EXECUTIVE CHAMBERS

HONOLULU

BENJAMIN J. CAYETANO
GOVERNOR

April 2, 2002

TO: The Honorable Sharyn L. Miyashiro, Executive Director
Housing and Community Development Corporation of Hawai'i

SUBJECT: Acceptance of the Final Environmental Impact Statement for the 'Iwilei Elderly Residential Complex

With this memorandum, I accept the Final Environmental Impact Statement for the 'Iwilei Elderly Residential Complex, island of O'ahu, as satisfactory fulfillment of the requirements of Chapter 343, Hawai'i Revised Statutes. The economic, social and environmental impacts, which will likely occur should this project be implemented, are adequately described in the statement. The analysis, together with the comments made by reviewers, provides useful information to policymakers and the public.

My acceptance of the statement is an affirmation of the adequacy of that statement under the applicable laws but does not constitute an endorsement of the proposed action.

I find that the mitigation measures discussed in the environmental impact statement will minimize the negative impacts of the project. Therefore, if this project is implemented, the Housing and Community Development Corporation of Hawai'i and/or its agents should perform these or alternative and at least equally effective mitigation measures at the discretion of the permitting agencies. The mitigation measures identified in the environmental impact statement are listed in the attached document.

/s/ Benjamin J. Cayetano
BENJAMIN J. CAYETANO

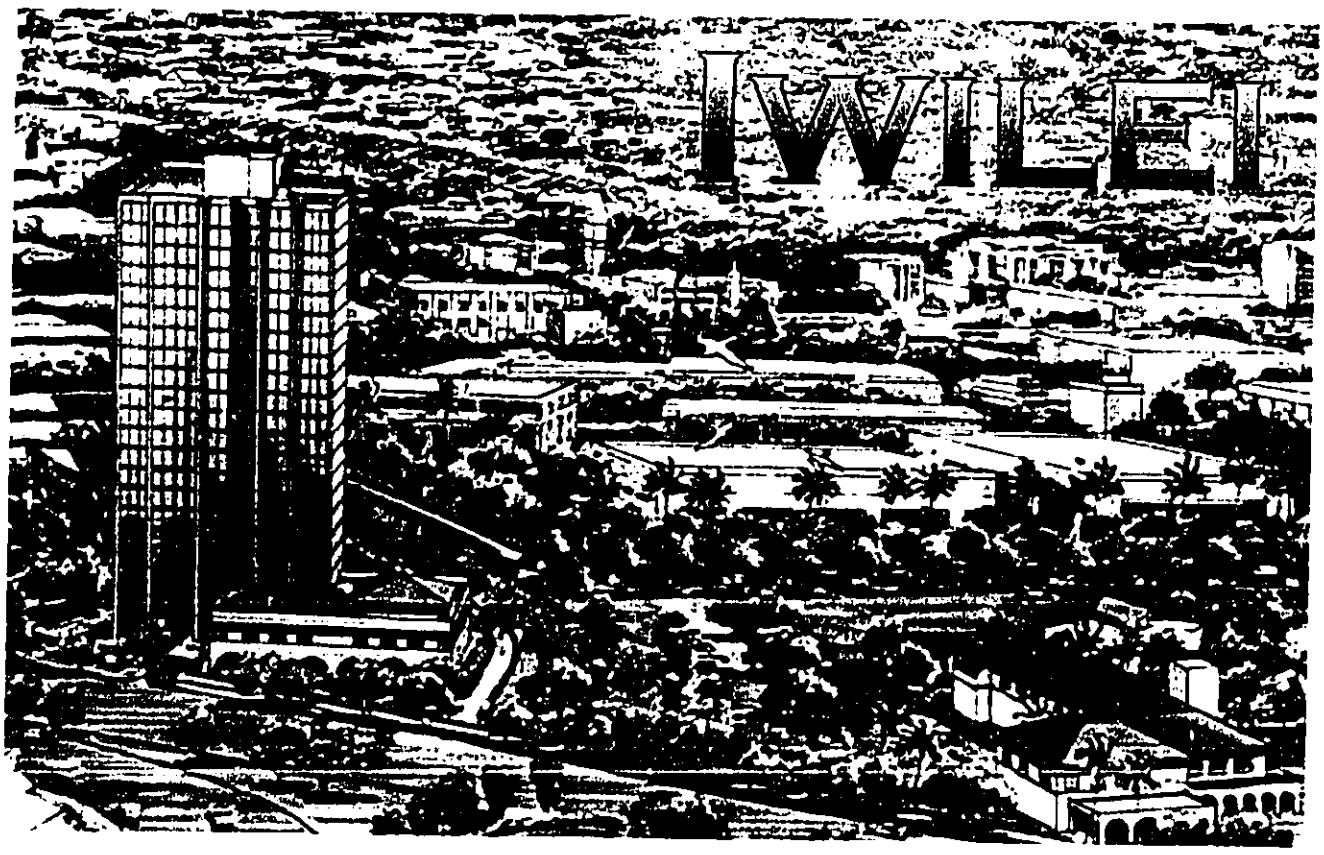
Attachment

c: Honorable Bruce S. Anderson, Ph.D., M.P.H.
Office of Environmental Quality Control

2002 - Oahu - FEIS -
Iwilei Housing

Final Environmental Impact Statement

ELDERLY RESIDENTIAL COMPLEX AT



STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII

Final
Environmental Impact Statement

ELDERLY RESIDENTIAL COMPLEX AT

IWILEI

Applicant:

Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, HI 96813

This Environmental Impact Statement and all ancillary documents were prepared under my direction or supervision, and the information submitted, to the best of my knowledge, fully addresses EIS content requirements as set forth in Sections 11-200-17 and 11-200-18, Hawaii Revised Statutes.

