Intermediate School	6-8	600
High School	9-12	750

Based on the number of students projected from this development, the Department of Education (DOE) will require the developer to make a fair-share contribution in the form of land dedication for future school sites and/or cash contributions for the construction of school facilities.

The developer proposes to set aside 25 acres for two elementary school sites and part of an intermediate school site. The DOE estimates that the developer's fair-share contribution should be approximately 62.66 acres or a cash contribution of $850 per residential unit developed or combination of land and cash.

The DOE requires elementary school sites to be 8-usable acres next to a County park or 12 acres if a County park is not available. It is our understanding that the City and County Department of Parks and Recreation prefers not to locate a park next to the schools. Hence, both elementary school sites should be 12 usable acres.

An intermediate school site should be at least 18 acres of usable land. The site plan shows only 9 acres within the project.

It has been represented that the State, through the Department of Budget and Finance, has agreed to provide 9 acres within State lands for the intermediate school. However, the DOE has been unable to substantiate this claim. Therefore, all 18 acres should be located within the project.

The DOE envisions a high school in the vicinity due to the plans of the State to utilize the area for housing. The developer should expect to provide a fair share for the high school site since 710 students represents a sizable portion of a high school generally designed for 1,500 students. The fair share can be in the form of cash or construction of facilities for the complex.

All proposed school sites should have the necessary infrastructure such as water, sewer, electrical, and roads up to the school site at no cost to the State. The site should also not have any fill which cannot support buildings and should contain no hazardous wastes or historic or archaeologically significant remains which must be mitigated. The appropriate water allocations for the sites should be provided at no cost to the DOE. The DOE will request a topographic map of the proposed sites and will require that we approve the sites prior to subdivision approval or we will oppose the subdivision request. The shape of the sites should also be more square in shape not to exceed a 1.5 to 1 length to width ratio. The sites are appropriately located away from any commercial areas.

On the preliminary concept plan, the school sites should not be located on the curved portions of any roads due to line of sight safety concerns for students. The sites must also have more than one access road and the main access should be on a road of at least a fifty-six (56) feet right of way to address concerns of the Department of Transportation Services, City and County of Honolulu.

We reserve the right to make additional comments upon development of the Draft Environmental Impact Statement.

Should there be any questions, please call the Facilities Branch at 733-4862.

Sincerely,

Herman M. Aizawa, Ph.D.
Superintendent

HMA:hy

cc: A. Suga, OBS
A. Maeda, Leeward
C&C, Planning Department
D. Griffin, DPR
A. Mitsuda, OSP
G. Matsuoka, PW, DAGS

Helber Hastert
Planners

January 17, 1996

Dr. Herman M. Aizawa
Superintendent
Department of Education
State of Hawaii
P.O. Box 2360
Honolulu, Hawaii 96804

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated January 8, 1996

Dear Dr. Aizawa:

Thank you for your letter dated January 8, 1996 in response to the East Kapolei Project EISPN. Your estimate of the anticipated number of students generated by the project will be incorporated into the Draft EIS. We note that the student/dwelling unit ratios have increased between 13 percent (elementary schools) and 50 percent (intermediate school) from your December 29, 1994 letter to Helber Hastert & Fee (see following table). So even though the project has reduced in size from 10,000 to 8,000 units (20 percent reduction), the demand for classrooms remains about the same (2,950 students).

Students per 100 Dwelling Units (d.u.)

	12/29/94 letter	1/8/96 letter
Elementary	17.7	20.0
Intermediate	5.0	7.5
High School	7.1	9.4

We will contact your office to determine how the estimated fair-share contribution of approximately 62.66 acres to serve the projected student demand was calculated. An important point to remember is that the school age population in the community will grow gradually over the 16-year build out period, and will gradually decrease as the community matures. This dynamic process requires flexibility and strategic planning to optimize investment in public educational resources.

Helber Hastert & Fee
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733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

Elementary Schools

The developer understands that DOE requires elementary school sites to be eight usable acres if next to a County park of at least four acres. The project's two elementary school sites are both located next to a County neighborhood park, each eight acres in size. Contrary to your comment, we have not received any indication from the City Department of Parks and Recreation that it objects to locating a park adjacent to the elementary schools. The applicant's position, as stated in our letter to the State Public Works Engineer (January 8, 1996, copy attached), is that the collocation of neighborhood-serving school and park facilities makes a lot of sense. It provides an important focus for neighborhood-based activities, and becomes an important organizing land use element for each of the major neighborhoods within the project. Stand-along facilities will increase the overall land requirement, reduce residential densities (by directly displacing homes) and increase the relative distances between the facilities, reducing the pedestrian orientation of the project.

Intermediate School

The project includes nine acres of an 18-acre intermediate school site. The developer does not intend to imply that the State has formally agreed to provide the remaining nine acres to complete the school. However, it is Schuler Homes' position that the intermediate school is a regional need, not solely a result of this project. It is believed that the nine acres provides an adequate contribution toward meeting this regional need, and it is hoped that the State (current owner of the adjacent lands) will likewise contribute its share.

High School

Regarding the high school, as stated in its position paper to the DOE dated January 6, 1995, Schuler Homes is willing to participate in and be subject to fairly imposed impact fees. However, the developer strongly believes that a State-wide standard needs to be established regarding "fair share" contribution for high school impact.

Timing and Coordination

The developer will work with the DOE to provide school sites which have adequate infrastructure, appropriate configurations and topography, and meet sound planning criteria.

The applicant is concerned about the timely and coordinated delivery of schools and other community facilities serving this project. For example, the availability of an operational elementary school in the early phase of the project is seen as essential to project success. The applicant looks forward to working closely with the various government agencies (including DOE) to ensure that high quality schools and other facilities are readily available to East Kapolei residents.

Thank you for your comments. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

enclosures

cc: Ms. Cheryl Soon, Planning Department

Helber Hastert
Planners

(Attached to response to DOE)

January 8, 1996

Mr. Gordon Matsuoka, State Public Works Engineer
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 19, 1995

Dear Mr. Matsuoka:

Thank you for your letter dated December 19, 1995 in response to the East Kapolei Project EISPN. Your comments are addressed below:

1. In previous discussions between Schuler Homes, Inc. and the Department of Education, the DOE has indicated that elementary schools may be collocated with a public park. The draft Ewa Development Plan Report (City Planning Department, June 1995) advocates the collocation of elementary schools with neighborhood or community parks (p. 8-5). From the community planning perspective, the collocation of neighborhood-serving park and school facilities makes a lot of sense. It provides an important focus for neighborhood-based activities, and becomes an important organizing land use element for each of the major neighborhoods within the project. Stand-alone facilities will increase the overall land requirement (as you note), reduce residential densities (by directly displacing homes), and increase the relative distances between the facilities, reducing the pedestrian orientation of the project.

   The applicant appreciates your concern about coordinating the development and operation of these facilities as the timely and coordinated delivery of these facilities is vital to overall project success. The applicant looks forward to working closely with the various government agencies to ensure the timely and coordinated delivery of these important community facilities.

2. The applicant will work with your Department to assure safe ingress/egress to the school sites.

3. The Draft Environmental Impact Statement will include various utility master plans with projected time schedules, in part to allow coordination with agencies such as the Department of Education (Planning Branch and Facilities Branch).

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

4. Discussions between the developer and DOE will continue in order to address the concerns expressed in your letter.

We appreciate your interest in the project and comments. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA
711 KAPIOLANI BOULEVARD, SUITE 1200
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

CHARLES O. SWANSON
DIRECTOR

11/95-05544R

December 22, 1995

JAN -2

Mr. Michael Angotti
Director of Land Services
Schuler Homes, Inc.
828 Fort Street Mall, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Angotti:

Subject: Environmental Impact Statement Preparation Notice for East Kapolei Project

Based on our review of the current project and prior reviews (January 12, 1995 and May 3, 1995) of the previous environmental documents, we have the following comments which should be addressed in the environmental impact statement or subsequent documents:

1. The proposed scheduling of improvements to Farrington Highway and the "North-South" Road, in relation to the development of this project, should be provided. Of particular concern is the vehicular carrying capacity of Farrington Highway for the two-lane segments which fall outside the limits of this project. The extent and subsequent phasing of this development may be limited if roadway improvements planned for these segments or the connection to the freeway is not completed in a timely manner.

2. A roadway master plan should be provided to our department during the early stages of the project. The plan should show the general alignment of the major roadways; the approximate number of dwelling units or square footage of commercial/office space for each increment, whichever is appropriate; the roadway cross-sections; and a phasing plan for the development. We are particularly concerned with the present roadway alignment and its relation to the community park. Additional concerns include the proposed loop road which may cause vehicular sight problems and mid-block pedestrian crossing at green ways.

3. Schematic plans of major intersections indicating laneage and the anticipated level-of-service at each approach should be provided. The analysis should include a determination of the lengths of left turn lanes and the need for separate right turn lanes.

4. Subdivision maps for this development have been processed which differ from the roadway alignment shown on the project site plan. The site plan should be revised to reflect the current alignment of the proposed "North-South" Road and Kapolei Parkway.

Should you have any questions regarding these comments, please call Faith Miyamoto of the Transportation Systems Planning Division at 527-6976.

Respectfully,

CHARLES O. SWANSON
Director

cc: Ms. Lin Wong, Planning Department
✓Ms. Leslie Kurisaki, Helber Hastert & Fee
Office of Environmental Quality Control

Helber Hastert
Planners

January 8, 1996

Mr. Charles O. Swanson, Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 22, 1995

Dear Mr. Swanson:

Thank you for your letter dated December 22, 1995 in response to the East Kapolei Project EISPN. We have reviewed your comments and offer the following responses:

1. Your concern is noted and will be discussed in the DEIS.

2. A roadway master plan will be submitted to your department during the early stages of project development.

3. Schematic plans of major intersections indicating laneage and the anticipated level-of-service at each approach will be provided.

4. Based on a follow-up conversation with your staff, we understand the specific concern relates to the alignment of the proposed North-South Road 1 to 2 miles south of the project area. Your staff noted that a subdivision map on file indicates the North-South Road turns to the east as it passes through the Ewa Villages project, connecting with sections already built through the Ewa by Gentry project. Our "Preliminary Concept Plan" indicates a North-South Road intersection with the proposed Kapolei Parkway, east of the Ewa Villages project (as represented on the July 1993 Kapolei Area Long Range Master Plan prepared for the Estate of James Campbell). The area in question is well south of the project site on lands controlled by others. The applicant looks forward to working with the ongoing, DTS-led North-South Road planning effort in its deliberations to determine the actual alignments in this area, and makes no prior assumptions as to what the final alignment will ultimately be.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
Facsimile 808 545-2050

We appreciate your comments. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU

630 SOUTH BERETANIA STREET

HONOLULU, HAWAII 96843

PHONE (808) 527-6180

FAX (808) 533-2714

December 12, 1995

JEREMY HARRIS, Mayor

WALTER O. WATSON, JR., Chairman
MAURICE H. YAMASATO, Vice Chairman
KAZU HAYASHIDA
MELISSA Y.J. LUM
FORREST C. MURPHY
KENNETH E. SPRAGUE
BARBARA KIM STANTON

RAYMOND H. SATO
Manager and Chief Engineer

5

Ms. Leslie Kurisaki
Helber Hastert & Fee Planners
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

Subject: Your letter of November 22, 1995 Regarding the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed East Kapolei Project, TMK: 9-1-17: 4 and 9-1-18: 1, Ewa, Oahu, Hawaii

Thank you for the opportunity to review and comment on the EISPN for the proposed East Kapolei Project. Our previous comments of January 6, 1995 to Helber Hastert & Fee on the EISPN and of March 8, 1995 to the City Planning Department on the Draft Environmental Impact Statement are still applicable.

If you have any questions, please contact Barry Usagawa at 527-5235.

Very truly yours,

RAYMOND H. SATO
Manager and Chief Engineer

Helber Hastert
Planners

January 5, 1996

Mr. Raymond H. Sato, Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 S. Beretania St.
Honolulu, Hawaii 96843

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 12, 1995

Dear Mr. Sato:

Thank you for your letter dated December 12, 1995 in response to the East Kapolei Project EISPN. We note your previous comments of January 6, 1995 and March 8, 1995 are still applicable.

Previously, a water master plan was prepared showing a water system covering all the agricultural lands bounded by the H-1 Freeway to the north, Ewa Villages to the south, the Villages of Kapolei to the west, and Fort Weaver Road to the east. An addendum to this original water master plan has been completed, specifically for the East Kapolei project. Both the original water master plan and addendum will be included in the Draft EIS. Your comments have been forwarded to the project engineers, and your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.
Mr. Dave Bills, Gray Hong Bills & Associates

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

DONA L. HANAIKE
DIRECTOR

ALVIN K.C. AU
DEPUTY DIRECTOR

December 13, 1995 DEC 5

Ms. Leslie Kurisaki, Project Planner
Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Leslie Kurisaki:

Subject: East Kapolei Development Project
Environmental Impact Statement Preparation Notice

This is in response to your November 22, 1995 letter requesting our comments on the above-described project and to confirm our discussion with Mr. Tom Fee of your company.

As was discussed with Mr. Fee at the November 30, 1995 meeting in our office, the proposed project by Schuler Homes will have a serious impact on our existing park facilities in that area.

All projects of this size will need to comply with Park Dedication Ordinance No. 4621 and our department's park space standard of two (2) acres for every 1,000 residents that will be created by the project. Therefore, assuming 3.0 persons per household, the developer will need to provide 48 acres of "active" or community-based park space for the residents of the development project.

We recommend that you provide us with a revised plan and additional information on the proposed park sites for the East Kapolei development project.

If you have any questions, please contact Lester Lai of our Advance Planning Branch at 523-4696.

Sincerely,

For DONA L. HANAIKE
Director

DLH:ei

cc: Planning Department (Lin Wong)
Department of Land Utilization (Bob Moore)

Helber Hastert
Planners

January 5, 1995

Ms. Dona L. Hanaike, Director
Department of Parks and Recreation
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 13, 1995

Dear Ms. Hanaike:

Thank you for your letter dated December 13, 1995 in response to the East Kapolei Project EISPN. We note that based on the City and County's Park Dedication Ordinance (PDO) formula, the project generates a requirement of 31 acres of park space, based on the proposed mix of single and multi-family units. The East Kapolei project provides 32 acres of neighborhood and community parks which will be dedicated to the City and County, exceeding the PDO requirement.

Based on the existing Development Plan standard (2 acres per 1,000 residents), the project's 22,400 residents would require 45 acres of open space and recreational area. In addition to the 32 acres of dedicated public park space, at least 13 acres of additional open space and park areas in the form of bikeway/greenbelts and passive open space will be provided and maintained by homeowners associations within the East Kapolei project, thus meeting the DP standard.

We also note that the Department of Parks and Recreation is actively involved in planning new parks for Ewa, and is considering possible future development of up to 1,100 acres of park space at the Barbers Point Naval Air Station. This would provide significant regional park resources available to project residents.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
Facsimile 808 545-2050

Thank you for your comments. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

CHERYL D. SOON
CHIEF PLANNING OFFICER

CAROLL TAKAHASHI
DEPUTY CHIEF PLANNING OFFICER

LW

December 29, 1995

JAN - 5

Helber Hastert & Fee
Grosveror Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Attn: Ms Leslie Kurisaki

Gentlemen:

Comments to the Environmental Impact Statement
Preparation Notice (EISPN), 96/E-1
Ewa Development Plan Land Use Map Application and
Environmental Assessment (EA), East Kapolei Project, Ewa, Oahu

We have reviewed the subject EISPN and offer the following comments.

The project is consistent with the existing City General Plan and Development Plan policies to direct growth to Ewa and to promote development of a secondary urban center in Kapolei. In addition, the preliminary concept plan appears to be consistent with guidelines proposed for residential communities in the Draft Revision of the Ewa Development Plan. We recommend that the following information be included in the Draft Environmental Impact Statement (DEIS).

Population

The EA shows a 2010 population forecast of 93,112 for Ewa or 9.3% of the islandwide population. For your information, population forecast data which was recently extended to the year 2020 shows an updated projections for 2010 of 100,800 or 10.1 percent of the islandwide population (Development Plan Annual Report, Fiscal Year 1995, September, 1, 1995, see page 7, Table-II: "Comparison of Development Plan Population Distribution with General Plan Guidelines"). This is still within the upper limits of the General Plan distribution guidelines of 132,900 for Ewa or 13.3% of the islandwide population.

The EA based its estimate of project-related population on 2.8 persons per household and assumes full build-out of 8,000 units by 2012. We recommend that the DEIS reflect the estimated absorption rate of the project for the years 2010 and 2015 in order to evaluate the project's impact on the population projections for Ewa and the General Plan policies.

Housing

The summarized 1994 Market Assessment Report in the EA estimated "residential demand in the Ewa study area as ranging from 52,961 to 57,474 units, between 1994 and 2010." You had previously stated that the market study area included the Ewa DP area plus the Waikele and Royal Kunia communities. The residential demand cited referred to the total projected demand in the market study area between 1994 and 2010, including existing units. It is our understanding that the study is currently being updated. We will reserve further comments until we have had an opportunity to review the updated study. We request that in order to facilitate comparison with our department's housing forecast data for the Ewa DP area, the DEIS should break down its residential supply and demand projections to reflect projected demand and supply of additional units in the Ewa DP area.

The DEIS should provide additional information to describe the housing component, such as the number and types, target income groups, development timetable for build-out, and how the project will comply with State and City policies on affordable homeownership and rental opportunities.

The EA notes that the project "could reinforce the existing development trend, of housing development in advance of employment centers and community facilities." While provision of affordable homes is consistent with the General Plan housing policies, we find that this pattern of development is not necessarily desirable. The DEIS should include a discussion on the availabilty of employment opportunities in Ewa as it relates to the development schedule of the project.

Public Costs and Revenues

The DEIS should include a comprehensive fiscal impact analysis of all projected costs and revenues associated with the full development of the proposed project to assess the overall impact on various governmental services and facilities. The EA states that "because the project is located in Ewa, it will contribute to the funding of already-planned capital improvements." The DEIS should clarify whether already-planned capital improvements included East Kapolei in its planning; if not, what additional services and facilities would be required; and how the applicant proposes to meet the additional demand, if any, to accommodate the additional project-related impacts.

Traffic/Transportation

The EA states that project access will be via Farrington Highway until completion of the North-South Road and freeway interchange; and that access from Farrington Highway will be constructed as part of the initial development phase, starting in 1998 in the southern project area and expanding northward. The DEIS should address the issue of timing and construction of improvements to Farrington Highway, the North-South Road and freeway interchange, and should also provide a development schedule of the project as it relates to the proposed scheduling of improvements to the above roadways.

The DEIS should also include a discussion on how the project will incorporate transit provisions within its proposed plans and coordinate with other transportation measures proposed for the region.

While we are encouraged by the conceptual circulation pattern which facilitates pedestrian and other non-vehicular travel to and from the community park and commercial area, the DEIS should include a discussion on potential traffic impacts related to the circulation pattern and proposed measures to mitigate these impacts.

A potential future roadway connection to Fort Weaver Road is also identified in the EA. The DEIS should define this connection and clarify its feasibility.

Drainage

The EA stated that the project is confined to the West Loch drainage basin. The DEIS should provide additional information on the on-site drainage system for the project and the impact of project-related runoffs on the West Loch drainage basin.

A description of potential impacts and mitigative measures related to flooding of adjacent communities including the West Loch and Ewa Villages should also be included in the DEIS.

We have concerns that this project is immediately adjacent to other lands potentially developable within Kaloi Gutch drainage basin. The apparent attempt to sever the two to avoid the regional Kaloi Gutch drainage issue must remain a major concern to Campbell Estate whenever they undertake development agreements. We are further concerned by recent announcements that these adjacent lands may be "traded" to the State again without any explanation of who is taking responsibility for drainage. This pattern cannot be allowed to continue.

Parks

There is a discrepancy in the park acreage requirement between estimates stated in the EA and those provided by the Department of Parks and Recreation (DPR). The EA reflects 32 acres of park areas to meet the Park Dedication Ordinance requirements and estimates that a minimum of 45 acres of open space and recreation areas will ultimately be required to meet the 2 acres per thousand persons requirement stated in the Development Plan Common Provisions. The DPR stated that 48 acres of active or community-based park space is required for the project, based on 3.0 persons per household and a build-out of 8,000 units. The DEIS should include any discussions with the DPR to address the difference, specify proposals to meet the 2 acres of park area per thousand persons requirement, and incorporate an open space plan in the conceptual site plan.

The DPR has also expressed safety concerns for pedestrian crossing on the loop road around the park. The department also indicated a need for provision of park areas in the 82-acre mauka residential area which is currently lacking park space in the preliminary conceptual plan. Please address these issues in the DEIS.

Schools

The DEIS should include a description of the impact on the Department of Education (DOE) school system and any discussions with the DOE to meet enrollment growth related to the project.

In addition, the State has recently announced a new site for the University of Hawaii West Oahu Campus. It plans to sell 500 acres of the State landbank site adjacent to the subject site, and possibly exchange 183 acres of land with Campbell Estate. Please reflect this development in the DEIS and indicate any potential impact on the subject proposal.

Should you have any questions, please do not hesitate to contact Lin Wong of my staff at 523-4485.

Sincerely,

CHERYL D. SOON
Chief Planning Officer

CDS:ft

cc: Managing Director's Office

Helber Hastert
Planners

January 8, 1996

Ms. Cheryl D. Soon, Chief Planning Officer
Planning Department
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 29, 1995

Dear Ms. Soon:

Thank you for your letter dated December 29, 1995 in response to the East Kapolei Project EISPN. We have reviewed your comments and offer the following responses:

We are pleased to note your determination that the project is consistent with the existing City General Plan and Development Plan Policies to direct growth to Ewa and to promote development of a secondary urban center in Kapolei, and that the preliminary concept plan appears consistent with guidelines proposed for residential communities in your department's Draft Revision of the Ewa Development Plan. The applicant is committed to continue its working relationship with your department to ensure consistency with the City's policies and objectives for development of the East Kapolei area.

Population

The revised 2010 population projection for the Ewa DP area of 100,800 will be included in the DEIS. The mean annual absorption rate for the project is estimated at 500 units, based on the applicant's experience and an analysis of existing and projected market conditions. The hypothetical absorption schedule assumes a project start in 1998 and build out completion by 2013. According to the schedule, the 2010 unit count would be 6,650 units, with an associated population of 18,620 (assuming 2.8 persons per household). 2015 dwelling unit counts and residential population would of course coincide with the 2013 build-out projections (i.e., 8,000 units and 22,400 residents, respectively).

Housing

The DEIS will include a discussion of residential supply and demand projections for "additional" units in the market study area as well as the Ewa DP area alone. Numbers and types of units and timetable for build-out will be discussed in Chapter 2 of the DEIS. Chapter 3 of the DEIS will include a discussion of how the project will comply with government housing policies.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

The applicant acknowledges the need for additional employment in the Ewa region to realize the General Plan objectives of creating a true "second city." Some encouraging recent and anticipated activities include the opening of a major Bank of Hawaii office complex and City and State plans for offices and other public facilities in the City of Kapolei; continuing expansion of Campbell Industrial Park and the Kapolei Business Park; and potential for economic development related to the reuse of Barbers Point Naval Air Station.

Public Costs and Revenues

The DEIS will include a fiscal impact analysis of the project. Updated infrastructure studies (i.e., water, wastewater, drainage, power, roadways, etc.) as well as comments from various service providers (utility agencies, schools, police, fire, etc.) will be presented in the EIS. It is anticipated that through the EIS consultation process, project impacts and appropriate mitigation measures will continue to be identified. The applicant and its consultants will continue to work with the various agencies and service providers, to ensure that project demands are accommodated.