Sharyn Miyashiro

Sharyn L. Miyashiro, Executive Director
Housing and Community Development
Corporation of Hawaii

Prepared by:
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Honolulu, HI 96814

February 2002

PREFACE

Text that has been added since the Draft Environmental Impact Statement is shown in italics. Text that has been deleted is shown with a strike-through.

Project Summary is a new section that has been added to the Final Environmental Impact Statement. For ease of reading, the text in this section has not been italicized.

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Project Summary

Project Summary Information

Project Name	Elderly residential complex at Iwilei (to be renamed at a later date)
Applicant	Housing and Community Development Corporation of Hawaii (HCDCH)
Accepting Authority	Governor, State of Hawaii
Tax Map Keys	1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, 78-84
Landowner	State of Hawaii, Department of Land and Natural Resources
Project Area	Approximately 1.6 acres
Location	Iwilei Road near North King Street
Project Description	Affordable housing for independent elderly citizens and adult day care with assisted and supportive living services
Existing Uses	Light industrial businesses, parking, storage
State Land Use Designation	Urban
Primary Urban Center (PUC) Development Plan Land Use Designation	Commercial Industrial Emphasis Mixed Use Commercial Emphasis Mixed Use Public Facility
Zoning Designation	IMX-1 Industrial-Commercial Mixed Use BMX-3 Business Mixed Use
Flood Insurance Rate Map	Zone X (outside the 500-year floodplain)
Special Management Area	No
Encumbrances	Various easements and revocable permits (month-to-month leases) to be canceled

Project Description

The Housing and Community Development Corporation of Hawaii (HCDCH) is proposing to redevelop a portion of State-owned property in Iwilei between the OR&L Terminal Building and the Iwilei Business Center. The project consists of a 21-story residential tower with 156 dwelling units connected to a 2-story community services building that will house an adult day care program, offices, and a recreation deck. A parking structure with 139 stalls for tenants and visitors is proposed as a separate structure to be connected to the residential tower by a breezeway on one or more levels.

Components of the Residential Complex

21-story apartment building with 156 units
- 138 1-bedroom units (630 SF and 720 SF)
- 18 2-bedroom units (960 SF)

Community Service Building (18,000 SF)
- Senior day care center

Parking Structure
- 139 tenant and visitor parking stalls

Total gross floor area: 169,470 SF

The scope of this EIS covers the HCDCH residential development only. The proposed action is confined to approximately 1.6 acres on the western portion of the State-owned site that contains 5.7 acres in total. At present that site is comprised of some 18 individual parcels. HCDCH plans to consolidate the affected parcels and subdivide the site to create a separate 1.6-acre lot for residential development. Easements on the 1.6-acre parcel will be canceled or relocated. The proposed action, therefore, includes replacement of existing underground utilities and construction of new infrastructure and buildings to support the residential complex. Demolition of existing structures and site remediation work will be permitted under the proposed action of an earlier EIS for the Liliha Civic Center, finalized in 1992.

Significant Beneficial and Adverse Impacts

Because most of the adverse environmental impacts are expected to be short-term in nature and related to construction (such as construction-related noise and dust), substantial degradation of environmental quality is not expected. If the proposed action is able to provide affordable rental housing and diminish the visual blight and public nuisance activities, as anticipated, long-term environmental quality in the area will improve.

Proposed Mitigation Measures

Plans for demolition, site clearance, and construction will specify that contractors comply with all State and local rules and regulations, and follow best construction management practices for disposal of waste material, eliminating discharge from dewatering operations, control of water-borne erosion and fugitive dust, and noise levels exceeding allowable limits.

HCDCH is pursuing additional archaeological data recovery and is in the process of contracting with an archaeological consultant to prepare a plan for field and laboratory research. This plan will be submitted to the State Historic Preservation Division (SHPD) for review and approval. In addition, the consultant will revisit and conduct a comprehensive cultural impact assessment. Once construction is underway, the developer will implement a monitoring program. Any unidentified cultural remains that are unearthed will be reported immediately to the SHPD and the Oahu Island Burial Council.

Although the traffic study has indicated that the elderly housing complex will not have a significant adverse impact on traffic, future development—i.e., the DAGS office/mixed use complex—is expected to increase traffic significantly. Signalization is a possible mitigation measure under this scenario. To facilitate a new traffic signal on Iwilei Road, HCDCH has drawn a preliminary subdivision line that will allow an intersection to be located opposite the Nimitz Highway off-ramp.

Alternatives Considered

Over the planning and environmental analysis phases of the project, several alternatives were considered, including the "no action" alternative.

No Action Alternative. The no-action alternative would involve no change to existing uses of the site for the foreseeable future. One exception is work already contracted by the Department of Accounting and General Services to renovate the OR&L Terminal Building. While this alternative would circumvent the financial and environmental costs associated new facilities, it carries large opportunity costs in forgone benefits that might result from more intensive development and the possibility of neighborhood revitalization.

Alternative Uses—Commercial and Industrial Development. A 1999 market study identified affordable housing as the highest and best use of the site. However, the study also examined several relevant market sectors, including residential (market and affordable), commercial office, retail, and industrial. Commercial and industrial projects were dismissed as being infeasible alternatives given the weak performance of projects that had already been developed, notably Dole Cannery Square. And the subject property was deemed too far away to take advantage of an emerging critical mass of big-box discount

outlets. Similarly, office use was not recommended because of low market interest and the availability of more attractive space in downtown Honolulu.

Alternative Configurations. The conceptual design study by Kober/Hanssen/Mitchell Architects, Inc. (July 1998) included an exercise that developed different configurations for the project components. KHMA developed two variations of an all-residential scheme and three variations of a residential and mixed-use commercial scheme. The ultimate plan—one that serves as a foundation for the proposed housing project—allows phased development of the Iwilei site and provides the least obtrusive massing of structures. Concentrating residential use on the makai side of the site, leaves the balance of the site available for later development of an office complex that integrates the OR&L Terminal Building.

Unresolved Issues

Full Development of the Iwilei Project Site. Original plans—from the proposed Liliha Civic Center to the KHMA concept plan—called for one large-scale redevelopment effort. While substantial progress is now being made on the residential component, there is no explicit coordination in phasing the full build-out of the site. With no overall timetable or agreement on cost allocation, needs for the entire site (such as internal circulation and infrastructure) are not fully addressed.

Proposed Transit Center. The City's Iwilei Transit Center plan is not necessarily incompatible with the proposed housing complex. Because senior citizens tend to rely on public transportation, co-location with the transit center could be an amenity for the senior housing project by affording residents greater mobility. HCDCH has met with City officials to discuss the BRT and transit center proposals on several occasions; but the lag between development activities for the housing project and planning for the transit center has hampered coordination. At the same time, completion of the housing project is not expected to significantly impede the current transit proposals.

201G Exemptions. Section 201G-118(a) of the Hawaii Revised Statues provides that developers of affordable housing be exempt from State and County laws relating to planning, zoning, construction standards or subdivision, development and improvement of land, and construction of units. Pacific Housing Assistance Corporation has requested exemptions under 201G related to land use and zoning, park dedication, subdivision, and permit fees.

Compatibility with Land Use Plans and Policies

In commenting on the EIS Preparation Notice and EA, the Department of Planning and Permitting, the City's lead agency for developing and implementing land use plans and policies, wrote:

> The DPP finds the project concept to be an appropriate development at its proposed location, which is in close proximity to public transit along the King Street corridor, public open space and passive recreation, and a mix of commercial uses. (Letter dated October 3, 2001)

Key land use documents that shape the character of development in urban Honolulu are the Primary Urban Center (PUC) Development Plan and the Land Use Ordinance (LUO).

The PUC Development Plan is currently going through a revision process. Based on the draft that has been circulated publicly to date, the proposed development at Iwilei is consistent with the thrust of the plan. In particular, the plan focuses on strengthening the "Heart of Honolulu," by, among other actions:

- promoting mixed land uses
- allowing higher densities and more flexible development standards
- redeveloping the Downtown/Chinatown/Iwilei waterfront with a new shoreline pedestrian promenade and mixed-use commercial/recreational/residential complexes.

Under current LUO zoning, part of the proposed project is designated Industrial-Commercial Mixed Use District (IMX-1) and part of the site is designated Community Business Mixed Use District (BMX-3)

The IMX-1 district is intended to promote and maintain a mix of light industrial and commercial uses. This district provides diversified business and employment opportunities by permitting a broad range of uses, but without exposing non-industrial uses to unsafe and unhealthy environments. While the IMX-1 zone does not allow multi-family dwellings as a permitted use, the Iwilei area has changed significantly in the past few years. No longer does the district present the types of hazards that might have rendered the area unsuitable or undesirable for residential uses. Further, the IMX-1 zone is contiguous with the BMX-3 zone where the proposed housing development is allowed.

The BMX-3 designation recognizes that certain areas of the city have historically been mixtures of commercial and residential uses, occurring vertically and horizontally and to encourage the continuance and strengthening of this pattern. BMX-3 specifically provides areas for both commercial and residential uses outside of the Central Business Mixed Use

District. This district applies to areas along major thoroughfares adjacent to higher intensity districts, such as B-2 and BMX-4.