Traffic/Transportation

The DEIS will provide a discussion of the timing of improvements along Farrington Highway, the North South Road and associated H-1 Freeway interchange.

Access to adequate transit service will be an important amenity for future residents of East Kapolei. Relatively high residential densities and the pedestrian orientation of the project's core area will facilitate implementation of transit service in the mid- to long-term. Specific plans for the incorporation of transit-oriented facilities (beyond recognition of need) have not yet been formulated. The project recognizes and supports the City's planned transit corridor along Farrington Highway and down the proposed North-South Road, and has anticipated the development of higher density transit nodes to the north and west of the project area. In a related area, the project will also encourage pedestrian and bicycle travel modes through its introduction of "neo-traditional" land use concepts relating to land use mix, density, street patterns, and a comprehensive network of greenbelts for bicycle and pedestrian use. The ongoing environmental review, agency consultation, DP amendment process and master planning efforts will provide an opportunity to further refine the conceptual plan for transit services.

The DEIS will include a discussion of potential traffic impacts related to the proposed internal circulation pattern, and proposed measures to mitigate theses impacts. The proposed future roadway connection to Fort Weaver Road is represented as a conceptual alignment at this time, based on the City's proposed Ewa Development Plan. More detailed studies of the adjacent "West Loch bluffs" area (i.e., between the project and Fort Weaver Road) need to be conducted to determine a precise alignment. As noted in the DEIS, a tie into Fort Weaver Road is considered a long-term possibility, not be feasible in the short-term due to capacity conditions being experienced

along Fort Weaver Road, and the fact the area through which the proposed alignment passes is not slated for development until after 2005.

Drainage

The DEIS will describe the on-site drainage system and proposed off-site improvements. The East Kapolei project is confined to the West Loch drainage basin, and will therefore have no effect on the nearby Kaloi Gulch basin.

Parks

As noted in the DEIS, the project will provide 32 acres of community and neighborhood park, exceeding the 31 acre Park Dedication Ordinance requirements. Based on the existing Development Plan Common Provisions standard (2 acres per 1,000 residents), the project's 22,400 residents would require 45 acres of open space and recreational area. In addition to the 32 acres of dedicated public park space, at least 13 acres of additional open space and park areas in the form of bikeway/greenbelts and passive open space will be provided and maintained by homeowners associations within the East Kapolei project, thus meeting the DP standard.

The 82-acre *mauka* parcel (between H-1 Freeway and Farrington Highway) is too small to support a standard, dedicated neighborhood park. Accordingly, park needs will be accommodated via private open space and recreation areas within the context of the project's overall Park Dedication Ordinance requirements.

With regard to regional park planning, we note that the Department of Parks and Recreation is actively involved in planning new parks for Ewa, and is considering possible future development of up to 1,100 acres of park space at the Barbers Point Naval Air Station. This would provide significant new regional park resource available to project residents.

The applicant is continuing to work with the Department of Parks and Recreation, as well as the Department of Transportation Services, to address their concerns about the proposed loop road around the community park.

Schools

The DEIS will include a discussion of projected school enrollments at project build-out. The applicant will continue to work with the Department of Education to ensure that adequate school facilities are developed in a timely manner. We are concerned over recent correspondence from DAGS indicating its objections to collocating the proposed elementary schools with neighborhood parks (see DAGS letter dated December 19, 1995). This view appears contrary to previous practice, and recommended community design objectives articulated in the proposed Ewa

Development Plan. We will be working closely with DAGS and DOE to resolve their concerns, and will welcome your department's continuing input into this dialogue.

Although the State has recently announced plans for a new University of Hawaii West Oahu campus site mauka of the H-1 Freeway, we feel it would be speculative and premature to discuss these proposals in the DEIS, other than to note the general discussion, as no information on these proposals has been provided for public review other than several newspaper articles. At present, both the Legislature and University of Board of Regents have yet to endorse the new site, and until that time, the original site remains the "official" University site. Regardless of the outcome, the feasibility of the project is not affected.

Regarding the 183-acre parcel encompassing the southern end of the application area, the DEIS clearly states that (1) the parcel is now owned by the State of Hawaii, (2) the State has authorized the applicant to include the acreage in its DP amendment application, (3) should projected circumstances prevail, the applicant will ultimately assume control of the subject parcel, and (4) should the parcel ultimately not be available for development, the project will proceed without it.

Thank you for your comments. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Mr. Mike Angotti, Schuler Homes, Inc.

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

KENNETH E. SPRAGUE
DIRECTOR AND CHIEF ENGINEER

DARWIN J. HAMAMOTO
DEPUTY DIRECTOR

ENV 95-324

December 1, 1995

DEC - 4 1995

Ms. Leslie Kurisaki, Project Planner
Helber Hastert & Fee
733 Bishop Street, Suite 2590
Honolulu, HI 96813

Dear Ms. Kurisaki:

Subject: Environmental Impact Statement Preparation Notice (EISPN) - East Kapolei Project, TMK: Various

We have reviewed the subject EISPN and have the following comments:

1. All new and existing roads that support the proposed project and are planned to be dedicated to the City should be constructed in accordance with the City standards.

2. The EISPN should address storm water quality along with implementation of best management practices (BMPs) to control and reduce pollutants.

Should you have any questions, please contact Mr. Alex Ho, Environmental Engineer, at 523-4150.

Very truly yours,

for KENNETH E. SPRAGUE
Director and Chief Engineer

Helber Hastert
Planners

January 5, 1996

Mr. Kenneth E. Sprague
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 S. King St.
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 1, 1995

Dear Mr. Sprague:

Thank you for your letter dated December 1, 1995 in response to the East Kapolei Project EISPN. Your comments are noted and will be discussed in the Draft EIS. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

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Facsimile 808 545-2050

DEPARTMENT OF WASTEWATER MANAGEMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

FELIX B. LIMTIACO, P.E.
DIRECTOR

CHERYL K. OKUMA-SEPE, ESQ.
DEPUTY DIRECTOR

In reply refer to:
WCC 95-48

December 12, 1995

DEC 5 1995

Ms. Leslie Kurisaki, Project Planner
Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

Subject: **EISPN for East Kapolei Project, dated November 1995**

Please include our department on Table 2: Summary of Approval Needed. In addition to comments made in section 6.3 regarding the wastewater system, submittal of a wastewater master plan is required for our review and approval. The preparation of the master plan should be coordinated with this department. However, you may proceed with the environmental review process.

If you have any questions, please contact Ms. Tessa Yuen of the Service Control Branch at 523-4957.

Very truly yours,

FELIX B. LIMTIACO
Director

Helber Hastert
Planners

January 5, 1996

Mr. Felix Limtiaco, Director
Department of Wastewater Management
City and County of Honolulu
650 S. King St.
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 12, 1995

Dear Mr. Limtiaco:

Thank you for your letter dated December 12, 1995 in response to the East Kapolei Project EISPN. As requested, we have added the Department of Wastewater Management to the table "Summary of Approvals Needed." An updated wastewater master plan for the project area will be submitted to your department for review, and will be included in the Draft EIS. Previously, a wastewater master plan was prepared for the area bounded by the H-1 Freeway to the north, Ewa Villages to the south, the Villages of Kapolei to the west, and Fort Weaver Road to the east. This master plan was intended to facilitate overall, long-range coordination with your department. The updated master plan shows the ultimate size trunk sewers, as well as the requirements of the East Kapolei project.

Your comments have been forwarded to the project engineers, who will continue to work with your department. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

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DEPARTMENT OF HUMAN RESOURCES
CITY AND COUNTY OF HONOLULU
STANDARD FINANCE PLAZA
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JEREMY HARRIS
MAYOR

SALVATORE S. LANZILOTTI, ED.D.
DIRECTOR

MICHAEL T. AMII
DEPUTY DIRECTOR

ADMINISTRATION
2ND FLOOR: (808) 527-5311
FAX: (808) 523-4074

ELDERLY AFFAIRS DIVISION
HONOLULU COMMITTEE ON AGING
5TH FLOOR: (808) 523-4761

WORKHAWAII DIVISION
5TH FLOOR: (808) 523-4102

SPECIAL PROJECTS SECTION
HONOLULU COUNTY COMMITTEE ON THE STATUS OF WOMEN
MAYOR'S COMMITTEE FOR PERSONS WITH DISABILITIES
MAYOR'S CHILD CARE ADVISORY BOARD
5TH FLOOR: (808) 527-6264

December 22, 1995

-2

Mr. Leslie Kurisaki
Project Planner
Helber Hastert & Fee
Grosvenor Center
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Subject: **EAST KAPOLEI PROJECT - ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN)**

Dear Mr. Kurisaki:

The Department of Human Resources has reviewed the subject matter cited above and offers the following comments:

We note that the applicant is proposing to construct approximately eight thousand (8,000) residential units in addition to providing sixteen (16) acres for commercial use.

While the applicant is looking toward providing land for recreational and educational purposes, there are other social needs that will undoubtedly be generated by the project given its size. For example, given the fact that the project will include a significant number of affordable housing units targeting young families, we foresee the need for quality child care services. Additionally, we hope that the jobs to be generated by the planned commercial component will be proportionately filled by residents of the East Kapolei community thereby reducing the potential traffic impact on the already overburdened Leeward Oahu commuters. A significant factor that prevents parents from working is the lack of affordable quality child care services. Consequently, an on-site child care facility would be especially attractive for the planned project.

Therefore, as the primary City agency responsible for addressing the social and human service needs of our communities on Oahu, we propose the following:

(1) That an area be dedicated within the proposed development and funds be provided to the City for the construction of a facility to house programs and services which address the community's social needs such as child care and/or programs/services for the disabled, at-risk youth, elderly, unemployed, etc.; or,

(2) Cash payment in lieu of land be dedicated to the City and County of Honolulu for construction of a facility to house social programs and services for the community at an alternative site within the project's immediate vicinity.

Additionally, we ask that the applicant consider the inclusion of an elderly housing component for the proposed project which is in critical demand by our growing population of seniors. Our seniors are an integral part of the communities in which they reside and we believe that an elderly housing component for the proposed project would be consistent with the applicant's planned community concept.

Please be informed that these comments are consistent with our memorandums dated February 24, 1995 (Draft Environmental Impact Statement [DEIS] East Kapolei Project, Ewa, Oahu, TMK: 9-1-17:04 [porl]) and April 13, 1996 (Agency and Public Review Package for the 1995 Development Plans Annual Amendment Review) with respect to the East Kapolei Project.

Consequently, we ask that our department be included in the forthcoming EIS process and look forward to reviewing your response to our comments.

Thank you for the opportunity to comment on this matter.

Sincerely,

for SALVATORE S. LANZILOTTI. Ed.D.
Director

Attachments

a:\eastkap.dep

DEPARTMENT OF HUMAN RESOURCES
CITY AND COUNTY OF HONOLULU
STANDARD FINANCE PLAZA
715 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

SALVATORE S. LANZILOTTI, ED.D.
DIRECTOR

ROBERT AGRES, JR.
DEPUTY DIRECTOR

ADMINISTRATION
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ELDERLY AFFAIRS DIVISION
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SPECIAL PROJECTS SECTION
HONOLULU COUNTY COMMITTEE ON THE STATUS OF WOMEN
MAYOR'S COMMITTEE FOR PERSONS WITH DISABILITIES
MAYOR'S CHILD CARE ADVISORY BOARD
5TH FLOOR: (808) 527-6264

February 24, 1995

MEMORANDUM

TO: CHERYL D. SOON, DIRECTOR
PLANNING DEPARTMENT

ATTN: BRIAN SUZUKI

FROM: SALVATORE S. LANZILOTTI, Ed.D., DIRECTOR
DEPARTMENT OF HUMAN RESOURCES

SUBJECT: **DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)**
EAST KAPOLEI PROJECT, EWA, OAHU, TMK: 9-1-17: 04 (por)

The Department of Human Resources (DHR) has reviewed the subject matter cited above and offers the following comments:

We understand that the proposed project, when completed, will be comprised of 10,000 dwelling units and approximately 28,000 residents. We anticipate that a fair percentage of these dwelling units will be targeting young families, particularly those units that will be designated as affordable. Although the applicant has made allowances for the increased demand in educational services, there will also be a need for quality affordable child care services as well. Also, once the proposed University of Hawaii - West Oahu campus project is completed, there will be a much stronger demand for child care services as generated by its faculty, employees and students in Kapolei, Oahu.

Therefore, we ask that the applicant provide the City and County of Honolulu with a minimum of 2 acres in each phase of the project or a cash equivalent for the construction of a facility that will be able to provide quality child care services for the East Kapolei residents within the project's immediate vicinity. For example, there is a possibility that a child care facility may be placed on a City park site. Therefore, the applicant in its provision of land to the City for park purposes may provide the necessary capital for the construction of a child care facility on this parcel in lieu of additional land. Of course this option is only available if the child care facility does not interfere with activities projected for the parcel by the City's Department of Parks & Recreation.

Irrespective of the option chosen by the applicant, the land and/or funds would enable the City & County of Honolulu to service a cross-section of the community as it is our intention to design a facility that is multi-generational in usage (i.e. youth/senior/child care center). This concept allows the center to evolve into other social service functions as the population ages and different human service needs arise.

Finally, we ask that the applicant consider designating a fair percentage of dwelling units as affordable rentals as well as the inclusion of a elderly housing component. These types of housing units are at a critical shortage and will continue to be in high demand in the immediate future. If we are to continue to look to the Kapolei region as the "Second City," then, future residential projects must be sensitive to the needs of the whole community and the inclusion of the aforementioned housing components is a positive step in that direction.

If you have any questions or require further clarifications regarding our comments, please direct your inquiries to Mr. Ernie Martin of our department's *Special Projects Section* at X-6264.

Thank you for the opportunity to comment on this matter.

cc: Brian J.J. Choy, Director
Office of Environmental Quality Control
Mike Angotti, Director of Land Services
Schuler Homes, Inc.
Leslie Kurisaki, Project Planner
Helber Hastert & Fee, Planners

a:ekapolei.sps

DEPARTMENT OF HUMAN RESOURCES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

SALVATORE S. LANZILOTTI, ED.D.
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SPECIAL PROJECTS SECTION
HONOLULU COUNTY COMMITTEE ON THE STATUS OF WOMEN
MAYOR'S COMMITTEE FOR PERSONS WITH DISABILITIES
MAYOR'S CHILD CARE ADVISORY BOARD
5TH FLOOR: (808) 527-6284

April 13, 1995

MEMORANDUM

TO: CHERYL D. SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

FROM: SALVATORE S. LANZILOTTI, Ed.D., DIRECTOR
DEPARTMENT OF HUMAN RESOURCES

SUBJECT: **AGENCY AND PUBLIC REVIEW PACKAGE FOR THE 1995 DEVELOPMENT PLANS ANNUAL AMENDMENT REVIEW**

The Department of Human Resources has reviewed the above-cited request and offers the following comments:

We propose that developers of large recreational and residential projects through Unilateral Agreement(s) with the City and County of Honolulu either:

I. Dedicate an area within the proposed development and provide funds to the City for the construction of a facility to house programs and services which address the community's social needs such as child care, homeless shelters, and/or programs/services for the disabled, at-risk youth, elderly, unemployed, etc.; or,

II. Make cash payment in lieu of land to the City and County of Honolulu for the construction of a facility to house social programs and services for the community at an alternative site within the project's immediate vicinity.

We request that these provisions be required, during the time in which the developer(s) apply for re-zoning, for the following projects:

PROJECT	PD REF. NO.:
East Kapolei	**95/E-1**
Waiawa by Gentry	**95/CO-2**

With respect to the East Kapolei project (PD Ref. No. 95/E-1) it was stated in the applicant's response of March 27, 1995 to our February 24th comments on the Draft Environmental Impact Statement (DEIS) that the provision of child care services for families of the proposed project could be met through various options to include off-site facilities. It was also noted that some families may be inclined to place their children in a facility in close proximity to their place of work.

While we do not differ with these assumptions and in fact would not recommend an on-site child care facility if the need was adequately addressed by other centers, we would like to point out some of the advantages of an on-site facility.

First of all, one of the reasons that government has supported the development of a Second City in the Ewa Plains is the diversion of traffic from the downtown urban core. If a City-sponsored on-site facility was developed for the proposed project, it may be linked to a park-and-ride project whereby parents can drop off their children at the center, park their vehicle at an adjacent lot and ride a bus rather than drive their car to work.

Secondly, as noted in our comments of February 24th, we would develop a multi-generational facility that would enable the City to serve a cross-section of the community. This concept allows the facility to evolve into other social service functions as the population ages and different human service needs arise. Additionally, the inclusion of such a facility would ensure that the social service needs of the community would be addressed within the project which we believe would enhance its marketability.

Finally, the advantage of government-private provider partnership with respect to a child care facility is that the construction costs for the provider may be leveraged with city, state or federal funds thereby enabling tuition rates to be set at a lower level than what a private provider would be able to provide on a standalone project.

If you have any questions or require further clarifications concerning our comments, please direct your inquiries to Mr. Ernie Martin of our department's *Special Projects Division* at X-6264.

Thank you for the opportunity to comment on this matter.

SSL:spd

Helber Hastert
Planners

January 8, 1996

Dr. Salvatore S. Lanzilotti, Ed.D., Director
Department of Human Resources
City and County of Honolulu
Standard Finance Plaza
715 S. King St.
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 22, 1995

Dear Dr. Lanzilotti:

Thank you for your letter dated December 22, 1995 in response to the East Kapolei Project EISPN, as well as your previous comments (memoranda dated February 24, 1995 and April 13, 1995).

Area/Funds for Community Social Needs

As stated in our March 27, 1995 letter to your department, the developer concurs that facilities and programs to meet the social needs (i.e., child care, disabled, youth, elderly, unemployed, etc.) are important in a functioning community. However, we would also like to reiterate that the provision of these social and human service needs should be shared by all sectors of the community. Churches are anticipated to take a lead role in providing child care within the East Kapolei community. The proposed University of Hawaii West Oahu campus is likely to include a child care center, and may be a more appropriate location for other social service facilities as well. Area parks are likely to include programs targeted at senior citizens and youth; school facilities can be used during non-school hours for adult education. The developer can include covenants and restrictions for the project to allow registered family day care homes (for children, elderly, disabled, etc.) to be operated in the project.

Overall, we agree that the availability of comprehensive social services will greatly enhance the quality of life within a multi-generational community. However, because the East Kapolei project is primarily a residential development, we do not feel it is an appropriate location for regional social service facilities. Also, we believe that the provision of land and/or funding for these services and facilities are a regional responsibility, which should be shared by the Ewa community at large, and by the public as well as private sectors.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

Elderly Housing Component

As stated previously, the developer is willing to discuss the potential for elderly housing as part of the project's affordable housing component.

Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 5TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4427 • FAX: (808) 527-5498

JEREMY HARRIS
MAYOR

ROLAND D. LIBBY, JR.
DIRECTOR

ROBERT AGRES, JR.
DEPUTY DIRECTOR

December 20, 1995

RECEIVED
DEC 22 1995

Ms. Leslie Kurisaki
Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

Subject: East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Tax Map Key: Project Area: 9-1-17:04 (por); 9-1-18:01 (por); 9-2-2:1 (por); 9-2-4:5 (por); and 9-1-10:2(por) DP Application Area: 9-1-17:4(por); and 9-1-18:1(por)

This is in response to your letter dated November 22, 1995, requesting our comments on the East Kapolei Project EISPN.

The DHCD understands that the developer will make 30 percent of the units affordable to families below 120 percent of the City and County median income. The DHCD requests that the units be apportioned so that 10 percent of the housing units to be developed be made affordable to households with incomes below 80 percent of Oahu's median income and that 20 percent of the total be made affordable to families with incomes between 81 and 120 percent of Oahu's median income, or that the developer provide an in-kind substitute acceptable to DHCD. Please have the developer contact our Housing Development Division at 523-4264 to discuss a program acceptable to DHCD.

The DHCD also understands that the project will drain into the West Loch Drainage Basin and that both the drainage and traffic studies are being updated. The DHCD would like to request copies of these studies as soon as they become available so that any possible impacts on the City projects in the area can be determined. The DHCD is also interested in the developer's participation in the construction of the North South Road.

The Department would also like to be consulted for the Draft Environmental Impact Statement (DEIS).

Thank you for the opportunity to comment.

Sincerely,

Gail Kaito

GAIL M. KAITO
Acting Chief Planner

Helber Hastert
Planners

January 8, 1996

Ms. Gail M. Kaito, Acting Chief Planner
Department of Housing and Community Development
City and County of Honolulu
650 S. King St., 5th Floor
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 20, 1995

Dear Ms. Kaito:

Thank you for your letter dated December 20, 1995 in response to the East Kapolei Project EISPN. The applicant will make 30 percent of the units affordable to families below 120 percent of City and County median income, and will work with your department to develop a program acceptable to DHCD.

The Draft EIS will include copies of the drainage and traffic studies for your review. The developer will participate in the preparation and implementation of the Ewa regional transportation master plan, and is coordinating its involvement through the Estate of James Campbell, which is spearheading the master plan effort.

Your Department will continue to be consulted through the EIS process. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.
Mr. Dave Bills, Gray Hong Bills & Associates

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111

JEREMY HARRIS
MAYOR

MICHAEL S. NAKAMURA
CHIEF

HAROLD M. KAWASAKI
LEE DONOHUE
DEPUTY CHIEFS

OUR REFERENCE BS-DL

December 18, 1995

DEC 20 1995

Ms. Leslie Kurisaki
Project Planner
East Kapolei Project
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

Thank you for the opportunity to review the Environmental Impact Statement Preparation Notice for the East Kapolei Project.

Section 6.6 states that "The Police Department currently has plans to add an additional substation in the Kapolei area to serve the region's growing population, which is expected to meet any increased demand for police services in the project area." This is only partially correct. The Kapolei regional station will meet our facility needs, assuming that it is actually constructed on time and according to plan. Building the station, though, does not, in and of itself, ensure that adequate staffing will be provided for the area.

Police protection for the area is already barely adequate. In spite of repeated budget requests, HPD has not received any new positions for officers for this area (or anywhere else) for the last four fiscal years. HPD has already "stolen" officers from other areas of the department to reinforce this rapidly growing area, but there are limits to this sort of manipulation.

Timing is also important. It takes a long time to budget for, hire, and train new officers; two years might be a reasonable estimate if all goes well. There is also a limit on how many new officers HPD can take in at one time. Slow, steady growth is far preferable to large growth spurts. This means that the staffing problems cannot be solved overnight.

New developments cannot go forward without water, roads, wastewater treatment or fire protection. We are simply saying that development should not proceed without adequate police protection.

Sincerely,

MICHAEL S. NAKAMURA
Chief of Police

By Eugene Uemura
EUGENE UEMURA, Assistant Chief
Administrative Bureau

Helber Hastert
Planners

January 5, 1996

Mr. Eugene Uemura, Assistant Chief
Administrative Bureau
Police Department
City and County of Honolulu
801 S. Beretania St.
Honolulu, Hawaii 96813

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 18, 1995

Dear Mr. Uemura:

Thank you for your letter dated December 18, 1995 in response to the East Kapolei Project EISPN.

We note that the Kapolei regional station will meet *facility* needs, but that *staffing* requirements continue to be an ongoing concern of your department. Your comments have been incorporated in the Draft EIS. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
Facsimile 808 545-2050

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425
HONOLULU, HAWAII 96819-1869

JEREMY HARRIS
MAYOR

ANTHONY J. LOPEZ, JR.
FIRE CHIEF

ATTILIO K. LEONARDI
FIRE DEPUTY CHIEF

November 29, 1995

Ms. Leslie Kurisaki, Project Planner
Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

SUBJECT: East Kapolei Project
Environmental Impact Statement Preparation Notice

We have reviewed the application for the above subject. Fire protection services provided from Kapolei and Waipahu engine companies with ladder service from Waipahu are adequate. We have no objections to the proposed project.