Permits and Approvals Required or Potentially Required

State of Hawaii

- Compliance with Chapter 343 HRS, the Environmental Review Process
- Compliance with Chapter 6E, HRS, State Historic Preservation Division
  - regarding archaeological monitoring during construction and
  - disposition of historic structures on the National or State Register of Historic Places.
- Compliance with Department of Health regulations regarding
  - hazardous and contaminated materials disposal, including asbestos and lead-based paint, site remediation
  - noise permit during construction
  - National Pollutant Discharge Elimination System (NPDES) Permit, e.g., dewatering during construction
- Compliance with Section 103-50, HRS, Americans with Disabilities Act Accessibility Guidelines

City and County of Honolulu

- Consolidation and resubdivision
- Zoning change from IMX-1 to BMX-3 or exempted using 201-G powers.
- Park dedication—required for multi-family residential projects. May be waived using 201-G powers.
- Development plan change for exceeding height limit
- Demolition Permit
- Grading Permit
- Trenching Permit
- Dewatering Permit
- Building Permit
- Sewer Connection Permit
- Municipal Storm Drain Connection Permit
- Certificate of Occupancy (post building permit)
- Water connection (Board of Water Supply

1. Introduction

1.1 Project Summary Information

Project Name	Elderly residential complex at Iwilei (to be renamed at a later date)
Applicant	Housing and Community Development Corporation of Hawaii (HCDCH)
Accepting Authority	Governor, State of Hawaii
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Flood Insurance Rate Map	Zone X (outside the 500-year floodplain)
Special Management Area	No
Encumbrances	Various easements and revocable permits (month-to-month leases) to be canceled

1.2 Proposing Agency and Action

The Housing and Community Development Corporation of Hawaii (HCDCH) is proposing to redevelop a portion of State-owned property in Iwilei between the OR&L Terminal Building and the Iwilei Business Center. It will include 156 affordable rental units for elderly persons, an adult day care center with assisted and supportive living services, a detached 139-stall parking structure, and landscaping.

The scope of this EIS covers the HCDCH residential development only. The proposed action is confined to approximately 1.6 acres on the western portion of the State-owned site that contains 5.7 acres in total. At present that site is comprised of some 18 individual parcels. HCDCH plans to consolidate the affected parcels and subdivide the site to create a separate 1.6-acre lot for residential development. Easements on the 1.6-acre parcel will be canceled or relocated. The proposed action, therefore, includes replacement of existing underground utilities and construction of new infrastructure and buildings to support the residential complex. Demolition of existing structures and site remediation work will be permitted under the proposed action of an earlier EIS for the Liliha Civic Center, finalized in 1992.

Elsewhere on the site, the Department of Accounting and General Services (DAGS) is planning a comprehensive renovation of the existing Oahu Railway and Land (OR&L) Terminal Building. This project is expected to start in November 2001. Proposals for a mixed-use office tower are in the discussion phase. The EIS discusses the anticipated cumulative impacts of these elements should they be implemented.

1.3 Purpose of the Environmental Impact Statement

Under Chapter 343, Hawaii Revised Statutes (HRS), Act 241, Session Laws of Hawaii (SLH) 1992, and Chapter 200 of Title 11, Department of Health (DOH) Administrative Rules, "Environmental Impact Statement Rules," the proposed project involves the use of public funds and public land and is, therefore, subject to the environmental review process. This EIS has been prepared to address potential impacts that may occur during construction and/or operation of the proposed elderly residential complex.

1.4 Project Location and Background

The project is sited on State-owned property that is located in the Iwilei district on the west side of downtown Honolulu (see Figure 1). It is configured in the shape of an arrowhead, with the "point" situated prominently at the corner of North King Street and Iwilei Road. The site is recognizable because of the landmark OR&L Terminal Building. Overall, the site contains approximately 5.7 acres and is identified by Tax Map Keys 1-5-7:1, 2, 14, 15, 18, 66-69, 71,74, 75, 78-84. HCDCH is proposing to consolidate the existing parcels and resubdivide the property into two lots. The residential complex would be sited on a 1.6-acre

lot located on the west (*makai*) side; the balance of the site would be available for future redevelopment by DAGS.

In the early 1990s, DAGS initiated plans to develop a State office complex, called Liliha Civic Center, on the Iwilei site. The scope of that project included 476,000 square feet of office space and 1,266 parking stalls. It was intended to consolidate various State departments and agencies throughout downtown Honolulu. An EIS for the Liliha Civic Center project was prepared and accepted in 1992. Subsequently, Hawaii's economy experienced a major downturn and completion of the State's Kakuhihewa Building in Kapolei reduced the demand for office space. Liliha Civic Center was postponed indefinitely.

In 1997, HCDCH assessed the Iwilei site as one that would have strong development potential for affordable rental housing. The agency retained Kober Hanssen Mitchell Architects to develop a conceptual master plan for the site (herein referred to as the "KHMA Concept Plan"), completed in 1998.

HCDCH and KHMA undertook a community-based planning process beginning with a needs assessment. There was general consensus among the participants that the site was due for revitalization and an image change. The final master plan envisioned construction of a 20-story residential tower with 200 affordable rental units and a separate five-story parking structure containing 280 stalls. The plan also provided for a 16-story office/mixed-use tower containing 281,500 square feet of floor area and a 704-stall parking structure.[1]

In 1999, a market study by Hastings, Conboy, Braig & Associates concluded that the highest and best use of the site would be an affordable rental housing project.

HCDCH continued planning efforts with a due diligence study and Phase I Environmental Site Assessment in 2001. These studies were based on the KHMA Concept Plan. After further refinements of the residential theme, and with availability of federal and State tax credits, HCDCH issued a Request for Proposals for elderly housing development. Pacific Housing Assistance Corporation, a nonprofit corporation, was subsequently selected as the project developer.

In May 2001, the Office of Environmental Quality Control (OEQC) advised HCDCH that a Supplemental EIS would be needed for the residential project. Although an EIS had been filed previously (for Liliha Civic Center), the loss of timeliness and a significant change in project description warranted a new environmental review.

An Environmental Impact Statement Preparation Notice was published in the August 23, 2001 issue of OEQC's *Environmental Notice*. Written comments from 15 agencies and organizations were received during the public comment period (see Chapter 12). HCDCH

[1] Some of the environmental analyses in this document area based on the KHMA master plan because it represents the most current and comprehensive conceptualization of development for the entire site—i.e., both HCDCH and DAGS components. Actual residential and office developments are expected to be smaller in scale than proposed in the KHMA Concept Plan.

convened a public information meeting on October 16, 2001. Notice of the meeting was mailed to elected officials, neighborhood boards and vision teams, and other community organizations. Minutes of the meeting are reproduced in Appendix A.

The Draft EIS was released for public review and comment in December 2001 and notice of its availability was published in the December 8, 2001 issue of the OEQC Environmental Notice. *A complete list of all agencies, organizations, and libraries that received the DEIS can be found in Chapter 12. The proposed elderly housing project and the DEIS filing were also reported by local media, for example, a January 1, 2002 article in* The Advertiser. *The 45-day public review period ended on January 22, 2002 at which time comment letters had been received from 15 agencies. All written comments and responses are reproduced in Chapter 12.*

1.5 Existing Uses of the Property

The HCDCH component of the Iwilei site is largely vacant. However, as seen in Figure 2, the proposed subdivision line runs through the Fruit and Vegetable (F&V) Warehouse which is occupied by various tenants (see Table 3). It will need to be demolished for site preparation and installation of underground utilities. The only other structure directly affected is a building housing the Aloha Upholstery business.

Among the buildings in the DAGS area is the historic OR&L Terminal Building which currently houses the Kalihi-Palama Multi-Service Center and the offices of non-profit organizations, such as the Buddhist Tzu-Chi Medical Center. This building will continue to be used for social services following renovation and upgrading, but current plans call for occupation exclusively by the State Department of Human Services. A two-story concrete building—known variously as the Document Storage Building, OR&L Annex, and K-P Building—is used by the King Kamehameha Celebration Commission and the Kalihi-Palama Culture and Arts Society. An abandoned gas station is located next to the Document Storage Building, fronting North King Street. This building was used most recently by the Honolulu Community Action Program, but is now locked behind a chain link fence.

The F&V Warehouse is a large, corrugated metal structure. Built in 1948, it is a vestige of the property's early days as a produce center. A few produce and food processing businesses and DAGS' archives occupy spaces in the warehouse. Other smaller buildings, sheds, and detached refrigeration units are scattered around the property. Portions of the property are improved for use as parking (for the Iwilei Center) or vehicle storage (Gomes Bus Company). All private businesses are tenants on revocable permits (month-to-month leases) with the Department of Land and Natural Resources, Land Division.