Access for fire apparatus, water supply and building construction shall be in conformance to existing codes and standards.

Should you have any questions, please call Assistant Chief Arthur Ugalde of our Administrative Services Bureau at 831-7774.

Very truly yours,

ANTHONY J. LOPEZ, JR.
Fire Chief

AJL:TKP:ny

Helber Hastert
Planners

January 5, 1996

Chief Anthony J. Lopez, Jr., Fire Chief
Fire Department
City and County of Honolulu
3375 Koapaka St., Suite H425
Honolulu, Hawaii 96819-1869

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated November 29, 1995

Dear Chief Lopez:

Thank you for your letter dated November 29, 1995 in response to the East Kapolei Project EISPN. We note that fire protection services provided from Kapolei and Waipahu engine companies with ladder service from Waipahu are adequate to serve the project. Access for fire apparatus, water supply and building construction shall be conformance to existing codes and standards. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
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THE GENTRY COMPANIES

December 19, 1995

DEC 20 1995

Ms. Leslie Kurasaki
Project Planner
Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, HI 96813

Re: East Kapolei Project
Environmental Impact Statement Preparation Notice

Dear Ms. Kurasaki:

We've reviewed the abovementioned EIS Preparation Notice. The only comment, which is relatively insignificant, is with respect to paragraph 6.5 (Schools and Parks): (1) we understand Kapolei Elementary School is already completed, and (2) the new elementary school within our Ewa By Gentry project -- which has been named Holomua Elementary School -- is scheduled to open in August 1996 (it is a multitrack, year-round school).

We're requesting you confer consulted party status on us in the forthcoming EIS process, and look forward to hearing from you. Correspondence may be directed to Barry Edwards, Ewa By Gentry Project Director, Gentry Homes, Ltd., P.O. Box 295, Honolulu, HI 96809. If you have any questions, please feel free to call Mr. Edwards at 599-8372.

Sincerely,

Nona Forrest

Nona Forrest
Planning & Project Development
Gentry Homes, Ltd.

Helber Hastert
Planners

January 5, 1996

Ms. Nona Forrest
Planning and Project Development
Gentry Homes, Ltd.
P.O. Box 295
Honolulu, Hawaii 96809

East Kapolei Project
Environmental Impact Statement Preparation Notice (EISPN)
Your Letter dated December 19, 1995

Dear Ms. Forrest:

Thank you for your letter dated December 19, 1995 in response to the East Kapolei Project EISPN. We have incorporated your comments regarding the Kapolei Elementary School and the new Holomua Elementary School in the Draft EIS. Gentry Homes, Ltd. will continue to be consulted during the environmental review process. Your letter will be reproduced in the Draft EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
Facsimile 808 545-2050

13

Consulted Parties and Participants in the FEIS Preparation Process

CHAPTER 13
CONSULTED PARTIES AND PARTICIPANTS IN THE FINAL EIS PREPARATION PROCESS

Notice of the Draft EIS was published in the January 23, 1996 edition of *The Environmental Notice*. Copies of the DEIS were distributed to 76 agencies, organizations, individuals and libraries. The deadline for comments was March 8, 1996. A total of 31 written comments were received by the publication date of the Final EIS (April 1996). The agencies, organizations and individuals who responded are identified below with an asterisk (*). Comments and applicant responses are reprinted on the following pages.

Federal Agencies

* Army Engineer District
* Department of the Interior, U.S. Fish & Wildlife Service
  Department of the Interior, U.S. Geological Survey
  Department of Commerce, National Marine Fisheries Service
  Department of Transportation, U.S. Coast Guard
  Environmental Protection Agency
* Department of Agriculture, Natural Resource Conservation Service
  Commander, Naval Base Pearl Harbor
* Pacific Division, Naval Facilities Engineering Command

State Agencies

  Department of Accounting and General Services
  * State Public Works Engineer
  Department of Agriculture
  Department of Business, Economic Development and Tourism:
    Director
  * Land Use Commission
  * Energy Division
    Library
  Department of Defense
  * Department of Education
  * Housing Finance and Development Corporation
  * Department of Health:
    Director
    Environmental Management Division
  * Office of Environmental Quality Control
  Department of Hawaiian Home Lands

* Department of Human Services
* Department of Labor and Industrial Relations
Department of Land and Natural Resources:
Chairman's Office
State Historic Preservation Division
Commission on Water Resource Management
* Office of State Planning
Department of Transportation
* Office of Hawaiian Affairs
Oahu Metropolitan Planning Organization
Legislative Reference Bureau

University of Hawaii
Senior Vice President For Administration
Water Resources Research Center
* Environmental Center
Hamilton Library

City and County of Honolulu
* Building Department
* Board of Water Supply
Department of Finance
* Fire Department
* Department of Housing and Community Development
* Department of Human Resources
* Department of Land Utilization
* Department of Parks and Recreation
* Planning Department
* Department of Public Works
* Police Department
* Oahu Civil Defense Agency
* Department of Transportation Services
* Department of Wastewater Management

Public Utilities
* Hawaiian Electric Company, Inc.
GTE Hawaiian Telephone Company, Inc.
Oceanic Cable
The Gas Company

Libraries

State Archivist
Municipal Reference and Records Center
Legislative Reference Bureau
Hawaii State Library
Kaimuki Public Library
Kaneohe Public Library
Pearl City Public Library
Hilo Public Library
Wailuku Public Library
Kauai Library District
Ewa Beach Public and School Library

Media

Honolulu Star Bulletin
Honolulu Advertiser
Sun Press

Other Agencies, Organizations and Individuals

Estate of James Campbell
State Senator Brian Kanno
State Senator David Ige
State Representative Annelle Amaral
City Council Chair John DeSoto
Ewa Neighborhood Board
Ewa Village Community Association
American Lung Association
Haseko (Ewa), Inc.
* Gentry Homes, Ltd.
Makakilo/Kapolei Neighborhood Board

DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FT SHAFTER, HAWAII 96858-5440

RECEIVED

REPLY TO
ATTENTION OF

February 8, 1996

'96 9 PM 3:07

Planning and Operations Division

C&C HONOLULU

Ms. Lin Wong
City and County of Honolulu
Planning Department
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Wong:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (DEIS) for the East Kapolei Project, Ewa, Oahu (TMKs 9-1-9: por. 4; 9-1-18: por. 1; 9-2-2: por. 1; 9-2-4: por. 5; and, 9-1-10: por. 2). The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act; the Rivers and Harbors Act of 1899; and the Marine Protection, Research and Sanctuaries Act.

a. Based on the information provided, a DA permit may be required for the proposed drainage improvements. Please contact our Regulatory Section at 438-9258 for further information and refer to file number 950010045.

b. The flood hazard information provided on page 4-5 of the DEIS is correct.

Sincerely,

Paul Mizue, P.E.
Acting Chief, Planning
and Operations Division

Helber Hastert
Planners

April 8, 1996

Mr. Paul Mizue, P.E.
Acting Chief
Planning and Operations Division
Department of the Army
Pacific Ocean Division, Corps of Engineers
Ft. Shafter, Hawaii 96858-5440

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 8, 1996

Dear Mr. Mizue:

Thank you for your letter to Ms. Lin Wong, Planning Department, dated February 8, 1996 in response to the East Kapolei Project Draft EIS A DA permit is not required for the project, as indicated in a April 4, 1996 letter from Linda Hihara-Endo, Acting Chief, Operations Branch to Gray, Hong, Bills & Associates.

We appreciate your review of the project and your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545 2050

United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS ECOREGION
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: AAP

Ms. Cheryl D. Soon
Planning Department
650 South King Street
Honolulu, Hawaii 96813

MAR 29 1996

Re: January 1996 Draft Environmental Impact Statement, East Kapolei Project, Ewa, Oahu, Hawaii. TMK: 9-1-19: por. 04; 9-1-18: por. 01; 9-2-02: por. 01; 9-2-04: por. 05; and 9-1-10: por. 02

Dear Ms. Soon;

The U.S. Fish and Wildlife Service (Service) has reviewed the January 1996 Draft Environmental Impact Statement (EIS) for the East Kapolei Project, Ewa, Oahu, Hawaii. The project sponsor, Schuler Homes, Inc., proposes to develop 321 hectares [ha] (794 acres [ac]) of land for the construction of 8,000 residential units over a 16-year period. The development is known as the East Kapolei project. The Service offers the following comments for your consideration.

The Service's main concern regarding the above-referenced project pertains to the drainage system that the East Kapolei project will connect to for storm runoff diversion into the West Loch of Pearl Harbor. The document specified that the project will provide an on-site drainage system and a channel from the project boundary that will connect to an existing detention basin and the new Ewa by Gentry-East facilities south of the West Loch Fairways. The off-site channel from the East Kapolei project to the existing detention basin will eventually be dedicated to the City and County of Honolulu.

Currently, the drainage system sponsored by the Ewa by Gentry - East development remains in the design and permitting phases and has not been constructed. The proposed drainage capacity was designed to accommodate surrounding projects, land owners, and their projected drainage contributions, as reported in the May 1995 Drainage Report for Ewa by Gentry - East, Phase I Offsite Drainage Plan. This report documented the carrying capacity of the proposed drainage system to accommodate a total drainage area of approximately 2.51 square miles or the equivalent

COLOGICAL SERVICES ID:808-5412756 MAR 29.96 14:08 No.004 P.02

of 650 ha (1,607 ac). Identified users of the drainage system included the Campbell Estate - 277 ha (685 - ac); City and County of Honolulu - 71 ha (176 ac); Gentry Development Company - 99 ha (245 ac); State of Hawaii - 72 ha (178 ac); and the U.S. Navy 130 ha (323 ac). Because contributing drainage from the East Kapolei Development was not initially included in the study, the overall holding capacity of the proposed Ewa by Gentry drainage system may not be sufficient to accommodate the additional runoff from the East Kapolei project.

Specifically, the holding capacity of the detention basin and berm was designed to accommodate a 2- year 24 hour detention period with top elevation of the berm at 20 feet mean sea level. The berm will also be extended through a 12.5 ha (31-ac) parcel to provide at least 1 foot freeboard above the hydraulic grade line (hgl). We are concerned that additional runoff from the East Kapolei project into the proposed Gentry drainage system may reduce the existing 1 foot freeboard above the hgl and allow potential flood spillover into the Honouliuli Unit of the Pearl Harbor National Wildlife Refuge (Refuge).

The Refuge provides important year-round nesting and foraging habitat for four endangered Hawaiian waterbirds: the Hawaiian moorhen (*Gallinula chloropus sandvicensis*), the Hawaiian coot (*Fulica alai*), the Hawaiian stilt (*Himantopus mexicanus knudseni*), and the Hawaiian duck (*Anas wyvilliana*). The Refuge also provides foraging and loafing habitat for numerous species of migratory shorebirds and waterfowl including golden plovers (*Pluvialis dominica*), wandering tattlers (*Heteroscelus incanus*), ruddy turnstones (*Arenaria interpres*), sanderlings (*Calidris alba*), northern pintails (*Anas acuta*), and northern shovelers (*Anas clypeata*). Unexpected flooding may alter habitat conditions and adversely affect the reproductive success of the above-mentioned species. Therefore, the Service recommends that our concerns for adequate drainage disposal from the project site and potential flooding of the Refuge be resolved prior to issuance of the Final EIS.

We appreciate the opportunity to comment. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Arlene Pangelinan at 808/541-3441.

Sincerely,

Brooks Harper

Brooks Harper
Field Supervisor
Ecological Services

Helber Hastert
Planners

April 24, 1996

Mr. Brooks Harper, Field Supervisor
Ecological Services
U.S. Department of the Interior
Fish and Wildlife Service
Pacific Islands Ecoregion
300 Ala Moana Blvd., Rm. 3108
Box 50088
Honolulu, Hawaii 96850

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 29, 1996

Dear Mr. Harper:

Thank you for your letter to Ms. Cheryl Soon, Chief Planning Officer, City and County of Honolulu, dated January 30, 1996 in response to the East Kapolei Project Draft EIS. We have reviewed your comments and offer the following responses:

Your concern about potential flooding of the Refuge is important and has now been more fully addressed in the FEIS. We would like to take this opportunity to respond to points made in your letter.

1. As stated in the attached Gentry letter dated April 16, 1996, **the East Kapolei Project was always included in the Ewa by Gentry-East drainage facility design.** The *Final EIS for the Ewa by Gentry-East Offsite Drainage Plan* (Environmental Communications, September 1995) indicates that the project would include a "master-planned drainage system that would accommodate all lands within the natural drainage basin and mitigate the impacts to the wildlife refuge and West Loch, Pearl Harbor coastal zone..." The *Drainage Report for Ewa by Gentry-East Phase 1, Offsite Drainage Plan* (Park Engineering, May 1995), Figure 4-1 "Drainage Map (Ultimate Conditions)," clearly indicates that the East Kapolei project has been included in the sizing of the Gentry improvements. The drainage report discusses improvements under both "interim" and "ultimate" conditions. Under interim conditions, improvements will accommodate runoff from Ewa by Gentry-East, U.S. Navy lands, and the City and County. Improvements for the ultimate conditions would provide capacity for the entire watershed which include the East Kapolei project area.

   A discussion of the drainage basin area is included in Section 3.2, Hydrology, of the *Preliminary Drainage Study, West Loch Drainage Basin, East Kapolei Project,* prepared

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

by Gray Hong Bills & Associates, December 1, 1995. In summary, the Park Engineering. drainage report states that the detention basin was sized for a drainage basin area of 1,607 acres. Based on Gray Hong Bills & Associates analysis of aerial photo contour maps, the drainage basin should be 1,684 acres, roughly 5 percent larger. Table 3 of the GHB drainage report provides a summary of the land owners within the drainage basin. Land previously allocated to the State of Hawaii is included in the "East Kapolei/Campbell Estate" category.

Schuler Homes, Inc. and Gentry are currently working together to confirm the watershed area and hydraulic grade line (HGL), and are negotiating terms for the construction of a joint detention basin. The 31-acre parcel will be incorporated into the design for additional storage.

2. **The freeboard height will be maintained at one foot above the hydraulic grade line to protect the Refuge and adjacent properties from inundation during the 100-year storm event.** As noted above, the watershed area and HGL are being confirmed jointly by Schuler Homes, Inc. and Gentry. The berm will have a 1-foot minimum freeboard above the HGL.

3. **Schuler Homes and Gentry Homes are currently negotiating cost sharing-terms for the construction of the improvements to accommodate the ultimate condition.** The intent is to create a regional drainage facility that will handle the needs of the entire watershed. Ongoing discussion between the interested parties, including your agency, will be needed to ensure this outcome.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

attachment

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

THE GENTRY COMPANIES

April 16, 1996

Mr. Harvey Goth
Schuler Homes, Inc.
828 Fort Street Mall, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Goth:

Re: East Kapolei Development
West Loch Drainage Basin

This letter is to confirm that the Ewa by Gentry - East Offsite Drainage project is being designed to handle the tributary area for the East Kapolei Development currently being processed for approval as outlined in Gray, Hong, Bills & Associates, Inc.'s report dated December 1, 1995.

Very truly yours,

GENTRY HOMES, LTD.

Randolph K. Ouye,
Senior Vice President/
Chief Operating Officer

RKO:sacm

/kapolei-wewa

United States
Department of
Agriculture

Natural
Resources
Conservation
Service

P. O. Box 50004
Honolulu, HI
96850-0001

February 28, 1996

Ms. Lin Wong
Planning Department
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, Hawaii 96813

MAR - 1 1996

Dear Ms. Wong:

Subject: DEIS - East Kapolei Project, Kapolei, Oahu, Hawaii

We have reviewed the above-mentioned document and offer the following comments:

The project area is located on prime agricultural lands. These land should be kept in agriculture and the less productive lands be used for urban development.

We thank you for the opportunity to review this document.

Sincerely,

KENNETH M. KANESHIRO
State Conservationist

cc:
Mr. Mike Angotti, Schuler Homes, Inc., 828 Fort Street Mall, 4th Floor, Honolulu, HI 96813
Ms. Leslie Kurisaki, Helber Hastert & Fee, Planners, 733 BIshop Street, Suite 2590, Honolulu, HI 96813

Helber Hastert
Planners

April 8, 1996

Mr. Kenneth M. Kaneshiro
State Conservationist
United States Department of Agriculture
Natural Resources Conservation Service
P.O. Box 50004
Honolulu, Hawaii 96850-0001

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 28, 1996

Dear Mr. Kaneshiro:

Thank you for your letter to Ms. Lin Wong, Planning Department, dated February 28, 1996 in response to the East Kapolei Project Draft EIS You note that the project area is located on prime agricultural land, and state that these lands should be kept in agriculture and less productive lands used for urban development.

The project area was formerly under sugar cultivation by Oahu Sugar Company, which ceased operations in 1995. Since that time, the lands have been fallow. OSCo's termination of agriculture operations occurred independent of the proposed project. As a result, the project does not remove land from agricultural use, nor have an impact on agricultural operations.

We appreciate your comments. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki
Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090R-
Ser 231/1004

7 MAR 1996

MAR 11

Ms. Lynn Wong
Planning Department
City & County of Honolulu
650 South King Street
Honolulu, HI 96813

Dear Ms. Wong:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS), EAST KAPOLEI PROJECT

Thank you for the opportunity to review and comment on the draft EIS for the East Kapolei Project, Oahu. With respect to the storm water drainage we offer the following comments:

a. The flood elevation in the proposed Gentry detention basin for the 100-year storm is increased from 18.4 feet (as provided in the "Drainage Report for Ewa by Gentry-East Phase I" May 1995, prepared by Park Engineering) to 19.4 feet MSL. This increase of flood elevation reduces the freeboard along the adjacent Honouliuli Unit of the Pearl Harbor National Wildlife Refuge from 1.6 feet to .6 feet. This may result in an unacceptable level of protection for the National Wildlife Refuge and the endangered species which are known to exist within.

b. The new grass-lined channel which will serve to convey runoff from the existing detention basin to the proposed Gentry detention basin will be sized for the 2-year 24-hour detention requirements. It is recommended that the EIS assess the impact of the 100-year peak flow on the proposed grass-lined channel, detention basin and surrounding areas and provide mitigating measures, as applicable.

c. The Navy has not yet approved the proposed Gentry detention basin which will provide storm water runoff drainage for a substantial portion of the proposed East Kapolei Project. Negotiations for approval of the proposed detention basin are currently ongoing and include evaluation of required environmental impact and mitigation measures and acceptance of operation and maintenance responsibility by the City.

Should you have any questions, please contact Mr. Gerald G: Gibbons at 471-9338 or by facsimile transmission at 474-4890.

Sincerely,

RALPH T. KANESHIRO
Director
Environmental Planning Division
Acting

Copy to: (see next page)

5090P..
Ser 231/1001

7 MAR 1996

Copy to:
Mr. Mike Angotti
Schuler Homes, Inc.
828 Fort Street Mall, Fourth Floor
Honolulu, HI 96813

Ms. Leslie Kurisaki
Helber Hastert & Fee, Planners
733 Bishop Street, Suite 2590
Honolulu, HI 96813

U.S. Fish and Wildlife Service
P.O. Box 50167
Honolulu, HI 96850-4984

Helber Hastert
Planners

April 24, 1996

Mr. Ralph T. Kaneshiro, Acting Director
Environmental Planning Division
Department of the Navy
Pacific Division Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 7, 1996

Dear Mr. Kaneshiro:

Thank you for your letter to Ms. Lin Wong, City and County of Honolulu Planning Department, dated March 7, 1996 in response to the East Kapolei Project Draft EIS. We have reviewed your comments and offer the following responses:

a. As discussed in the *Addendum to the Preliminary Drainage Study, West Loch Drainage Basin* (Gray Hong Bills & Associates, April 18, 1996), Schuler Homes, Inc. and Gentry are currently negotiating terms for a joint detention basin, constructed to accommodate the runoff from the total West Loch watershed. Additional storage will be provided within the 31-acre site, which when combined with the proposed Gentry detention basin will accommodate the total runoff. Schuler Homes, Inc. is working with Gentry to confirm the limits of the watershed and the HGL. The berm proposed by Gentry for protection of the Wildlife Refuge and the berm proposed in the 31-acre parcel will have 1-foot minimum freeboard above the HGL. The portion of the 31-acre site used for the drainage improvements will be dedicated to the City and County of Honolulu.

b. As noted in the *Addendum to the Preliminary Drainage Study,* both Gentry and Schuler Homes are now jointly designing the detention facilities within the 31-acre site. The improvements cited in your letter will be reevaluated. The impact of the 100-year peak flow on the facilities will be assessed in the design process.

c. We acknowledge that the Navy has not yet approved the proposed Gentry detention basin and that negotiations for its approval are currently ongoing. The Final EIS will include this as an unresolved issue.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

We appreciate your review of the DEIS and your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mike Angotti, Schuler Homes, Inc.

(P)1165.6

MAR 8 1996

MAR 11

Planning Department
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

Attention: Ms. Lin Wong

Gentlemen:

Subject: East Kapolei Project
Draft EIS

We have reviewed the draft EIS for the subject project and have no additional comments to offer beyond those provided in our previous letter dated December 19, 1995.

Thank you for the opportunity to comment on the subject project. If there are any questions, please have your staff call Mr. Ralph Yukumoto of the Planning Branch at 586-0488.

Very truly yours,

Gordon Matsuoka

GORDON MATSUOKA
State Public Works Engineer

RY:jy
cc: Schuler Homes, Inc.
Helber Hastert & Fee, Planners
Mr. Lester Chuck
OEQC

Helber Hastert
Planners

April 8, 1996

Mr. Gordon Matsuoka, State Public Works Engineer
State of Hawaii
Department of Accounting and General Services
Public Works Division
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Matsuoka:

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 8, 1996

Thank you for your letter to Ms. Lin Wong, City and County of Honolulu Planning Department, in response to the East Kapolei Project Draft EIS. We note that you have no additional comments to offer beyond those provided in your previous letter dated December 19, 1995.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545 2050

BENJAMIN J. CAYETANO
GOVERNOR

ESTHER UEDA
EXECUTIVE OFFICER

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
Room 104, Old Federal Building
335 Merchant Street
Honolulu, Hawaii 96813
Telephone: 587-3822

FEB 15 1996

February 14, 1996

Ms. Lin Wong
Planning Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Wong:

Subject: Draft Environmental Impact Statement (DEIS) for the East Kapolei Project, Ewa, Oahu, Hawaii

We have reviewed the DEIS for the subject project and have the following comments to offer:

1) Upon review of the studies in the DEIS, we note that reference is made to the proposed location of the 500-acre University of Hawaii-West Oahu campus west of the project area. It also appears that various studies in the DEIS utilized this location of the campus as a basis for certain findings with respect to potential impacts.

   In light of the Governor's proposed land exchange with Campbell Estate for a new location of the campus mauka of the H-1 Freeway, we suggest that this new campus location and the impacts to and from the subject project also be reviewed and addressed accordingly in the FEIS.

2) In the applicant's response to our letter dated December 8, 1995, on the Environmental Impact Statement Preparation Notice, it was stated that "Schuler Homes will request Urban District redesignation for the remainder of the application area," excluding an adjacent 183-acre portion that is the subject of LUC Docket No. A94-708/Office of State Planning.

   Clarification should be provided as to what portions of the project area are proposed to be included in the boundary amendment petition to the Land Use Commission.

Information on the approximate acreage should also be provided.

3) In Volume I, section 3.2.3., page 3-8, reference is made to the State Land Use Commission Rules, adopted October 1986. Please be advised that the Commission has recently amended its rules under Chapter 15-15, HAR. A copy of the rules will be provided to you as soon as they become available.