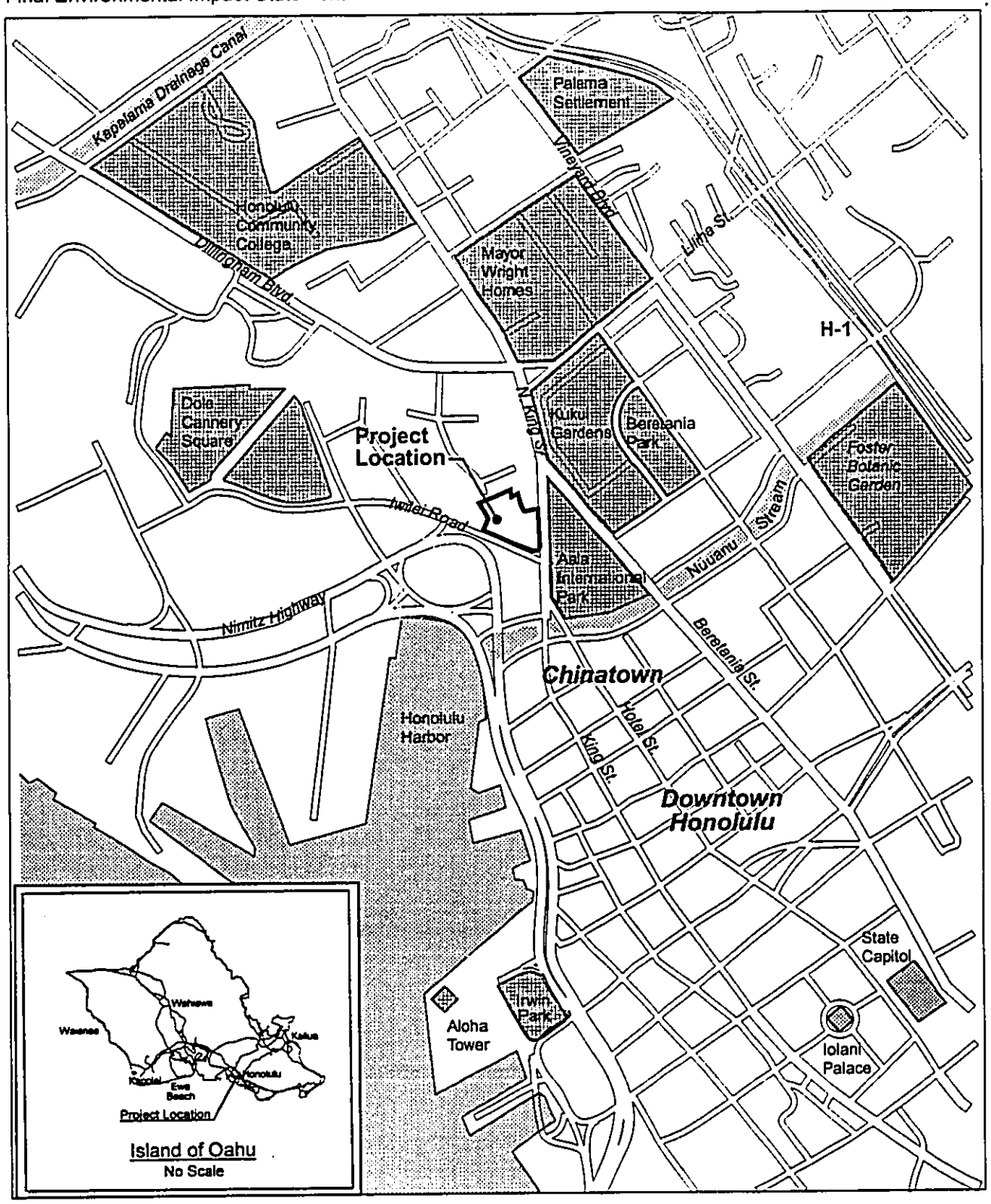


FIGURE 1

LOCATION MAP

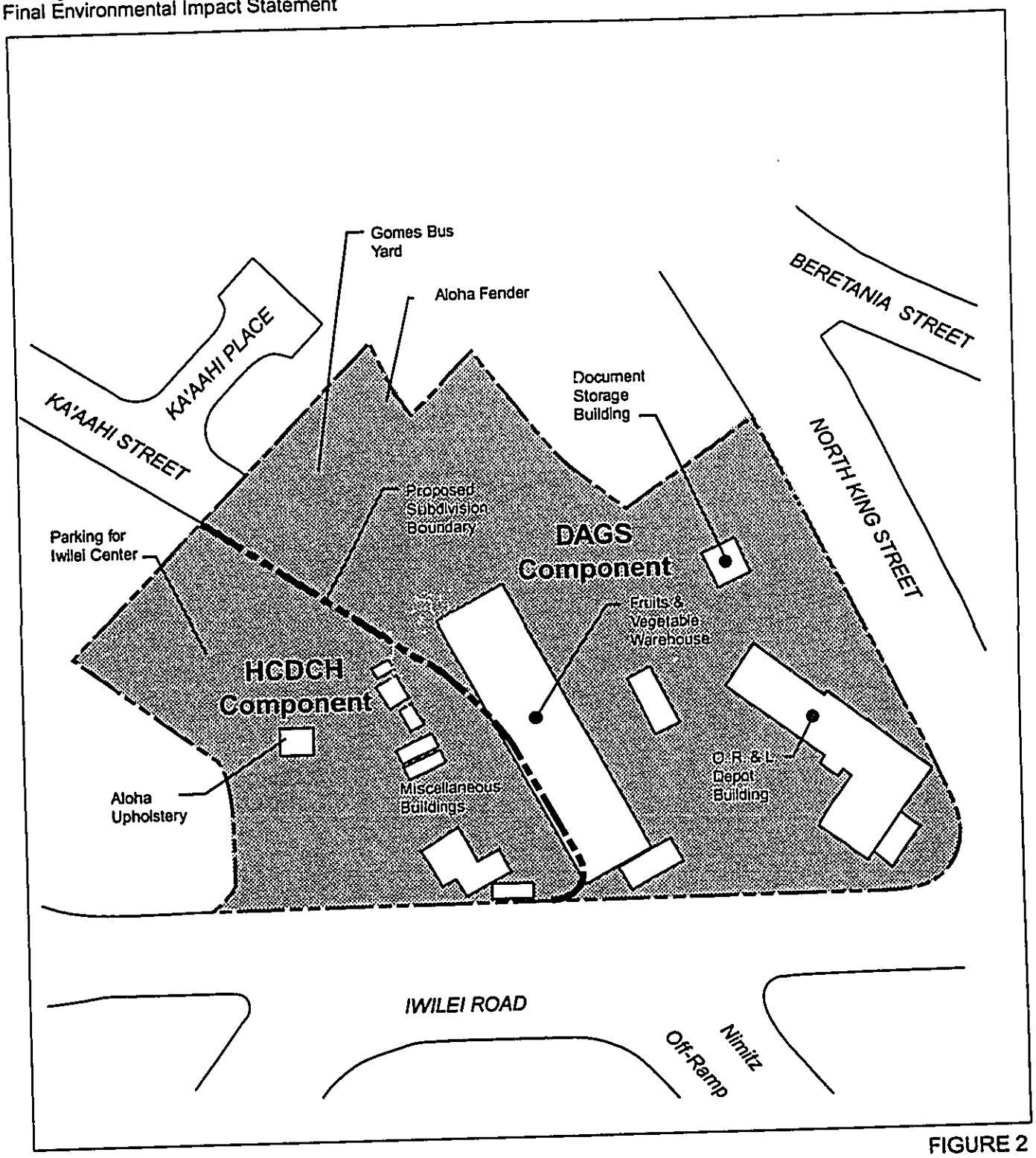
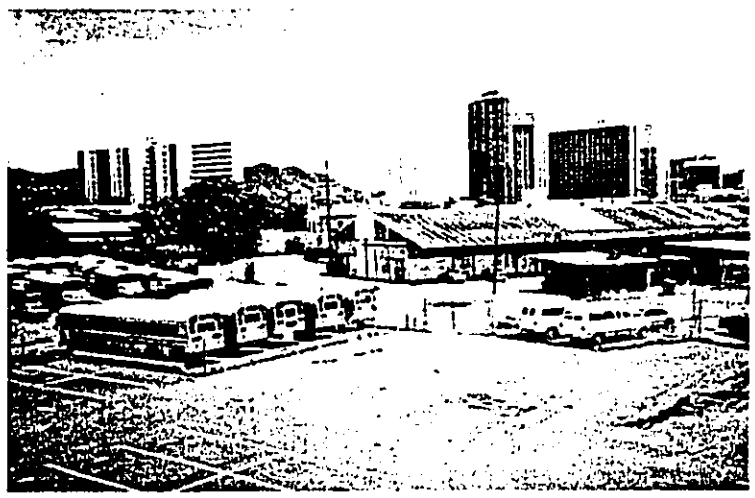


FIGURE 2

EXISTING FACILITIES



View of project site from upper level of Iwilei Center, looking *mauka* and Diamond Head. Surface parking for Iwilei Center in foreground, Gomes Bus storage yard and F&V Warehouse.

1.6 Description of the Surrounding Area

The subject property has convenient access to urban Honolulu and the remainder of the island due to its proximity to Nimitz Highway, Dillingham Boulevard, North King Street, and North Beretania Street. Access to the H-1 Freeway in either direction is available via these thoroughfares, as is the Honolulu International Airport and all of the major piers for Honolulu Harbor (see Figure 1).

The site is situated in an urban transition district characterized by a mixture of land uses. Commercial and light industrial uses are located west of the site. Historically this area was the center of Hawaii's pineapple canning industry. Since its demise, the area has modernized substantially with developments such as the Iwilei Center, Gentry Pacific Design Center, and Dole Cannery Square. These areas are typically characterized by a mixture of industrial-commercial development utilized for light manufacturing, wholesale distribution and warehousing, automobile service and repair, and emerging high-technology businesses.

Interspersed in the industrial area are social service agencies, such as the Institute for Human Services (the City's emergency homeless shelter), the Salvation Army detoxification center located off Nimitz Highway, and a rehab center on Sumner Street.

Mixed-use commercial activities are located along North King Street, *ewa* of the subject property, and in the Chinatown District located in the Diamond Head direction. Retail space is generally limited to the ground floor area of buildings, particularly those spaces with street frontage. The majority of retailers in the area are dependent on foot traffic provided by residents, commuters, and other businesses. Chinatown serves a more regional market with suburban customers drawn to ethnic specialty shops. Since the late 1990s, Nimitz Highway has become a spine for major retail outlets, including Flora Dec, K Mart, City Mill, and Home Depot.

Honolulu Harbor is located south of Nimitz Highway and is used for industrial, maritime, and tourism purposes. Bolstered by the potential for growth in the cruise ship business, the State of Hawaii is continuing to redevelop portions of the harbor as a major recreational and commercial district.

A commercially operated, at-grade parking lot lies to the east across Iwilei Road, and serves as one of the main public lots for Chinatown. Aala Park, located directly across North King Street, is currently undergoing an extensive rehabilitation program that will add more facilities for active recreation, security lighting, and walkways. The three-phase program is expected to be complete in 2002.

There are significant numbers of public and privately funded affordable residential developments *mauka* of the project site, including Mayor Wright Homes and Kukui Gardens.. During the 1980s and 90s, the City government made affordable housing development a priority in the Chinatown Special District which resulted in the completion of Kekaulike Courtyards, Harbor Village, Marin Tower, Chinatown Gateway Plaza, and Chinatown Manor.