   Also, in Volume I, section 3.2.3., we suggest that the relationship of the subject project to the City and County of Honolulu Planning Department's document, "Alternative Growth Patterns for Ewa and Central Oahu's Future," as well as the Office of State Planning's Draft Boundary Review Update document, "2020 Growth Scenarios for Oahu," be included.

4) In accordance with §11-200-17(i), HAR, the DEIS should include a discussion of the interrelationships and <u>cumulative</u> impacts of the subject project and other related projects upon the environment and the provision of public facilities and services. A discussion on the secondary impacts of the subject project should also be included.

5) The costs of the proposed project, including projected on-site and off-site development costs, should be provided. We suggest that such costs be broken down by categories (e.g., roadways, wastewater, drainage, construction of the residential units, etc.).

6) The number and size of the residential lots, as well as updated information on the selling prices of the market single- and multi-family residential units, should be provided.

7) An assessment of the impact of the proposed project upon the cultural resources of the area, specifically addressing Hawaiian customary and traditional rights under Article XII, section 7, of the Hawaii State Constitution, should be provided.

8) The discussion on page 3-8, regarding the extent to which the proposed project conforms to the Urban District standards, should be expanded to include all of the criteria under §15-15-18, HAR.

9) The discussion on page 3-10, regarding the conformity of the project to the Coastal Zone Management Program should be expanded to include all of the objectives and policies under Chapter 205A, HRS.

10) An assessment of the conformity of the project to the zoning designation and polices of the City and County of Honolulu, and any amendments required, should be provided.

11) Based on the project phasing, it appears that the project will be implemented over a 16-year period. In light of this timetable, a schedule for development of the total project in seven-year increments together with a map identifying the location of each increment should be provided.

We have no further comments to offer at this time. We appreciate the opportunity to comment on this DEIS.

Should you have any questions, please feel free to call me or Bert Saruwatari of our office at 587-3822.

Sincerely,

ESTHER UEDA
Executive Officer

EU:th

cc: Mike Angotti
✓Leslie Kurisaki
OEQC
OSP

Helber Hastert
Planners

April 11, 1996

Ms. Esther Ueda
Executive Officer
Land Use Commission
Department of Business, Economic Development & Tourism
State of Hawaii
State Office Tower, 4th Floor
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 14, 1996

Dear Ms. Ueda:

Thank you for your letter to Ms. Lin Wong, Planning Department, dated February 14, 1996 in response to the East Kapolei Project Draft EIS. We have reviewed your comments and offer the following responses:

1. You suggest that in light of the Governor's proposed land exchange with Campbell Estate for a new University of Hawaii-West Oahu campus site, the new proposed campus location (mauka of the H-1 Freeway) should be evaluated in the FEIS. Although the FEIS recognizes the land exchange process, there are still too many uncertainties and unresolved issues to discuss this proposal with any detail. The mauka site was recently approved by the University Board of Regents, but it has yet to receive final Legislative approval. The type of university facilities, and what if any ancillary facilities may be developed is still not clear at this time, nor is the timing of any of the improvements. Because of these uncertainties, the FEIS discusses both the original and mauka sites, but continues to evaluate the original site as the "official" University site. The final location of the university, its timing, or even if it is built at all, does not affect the feasibility of the East Kapolei project.
2. The applicant intends to submit its petition to redesignate the entire project area from the State Agricultural District to the State Urban District, including the 183-acre area you refer to. The applicant has received permission to include this State-owned parcel from the Chairman of the State Board of Land and Natural Resources (letter dated November 21, 1995).
3. We look forward to receiving a copy of the revised Land Use Commission Rules. The relationship of the project to the City and County Planning *Department's Alternative Growth Patterns for Ewa and Central Oahu's Future* and the Office of State Planning's *2020 Growth Scenarios for Oahu* ✓ has been included in the FEIS.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

4. The FEIS includes a separate discussion of the interrelationships and cumulative impacts of the project on the physical environment and the provision of public facilities and services. Discussion of secondary impacts is also included.✓
5. Project cost information has been included in the FEIS.✓
6. Single-family residential lots are anticipated to average about 4,000 square feet in size. The numbers of and estimated selling prices for the residential units is provided in Chapter 2 of the FEIS.✓
7. An assessment of impact of the project upon the cultural resources of the area, specifically addressing Hawaiian customary and traditional rights under Article XII, section 7 of the Hawaii State Constitution, is provided in the FEIS.
8. An expanded discussion of the project's conformance to the Urban District Standards, including all criteria under Section 15-15-18, HAR, has been provided in the FEIS.
9. An expanded discussion of the project's conformity to Coastal Zone Management Program has been provided in the FEIS.
10. An assessment of the project's conformity to zoning designation and policies and amendments required has been provided in the FEIS.
11. The developer anticipates developing the 8,000 units over a 14 to 16-year construction period, with between 500 to 550 units constructed per year. Development of the project will require massive, up-front investment in major infrastructure systems (water, wastewater, drainage and roadways). Rapid changes in housing affordability (e.g., fluctuations in mortgage interest rates) are now common, forcing developers to respond rapidly in adapting housing product. The ability to develop multiple sites within the project area simultaneously, rather than constrained by incremental phasing, will be important for the developer to respond to ever changing market conditions. In light of the foregoing discussion, the applicant will request that the Land Use Commission redistrict the entire site to the Urban District rather than require incremental districting.

We appreciate your review of the DEIS and your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mike Angotti, Schuler Homes, Inc.

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT, AND TOURISM

BENJAMIN J. CAYETANO
Governor
SEIJI F. NAYA
Director
RICK EGGED
Deputy Director

ENERGY DIVISION, 335 MERCHANT ST., RM. 110, HONOLULU, HAWAII 96813

FAX: (808) 587-3820

February 12, 1996

FEB 15 1996

Ms. Lin Wong
Planning Department
City & County of Honolulu
650 South King St.
Honolulu, Hawaii 96813

Dear Ms. Wong:

Subject: East Kapolei Project Draft Environmental Impact Statement (DEIS)
Project Area: 9-1-19 por 04; 9-1-18 por 01; 9-2-02 por 01; 9-2-04 por 05; and 9-1-10 por 02. DP Application Area: 9-1-17 por 04; and 9-1-18 por 01.

Thank you for the opportunity to comment on the proposed East Kapolei residential development of multi-family apartments, townhomes and single family homes.

As you are aware, Draft Environmental Impact Statements should comply with the requirements found in State laws for evaluating any energy impacts that the project will have. The mandate for such an evaluation is found in Chapter 344, HRS ("State Environmental Policy") and Chapter 226, HRS ("Hawaii State Planning Act). Act 96 which amended HRS 226, in particular 18(c)(4) includes a State policy objective of promoting all cost-effective conservation through adoption of energy-efficient practices and technologies.

We would like to call the developer's attention to the desirability of roof insulation in east Kapolei. The solar heat transmitted through roofs may be minimized by painting the roof with a reflective coating and insulating the ceiling with radiant barriers, or installing blow-in insulation. Utilizing a light-colored roof plus insulation would heighten the effectiveness of reducing solar gain. Furthermore, studies indicate that insulating the ceilings of residences reduces perceived indoor temperatures by about nine percent.

Insulation and roof treatments are cost effective. For example, the installed cost of foam board insulation (R-10) (with a light-colored roof to bring the total R-value to R-19) is about $1.00 to $2.00 per square foot. The cost to install this on an air-conditioned two-story home with an 800 square foot roof is $1,360. Annual savings are $400 and the payback is 3.4 years. The cost of blown in cellulose or fiberglass ceiling insulation (R-19, 5 to 6 inches thick) is about $.80 to $1.00 per square foot. The cost for the 800 square foot roof is $720, with annual savings of $450 per year and payback of 1.6 years.

We have recently completed a comparative life-cycle cost study of alternate types of water heating installed in Housing Finance Development Corporation's housing on Oahu and Maui from 1993 to 1995. The results show that on Oahu, solar systems will save homeowners $1,448 per family compared to electric water heaters. They will save homeowners $2,008 per family compared to gas water heaters. We feel that this savings is significant enough, especially for the affordable homes, to strongly consider offering solar water heating in this development.

Sincerely,

Maurice H. Kaya
Energy, Resources, and Technology
Program Administrator

c: OEQC
Schuler Homes
Helber Hastert & Fee

Helber Hastert
Planners

March 8, 1996

Mr. Maurice H. Kaya
Energy Program Administrator
State of Hawaii
Department of Business, Economic Development and Tourism
Energy Division
335 Merchant Street, Rm. 110
Honolulu, Hawaii 96813

Dear Mr. Kaya:

East Kapolei Project, Ewa, Oahu, Hawaii
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 12, 1996

Thank you for your letter to Ms. Lin Wong, Planning Department dated February 12, 1996 responding to our request for comments on the above-referenced DEIS. The Environmental Impact Statement will comply with the requirements found in State laws for evaluating energy impacts the project will have.

We appreciate the information you provided regarding the use of roof and ceiling insulation to reduce energy requirements. This information has been transmitted to the applicant/developer. The developer will consider the installation of roof insulation and solar water heaters as an option for East Kapolei home buyers.

In addition to building-related energy efficiency, we would like to emphasize that as a part of the second city in Kapolei, the project will have a positive long-term effect on Oahu's transportation-related energy consumption. The transportation sector has been identified as the single largest consumer of energy in the State (State Functional Plan, Energy, 1991). The development of the "second city" is largely intended to reduce the need for automobile commuting between downtown Honolulu and suburban Oahu. As part of the second city, the East Kapolei project will promote a new community where residents can live and work close by, contributing to a reduction in automobile-related fossil fuel consumption.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
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733 Bishop Street, Suite 2500
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Telephone 808 545 2055
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Benjamin J. Cayetano
GOVERNOR

HERMAN M. AIZAWA, PH.D.
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P. O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

March 12, 1996

Ms. Lin Wong
Planning Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Wong:

SUBJECT: Draft Environmental Impact Statement
East Kapolei Project

We have reviewed the subject draft environmental impact statement and have determined that our previous comments dated January 8, 1996, are still relevant on the proposed development. We have no other comments to make at this time.

Should there be any questions, please call the Facilities Branch at 733-4862.

Sincerely,

Herman M. Aizawa, Ph.D.
Superintendent

HMA:hy

cc: A. Suga, OBS
A. Maeda, LDO
L. Kurisaki, Helber Hastert & Fee
M. Angotti, Schuler Homes, Inc.

Helber Hastert
Planners

April 15, 1996

Dr. Herman M. Aizawa, Ph.D.
Superintendent
State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 12, 1996

Dear Dr. Aizawa:

Thank you for your letter to Ms. Lin Wong, City and County of Honolulu Planning Department, dated March 12, 1996 in response to the East Kapolei Project Draft EIS. We note that your previous comments dated January 8, 1996 are still relevant and that you have no other comments to make at this time. We provided a full response to your letter dated January 17, 1996. Both letters were appended to the DEIS.

The project still proposes to provide two 8-acre elementary school sites (collocated with City neighborhood parks) and half of an 18-acre intermediate school site (the other half being provided by the adjacent land owner as part of its fair share contribution to a region-serving facility).

As noted in the January 17, 1996 response, the applicant recognizes the significant contribution good school facilities will make towards building a desirable community. The applicant is therefore committed to working with your department to ensure that school facility needs are met in a timely, orderly and on a fair basis.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545 2050

BENJAMIN J. CAYETANO
GOVERNOR

ROY S. OSHIRO
EXECUTIVE DIRECTOR

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
HOUSING FINANCE AND DEVELOPMENT CORPORATION
677 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813
FAX (808) 587-0600

IN REPLY REFER TO:

96:PPE/822

MAR - 5 1996

February 29, 1996

The Honorable Cheryl D. Soon
Chief Planning Officer
Planning Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Attn: Ms. Lin Wong

Dear Ms. Soon:

SUBJECT: Draft Environmental Impact Statement (DEIS) for the East Kapolei Project, Ewa, Oahu

We have reviewed the subject DEIS and have the following comments to offer:

1. In section 2.3.1, reference is made to the Villages of Kapolei. Please note that the total land area for the project is approximately 890 acres. ✓

2. In section 2.6, the project is described to include parks, neighborhood commercial areas, and sites for elementary and intermediate schools. Consideration should be given to include at least one recreational facility and several church sites within the project.

3. What types of pedestrian and bikeway linkages will be provided from the project to the major regional arterial roadways (i.e., North-South Road and Farrington Highway)?

4. Will the developer be seeking exemptions for the project under the provisions of chapter 201E through the City and County of Honolulu's Department of Housing and Community Development? It is our understanding that ten percent of the units should be made available to families earning eighty percent and below the area median income. This does not appear to be addressed.

HFDC

5. In section 2.6.4, a statement is made that the developer is assuming that the adjacent land owner will provide "an additional nine acres" toward the development of an intermediate school. What efforts have occurred to coordinate and seek the concurrence of the land owner?

6. In section 2.7, the purpose for the project is stated as meeting "the need for affordable and moderately priced housing..." What are the anticipated prices for the approximately seventy percent "market" units? How many of these will target the 121% to 140% of area median income? How many of these units will be affordable rentals and what are the target groups?

7. In section 5.2, reference is made to the Villages of Kapolei project being developed by HFDC. However, the project is not being completed "in conjunction with the Department of Housing and Community Development."

8. What efforts has the developer undertaken to minimize the impact of the project on the traffic situation? Since the North-South Road, extension of the Kapolei Parkway, improvements to Farrington Highway, and freeway interchange are assumed to be part of the roadway network, a major impact will be felt if these roadway improvements are not provided pursuant to the Ewa Region Highway Master Plan time line.

9. We recommend that consideration and effort be given toward consolidating the water system improvements for the remaining lands in the Ewa region.

10. We recommend that reconsideration be given to the proposed wastewater collection system and the impact on adjacent lands.

Thank you for the opportunity to comment on the DEIS.

Sincerely,

ROY S. OSHIRO
Executive Director

c: Mr. Mike Angotti, Schuler Homes, Inc.
Ms. Leslie Kurisaki, Helber Haster & Fee, Planners
OEQC

Helber Hastert
Planners

April 15, 1996

Mr. Roy S. Oshiro, Executive Director
State of Hawaii
Department of Budget and Finance
Housing Finance and Development Corporation
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 29, 1996

Dear Mr. Oshiro:

Thank you for your letter to Ms. Cheryl Soon, Chief Planning Officer, dated February 29, 1996 in response to the East Kapolei Project Draft EIS. We have reviewed your comments and offer the following responses:

1. Your comment regarding the total land area for the Villages of Kapolei will be incorporated in the Final EIS.
2. The applicant has closely considered the recreational and cultural aspects of the plan. Recreational needs will be accommodated by a large 20-acre park, two 6-acre neighborhood parks and a 2-3 acre public mini park. In addition, bikeways and private mini-parks will complement the dedicated park facilities. Church sites are being considered.
3. As noted above, the project will provide bikeways linking the residential areas, the central district park, commercial areas and the schools/neighborhood parks. Where possible, provisions will also be made to connect to regional bikeway facilities along the North-South Road and Farrington Highway
4. At the present time, the developer does not intend to seek exemptions for the project under the provisions of Chapter 201E. The applicant/developer intends to comply with the affordable housing guidelines set forth by the city Department of Housing and Community Development.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

5. The adjacent land is owned by the State of Hawaii. The applicant believes that a requirement to provide a full 18-acre intermediate school site exceeds its fair share requirement, and that the adjacent property, assumed to be developed for residential uses, would benefit from shared use of the intermediate school facilities. The applicant is willing to coordinate efforts with the appropriate State entity in providing the intermediate school and will continue to work with the Department of Education to ensure that the intermediate school needs of the East Kapolei project are accommodated.

6. An estimated breakdown of number of units by target market and price is now included in Chapter 2 of the FEIS. Anticipated prices for the multi-family and single family market units range from $185,000 to $285,000. The buying power of people in 121% to 140% of median income group will depend on prevailing mortgage interest rates, down payment requirements and other developer incentives at the time of purchase.

   Current plans for East Kapolei do not include any rental units.

7. Comment noted and the change has been made.

8. In order to minimize project impacts and provide for smoother operating conditions, several roadway improvements are recommended by the year 2010. They include two left-turn lanes westbound at the intersection of Farrington Highway and the proposed North-South Road; the addition of an extra through lane from the project's Farrington Highway access road intersection west to the western edge of the project; and two left-turn lanes entering and exiting two of the project access roads along the planned North-South Road. Sufficient right-of-way will be reserved along the entire Farrington Highway frontage to allow for future widening as proposed in the Ewa Region Highway Master Plan.

   In addition to the above recommendations, the project concept plan itself mitigates potential traffic impacts. The incorporation of convenience retail, schools and parks within the project area will eliminate the need to travel on external roads for those activities. The project's bikeway network will encourage pedestrian and bicycle activity within the project area.

9. The applicant is master planning infrastructure for the project and adjacent areas to ensure consistency. It is willing to work with the adjacent land owners to consolidate the water and wastewater system improvements for the region.

We appreciate your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

LAWRENCE MIIKE
DIRECTOR OF HEALTH

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

In reply, please refer to:

April 9, 1996

94-270A/epo

APR 22

Ms. Lin Wong
Planning Department
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Wong:

Subject: Draft Environmental Impact Statement (DEIS)
East Kapolei Project
Ewa, Oahu
TMK: 9-1-17: por. 4, various others

Thank you for allowing us to review and comment on the subject document. We have the following comments to offer:

Polluted Runoff Control

The East Kapolei Project is located in the Pearl Harbor Hydrologic Unit Area. The Pearl Harbor Estuary is one of the State's designated Water Quality Limited Segments, meaning its water quality is impaired from polluted runoff. The construction of the East Kapolei Project will greatly increase the acreage of impervious areas, thereby increasing storm water runoff volumes. The State has developed the "Hawaii Coastal Nonpoint Pollution Control Program Draft Management Plan." This draft management plan addresses proper planning, design, and use of Best Management Practices to substantially reduce polluted runoff (nonpoint source pollution). Please refer to the Draft Management Plan (Pages III-95 to III-148) for urban management measures. The Draft Management Plan can be obtained from the Department of Health, Polluted Runoff Control Program or from the Office of State Planning, Coastal Zone Management Program. The following are suggested management measures to consider:

1. For New Development

   Please refer to the "Hawaii Coastal Nonpoint Pollution Control Program Draft Management Plan" (Page III-98). The management measure goal of reducing total suspended solid loadings are suggested once the site is stabalized.

2. For Site Development

   a. Include within the conceptual landscape plan open "green areas" that will slow down and retain stormwater runoff. For instance, the lands set aside for parks could be constructed as sediment basins which would retain polluted runoff.

   b. Limit disturbance of natural drainage features and vegetation.

3. For Construction Site Erosion and Sediment Control

   a. Conduct grubbing and grading activities during the low rainfall months (April-October).

   b. Grub area sequentially so that only a small portion of the site is bare at any time.

   c. Use vegetation, mulch, gravel, and porous pavement wherever feasible to maximize the acreage of pervious areas.

   d. We encourage the developer to grass and irrigate immediately after grading is completed and certified.

4. Pollution Prevention Measures

   a. We encourage the implementation of pollution prevention and education programs to reduce polluted runoff. The developer could assist the city and state in their efforts of environmental education by providing new homeowners educational packets that contain information on reducing polluted runoff, such as the proper storage, use, and disposal of household chemicals and the proper disposal of pet excrement.

   b. We encourage large developments to imprint the message "Dump No Waste, Goes to Ocean," over storm drains to remind homeowners not to illegally dump materials in the storm drain system.

If you have questions on this matter, please call Mr. Randy Rush of the Environmental Planning Office at 586-7550.

<u>Noise Concerns</u>

1. Although not necessarily incompatible, commercial land uses next to residential areas may result in negative noise

impacts. Activities such as deliveries and refuse collection may result in noise impacts to the surrounding residences. Mitigative measures toward minimizing these impacts, such as buffering distances, landscaping or design should be implemented within any planned mixed use community.

2. Through facility design, sound levels emanating from stationary equipment such as air conditioning systems, exhaust fans, refrigeration compressors or generators must be attenuated to comply with the provisions of Chapter 11-43, Hawaii Administrative Rules, "Community Noise Control for Oahu."

Should there be any questions on this matter, please call Jerry Haruno, Environmental Health Program Manager of the Noise, Radiation & Indoor Air Quality Branch at 586-4701.

Wastewater

It has been determined that the subject project is located within the County sewer service system. As the area is sewered, we have no objections to the proposed 794 acre development collectively referred to as the "East Kapolei Project" provided that the project is connected to the public sewers.

The developer should work closely with the County to assure the availability of additional treatment capacity and adequacy for the project. Non availability of treatment capacity will not be an acceptable justification for use of any private treatment works.

Should you have any questions on this matter, please contact Ms. Lori Kajiwara of the Wastewater Branch at 586-4294.

Sincerely,

BRUCE S. ANDERSON, Ph.D.
Deputy Director for Environmental Health

c: EPO
NR&IAP
OEQC
WWB
Helber Hastert & Fee
Schuler Homes, Inc.

Helber Hastert
Planners

April 25, 1996

Dr. Bruce S. Anderson,
Deputy Director for Environmental Health
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated April 9, 1996

Dear Dr. Anderson:

Thank you for your letter to Ms. Lin Wong, City and County of Honolulu Planning Department, dated April 9, 1996 in response to the East Kapolei Project Draft EIS. We have reviewed your comments and offer the following responses:

Polluted Runoff Control

We acknowledge your comment that the Pearl Harbor Estuary is one of the State's designated Water Quality Limited Segments, meaning its water quality is impaired from polluted runoff. The Hawaii Coastal Nonpoint Pollution Control Program Draft Management Plan will be consulted and your suggested management measures will be followed when possible during construction.

The National Pollutant Discharge Elimination System (NPDES) permit for the project will include an Erosion Control Plan (ECP) and procedures and a Best Management Practices Plan to minimize the impacts of sedimentation caused by grading during construction.

The applicant is willing assist your Department and other State and City agencies in your efforts on environmental education, including providing new homeowners with educational materials, as noted.

Noise Concerns

As you have suggested, mitigation measures to reduce noise impacts on residential areas will be incorporated, including adequate setbacks from roadways, appropriate landscaping and residential unit design.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

Wastewater

The developer will work closely with the County to assure the availability of treatment capacity for the project. A wastewater master plan is for the project is currently being reviewed by the City Department of Wastewater Management.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

MAR - 8 1996

March 6, 1996

Cheryl Soon
Planning Department, City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Attention: Lin Wong

Dear Ms. Soon:

Subject: Draft Environmental Impact Statement (EIS) for East Kapolei Project, Ewa

The proposed drainage facilities for East Kapolei will connect to the planned Ewa Gentry-East offsite drainage. The May 1995 Ewa Gentry-East EIS did not include any drainage facility considerations for East Kapolei.

How does the East Kapolei project affect Gentry's drainage facilities? Can the Gentry drainage system handle the extra volume of water? How does this change affect the West Loch Wildlife Refuge?

If you have any questions please call Nancy Heinrich or Jeyan Thirugnanam at 586-4185.

Sincerely,

Gary Gill
Director

c: Leslie Kurisaki, Helbert, Hastert & Fee

Helber Hastert
Planners

April 24, 1996

Mr. Gary Gill, Director
State of Hawaii
Office of Environmental Quality Control
220 S. King Street, 4th Floor
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 6, 1996

Dear Mr. Gill:

Thank you for your letter to Ms. Lin Wong, City and County of Honolulu Planning Department, dated March 6, 1996 in response to the East Kapolei Project Draft EIS.

Please note, the drainage section in the FEIS has been revised to provide an expanded and more comprehensive discussion of drainage issues raised in the DEIS consultation process.

As stated in the attached Gentry letter dated April 16, 1996, the East Kapolei Project was always included in the Ewa by Gentry-East drainage facility design. The *Final EIS for the Ewa by Gentry-East Offsite Drainage Plan* (Environmental Communications, September 1995) indicates that the project would include a "master-planned drainage system that would accommodate all lands within the natural drainage basin and mitigate the impacts to the wildlife refuge and West Loch, Pearl Harbor coastal zone..." The *Drainage Report for Ewa by Gentry-East Phase 1, Offsite Drainage Plan* (Park Engineering, May 1995), Figure 4-1 "Drainage Map (Ultimate Conditions)," clearly indicates that the East Kapolei project has been included in the sizing of the Gentry improvements. The drainage report discusses improvements under both "interim" and "ultimate" conditions. Under interim conditions, improvements will accommodate runoff from Ewa by Gentry-East, U.S. Navy lands, and the City and County. Improvements for the ultimate conditions would provide capacity for the entire watershed which includes the East Kapolei project area.

A discussion of the drainage basin area is included in the *Preliminary Drainage Study, West Loch Drainage Basin, East Kapolei Project (*Gray Hong Bills & Associates, December 1, 1995) included in the DEIS as Appendix M. In summary, the Park Engineering. drainage report states that the detention basin was sized for a drainage basin area of 1,607 acres. Based on Gray Hong Bills & Associates analysis of aerial photo contour maps, the drainage basin should be 1,684 acres, roughly 5 percent larger.

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733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
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Schuler Homes, Inc. and Gentry are currently working together to confirm the watershed area and hydraulic grade line (HGL) and are negotiating terms for the construction of a joint detention basin. The 31-acre Schuler Homes parcel will be incorporated into the design to provide additional storage. The berm height will be set to provide a one-foot minimum freeboard above HGL to protect the adjacent Wildlife Refuge from inundation during the 100-year flood event.

Upon reaching an agreement, the Gentry-East and Schuler Homes improvements will be further coordinated to ensure that the final detention basin design will protect adjacent areas, including the Wildlife Refuge, from floodwater inundation.

We appreciate your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

attachment

cc: Ms. Cheryl Soon, Planning Department
Mike Angotti, Schuler Homes, Inc.

THE GENTRY COMPANIES

April 16, 1996

Mr. Harvey Goth
Schuler Homes, Inc.
828 Fort Street Mall, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Goth:

Re: East Kapolei Development
West Loch Drainage Basin

This letter is to confirm that the Ewa by Gentry - East Offsite Drainage project is being designed to handle the tributary area for the East Kapolei Development currently being processed for approval as outlined in Gray, Hong, Bills & Associates, Inc.'s report dated December 1, 1995.

Very truly yours,

GENTRY HOMES, LTD.

Randolph K. Ouye,
Senior Vice President/
Chief Operating Officer

RKO:sacm

/kapolei-wewa

BENJAMIN J. CAYETANO
GOVERNOR

SUSAN M. CHANDLER, M.S.W., Ph.D.
DIRECTOR

KATHLEEN G. STANLEY
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
1390 Miller Street
Honolulu, Hawaii 96813

February 21, 1996

FEB 27 1996

Ms. Cheryl Soon
Chief Planning Officer
Planning Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Subject: Draft Environmental Impact Statement
East Kapolei Project, Ewa, Oahu, Hawaii
Project area: 0 9-1-19: por. 04; 9-1-18: por. 01; 9-2-02: por. 01; 9-2-04: por 05; and 9-1-10: por 02

We have reviewed the following draft environmental impact statement and have no comments to offer at this time. Thank you for the opportunity to review this document.

Sincerely,

Kathleen G. Stanley

For Susan M. Chandler, M.S.W., Ph.D.
Director

c: Schuler Homes, Inc.
828 Fort Street Mall, 4th Floor
Honolulu, HI 96813

✓Helber Haster & Fee, Planners
733 Bishop St., Suite 2590
Honolulu, HI 96813

Helber Hastert
Planners

April 8, 1996

Ms. Susan M. Chandler, M.S.W., Ph.D.
Director
State of Hawaii
Department of Human Services
1390 Miller Street
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 21, 1996

Dear Ms. Chandler:

Thank you for your letter to Cheryl Soon, Chief Planning Officer, dated February 21, 1996 in response to the East Kapolei Project Draft EIS We note that you have no comments to offer at this time. We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
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BENJAMIN J. CAYETANO
GOVERNOR

LORRAINE H. AKIBA
DIRECTOR

DAYTON M. NAKANELUA
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
OFFICE OF THE DIRECTOR
830 PUNCHBOWL STREET, ROOM 321
HONOLULU, HAWAII 96813

MAR - 1 1996

February 28, 1996

Ms. Lin Wong
Planning Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Wong:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (DEIS) for the proposed East Kapolei Project. The Department of Labor and Industrial Relations (DLIR) has no additional comments to offer at this time.

Our previous comments of February 23, 1995 to the City and County's Planning Department still apply. DLIR continues to offer its assistance in recruiting job applicants to fill the demand for construction workers through its various employment and training agencies.

If you have any questions, please call Naomi Harada, Chief of our Research and Statistics Office, at (808) 586-8999.

Very truly yours,

Lorraine H. Akiba
Director

c: Schuler Homes, Inc.
✓Helber Hastert & Fee
Office of Environmental Quality Control

Helber Hastert
Planners

April 8, 1996

Ms. Lorraine H. Akiba, Director
Department of Labor and Industrial Relations
State of Hawaii
830 Punchbowl St., Rm. 321
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 28, 1996

Dear Ms. Akiba:

Thank you for your letter to Ms. Lin Wong, Planning Department, dated February 28, 1996 in response to the East Kapolei Project DEIS. We note that your department's previous comments to the Planning Department dated February 23, 1995 still apply. The developer acknowledges your offer of assistance in recruiting job applicants for construction jobs through your various employment and training agencies.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
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733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
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STATE OF HAWAII
OFFICE OF STATE PLANNING
P.O. Box 3540
Honolulu, Hawaii 96811-3540

Ref. No. Z-0056

March 7, 1996

MAR 12

The Honorable Cheryl D. Soon
Chief Planning Officer
Planning Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813-3017

Attn: Ms. Lin Wong

Dear Ms. Soon:

We have the following comments on the East Kapolei Project Draft Environmental Impact Statement (DEIS) at Ewa, Oahu.

We note the discrepancy between the applicant's plan on page 2-15 allocating nine acres for an intermediate school site and the Department of Education's letter in section 10 requesting an 18-acre site within the project area. The probable impacts of the larger site should be discussed in the document.

Also, the impacts and mitigation measures of the drainage flowing to West Loch should be summarized in the document as opposed to referencing a study on page 6-13.

If there are any questions, please call Charles Carole at 587-2804.

Sincerely,

Gregory G.Y. Pai, Ph.D.
Director

cc: Mr. Mike Angotti, Schuler Homes, Inc.
Ms. Leslie Kurisaki, Helber Hastert & Fee, Planners
Abe Mitsuda
James T. Yamamoto

Helber Hastert
Planners

April 15, 1996

Dr. Gregory G.Y. Pai, Director
State of Hawaii
Office of State Planning
P.O. Box 3540
Honolulu, Hawaii 96811-3540

Dear Dr. Pai:

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 7, 1996

Thank you for your letter to Ms. Cheryl Soon, Chief Planning Officer, in response to the East Kapolei Project Draft EIS.

As you note in your letter, the East Kapolei Project includes nine acres of an 18-acre intermediate school. The East Kapolei Project is expected to generate between 400 and 600 intermediate school students (grades 7-8) at build-out, about half the enrollment of a typical intermediate school. The remaining intermediate school enrollment is expected to come from surrounding residential areas. As such, the applicant believes that the nine acres provides its fair share of an intermediate school contribution. It is anticipated that the owner of adjacent lands, presumably planned for residential development, would generate its own requirement for intermediate school facilities, and would therefore be requested to contribute its fair share towards completion of the school. In any event, intermediate school facilities will be needed and the applicant is committed to working with DOE to ensure that adequate facilities are available at the appropriate time.

The impacts and mitigation of the drainage flow to West Loch have been summarized in the Final EIS, based on the findings and conclusions of the *Ewa by Gentry-East Drainage Plan Final EIS* (Environmental Communications, October 1995) and the *Ewa by Gentry-East Drainage Plan Environmental Assessment* (Environmental Communications, December 1994).

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

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STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

March 14 1996

MAR 22

Ms. Leslie Kurisaki
Helber Hastert & Fee, Planners
733 Bishop Street, Suite 2590
Honolulu, Hawai'i 96813

Re: Draft Environmental Impact Statement, East Kapolei Project, Ewa, O'ahu, Hawai'i.

Dear Ms. Kurisaki:

Thank you for the opportunity to review the Draft Environmental Impact Statement (DEIS) for the proposed East Kapolei Project at Ewa, O'ahu, Hawai'i. We have the following concerns with about potable water availability and wastewater accommodation.

The developer is proposing a large residential development, yet the DEIS fails to identify whether potable water is available for the project. The issue of water availability is skirted by stating that potential water resources will not be detailed in the document and that the Board of Water Supply will designate the sources of water after allocations of water are set by the Commission on Water Management.

This lack of specific information on water sources appears to reflect risky planning especially considering the scale of development on the Leeward coast and the critical nature of current water supplies. The interests of the community would be better served if the developers immediately ascertain whether the Commission on Water Resource Management will in fact allocate any water for this project.

In addition, OHA has some concern with the need for additional information on wastewater disposal. The DEIS states that the proposed project will ultimately generate an average daily flow of

1.98 mgd of wastewater flow over a 13-year period. There is some uncertainty, however, as indicated on pages 6-6 and 6-8 of the DEIS and again in appendix L as to whether current City and County wastewater systems in the area will be able to accommodate the added wastewater.

We believe that these questions concerning water resources and wastewater management must be answered in the final document. If you have any question or need any additional information, please contact Linda Delaney, Land and Natural Resources Officer or Lynn Lee, EIS Planner at 594-1888.

Sincerely,

Linda M. Colburn
Administrator

cc: Clayton H.W. Hee, Chairperson
Board of Trustees

Kina'u Boyd Kamali'i, Chairperson
Land and Sovereignty Committee

Helber Hastert
Planners

April 15, 1996

Ms. Linda M. Colburn, Administrator
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Blvd., Suite 500
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 14, 1996

Dear Ms. Colburn:

Thank you for your letter dated March 14, 1996 in response to the East Kapolei Project Draft EIS. We have reviewed your comments and offer the following responses:

Water Source

At the present time, firm commitments for water source have not been obtained. In response to your comment about "risky planning," we note that existing procedures for granting water allocations for new development projects vary among the public water agencies in terms of when approvals are given. For example, the Board of Water Supply does not commit water to a specific project until that project has reached the construction plan or building permit stage. The Commission on Water Resource Management, on the other hand, will not process or approve a Water Use Permit until the necessary city zoning permits have been obtained. At this time, the East Kapolei project is not at the stage in the entitlement process where the water agencies will grant an allocation.

The applicant is diligently working to secure sufficient water source for the project. The issue is perceived as a matter of *where* the water will come from and not *whether* the water is available. The developer is confident that it can work together with the Commission on Water Resource Management and City Board of Water Supply to develop an integrated water resource plan to accommodate not only the needs of the East Kapolei project, but also for other developments that are proposed for Ewa. Water source will be clearly identified as an unresolved issue in the final EIS. The FEIS will also include a discussion of potential sources of potable water, current City policies regarding use of non-potable water and potential sources of non-potable water.

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Wastewater

A Wastewater Master Plan has been prepared for the project (Appendix L in the DEIS) and is presently being reviewed by the City Department of Wastewater Management. The City and County will accept all wastewater generated from the project. The only significant issue is timing.

We appreciate your review of the DEIS and your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 · 2550 Campus Road · Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 · Facsimile: (808) 956-3980

March 8, 1995
RE:0671

Ms. Lynn Wong
City and County of Honolulu
Planning Department
650 South King Street
Honolulu, Hawai'i 96813

Dear Ms. Wong:

Draft Environmental Impact Statement (EIS)
East Kapolei Project
Ewa, Oahu

The applicant, Schuler Homes, Inc., is seeking an amendment to the City and County of Honolulu's Ewa Development Plan Land Use Map for the proposed East Kapolei project. The amendment request proposes the redesignation of approximately 742 acres from Agriculture to Low Density Apartment, Parks and Recreation, Public and Quasi-Public and Commercial. In addition, proposed text changes to the Ewa Development Plan Special Provisions are being requested. The proposed project will provide approximately 8,000 residential units to be developed over a 16 year period. Approximately 30 percent of the new homes will be affordable to families earning below 120 percent of the median income. In addition to residential uses, the preliminary concept also includes two elementary school sites, a portion of an intermediate school site; two neighborhood parks, a community park, a greenbelt network and neighborhood-serving commercial shopping areas. This document supersedes a January, 1995 draft EIS and incorporates changes to the project boundaries, the location of schools and various transportation issues.

This review was completed with the assistance of Paul Ekern, Emeritus; Peter Flachsbart, Urban and Regional Planning; Jon Matsuoka, Social Work; Dave Penn, Geography; and Malia Akutagawa and Thomas Hawley, Environmental Center.

General Comments

This document replaces the January, 1995 draft EIS but virtually none of our comments from the earlier document resulted in changes to the new draft EIS. Our comments were substantive and serious at that time and remain so today. We have therefore repeated them here with the hope that they will be taken seriously as planning for the project continues.

Conflicts Over Water Appropriation

We are concerned about the possible conflicts over water appropriation. Attached to the Potable Water Master Plan, Appendix J, is a letter by D.B. Goth of the Estate of James Campbell (dated October 6, 1994) referring to the Ewa Shaft, (EP 15 & 16), suggested as the primary water source for the East Kapolei project. It states that:

> **. . . the Estate intends to reserve all water rights with respect to the lands that Schuler intends to acquire from the Estate for this project. These rights include the ownership and operation of the Ewa Shaft which will be a water source for the Estate's activities . . . loss of the Ewa Shaft through eminent domain or regulation, both, would entitle the Estate to substantial compensation, not only for such loss, also for loss of value to the Estate's surrounding lands . . . we would prefer that you delete any references to the Ewa Shaft as a potential water source.**

Since there is an ensuing conflict between the Board of Water Supply and Campbell Estate over the Ewa Shaft and since other water sources located off-site are currently unavailable (as stated on p. 1 of Appendix J), it seems presumptive for Schuler Homes to have proceeded this far with its development. None of the developer's elaborate plans may be implemented without water. It is difficult to rely on a water plan based on uncertain water sources.

As to the question of eminent domain (that the state may take private property provided it justly compensates the landowner), how does the Board of Water Supply propose to obtain the water rights to the Ewa Shaft? Will the State itself or the developer incur the cost of compensating Campbell Estate for the loss of its water source and diminution in value of its lands?

Climate

Section 4.1 on Climate is inadequate. There is no assessment of evaporation rates and water demands. The document should include estimated changes in air temperature when sugar irrigation operations cease.

Water Needs

Section 4.5 on Groundwater Resources lacks an assessment of the caprock water balance as it relates to changing land uses from a predominantly agricultural area to a residential and commercial one. There has been a series of changes in the caprock water due to sugar cultivation. Furrow irrigation, which was first implemented, operated at 30% efficiency for deep percolation, drip irrigation operated at 80% efficiency, and now with the closing of the sugar industry, recharge will be reduced. Residential and commercial landscaping will contribute very little water to the caprock aquifer.

Appendix G on Impact on Agriculture pays little attention to irrigation needs. The Draft EIS does not mention the implementation of xeriscapes which was suggested by R.H. Sato of the Board of Water Supply in a letter dated January 6, 1995. Recommendation 6 reads, "Water efficient landscaping should be utilized to reduce the irrigation demand." This is important since the Ewa region is relatively dry.

The document completely dismisses the caprock aquifer as a non-potable source for irrigation. Tables 1 and 2 of Appendix J provide balances for potable water only, and these balances are incomplete. If the document refers to the use of 400-500 GPD for irrigating lawns and pools, this value is too small. How realistic are the data presented in these tables? A separate irrigation system is mentioned, but from where will the water be imported? Does water importation from the Waiahole Ditch make an important contribution as a potable and non-potable water resource?

Drainage

More attention needs to be given to drainage and storm water recharge issues in Chapter 6. Recommendations for using and retaining storm water for irrigation should be included. Mention was made of detention basins for retaining water for silt deposition, but will this water also be used for recharge? Natural ravines or grassways should be used instead of concrete channels. In doing so, natural processes will be utilized to facilitate draining with a greater likelihood of increasing ground water recharge in the area and mitigating impacts on ocean and shoreline resources at points of discharge.

Air Quality and Traffic

More recent data than September 1988 should be used in deriving automotive emission factors for CO for the years 2005 and 2011 (Appendix I, p. 13). We concur with the developer that traffic problems will be alleviated so long as it complies with the recommendations set forth in the Traffic Impact Assessment Report (Appendix K, p. 37-8).

It is unclear in the Draft EIS what type of street pattern will be used for this project. We assume that an arterial street will be constructed to keep traffic out of residential streets, thereby insuring a more quiet, peaceful neighborhood atmosphere, and keeping developer costs down. The downside of this arterial design is that it encourages traffic overload on arterial streets and discourages bus service, bicycling, and pedestrian activity in the area. Thus, the recommendation set forth in the draft EIS may be defeated by such a design.

We suggest that the developer would be more successful in mitigating traffic impacts by engaging in neo-traditional town planning principles through the development of a grid type street network. Other states have favored this model. (For more information, see Toward the Architecture of Community: New Urbanism by Peter Katz). We realize that development costs would increase with the utilization of this model but it is more cost effective in the long run, will provide an incentive for home buyers to settle in Kapolei, and will encourage alternate methods of transportation, namely carpooling and bus services, bicycling and pedestrian activity.

Bike paths placed on main connector streets is a good idea. More connections between the project site and the proposed university campus will also aid in alleviating traffic problems.

Socio-Economic Environment

Overall, Chapter 5 on the Socio-Economic Environment was adequate. However, quality of life issues were not addressed. How will the housing divisions be designed to enhance community cohesion?

This section also mentioned the State's plan to build the University of Hawai'i, West Oahu campus adjacent to the Kapolei project site. Now that it is unlikely that the university project will be approved, what are the implications in regards to the East Kapolei development? Will it alter traffic estimates? How will potential businesses and the community-at-large be affected?

Conclusion

Given that this is a new draft EIS which supersedes a January, 1995 document, we are concerned that so few of our earlier comments were incorporated into the new version. The public review process is designed to allow for project modifications based on public input. To prepare an entirely new draft EIS without accommodating such input violates both the spirit and the intent of the environmental impact review process. We are dismayed that the developer neglected the opportunity to update the project at this relatively early stage. We sincerely hope that all received suggestions will be taken seriously in the final EIS.

Thank you for the opportunity to comment on this draft EIS.

Sincerely,

John T. Harrison
Environmental Coordinator

cc: OEQC
Schuler Homes, Inc.
Helber Hastert & Fee, Planners
Roger Fujioka
Paul Ekern
Peter Flachsbart
Jon Matsuoka
David Penn
Malia Akutagawa
Thomas Hawley

Helber Hastert
Planners

April 11, 1996

Mr. John T. Harrison
Environmental Coordinator
University of Hawaii at Manoa
Environmental Center
Crawford 317, 2550 Campus Road
Honolulu, Hawaii 96822

Dear Mr. Harrison:

East Kapolei Project, Ewa, Oahu, Hawaii
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 8, 1996

Thank you for your letter to Ms. Lin Wong, City and County of Honolulu Planning Department, dated March 8, 1996 responding to our request for comments on the above-referenced DEIS. We have reviewed your comments and offer the following responses:

General Comments

You note that this document replaces the January 1995 Draft EIS and that your comments to that earlier document were not addressed.

Please be advised that this document supersedes the April 1995 Final EIS for East Kapolei accepted by the Planning Department on May 11, 1995, not the January 1995 Draft EIS. The issues raised in your March 9, 1995 letter *were* addressed in our response letter to you dated April 7, 1995 and included in the April 1995 Final EIS. We apologize that the information was not incorporated into the text of the DEIS.

We have updated our responses to your concerns:

Conflicts Over Water Appropriation

As noted in the DEIS, the applicant continues to work to secure sufficient water source for the project. At the present time, firm commitments for water source have not been obtained, and water source remains an unresolved issue. As you note, none of the developer's plans can be implemented until a source is identified, and water commitments can and will be obtained.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

The developer's options for water source are discussed in the FEIS, including allocation from within the Pearl Harbor Water Management Area and development of other groundwater sources (i.e., north sector, windward sector).

Climate

Evaporation on the Ewa plains has heretofore only been significant for the purposes of monitoring and estimating water needs for sugarcane crops. We do know that evaporation levels on the Ewa plain are high and primarily driven by wind energy. Due to the fact that the tradewinds will continue to be the primary influence on the climate in the area, it is not anticipated that development of the site will significantly impact regional climatic conditions.

The change in land use from a predominantly agricultural use to a residential use in part results from the closure of Oahu Sugar Company, which has already occurred without the influence of the proposed project. The urbanization of the area will significantly alter the microclimate of the project area from one associated with agriculture to one associated with a fully-developed residential area. Changes in air temperature and/or groundwater recharge which occur when sugar operations cease are not attributable to the East Kapolei development.

Water Needs

The East Kapolei project is will not have a significant negative impact on the caprock water balance. This statement is primarily based on the fact that during the peak sugar production periods on the Ewa plains, the water requirement from the caprock aquifer needed for sugarcane irrigation was between 14 and 16 mgd. Currently, this demand has reduced to 0 mgd with the cessation of sugarcane cultivation. It has been estimated that if all the non-potable land uses on the Ewa plains were developed and served with caprock aquifer water, the total demand could be 8 mgd (Tom Nance, Water Resource Engineering). Presently, only a small portion of this non-potable requirement is in place.

The methods by which the caprock aquifer is recharged are rainfall, irrigation and basalt leakage. Researchers such as T. Giambellucca, UH Water Resources Research Center, have studied Central Oahu and the Ewa Plains and have suggested that recharge through residential irrigation and commercial irrigation can be significant in dry areas. In particular, recharge potential was measurable as compared to areas where no irrigation was occurring (i.e., fallow sugarcane fields).

The residential areas of the East Kapolei project do not require the use of non-potable water. However, current City policies require non-potable (dual) systems for irrigation be provided for the project's schools, parks, commercial areas and along major roadways. Several options

for non-potable water are being considered, including reuse of effluent from Honouliuli Wastewater Treatment Plant, the Ewa caprock aquifer and the brackish basal aquifer. These options are discussed in the FEIS.

The proposed use of reclaimed wastewater for irrigation provides significant potential for recharge of the caprock aquifer, which could restore it as a future source of non-potable water. The City is currently planning a pilot project to study the potential for aquifer recharge with treated reclaimed water, as well as to evaluate the water quality impacts of effluent use within the lower Ewa plain region. Pending the results of this pilot project, the caprock could receive recharge of up to 13 mgd, restoring it as a source of non-potable water for East Kapolei.

Drainage

Natural ravines and grassways rather than concrete channels have been incorporated where practical, i.e., in the lower sections of the drainage channel connecting to the Ewa by Gentry-East detention basin. In the upper (mauka) sections of the project area, the overall grades involved and the relatively large volume of upland stormwater, would require the grass swales to be extremely wide to avoid exceeding the maximum velocity of 5 feet per second, in accordance with City Department of Public Works standards. This would encompass a tremendous land area, reducing the area available for residential units, and is not a feasible alternative.

Air Quality

The age distribution of registered vehicles in Honolulu has not exhibited great variation over the years, and therefore does not have a significant impact on computed emission factors. In response to your comment, our air quality consultant (Jim Morrow) obtained March 1992 data and reran the emissions model. The results indicated less than a 0.5 percent difference, leading to the conclusion that there would be no significant change in the study's findings or conclusions by using more recent data.

Traffic

Major circulation elements within the project area include four arterials proving access to regional roadway network and the outer ring road which provides access to neighborhoods within the project. The roadway network serving the area within the outer ring road has been intentionally been designed to favor local access, provide a more pedestrian/bicycle-friendly environment, and to prevent vehicular short-cutting, speeding and commuter-oriented peak hour trips through the central area. Over 50 percent of the project's 22,400 residents will live within the outer ring road, within a five minute walk of the central district park and adjacent

neighborhood-serving retail uses. Bikeways are planned to facilitate non-vehicular (bike and pedestrian) circulation. Bus service can also be included to serve the major use areas of the project such as the multi-family and commercial areas.

The proposed plan implements neo-traditional town planning concepts articulated in the City's draft revisions to the Ewa Development Plan (City Planning Department, June 1995). The plan promotes a strong pedestrian orientation by clustering neighborhood serving facilities (elementary schools, neighborhood parks, commercial uses) within relatively short walking distances of the respective service areas, through the introduction of traffic calming design features (e.g., the proposed loop road around the central district park). Unlike traditional planned communities, the roadway network is designed to provide the motorist with multiple roadway choices, distributing rather than concentrating vehicular movements.

While the retail, office and government (employment) center in the City of Kapolei is beyond walking distance from East Kapolei, the project will serve to focus commuter trips there, away from the Primary Urban Center.

Socio-Economic Environment

Quality of life issues are thoroughly addressed in the Socio-Economic Impact Assessment by Community Resources, Inc. (CRI) (Appendix E of the EIS) and summarized in Chapter 5 of the EIS. Chapter 5 of the CRI report addresses the questions of area resident's sense of compatibility of the project with surrounding land uses, and quality of life impacts are systematically addressed in Chapter 6.

Although the Governor has identified an alternative site for the University of Hawaii-West Oahu campus mauka of the H-1 Freeway, at the time of the study, that proposal was yet to be approved by the Legislature. The site to the west of East Kapolei has been regarded as the "official" site, and was therefore retained in the EIS analysis. Development of the University at either site will not impact the feasibility of the East Kapolei project.

If the University moves to the mauka site, the differences in traffic flow from the East Kapolei project onto North-South Road will be right turns instead of straight through movements in the morning (am) and left turns instead of straight throughs in the afternoon (pm). We do not know at this preliminary stage of planning what, if any, changes would be needed for intersection layouts. As you know, the anticipated schedule for completion of the university has also been the subject of recent discussion. Given that the timing and scope of university improvements is still unknown, as well as what land uses will be developed at the "old" university site, an assessment of impacts on potential business and the community at large are

problematic at best, and in any event, unrelated to and beyond the scope of the East Kapolei project.

Conclusion

As stated earlier, all of your previous comments (March 9, 1995) *were* addressed in our response dated April 7, 1995 and included in the April 1995 FEIS. Please be assured that your comments were taken seriously, and it was not our intent to ignore your input.

Your recent March 8, 1996 letter will be reproduced in the Final EIS. We will also ensure that your comments are incorporated into the text of the forthcoming FEIS.

Thank you for your review of the DEIS and for your input.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

1/96 0265

BUILDING DEPARTMENT

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI
DIRECTOR AND BUILDING SUPERINTENDENT

ISIDRO M. BAQUILAR
DEPUTY DIRECTOR AND BUILDING SUPERINTENDENT

PB 96-62

To: Leslie Kuiwaki
Helen Hastert
& Fee
Fax: 545-2050
Tm: Lin Wong
Fax: 523 4955

January 30, 1996

MEMO TO: CHERYL SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

FROM: RANDALL K. FUJIKI
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: EAST KAPOLEI PROJECT - DRAFT ENVIRONMENTAL ASSESSMENT

We have reviewed the subject report and have no comments to offer.

George Tamashiro
for RANDALL K. FUJIKI
Director and Building Superintendent

cc: G. Tamashiro

Helber Hastert
Planners

April 8, 1996

Mr. Randall K. Fujiki
Director and Building Superintendent
Building Department
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Memo dated January 30, 1996

Dear Mr. Fujiki:

Thank you for your memorandum to Ms. Cheryl Soon, Chief Planning Officer, dated January 30, 1996 in response to the East Kapolei Project Draft EIS. We note that you have no comments to offer.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545 2055
Facsimile 808 545 2050

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU

COPY

March 8, 1996

MAR 12

TO: CHERYL D. SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

ATTN: LIN WONG

FROM: RAYMOND H. SATO, MANAGER ~~AND CHIEF~~ ENGINEER
BOARD OF WATER SUPPLY

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE EAST KAPOLEI PROJECT, EWA, TMK: 9-1-19: PORTION 04; 9-1-18: PORTION 01; 9-2-02: PORTION 01; 9-2-04: PORTION 05; 9-1-10: PORTION 02; (DP AREA: 9-1-17: PORTION 04; 9-1-18: PORTION 01

Thank you for the opportunity to review and comment on the DEIS for the subject project. We have the following comments to offer:

1. The developer will be required to install the necessary source, storage and transmission facilities to serve the development. The revised East Kapolei Water Master Plan should be submitted for our review and approval. All required water infrastructure should be addressed by the master plan including hydraulic calculations for peak pressures and fire flows.

   The projected water demands should account for the Board of Water Supply (BWS) requirement for nonpotable water sources to serve large landscaped areas such as schools, parks and roadways. The final EIS should be revised to include the approved water master plan or the most current version.

2. The BWS Rules and Regulations require nonpotable water as the first option for an irrigation source for large landscaped areas. Therefore, a dual water system should be thoroughly investigated to provide nonpotable water for irrigation of large landscaped areas, such as schools, parks and roadways. A nonpotable water master plan should be submitted to BWS if the nonpotable water system will be dedicated to BWS. Provisions in the final EIS should indicate the possibility of a dual water system due to the caprock resource in the project area.

3. The proposed project is subject to our cross-connection control requirements prior to the issuance of the building permit. BWS approved reduced pressure principle backflow prevention assemblies will be required after all domestic water meters serving lots with dual water systems.

If you have any questions, please contact Barry Usagawa at 527-5235.

cc: Office of Environmental Quality Control
Schuler Homes, Inc.
Helber Hastert and Fee, Planners

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843
PHONE (808) 527-6180
FAX (808) 533-2714

Date Received APR 19 1996
File 2479-1
To: DH 132 DB
Action: 4-19-96
cc: Schuler
FB: Holber Hastert Fee

JEREMY HARRIS, Mayor
WALTER O. WATSON, JR., Chairman
MAURICE H. YAMASATO, Vice Chairman
KAZU HAYASHIDA
MELISSA Y.J. LUM
FORREST C. MURPHY
KENNETH E. SPRAGUE
BARBARA KIM STANTON
RAYMOND H. SATO
Manager and Chief Engineer

April 17, 1996

Mr. Daniel S. C. Hong
Gray, Hong, Bills & Associates, Inc.
119 Merchant Street, Suite 607
Honolulu, Hawaii 96813-4499

Dear Mr. Hong:

Subject: Your Letter of February 23, 1996 Regarding the Addendum Report for the East Kapolei Project Water Master Plan

Thank you for your letter regarding the Addendum Report for the East Kapolei Potable Water Master Plan.

We approve the Addendum Report with the following conditions:

1. A potable water source is a requirement of the development. The Board of Water Supply will assist the developer in designating and locating a potable water source.

2. A transmission main from the potable water source to the development is required.

3. The applicant should investigate the availability and use of nonpotable water for irrigation. If nonpotable water is not available or its use is not feasible, a report of the investigation should be submitted to us before we will consider the use of potable water for irrigation.

If you have any questions, please contact Joseph Kaakua at 527-6123.

Very truly yours,

Raymond H. Sato

RAYMOND H. SATO
Manager and Chief Engineer

Helber Hastert
Planners

April 25, 1996

Mr. Raymond H. Sato, Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96843

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Memo dated March 8, 1996

Dear Mr. Sato:

Thank you for your memorandum to Ms. Cheryl Soon, Chief Planning Officer, dated March 8, 1996 in response to the East Kapolei Project Draft EIS, and for your letter dated April 17, 1996 to Gray Hong Bills & Associates conditionally approving the Potable Water Master Plan. We have the following responses to your DEIS comments:

1. The applicant intends to construct the necessary source, storage and transmission facilities to serve the project. Copies of the revised *East Kapolei Water Master Plan* have been submitted to your office for review. We note that per your April 17, 1996 letter to Gray Hong Bills & Associates, the BWS has approved the Addendum Report, subject to the conditions listed.

2. The project's school and park sites, the primary potential users of non-potable water, will be dedicated to the Department of Education (DOE) and Department of Parks and Recreation (DPR), respectively, and the applicant has no direct control over the scheduled development of these sites.

   The FEIS includes a review of current City and State policies requiring the establishment of dual water systems for irrigation and other appropriate uses. It summarizes the applicant's investigation into the possibility of a dual water system for irrigation of large landscaped areas such as the schools, parks, commercial areas and along roadways. The FEIS includes a discussion of this, and potential sources of non-potable water for the project, including use of 1) treated wastewater effluent from Honouliuli WWTP; 2) Ewa caprock aquifer; and 3) brackish basal aquifer.

   The technical and financial feasibility of each of the options, as well as timing of the development of the parks and schools, will have a major influence on the option selected. The applicant will coordinate with the DOE and DPR in development of the non-potable

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

water system, and will work with adjacent landowners to explore the possibility of a regional non-potable system .

3. We understand the project is subject to your cross-connection control requirements prior to the issuance of the building permit.

We appreciate your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425
HONOLULU, HAWAII 96819-1869

JEREMY HARRIS
MAYOR

ANTHONY J. LOPEZ, JR
FIRE CHIEF

ATTILIO K. LEONARDI
FIRE DEPUTY CHIEF

February 6, 1996

RECEIVED
FEB 8 1996

TO: CHERYL D. SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

FROM: ANTHONY J. LOPEZ, JR., FIRE CHIEF

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
EAST KAPOLEI PROJECT - EWA, OAHU
TMK: 9-1-19: POR. 04; 9-1-18: POR 01; 9-2-02: POR 01;
9-2-04: POR 05; AND 9-1-10: POR 02

We have reviewed the subject material provided and have no additional comments.

Should you have any questions, please call Assistant Chief Arthur Ugalde of our Administrative Services Bureau at 831-7774.

ANTHONY J. LOPEZ, JR.
Fire Chief

AJL/PHG

cc: Schuler Homes, Inc. (Mike Angotti)
Helber Hastert & Fee, Planners (Ms. Leslie Kurisaki)
Office of Environmental Quality Control w/report

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET, SUITE H425
HONOLULU, HAWAII 96819-1869

JEREMY HARRIS
MAYOR

ANTHONY J. LOPEZ, JR.
FIRE CHIEF

ATTILIO K. LEONARDI
FIRE DEPUTY CHIEF

February 6, 1996

RECEIVED
FEB 8 1996

TO: CHERYL D. SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

FROM: ANTHONY J. LOPEZ, JR., FIRE CHIEF

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
EAST KAPOLEI PROJECT - EWA, OAHU
TMK: 9-1-19: POR. 04; 9-1-18: POR 01; 9-2-02: POR 01;
9-2-04: POR 05; AND 9-1-10: POR 02

We have reviewed the subject material provided and have no additional comments.

Should you have any questions, please call Assistant Chief Arthur Ugalde of our Administrative Services Bureau at 831-7774.

ANTHONY J. LOPEZ, JR.
Fire Chief

AJL/PHG

cc: Schuler Homes, Inc. (Mike Angotti)
Helber Hastert & Fee, Planners (Ms. Leslie Kurisaki)
Office of Environmental Quality Control w/report

Helber Hastert
Planners

April 8, 1996

Chief Anthony J. Lopez, Jr., Fire Chief
Fire Department
City and County of Honolulu
3375 Koapaka St., Suite H425
Honolulu, Hawaii 96819-1869

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 6, 1996

Dear Chief Lopez:

Thank you for your memorandum to Ms. Cheryl Soon, Chief Planning Officer, dated February 6, 1996 in response to the East Kapolei Project Draft EIS. We note that you have no additional comments. We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545 2055
Facsimile 808 545 2050

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 5TH FLOOR
HONOLULU, HAWAII 96813
PHONE: (808) 523-4427 • FAX: (808) 527-5498

JEREMY HARRIS
MAYOR

RONALD S. LIM
DIRECTOR

ROLAND D. LIBBY, JR.
DEPUTY DIRECTOR

March 7, 1996

MAR 11

MEMORANDUM

TO: CHERYL D. SOON, DIRECTOR
PLANNING DEPARTMENT

FROM: ROLAND D. LIBBY, DIRECTOR

SUBJECT: EAST KAPOLEI PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
TAX MAP KEY: 9-1-17: 04 (POR.); 9-1-18: 01 (POR.); 9-2-02:01 (POR.); 9-2-04: 05 (POR.); and 9-1-10: 02 (POR.)
EWA, OAHU

This is in response to the Office of Environmental Quality Control's request to review and comment on the East Kapolei Project DEIS.

The Department of Housing and Community Development (DHCD) has no objections to the use of the former Cane Haul Road (Balfour Boulevard) as the route connecting to DHCD's existing 4-acre detention basin and the proposed Ewa by Gentry-East open drainage channel, located east of the West Loch Fairways subdivision. If possible, the Department would prefer the drainage channel to be constructed of "rip-rap" instead of the proposed reinforced concrete rectangular channel. We would also like to request that the plans for the drainage channel and the unused portion of the road be circulated to the DHCD, Department of Parks and Recreation (DPR) and Department of Public Works for review and approval before any construction begins.

The Department also agrees with the construction of the pedestrian overpass connecting West Loch Fairways with Asing Park. The DHCD would like to request that the Developer contact the DPR who will maintain Asing Park, the abutting owners and those who will benefit from the pedestrian link to receive their comments and approval before constructing the overpass.

The Department understands that 30% of the units will be affordable to families earning between 80 and 120 percent of the median income. The DHCD would like to request that 10 percent of the housing units to be developed be made affordable to households with incomes below 80 percent of Oahu's median income and that an additional 20 percent of the total be made affordable to families with incomes

between 81 and 120 percent of Oahu's median income. Please have the developer contact our Housing Development Division at 523-4264 to discuss a program acceptable to DHCD.

Please feel free to contact Jason Ching of the Planning and Analysis Division at 523-4368 if you have any further questions.

Thank you for the opportunity to comment.

ROLAND D. LIBBY
Director

cc: Mike Angotti, Schuler Homes, Inc.
✔Leslie Kurisaki, Helber Hastert & Fee, Planners
Department of Parks and Recreation
Department of Public Works

Helber Hastert
Planners

March 28, 1996

Mr. Roland D. Libby, Director
Department of Housing and Community Development
City and County of Honolulu
650 S. King Street, 5th Floor
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Memo dated March 7, 1996

Dear Mr. Libby:

Thank you for your memorandum to Ms. Cheryl Soon, Chief Planning Officer, dated March 7, 1996 in response to the East Kapolei Project Draft EIS. We have reviewed your comments and offer the following responses:

Drainage Issues

1. We acknowledge that the DHCD has no objection to the use of the former cane haul road (Balfour Boulevard) as the route connecting to the existing detention basin and proposed Ewa by Gentry-East drainage channel.

2. A trapezoidal rip-rap channel was considered as an alternative to the concrete rectangular channel but was eliminated due to both cost constraints and to minimize land use (and maximize land available for park use).

3. Plans for the channel and related improvements will be submitted to DHCD, the Department of Public Works and the Department of Parks and Recreation for review and comment prior to start of construction.

4. The developer has submitted copies of the drainage plan, including plans for the pedestrian overpass, to the Department of Parks and Recreation for review and comment. The applicant will consult with the Department of Parks and Recreation and abutting land owners on the construction of the overpass as more definitive plans are developed.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

Affordable Housing Issues

The applicant intends to comply with the City's affordable housing requirements and looks forward to working with your department in developing an acceptable program.

We appreciate your review of the DEIS and your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department

DEPARTMENT OF HUMAN RESOURCES
CITY AND COUNTY OF HONOLULU
STANDARD FINANCE PLAZA
715 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

SALVATORE S. LANZILOTTI, ED.D.
DIRECTOR

Michael Amii
DEPUTY DIRECTOR

ADMINISTRATION
2ND FLOOR· (808) 527-5311
FAX: (808) 523-4074

ELDERLY AFFAIRS DIVISION
HONOLULU COMMITTEE ON AGING
5TH FLOOR: (808) 523-4761

WORKHAWAII DIVISION
5TH FLOOR: (808) 523-4102

SPECIAL PROJECTS SECTION
HONOLULU COUNTY COMMITTEE ON THE STATUS OF WOMEN
MAYOR'S COMMITTEE FOR PERSONS WITH DISABILITIES
MAYOR'S CHILD CARE ADVISORY BOARD
5TH FLOOR: (808) 527-6264

March 8, 1996

em

MEMORANDUM

MAR 14

TO: CHERYL SOON, DIRECTOR AND CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

ATTN: LIN WONG

FROM: SALVATORE S. LANZILOTTI, Ed.D., DIRECTOR
DEPARTMENT OF HUMAN RESOURCES

SUBJECT: EAST KAPOLEI PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

The Department of Human Resources has reviewed the subject matter cited above and offers the following comments:

> In our previous comments on this project (*memorandums of February 24, 1995, April 13, 1995 & December 22, 1995*), we requested that the applicant dedicate land and/or funds to the City for the construction of a facility to house social programs and services for residents of its projected 8,000 dwelling units.
>
> While the applicant in its letter of January 8, 1996 agreed that the availability of social services would greatly enhance the quality of life within a multi-generational community, being that the East Kapolei project would be a primarily residential development, they felt that it would not be an appropriate location for regional social service facilities. The applicant further stated that the proposed University of Hawaii West Oahu campus is likely to include a child care center and may be a more appropriate location for other social service facilities as well.

Should the University of Hawaii West Oahu include a child care center on its campus, this facility will primarily service children of the University's faculty and student populations. Secondly, universities are traditionally academic and research-oriented as opposed to social service delivery institutions. In so far as the residents of the community would be benefitted by the type of services that social &/or human service programs provide, we do not feel that it would be inappropriate for programs of this nature to be located in residential developments.

We however do concur with the applicant's summation that the provision of land and/or funding for social services and facilities are a regional responsibility that should be shared by the Ewa community at large as well as by the public and private sectors. Please be informed that our comments concerning the East Kapolei project are consistent with our review of other major residential projects throughout the City & County of Honolulu. Consequently, we have held discussions with and secured commitments from other private developers and community-based organizations with respect to providing social and/or human service programs for other communities on Oahu to include the Ewa region. We therefore would welcome the opportunity to discuss this matter with the applicant in order to seek their assistance in addressing the social and human service needs of the Ewa community.

If you have any questions or require further information concerning our comments, please direct your inquiries to Mr. Ernie Martin of our department's *Special Projects Division* at X-6264.

Thank you for the opportunity to comment on this matter.

c: Brian J.J. Choy, Director
Office of Environmental Quality Control
Mike Angotti
Schuler Homes, Inc.
Leslie Kurisaki
Helber Hastert & Fee, Planners

a:\ekapolei.cis

Helber Hastert
Planners

April 8, 1996

Dr. Salvatore S. Lanzilotti, Director
Department of Human Resources
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Memo dated March 8, 1996

Dear Dr. Lanzilotti:

Thank you for your memorandum to Ms. Cheryl Soon, Chief Planning Officer, dated March 8, 1996 in response to the East Kapolei Project Draft EIS. We acknowledge your comment that social programs and services, including child care, could be appropriately located in residential developments. The developer looks forward to discussing these matters with your department, and will assist other private developers and community organizations in addressing the social and human service needs of the Ewa community.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department

Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
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DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4432

JEREMY HARRIS
MAYOR

PATRICK T. ONISHI
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

96-00517(DT)

March 20, 1996

MAR 22

Ms. Leslie Kurisaki
Helber Hastert & Fee
Grosvenor Center, Makai Tower
733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Dear Ms. Kurisaki:

Draft Environmental Impact Statement (DEIS)
East Kapolei Project, Ewa, Oahu
Tax Map Key: 9-1-17: por. 04

Thank you for the opportunity to review the above-described DEIS. We have no additional comments to offer.

Should you have any further questions, please contact Dana Teramoto of our staff at 523-4648.

Very truly yours,

PATRICK T. ONISHI
Director of Land Utilization

PTO:am

cc: Planning Department

kapolei.djt

Helber Hastert
Planners

April 8, 1996

Mr. Patrick Onishi
Director of Land Utilization
Department of Land Utilization
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 20, 1996

Dear Mr. Onishi:

Thank you for your letter dated March 20, 1996 in response to the East Kapolei Project Draft EIS. We note that you have no comments to offer.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department

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2/96-0435
1/2/CFPD

DEPARTMENT OF PARKS AND RECREATION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

DONA L. HANAIKE
DIRECTOR

ALVIN K.C. AU
DEPUTY DIRECTOR

February 12, 1996

TO: CHERYL D. SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

ATTENTION: LIN WONG

FROM: DONA L. HANAIKE, DIRECTOR

SUBJECT: DRAFT EMVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE EAST KAPOLEI DEVELOPMENT PROJECT, EWA, OAHU, HAWAII
TAX MAP KEYS 9-1-019:004 (POR.)
9-1-018:001 (POR.)
9-2-002:001 (POR.)
9-2-004:005 (POR.)
9-1-010:002 (POR.)

We have reviewed the DEIS for the above-described project and make the following comments.

The project does not meet our department's requirements. The development's estimated population of 24,000 residents will have a severe impact on existing park facilities and services in the Kapolei area.

Our concerns were discussed with Mr. Mike Angotti of Schuler Homes, Inc. and Mr. Tom Fee of Helber Hastert & Fee during two separate meetings at our office on November 30, 1995 and again on December 13, 1995.

Our concerns are as follows:

1. The project does not meet our park space standard of two (2) acres of "active" recreational park space for every 1,000 residents. Active recreational facilities would include tennis courts, volleyball courts, basketball courts, softball fields, baseball fields, and football fields.

We estimate that Schuler Homes, Inc. would need to provide a total of 48 acres of "active" recreational space. While the report notes that additional open space and park areas will be provided in the form of greenbelts and private recreational areas, we do not consider greenbelts or open space to be "active" recreation space. The public is demanding more active recreation facilities such as playfields and playcourts and <u>not</u> more open space.

2. The project of this size will also require a district park for the 24,000 residents. The community park, which Schuler proposes, is intended to serve approximately 10,000 residents and will not have the type of facilities that would normally be provided in a district park. District park facilities would generally include a gymnasium, recreation complex, swimming pool, playfields, and courts.

   As we explained to Mr. Angotti, a district park would require at least 20 acres and should be able to serve the 24,000 residents.

3. There is no "active" recreational facilities to serve the 82-acre mauka residential area which lies between Farrington Highway and the H-1 Freeway. The three proposed public parks are all located in the makai portion of the project and would not be readily accessible from the mauka residential portion.

4. We are concerned that the major one-way loop road combined with the diagonal vehicular parking system would create a potentially dangerous situation for park users trying to access the community park. Traffic congestion will also be aggravated by the commercial areas surrounding the park. A traffic study would need to be done to ensure pedestrian safety, especially for the younger park users.

The statement on page 3-10, Section 3.2.5, **Recreational Resources**, notes, "The project will not have an impact on the ocean recreational resources." This is incorrect. The 24,000 population <u>will</u> have a significant impact on the ocean recreational resources.

The final EIS should state that the East Kapolei Development project, as proposed, does not provide adequate park space to meet our minimum park requirements.

Thank you for the opportunity to review this project.

Should you have any questions, please contact Lester Lai of our Advance Planning Branch at 523-4696.

For DONA L. HANAIKE
Director

DLH:ei

cc: Office of Environmental Quality Control
Schuler Homes, Inc. (Mike Angotti)
Helber Hastert & Fee (Leslie Kurisaki)

Helber Hastert
Planners

April 25, 1996

Ms. Dona L. Hanaike, Director
Department of Parks and Recreation
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Memo dated February 12, 1996

Dear Ms. Hanaike:

Thank you for your memorandum to Ms. Lin Wong, Planning Department, dated February 12, 1996 in response to the East Kapolei Project Draft EIS

Concerns identified in your letter (items 1 through 4) include: the park space standard of two acres of active park for every 1,000 residents; need for a district park; the lack of active recreational facilities to serve the "mauka" residential area; and pedestrian safety around the park. All of these issues were subsequently discussed in a meeting between the project developer and members of your staff on February 29, 1996.

The following items were discussed and mutually agreed upon at that meeting:

Dedicated County Parks

- The project's proposed "central park" will be increased in size from 16 to 20 acres to meet your department's district park standard. This larger size will provide sufficient acreage for a gymnasium and recreation center. The Department supports the central park concept, and initial concerns over the proposed loop road around the park are being resolved by keeping posted traffic speeds low (e.g., 15 mile per hour speed limit around the park), internalizing the park parking instead of using on-street diagonal parking, and an overall roadway circulation plan which will minimize through traffic from transiting the area.
- The two neighborhood parks (each adjacent to an elementary school) will be reduced from eight acres to six acres each to compensate for the increased size of the "central" park. Six acres meets DPR size requirement for a neighborhood park.
- A new two- to three-acre park area (of sufficient size to meet Park Dedication Ordinance requirements associated with the *mauka* parcel) will be set aside to serve the *mauka* residential area. Conceptually, the park will be sited along the parcel's western boundary, to allow for future expansion by the adjacent landowner.

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Facsimile 808 545-2050

- Park Dedication Ordinance (PDO) requirements, currently estimated at about 31 acres based on 8,000 homes in a 1/4 single family, 3/4 multi family mix, will be met by the provision of sites for the 20 ac. central park, two 6-acre neighborhood parks, and a 2- to 3-acre park within the *mauka* parcel.

Development Plan Common Provisions/Parks Department Standards

The project will meet the DP Common Provisions/DPR park standard of two acres per thousand population. The bulk of this acreage will be provided in the form of dedicable County parks as discussed above. The balance will be provided in the form of private mini-parks located throughout the project.

Other Issues

Concerns over pedestrian safety in the vicinity of the central park were also expressed in your letter. The loop road surrounding the park has been designed for local access only, in order to reduce vehicle speeds. Park parking areas will be separated from the loop road right-of-way, and pedestrian barriers along the park perimeter and raised pedestrian crosswalks are being recommended to increase pedestrian safety.

Finally , your letter notes that the 24,000 population "will have a significant impact on ocean recreational resources." The East Kapolei project will increase the population in the Ewa region, and as such, is likely to increase the use of public beaches in that region. The project will not bring *additional* people into the City and County of Honolulu, but rather "redistribute" the existing population. Therefore, while the new East Kapolei residents may increase the overall use of Ewa area beaches, there should be a corresponding drop in the use of beaches they currently utilize.

We appreciate your review and comments on the DEIS, and the input and advise we have received from your staff over the past several months. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

CHERYL D. SOON
CHIEF PLANNING OFFICER

CAROLL TAKAHASHI
DEPUTY CHIEF PLANNING OFFICER

LW

March 14, 1996

RECEIVED
MAR 18

Helber Hastert & Fee, Planners
733 Bishop Street, Suite 2590
Honolulu Hawaii 96813

Attention: Ms. Leslie Kurisaki
Senior Associate

Gentlemen:

Comments to the Draft Environmental Impact Statement
East Kapolei Project, PD No. 96/E-1
TMKs: 9-1-17: Por. 4 & 9-1-18: Por. 1, Ewa, Oahu

We have reviewed the subject Draft Environmental Impact Statement (DEIS) and offer the following comments.

Transportation and Traffic Impacts

The Final Environmental Impact Statement (FEIS) should address the issue of timing and construction of proposed improvements to Farrington Highway and the North-South Road as they relate to the development of this project. The DEIS states that initial phases of the project are not dependent on the North-South Road and that the actual development timing of the road is beyond the developer's control. We note that the issue of timing may be critical due to currently limited capacity of Farrington Highway and other regional roadways to accommodate potential traffic generated by the East Kapolei project. The FEIS should include a schedule of anticipated vehicular demand due to the project and indicate how it compares with the proposed implementation timetable and resultant traffic capacities of these regional transportation facility improvements (1995-2000 for Farrington Highway improvements and 2001-2005 for the North-South Road as stated in the Oahu Regional Transportation Plan).

It is our understanding that discussions are on-going with the Department of Transportation Services (DTS) to address their concerns and comments to the DEA, some of which are reiterated in their comments to the DEIS. The FEIS should address these issues and provide updated information on mitigative measures and/or revised roadway plans, if any, to minimize safety concerns.

Water Supply

Water supply for the proposed project remains unresolved at this time. The water report in the DEIS continues to identify the Ewa Shaft (EP 15 and 16) as a possible water source for the proposed project, although that is uncertain due to conflicts between BWS and Campbell Estate regarding the use of the Ewa Shaft. Furthermore, the Addendum Report for the East Kapolei Potable Water Master Plan does not identify possible sources of water supply for the proposed project. The FEIS should discuss whether or not a viable water source for the project can be secured by the developer within the projected timeframe.

The Board of Water Supply (BWS) has asked that a revised East Kapolei water masterplan be submitted for their review and comment. We recommend that discussions be held with BWS regarding the revised masterplan.

The DEIS states that, as a residential project, the East Kapolei development is not required to use non-potable water. We note that the BWS Rules and Regulations require nonpotable water as the first option for an irrigation source for large landscaped areas, including schools, parks, and roadways. Developers of masterplanned projects are required to thoroughly investigate this option and provide for the installation of dual water systems for distribition of nonpotable water to these sites, if such an option is avialable and selected.

The DEIS states that the school and park sites will be dedicated to the Department of Education (DOE) and Department of Parks and Recreation (DPR), respectively, which will be responsible for use of nonpotable water in their development. However, as DOE and DPR will only accept land with site improvements, including water supply, it is the developer's responsibility to examine the possibility of a dual water system and explore nonpotable water resources. The FEIS should indicate the possibility of a dual water system for the project due to the caprock resource in the project area.

Drainage

Based on concerns and comments expressed by a number of agencies, we recommend that the FEIS provide additional information on drainage, including potential project impacts on the proposed Ewa by Gentry-East drainage facilities and West Loch drainage basin.

The proposed off-site drainage channel is linked to the proposed Ewa by Gentry-East detention basin and outlet. The DEIS states that the impact of the runoff from the Ewa by Gentry-East detention basin to the West Loch has been addressed in the Ewa by Gentry-East Offsite Drainage Plan, Final FEIS. To address concerns about the project impact on the proposed Ewa by Gentry-East drainage facilities and West Loch wildlife refuge, the project FEIS should include summary information on potential impact and mitigative measures instead of referencing the Ewa by Gentry Offsite Drainage Plan, Final EIS. In addition, the Navy has indicated that the proposed Gentry detention basin which will serve a substantial portion of the East Kapolei project has not yet been approved. This should be addressed in the FEIS.

The DEIS states that a drainage study is currently being reviewed by the Department of Public Works (DPW), Department of Housing and Community Development (DHCD), and the Department of Parks and Recreation (DPR). The FEIS should indicate if issues and concerns previously raised by DPW in their June 5, 1995 comments have been resolved and if these agencies concur with the proposed improvements in the current proposal.

The DEIS indicates that the off-site drainage improvements proposed for the East Kapolei project will be dedicated to City and County of Honolulu for maintenance and park use. The DPW will only accept drainage easements limited to the width of the improved channel and the DPR will only consider land usable for park development. The FEIS should include information on discussions with these agencies and clarify if the proposed improvements are acceptable to these agencies, and the form of agreement involved.

Wastewater

The Department of Wastewater Management (DWM) indicated that they received an updated wastewater collection system master plan in February 1996 and are currently reviewing it. The FEIS should include the updated version of the wastewater masterplan and, if possible, comments or concurrence from DWM for the masterplan.

School Facilities

There is a discrepancy between DOE's estimates and those stated in the DEIS for projected student enrollment and acreage required for school development due to the East Kapolei project. The adequacy of school facilities to meet enrollment demand remains an unresolved issue. The FEIS should address this discrepancy or provide additional information on the likelihood of the project meeting school needs generated by the project. The FEIS should also indicate the likelihood of the proposed intermediate school being operational within the project's timeframe, since this is based on the assumption that the State will provide the other nine acres.

Park Facilities

It is our understanding that the developer has had discussions with DPR to address their concerns about park and recreational facilities proposed for the project, and these proposals have since been revised. Please include in the FEIS the latest park proposals for the proposed project and include comments or concurrence from DPR regarding the latest park proposals.

Population

The FEIS should update population projections for the Ewa DP area cited for the year 2010 as presented in Table 2 in Section 3.3 relating to population. For your information, preliminary population forecast data which was extended to the year 2020 shows the following projections for the Ewa DP area: 100,800 or 10.1 percent of the islandwide population for the year 2010 and 125,000 or 11.6 percent of the islandwide population for the year 2020.

Housing

The DEIS states that the purpose of the East Kapolei project is to meet the needs for affordable and moderately priced housing. The DEIS states that 30 percent of the total units will be affordable to families between 80 and 120 percent of the City and County of Honolulu median income. The FEIS should include additional information on the remaining target market and/or estimated price ranges for the remaining moderately priced "market" units.

The Department of Housing and Community Development (DHCH) requests that 10 percent of the units be made affordable to households with incomes up to and below 80 percent of Oahu's medium income and that an additional 20 percent of the total be made affordable to those families between 81 and 120 percent of the medium income. This request should be addressed in the FEIS.

To be consistent with the DP designations sought in the application, the table on Page 2-14 of the DEIS relating to proposed types and numbers of residential units should reflect Low Density units instead of Medium Density units. (Existing Ewa Special Provisions allow up to 30 units per net acre.)

Other Proposed Facilities

The FEIS should note the latest State proposal to relocate the University of Hawaii West Oahu Campus site to mauka of H-1 and that the Legislature and the University Board of Regents are currently reviewing this proposal. The FEIS should indicate how the outcome would or would not affect the feasibility of the project.

We would also like to bring your attention to letters from the University of Hawaii Environmental Center and Oahu Civil Defense Agency dated March 8, 1996 and February 12, 1996, respectively, stating that their previous concerns and comments were not addressed in the DEIS. This is a serious concern. Their issues and comments should be addressed in the FEIS.

Thank you for the opportunity to comment on the subject document. Should you have any further questions on the matter, you may contact Lin Wong of our staff at 523-4485.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Chief Planning Officer

CDS:ft

cc: Managing Director's Office
Mr. Angotti, Schuler Homes, Inc.

Helber Hastert
Planners

April 15, 1996

Ms. Cheryl D. Soon
Chief Planning Officer
Planning Department
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 14, 1996

Dear Ms. Soon:

Thank you for your letter dated March 14, 1996 in response to the East Kapolei Project Draft EIS and for the feedback received at our meeting with you and your staff on April 2, 1996. We have reviewed your comments and offer the following responses:

Transportation and Traffic Impacts

The Oahu Regional Transportation Plan (ORTP) identifies various highway improvements for Oahu for different time periods. The major arterials (and scheduled improvement timeframes) that would be impacted by the East Kapolei Project are North-South Road (Year 2001-2005), Farrington Highway (Year 1995-2000) and Kapolei Parkway (Year 1995-2000). These are all County facilities, under the jurisdiction of DTS.

Farrington Highway widening is occurring in several phases. The State Housing Finance and Development Corporation (HFDC) is taking a lead role in widening the segment between the Makakilo Interchange and the proposed North-South Road; the Makakilo Interchange to Kapolei Villages Golf Course Access Road segment is in final design with construction expected to begin around the end of this year. A Legislative funding request for the Golf Course Road to North-South Road intersection segment has been made with construction expected by 2000. The North-South Road to Fort Weaver Road segment of Farrington Highway (a segment of which fronts the project site) is identified in the ORTP as being widened in the 1995-2000 timeframe. The applicant will be required to accommodate the ROW widening, construct certain intersection improvements related to the project, and participate on a pro-rata share basis towards regional transportation improvements.

To compare anticipated project-generated vehicular demand levels with ORTP highway capacities, selected highway segments were considered. The critical capacity impact on

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the ORTP improvements would occur at the intersection of the North-South Road with Farrington Highway. An estimate of the ratio of project-generated trips to North-South Road Intersection capacity is provided below, based on the following assumptions:

- Project-generated vehicular demand is based on a best-guess project absorption schedule (see Exhibit 7, *Limited Scope Update of the East Kapolei Market Assessment*, Atwater, December 1995).
- Capacity of the North-South Road/Farrington Highway intersection is based on build-out laneage as determined in the traffic impact report, and expressed in vehicles per hour. (Intersection capacity is a function of roadway and operational variables, and thus, the estimate is approximate).
- Project trip estimates are based on typical weekday afternoon peak hour since this period would generate the largest number of trips.

Ratio of East Kapolei Trips to Intersection Capacity
(Assuming Intersection Exists Today)

Year	% of Intersection Capacity
1998	1%
1999	3%
2000	6%
2001 (Farr. Hwy & Kap. Pkwy completed*)	9%
2002	12%
2003	15%
2004	18%
2005 (N-S Rd. completed*)	22%
2006	25%
2007	29%
2008	33%
2009	37%
2010	41%
2011	45%
2012	46%
2013 (project buildout)	52%

*ORTP Estimate

Currently, the City and State are undertaking an EIS for the North-South Road. Subject to funding, the road would likely be completed before the year 2005. Assuming the North-South Road construction starts in 1998 and takes four years, the project's absorption schedule indicates that the project traffic would consist of about 12% of the intersection's capacity during the afternoon peak hour when the North-South Road is completed.

Water Supply

The FEIS includes expanded discussion of potential potable water sources and non-potable water requirements and systems, areas which were lacking in the DEIS. In preparing the additional information, we coordinated closely with BWS and DWM staff to ensure the information was as current as possible.

Drainage

The FEIS drainage discussion has been expanded to address issues and concerns raised during the DEIS review, including those raised in your comments.

We acknowledge that the Navy has not yet approved the proposed Ewa by Gentry-East detention basin facility. The FEIS recognizes this as an unresolved issue.

The FEIS addresses the issues raised in the Department of Public Works' June 5, 1995 comments.

The applicant will continue to coordinate with DHCD, DPW and DPR regarding the drainage channel design in the vicinity of the proposed Asing Park.

Wastewater

The FEIS includes the updated version of the wastewater master plan now being reviewed by DWM.

School Facilities

You point out the discrepancy between the DOE's estimates and those stated in the DEIS for projected student enrollment and acreage required. The discrepancy is between two different sets of "students per housing unit" ratios provided by the DOE (in its November 1994 and January 1996 EIS correspondence). The EIS calculates student enrollment at

buildout using *both* sets of ratios, which resulted in total enrollment of 2,386 and 2,950, respectively. The EIS further states that the actual enrollments will probably be somewhere within this range.

The two planned elementary schools will accommodate the elementary school demands of the proposed project. The DEIS indicates the project will generate a need for between 400 and 600 intermediate school "seats," about one-third to half the size of a "desirable" enrollment per school of 1,200 students (Draft Ewa DP Report, Planning Department, June 1995, p. 8-3). Based on this demand, the plan shows half of an intermediate school site or 9 acres of an 18-acre site (upper range of school size per Ewa DP Report, p. 8-2), with the other half of the school site extending into the adjacent land area owned by the State and also planned for residential uses. This "sharing" of responsibility for providing the intermediate school assumes the adjacent property will be developed for residential uses, and thereby generate additional needs for intermediate school facilities. The applicant has committed to working with DOE to ensure that adequate intermediate school facilities are developed to serve the needs of future East Kapolei residents, in a timely and efficient manner. It is recognized however, that the actual provision of the school facilities is DOE's ultimate responsibility, and is subject to a number of factors outside the applicant's control including, the number of students generated by other residential developments in the area and the allocation of DOE planning and construction funds.

Park Facilities

The FEIS includes the latest park proposals as agreed with the Department of Parks and Recreation. Dedicated park space now includes a 20-acre central park, two 6-acre neighborhood parks and a 2-3 acre mini-park to serve the mauka residential area. Additional private parks will be provided by the project's community associations.

Population

Table 2 has been updated with the population figures you provided.

Housing

The applicant will comply with the City's affordable housing policies. Thirty percent of total units will be affordable to families earning up to 120 percent of City and County median income. Information on the remaining target market and/or estimated price ranges for the remaining units is included in Chapter 2 of the FEIS.

As requested, Table 2 on page 2-14 of the DEIS has been revised to reflect "low density" units rather than "medium density" units for housing product at 20 dwelling units/acre.

Other Proposed Facilities

The FEIS notes the latest State proposal to relocate the University of Hawaii-West Oahu mauka of the H-1 Freeway, although this site has not yet been approved by the Legislature. The EIS will note that the location of the university will not impact the feasibility of the project.

We appreciate your review of the DEIS and the input and advise we've received from you and your staff over the past months. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Mr. Mike Angotti, Schuler Homes, Inc.

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

KENNETH E. SPRAGUE
DIRECTOR AND CHIEF ENGINEER

DARWIN J. HAMAMOTO
DEPUTY DIRECTOR

ENV 96-047

February 22, 1996

FEB 23

MEMORANDUM:

TO: CHERYL SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

FROM: for KENNETH E. SPRAGUE
DIRECTOR AND CHIEF ENGINEER

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
EAST KAPOLEI PROJECT
TMK: VARIOUS

We have reviewed the subject DEIS and have no additional comments to offer at this time.

Should you have any questions, please contact Mr. Alex Ho, Environmental Engineer, at Local 4150.

cc: OEQC
Schuler Homes, Inc.
Helber Hastert & Fee, Planners

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4341 • FAX: (808) 527-5857

JEREMY HARRIS
MAYOR

KENNETH E. SPRAGUE
DIRECTOR AND CHIEF ENGINEER

DARWIN J. HAMAMOTO
DEPUTY DIRECTOR

ENV 96-064

March 7, 1996

MAR 11

MEMORANDUM:

TO: CHERYL SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

FROM: for KENNETH E. SPRAGUE
DIRECTOR AND CHIEF ENGINEER

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
EAST KAPOLEI PROJECT
TMK: VARIOUS

With reference to our memo of February 22, 1996 (ENV 96-047), we wish to add the following comments:

1. We recommend that the existing roadway easement "2680" be terminated since Oahu Sugar Company is being dissolved.

2. All proposed drainage easements which are to be dedicated to the City and County of Honolulu (under the jurisdiction of the Department of Public Works) shall be limited to the width of the improved channel, i.e., from outside wall to outside wall of the channel.

3. A maintenance ramp for the channel should be provided.

4. For other comments and concerns, please see attached letter dated June 5, 1995 (Ref. No.: 95-12-0234).

cc: OEQC
Schuler Homes, Inc.
Helber Hastert & Fee, Planners
DHCD (Ray Sakai)

SD-TMK: 9-1-17: 0.

bcc: Chief
Assistant Chief
Storm Water Quality Section
(Attention: Mr. Gerald Takayesu)
Drainage Section
(Attention: Mr. Mel Takakura)

RETURN TO
DIVISION OF ENGINEERING

95-12-0234

June 5, 1995

Mr. Harvey Goth
Vice President
Schuler Homes, Inc.
828 Fort Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Goth:

Subject: West Loch Drainage Basin, East Kapolei Project, TMK: 9-1-17: 04

Pursuant to a recent meeting with you, we met with the staff from the Department of Housing and Community Development (DHCD) and the Department of Parks and Recreation (DPR) to discuss the proposed drainage pathway and drainage requirements for the Schuler Homes, Inc.'s East Kapolei Project. Herewith are some of our concerns which were discussed in our meeting:

1. The City (DHCD) owns the area identified as the Cane Haul Road which has been proposed as a possible drainage pathway for the East Kapolei Project. Although Oahu Sugar Company has an easement for the Cane Haul Road, the easement will probably be terminated since the Oahu Sugar Company is being dissolved.

2. The preferred route for the East Kapolei Project apparently is along the Cane Haul Road if Items 3, 4, 5 and 6 listed below are met. DHCD has concerns with the proposed drainage pathway running through the City's elderly housing project, and noted that changes would be required to the existing pipe culverts through Fort Weaver Road because of its apparent insufficient capacity.

3. Schuler would need to obtain an easement from the City for the drainage path along the Cane Haul Road. Equitable compensation must be negotiated.

4. Schuler would need to discuss and obtain concurrence for the planned Cane Haul Road drainage pathway with the City Department of Transportation Services (DTS) and the State Department of Transportation.

5. Schuler would need to improve the land adjacent to the drainage pathway to enable DPR to properly maintain this area. Acceptable improvements should be discussed with DPR.

6. Schuler would need to provide a pedestrian crossing for the West Loch Developments to the new Asing Park. The location of the pedestrian crossing and other requirements should be discussed with DPR.

7. It appears that Schuler cannot use the Gentry retention basin to address the East Kapolei Project's retention requirements since Gentry's revised retention basin plan presently indicates sufficient capacity for only the Gentry development. On-site retention would be required for Schuler's East Kapolei Project.

Please note that the Preliminary Drainage Study for the West Loch Drainage Basin, East Kapolei Project, dated January 18, 1995 and submitted by Gray Hong, Bills & Associates, Inc., is still being reviewed. We will inform you of our comments on the drainage study upon completion of the City's review.

If you should have any questions, please call Tyler Sugihara of the Division of Engineering at 523-4932.

Very truly yours,

For KENNETH E. SPRAGUE
Director and Chief Engineer

TS:MT:tt

cc: Gray, Hong, Bills & Associates, Inc.
Department of Housing and Community Development
(Attention: Mr. Randy Wong)
Department of Parks and Recreation
(Attention: Mr. Donald Griffin)
Gentry Companies
(Attention: Mr. Ronald Uemura)
State Department of Transportation
(Attention: Mr. Francis Nishioka)

CONCUR:

For DONA HANAIKE, Director
Department of Parks and Recreation

CONCUR:

for RONALD LIM, Director
Department of Housing and Community Development

Helber Hastert
Planners

April 24, 1996

Mr. Kenneth E. Sprague
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 S. King St.
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Memos dated February 22 and March 7, 1996

Dear Mr. Sprague:

Thank you for your memos to Ms. Cheryl Soon, Chief Planning Officer, dated February 22, 1996 and March 7, 1996 in response to the East Kapolei Project DEIS. We also note your previous letter to Schuler Homes, Inc., dated June 5, 1996, which was included with your recent correspondence. The following is in response to your comments:

February 22, 1996 Memo to Cheryl Soon

No comment

March 7, 1996 Memo to Cheryl Soon

1. We acknowledge that the Oahu Sugar Company's easement 2680 will be terminated by the City.
2. Should drainage easements be required to be dedicated to the City and County of Honolulu, they shall be limited to the width of the improved channel (from outside wall to outside wall). Since the drainage channel runs through the land owned by the City, an easement may not be required.
3. A maintenance ramp for the channel will be included in the design as required.

June 5, 1996 Letter to Harvey Goth, Schuler Homes, Inc.

1. same as #1 above.
2. The proposed drainage corridor is along the cane haul road, as opposed to a route through the City's elderly housing project. In a March 7, 1996 memo to Cheryl Soon, the Department of Housing and Community Development (DHCD) noted it had no objections to the use of the former cane haul road as the corridor connecting to DHCD's existing 4-acre detention basin and the proposed Ewa by Gentry-East open drainage channel.

Helber Hastert & Fee
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733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
Telephone 808 545-2055
Facsimile 808 545-2050

3. An easement from the City for the drainage right-of-way along the cane haul road will be requested if required. Since the lot is owned by the City, the easement may not be required.
4. The applicant will discuss and obtain concurrence for the proposed drainage right-of-way pathway from the City Department of Transportation Services and the State Department of Transportation.
5. The applicant will work with the Department of Parks and Recreation (DPR) to provide acceptable improvements to the land adjacent to the drainage pathway to allow proper maintenance of the area.
6. A pedestrian overpass between the West Loch development and the new Asing Park is recommended in the *Preliminary Drainage Study for the West Loch Drainage Basin* submitted to the DPR for review and comment. The proposed overpass incorporates review comments made by the DPR in December 1994.
7. As stated in the attached Gentry letter dated April 16, 1996, the East Kapolei project area was included in the basis for design of the Ewa by Gentry-East detention facility. The *Drainage Report for Ewa by Gentry-East, Phase 1 Offsite Drainage Plan* prepared by Park Engineering, Inc. indicates that the ultimate design will accommodate the entire tributary area. Figure 4-1 "Drainage Map" of the same report shows that the East Kapolei project area is included in the tributary area. Schuler Homes, Inc. and Gentry are currently working together to confirm the watershed area and HGL, and are negotiating terms for the construction of a joint detention basin. The 31-acre parcel will be incorporated into the design for additional storage.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

attachment

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

THE GENTRY COMPANIES

April 16, 1996

Mr. Harvey Goth
Schuler Homes, Inc.
828 Fort Street Mall, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Goth:

Re: East Kapolei Development
West Loch Drainage Basin

This letter is to confirm that the Ewa by Gentry - East Offsite Drainage project is being designed to handle the tributary area for the East Kapolei Development currently being processed for approval as outlined in Gray, Hong, Bills & Associates, Inc.'s report dated December 1, 1995.

Very truly yours,

GENTRY HOMES, LTD.

Randolph K. Ouye,
Senior Vice President/
Chief Operating Officer

RKO:sacm

/kapolei-wewa

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111

JEREMY HARRIS
MAYOR

MICHAEL S. NAKAMURA
CHIEF

HAROLD M. KAWASAKI
LEE DONOHUE
DEPUTY CHIEFS

OUR REFERENCE BS-DL

March 5, 1996

RECEIVED
MAR - 7 1996

TO: LIN F. WONG, COMMUNITY PLANNING BRANCH
PLANNING DEPARTMENT

FROM: MICHAEL S. NAKAMURA, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE EAST KAPOLEI PROJECT

Thank you for the opportunity to review the subject project.

Section 6.8 correctly states the needs of the Honolulu Police Department as a result of the development. Increased staffing for the patrol district encompassing East Kapolei is crucial to the maintenance of public safety. In recent years the police force has not grown in proportion to the population. We have found ways to work more efficiently and have shifted officers from place to place, but there is a limit to the department's elasticity. When police coverage gets stretched too thin, the public begins to suffer.

The draft EIS on page 6-20 states that, "the need for police services in the project area is not an impact of the project, but simply a consequence of expected population growth." There is some truth in this, of course, but the bottom line is that the residents who will live in East Kapolei will need police services that cannot be provided with current staffing levels. HPD is taking every opportunity to spell out that message very clearly--in responses to EISs, in the City budget process, and in our discussions with community leaders. Other public services such as water, power, wastewater, and fire protection must be in place before residents move into a development. This is not true of police protection yet, but it should be.

We will continue working through all available routes to see that police protection will be available for East Kapolei. We would appreciate your support for those efforts. By working together, HPD and the community can provide safe environments for the people of Oahu.

MICHAEL S. NAKAMURA
Chief of Police

By Eugene Uemura
EUGENE UEMURA, Assistant Chief
Administrative Bureau

cc: Ofc. of Environmental Quality Control
Mr. Mike Angotti, Schuler Homes, Inc.
Ms. Leslie Kurisaki, Helber Hastert & Fee, Planners

Helber Hastert
Planners

April 8, 1998

Chief Michael S. Nakamura
Chief of Police
Police Department
City and County of Honolulu
801 S. Beretania Street
Honolulu, Hawaii 96813

Dear Chief Nakamura:

East Kapolei Project, Ewa, Oahu, Hawaii
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated March 5, 1996

Thank you for your memo to Ms. Lin Wong, City and County of Honolulu Planning Department dated March 5, 1996 responding to our request for comments on the above-referenced DEIS.

The developer acknowledges your concern that in recent years, the police force has not grown in proportion to the Ewa population, and shares your desire to ensure that adequate police protection will be available for East Kapolei. The developer will support your Department's efforts to increase staffing and other needed resources to serve the Ewa area.

We appreciate your review of the DEIS. Your memo will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
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733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813
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Facsimile 808 545-2050

2/96-0419
1/2/ CFPC

OAHU CIVIL DEFENSE AGENCY

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813
PHONE 523-4121

RECEIVED
'96 12 PM 3:54
C&C HONOLULU

JEREMY HARRIS
MAYOR

JOSEPH D. REED
ADMINISTRATOR

February 12, 1996

MEMO TO: CHERYL SOON, CHIEF PLANNING OFFICER

FROM: JOSEPH D. REED, ADMINISTRATOR

SUBJECT: EAST KAPOLEI PROJECT, DRAFT ENVIRONMENTAL IMPACT STATEMENT

We previously submitted comments regarding the East Kapolei Project recommending the inclusion of Civil Defense sirens and hurricane mitigation design considerations in a memo dated February 14, 1995 (attached). It appears that these recommendations were not included in your letter to the consultant, dated December 29, 1995.

We continue to feel that it is extremely important for developers to include emergency notification and warning capabilities and natural and manmade hazard mitigation measures into planning and development considerations.

Although certain preliminary design concepts for the project have changed since our initial submission, our recommendation remains that two 115 dB solar powered sirens and the necessary infrastructure to support them be installed, and that hazard mitigation measures be included in all multi-use buildings in the development.

We would be pleased to discuss these recommendations further if there is a desire to do so. Our point of contact is Mr. Wayne Jones, Communications Officer, telephone number 523-4679.

Attachment

cc: Robert Fishman, Managing Director
Roy Price, State Civil Defense

2/96-0422
1/2/CPFD

RECEIVED
'96 FEB 12 PM 3:55
C&C HONOLULU

February 14, 1995

MEMO TO: CHERYL SOON, CHIEF PLANNING OFFICER

FROM: JOSEPH D. REED, ACTING ADMINISTRATOR

SUBJECT: EAST KAPOLEI PROJECT - ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN)

The Oahu Civil Defense Agency (OCDA) has reviewed the EISPN for the proposed project and are of the opinion that any zoning changes approved for the building of homes in this area should be approved only after an agreement between the City and/or State and the developer that the developer install adequate outdoor civil defense siren warning systems to provide emergency warnings of residents and workers in the area.

At this time, one siren located near Ewa Elementary School provides marginal coverage of Phase 1 of the project, but does not provide coverage of Phase 2.

We recommend that the developer install a minimum of two solar powered sirens of at least 115 Db rating and the necessary siren support infrastructure compatible with the existing civil defense siren system as a condition of approval of the necessary zoning changes. We further recommend that the sirens be located in areas that have been set aside for parks in each phase of the project.

We also, recommend that hurricane mitigation design considerations be included in any multi-use buildings. This would provide additional local neighborhood emergency sheltering capabilities for the community. These special considerations should also be given to any schools, parks, recreation facilities, or community centers planned for the project.

We are available to discuss these recommendations further if there is a desire to do so. Oahu Civil Defense point of contact is Mr Wayne Jones, telephone number 523-4679.

cc: Jeremy Harris, Mayor
Robert J. Fishman, Managing Director
State Civil Defense

Helber Hastert
Planners

April 8, 1996

Mr. Joseph D. Reed, Administrator
Oahu Civil Defense Agency
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Memo dated February 12, 1996

Dear Mr. Reed:

Thank you for your memorandum to Ms. Cheryl Soon, Chief Planning Officer, dated February 12, 1996 in response to the East Kapolei Project Draft EIS. The developer will work closely with your agency to ensure that adequate civil defense siren warning systems are provided at the appropriate school/park sites.

We appreciate your review of the DEIS and your input. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
Facsimile 808 545-2050

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA
711 KAPIOLANI BOULEVARD, SUITE 1200
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

CHARLES O. SWANSON
DIRECTOR

1/96-00430R

March 8, 1996

MAR 12

MEMORANDUM

TO: CHERYL SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

ATTN: LIN WONG

FROM: CHARLES O. SWANSON, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
EAST KAPOLEI PROJECT

Based on our review of the subject document and prior reviews (January 12, 1995, May 3, 1995 and December 22, 1995), we have the following comments which should be addressed in the Final EIS or subsequent documents:

1. The proposed scheduling of improvements to Farrington Highway and the "North-South" Road, in relation to the development of this project, should be provided. A preliminary schedule, based on the anticipated vehicular demand rate generated from this development and the surrounding land uses, should be used. This schedule should be updated during the progress of this development, as more detailed information becomes available, such as that resulting from the presently ongoing North-South Road Corridor Study. This study will define needed infrastructure improvements in the Ewa area.

2. The conceptual plan of the roadway surrounding the community park and its relation to the park is of particular concern. Documentation of the proposed alignment, based on nationally accepted design criteria, should be provided to our office for review and acceptance. We understand that the roadway is intended to primarily service park use and that through traffic will be discouraged from entering this area. As such, it appears that it may be more appropriate to integrate this segment of the roadway system for park purposes.

3. The overall design of the proposed loop road should be examined. The width of the roadway and its intersection design should be based on the vehicular carrying capacity of each facility. Curves within the roadway should be eliminated, wherever feasible. Pedestrian crossings at green ways should be located adjacent to proposed streets.

4. A roadway master plan should be provided to our department during the early stages of the project. The plan should show the general alignment of the major roadways, including the number of through and turning lanes; the approximate number of dwelling units or square footage of commercial/office space for each increment, whichever is appropriate; the roadway cross-sections; and a phasing plan for the development. Because the developer intends to use apartment zoning for the residential areas, the number of dwelling units for each area should be identified by type. We are assuming a fairly uniform distribution throughout the development and are basing roadway sections on this distribution. Any change in the distribution of these uses should be reflected in a revised roadway master plan. A revised plan, showing the location of the completed units and internal roadways, should be submitted annually.

5. Schematic plans of major intersections indicating laneage and the anticipated level-of-service at each approach should be provided. The analysis should include a determination of the lengths of left turn lanes and the need for separate right turn lanes. An analysis of signal warrants to determine the need to ultimately signalize street intersections should be provided since underground conduits will be required at the time of construction. This should be incorporated into the roadway master plan or updated traffic study, when it is submitted to this department.

6. The traffic study should be periodically updated and submitted to our office for review. We understand that the distribution of traffic from this development is predicated upon a number of factors which may or may not be accomplished. As the basis for determining when the updates should be submitted, we anticipate an update for each 2000 dwelling units or approximately every two years. The update should address any variation in the distribution of dwelling units submitted in the initial roadway master plan.

Should you have any questions regarding these comments, please call Faith Miyamoto of the Transportation System Planning Division at Local 6976.

F. Tamayasu

for CHARLES O. SWANSON

cc: Mr. Michael Angotti, Schuler Homes
✓Ms. Leslie Kurisaki, Helber Hastert & Fee
Office of Environmental Quality Control

Helber Hastert
Planners

April 11, 1996

Mr. Charles O. Swanson, Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS)
Your Memo dated March 8, 1996

Dear Mr. Swanson:

Thank you for your memorandum to Ms. Cheryl Soon, Chief Planning Officer, dated March 8, 1996 in response to the East Kapolei Project DEIS. We have reviewed your comments and offer the following responses:

1. Proposed Scheduling of Improvements to Farrington Highway and North-South Road

The Oahu Regional Transportation Plan (ORTP) identifies various highway improvements for Oahu for different time periods. The major arterials (and scheduled improvement timeframes) that would be impacted by the East Kapolei Project are North-South Road (Year 2001-2005), Farrington Highway (Year 1995-2000) and Kapolei Parkway (Year 1995-2000). These are all County facilities, under the jurisdiction of DTS.

Farrington Highway widening is occurring in several phases. The State Housing Finance and Development Corporation (HFDC) is taking a lead role in widening the segment between the Makakilo Interchange and the proposed North-South Road; the Makakilo Interchange to Kapolei Villages Golf Course Access Road segment is in final design with construction expected to begin around the end of this year. A Legislative funding request for the Golf Course Road to North-South Road intersection segment has been made with construction expected by 2000. The North-South Road to Fort Weaver Road segment of Farrington Highway (a segment of which fronts the project site) is identified in the ORTP as being widened in the 1995-2000 timeframe. The applicant will be required to accommodate the ROW widening, construct certain intersection improvements related to the project, and participate on a pro-rata share basis towards regional transportation improvements.

To compare anticipated project-generated vehicular demand levels with ORTP highway capacities, selected highway segments were considered. The critical capacity impact on the

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ORTP improvements would occur at the intersection of the North-South Road with Farrington Highway. An estimate of the ratio of project-generated trips to North-South Road Intersection capacity is provided below, based on the following assumptions:

- Project-generated vehicular demand is based on a best-guess project absorption schedule (see Exhibit 7, *Limited Scope Update of the East Kapolei Market Assessment*, Atwater, December 1995).
- Capacity of the North-South Road/Farrington Highway intersection is based on build-out laneage as determined in the traffic impact report, and expressed in vehicles per hour. (Intersection capacity is a function of roadway and operational variables, and thus, the estimate is approximate).
- Project trip estimates are based on typical weekday afternoon peak hour since this period would generate the largest number of trips.

Ratio of East Kapolei Trips to Intersection Capacity
(Assuming Intersection Exists Today)

Year	% of Intersection Capacity
1998	1%
1999	3%
2000	6%
2001 (Farr. Hwy & Kap. Pkwy completed*)	9%
2002	12%
2003	15%
2004	18%
2005 (N-S Rd. completed*)	22%
2006	25%
2007	29%
2008	33%
2009	37%
2010	41%
2011	45%
2012	46%
2013 (project buildout)	52%

*ORTP Estimate

Currently, the City and State are undertaking an EIS for the North-South Road. Subject to funding, the road would likely be completed before the year 2005. Assuming the North-South Road construction starts in 1998 and takes four years, the project's absorption schedule indicates that the project traffic would consist of about 12% of the intersection's capacity during the afternoon peak hour when the North-South Road is completed.

2. The conceptual plan of the roadway surrounding the central park continues to be evaluated in order to meet accepted roadway design criteria while still meeting community planning objectives. The current scheme, which was reviewed with your staff on March 7, 1996, eliminates the 45-degree intersections at the corners of the park as well as the angled parking along the park frontage. Other issues were discussed at the meeting, and we are working toward incorporating the suggestions into our conceptual plans.

   We also understand that the Institute of Transportation Engineers (ITE) will be issuing a report providing design guidance for neo-traditional communities in the next couple of months. Although we are not sure whether this document will address the specific design conditions present at East Kapolei, it may provide us with some nationally accepted design criteria and/or performance evaluations of similar roadway designs.

   Your suggestion of integrating the inner loop road into the park would be appropriate if its sole function were to serve the park. However, it also serves as an internal linkage between the commercial areas surrounding the park and therefore, has a much broader user base than just park patrons.

   We will continue to work with you and your staff in the evolution of the town center design and feel that acceptable solutions can be attained through this dialog as the planning and design proceeds.

3. We have not conducted any internal traffic studies to date, and therefore, laneage and intersection requirements for the outer loop road have not been determined. However, the fact that it is a loop road which is intended to provide a safe and efficient alternative for residential traffic to bypass the town center means that some curves must be provided. We will work with your staff to insure that these curves are designed to meet accepted safety standards. All pedestrian crossings of this loop road (including at the greenways) will occur at street intersections.

4. A roadway master plan will be submitted to your department during the early stages of the project. General alignment of major roadways, including the number of through and turning lanes; the approximate number of dwelling units; roadway cross-sections and a phasing plan will be provided. A revised plan, showing the location of the completed units and internal roadways will be submitted annually.

5. Schematic plans of major intersections indicating laneages and the anticipated level of service at each approach will be provided. An analysis of signal warrants to determine the need to signalize street intersections will be provided, and incorporated into the roadway master plan or updated traffic study when submitted to your department.

6. The traffic study will be periodically updated and submitted to your office for review. Updates for each 2,000 dwelling units would occur approximately every three to four years. Updates will address any variation in the distribution of dwelling units submitted in the initial roadway master plan.

We appreciate your review of the DEIS and the input and advise we've received from your staff over the past months. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

DEPARTMENT OF WASTEWATER MANAGEMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

FELIX B. LIMTIACO
DIRECTOR

CHERYL K. OKUMA-SEPE
DEPUTY DIRECTOR

In reply refer to:
WCC 96-20

February 7, 1996

FEB 13 1996

MEMORANDUM

TO: MS. CHERYL D. SOON, CHIEF PLANNING OFFICER
PLANNING DEPARTMENT

FROM: FELIX B. LIMTIACO, DIRECTOR
DEPARTMENT OF WASTEWATER MANAGEMENT

SUBJECT: **DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR EAST KAPOLEI PROJECT, JANUARY 1996**
TMK: 9-1-17: por 4; 9-1-18: por 1; 9-2-2: por 1; 9-2-4: por 5; 9-1-10: por 2

Our comments to the subject Draft Environmental Impact Statement (EIS) are as follows:

We have not received a copy of the East Kapolei & Vicinity Wastewater Collection System Master Plan, dated December 6, 1995 for review as stated in Section 6.3 Wastewater, page 6-6 of the Draft EIS. Three copies of the master plan should be submitted to our department for review and approval.

The estimated peak flow of wastewater generated by the East Kapolei Project should be included in the Probable Impact section, page 6-6.

The secondary treatment system at Honouliuli WWTP is currently under construction and is projected to be completed by December 1996. It is designed to accommodate 13 mgd of sewage for secondary treatment.

If you have any questions, please contact Ms. Tessa Yuen of the Service Control Branch at 523-4956.

CHERYL K. OKUMA-SEPE

For FELIX B. LIMTIACO
Director

cc: Schuler Homes, Inc. (Mr. Mike Angotti)
✓Helber Hastert & Fee, Planners (Ms. Leslie Kurisaki)

Helber Hastert
Planners

April 8, 1996

Mr. Felix Limtiaco, Director
Department of Wastewater Management
City and County of Honolulu
650 S. King St.
Honolulu, Hawaii 96813

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 7, 1996

Dear Mr. Limtiaco:

Thank you for your letter dated February 7, 1996 in response to the East Kapolei Project DEIS. Three copies of the East Kapolei and Vicinity Wastewater Collection system Master Plan have been submitted to your department for review and approval. The estimated peak flow of wastewater generated will be included in the Final EIS. The information you provided about the Honouliuli WWTP will also be included.

We appreciate your review of the DEIS. Your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower
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Honolulu, Hawaii 96813
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Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

2/96-0518
1/2/CFPD

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23 PM 3:54

C&C HONOLULU

William A. Bonnet
Manager
Environmental Department

February 22, 1996

Lin Wong
Planning Department
City & County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

Dear Ms. Wong:

Subject: **East Kapolei Project**

Thank you for the opportunity to comment on your January 1996 Draft Environmental Assessment report for the East Kapolei project, as proposed by the Schuler Homes, Inc. We have reviewed the subject document and would like to note that Section 6.10.1 (page 6-21) for the electrical system should be updated to reflect the completion of the Ewa Nui Substation, CIP-Waiau 138kV lines and the removal of the Ewa Substation. If you have any questions, please call Ronald Wong (543-7714), the originator of these comments.

HECO shall reserve further comments pertaining to the protection of existing powerlines bordering the project area until construction plans are finalized. Again, thank you for the opportunity to comment on this Draft Environmental Assessment.

Sincerely,

Helber Hastert
Planners

April 8, 1996

Mr. William A. Bonnet
Manager
Environmental Department
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Your Letter dated February 22, 1996

Dear Mr. Bonnet:

Thank you for your letter to Ms. Lin Wong, Planning Department, dated February 22, 1996 in response to the East Kapolei Project Draft EIS As you requested, Section 6.10.1 of the Final EIS will incorporate the information on the completion of the Ewa Nui Substation, CIP-Waiau 138 KV lines and the removal of the Ewa Substation. Your comments have been forwarded to the project engineers, and your letter will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

Telephone 808 545-2055
Facsimile 808 545 2050

THE GENTRY COMPANIES

MAR 1 1

March 7, 1996

Mr. Michael Angotti
Schuler Homes, Inc.
828 Fort Street Mall, 4th Floor
Honolulu, Hawaii 96813

Re: DRAFT EIS FOR THE EAST KAPOLEI PROJECT

Dear Mr. Angotti:

We have reviewed the Draft Environmental Impact Statement (dated January 1996) for the East Kapolei Project and have no comments to offer at this time.

Thank you for the opportunity to comment.

Sincerely,

GENTRY HOMES, LTD.

Tosh Hosoda
Senior Vice President of Planning

c: Ms. Lin Wong, Planning Department
Ms. Leslie Kurisaki, Helber, Hastert & Fee Planners
Mr. Gary Gill, OEQC

Gentry Homes, Ltd. 560 N. Nimitz Hwy., Honolulu, Hawaii 96817 P.O. Box 295, Honolulu, Hawaii 96809 (808) 599-5558

THE GENTRY COMPANIES

April 16, 1996

Mr. Harvey Goth
Schuler Homes, Inc.
828 Fort Street Mall, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Goth:

Re: East Kapolei Development
West Loch Drainage Basin

This letter is to confirm that the Ewa by Gentry - East Offsite Drainage project is being designed to handle the tributary area for the East Kapolei Development currently being processed for approval as outlined in Gray, Hong, Bills & Associates, Inc.'s report dated December 1, 1995.

Very truly yours,

GENTRY HOMES, LTD.

Randolph K. Ouye,
Senior Vice President/
Chief Operating Officer

RKO:sacm

/kapolei-wewa

Gentry Homes, Ltd. 560 N. Nimitz Hwy., Honolulu, Hawaii 96817-3315 P.O. Box 295, Honolulu, Hawaii 96809-0295 (808) 599-5558 FAX (808) 523-7832

Helber Hastert
Planners

April 22, 1996

Mr. Tosh Hosoda
Senior Vice President of Planning
Gentry Homes, Ltd.
560 N. Nimitz Highway
Honolulu, Hawaii 96817

East Kapolei Project
Draft Environmental Impact Statement (DEIS) Comments
Letters dated March 7, 1996 and April 16, 1996

Dear Mr. Hosoda:

Thank you for your letter to Schuler Homes, Inc. dated March 7, 1996, noting that you have no comments to the Draft EIS at this time. We would also like to acknowledge the letter from Mr. Randolph K. Ouye, dated April 16, 1996, confirming that the Ewa by Gentry-East Offsite Drainage project is being designed to handle the East Kapolei project. The letters will be reproduced in the Final EIS.

Sincerely,

HELBER HASTERT & FEE, Planners

Leslie Kurisaki

Leslie Kurisaki
Project Planner

cc: Ms. Cheryl Soon, Planning Department
Mr. Mike Angotti, Schuler Homes, Inc.

Helber Hastert & Fee
Grosvenor Center, Makai Tower

733 Bishop Street, Suite 2590
Honolulu, Hawaii 96813

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