1.7 Project Purpose and Need[2]

The Iwilei site is a prime parcel of land at the gateway to downtown Honolulu. Despite a number of physical and locational assets, the property is underutilized with deteriorating and vacant structures that present an image of neglect and blight. After business hours, vagrants are known to congregate on the site and signs of homeless encampments are readily apparent—with real and perceived concerns about crime and safety. In the midst of ongoing revitalization—from Chinatown and Aala Park to the old cannery district and the Nimitz Highway corridor—this visible pocket stands out as an anomaly.

HCDCH and DAGS have initiated planning efforts that would increase the productivity and value-added of the Iwilei site for the benefit of Hawaii residents. In particular, this project meets HCDCH's mandate of providing affordable rental housing. As it is currently conceived, this project allows HCDCH to strengthen its commitment to the "aging in place" concept. While elderly housing projects have become more common in recent years, it is rare to find a facility that can accommodate the diversity among seniors from those who wish to live independently and are capable of doing so, to those requiring various geriatric support services. For clients of the adult day care center who live off-site, the Iwilei site provides convenient access from a number of communities with older than average populations.

The proposed residential development is well-suited to its environs and would provide continuity of the residential/commercial mix along the King Street corridor from Chinatown

[2] The project rationale is further discussed in two foundation documents: the *Conceptual Design Study* by Kober/Hanssen/Mitchell Architects (July 1998) and the *Iwilei Market Study* by Hastings, Conboy, Braig & Associates, Ltd. (May 1999).

to Liliha and Palama. Given its location downtown, a high-rise building would not be out-of-scale with the urban fabric. New residents will provide a 24-hour presence to the immediate neighborhood and,while senior citizens are not expected to drive away crime, the addition of more "eyes on the streets" contributes to deterrence. As redevelopment sites become limited, it will become increasingly difficult to find housing sites that are as suitable for the elderly population. Shopping places for basic needs and amenities are within easy walking distance, a major park is across the street, medical facilities are relatively close by, and buses at street level provide connections to all parts of the island.

1.8 Land Ownership

The subject property is owned by the State of Hawaii. Jurisdiction of the land resides with the State Department of Land and Natural Resources (DLNR). On April 26, 1991, the State Board of Land and Natural Resources set aside by Governor's Executive Order approximately 200,000 SF of State-owned land for the proposed Liliha Civic Center; however, that project was not realized. DLNR is expected to transfer control and management of the OR&L Building to DAGS by Executive Order. HCDCH has petitioned the Land Board to set aside 1.6 acres on the west side of the property.

1.9 Encumbrances

Several easements run through the property as shown in Figure 3. Easements for utility lines are generally linear and ten feet wide: five feet on each side of the center line. Provisions of the easements cover not only the utiiity itself, but also the right of ingress and egress for inspection, maintenance, repair, and reconstruction of the utility line.

Table 1 identifies the existing easements, purpose, and disposition under the proposed action.

Table 1
Easements on the Iwilei Project Site

Easement Numbers	Purpose	Disposition
Easement 5	Storm drain	No change
Easement 6 & 39	Storm drain	To be cancelled & relocated
Easement 7, 8, & 35	Storm drain	No change
Easement 9	Sanitary sewer	No change
Easement 10	Concrete ramp	No change
Easement 11 & 38	Railroad	To be cancelled
Easement 12 & 40	Road	To be cancelled
Easement 13 & 37	Electrical power line	To be cancelled

Easement Nos. 35-40 constitute a parallel numbering system (see Land Ct. App. 1758, Map 3).

Several tenants have agreements with the State of Hawaii (see Table 2). Tenancy for the revocable permits (RP), as well as for General Lease No. S-5502, are on a month-to-month basis and require a 30-day notice to vacate. The Board of Land and Natural Resources took action on October 12, 2001 to cancel all permits on the Iwilei site. On October 24, 2001, termination notices were sent to all tenants requiring them to vacate the property as of January 31, 2002. Due to their month-to-month status, the tenants are not eligible for relocation assistance.

Table 2
Revocable Permits (Month-to-Month Leases) on the Project Site

Tenants	Agreement	TMK
Richway Produce Company	RP-7011	1-5-7:14 (Warehouse)
Kewalo Pickle Products Inc.	RP-5518	1-5-7:14 (Warehouse)
George Asato dba G Repairs	RP-7143	1-5-7:14 (Warehouse)
Douglas Kishimoto dba Restaurant Equipment Locators	RP-7167	1-5-7:14 (Warehouse)
Kenneth Tanji dba Eddie's Refrigeration	RP-7168	1-5-7:14 (Warehouse)
House of Representatives	RP-7009	1-5-7:14 (Warehouse)
DAGS	RP-7010	1-5-7:14 (Warehouse)
David Cheng dba Oahu Produce	RP-6609	1-5-7:78
Institute for Human Services (parking area)	RP-6834	1-5-7:80
Mid-Pacific of Hawaii, Inc.	RP-6904	1-5-7:15
Aloha Upholstery	RP-6922	1-5-7:81
Aloha Fender	RP-5738	1-5-7:74
Gomes Bus Services, Ltd.	RP-6838	1-5-7:75
The 300 Corporation (Iwilei Center parking area)	RP-7105	1-5-7:84

Source: Correspondence from S. Lau, DLNR Land Division, March 29, 2001.

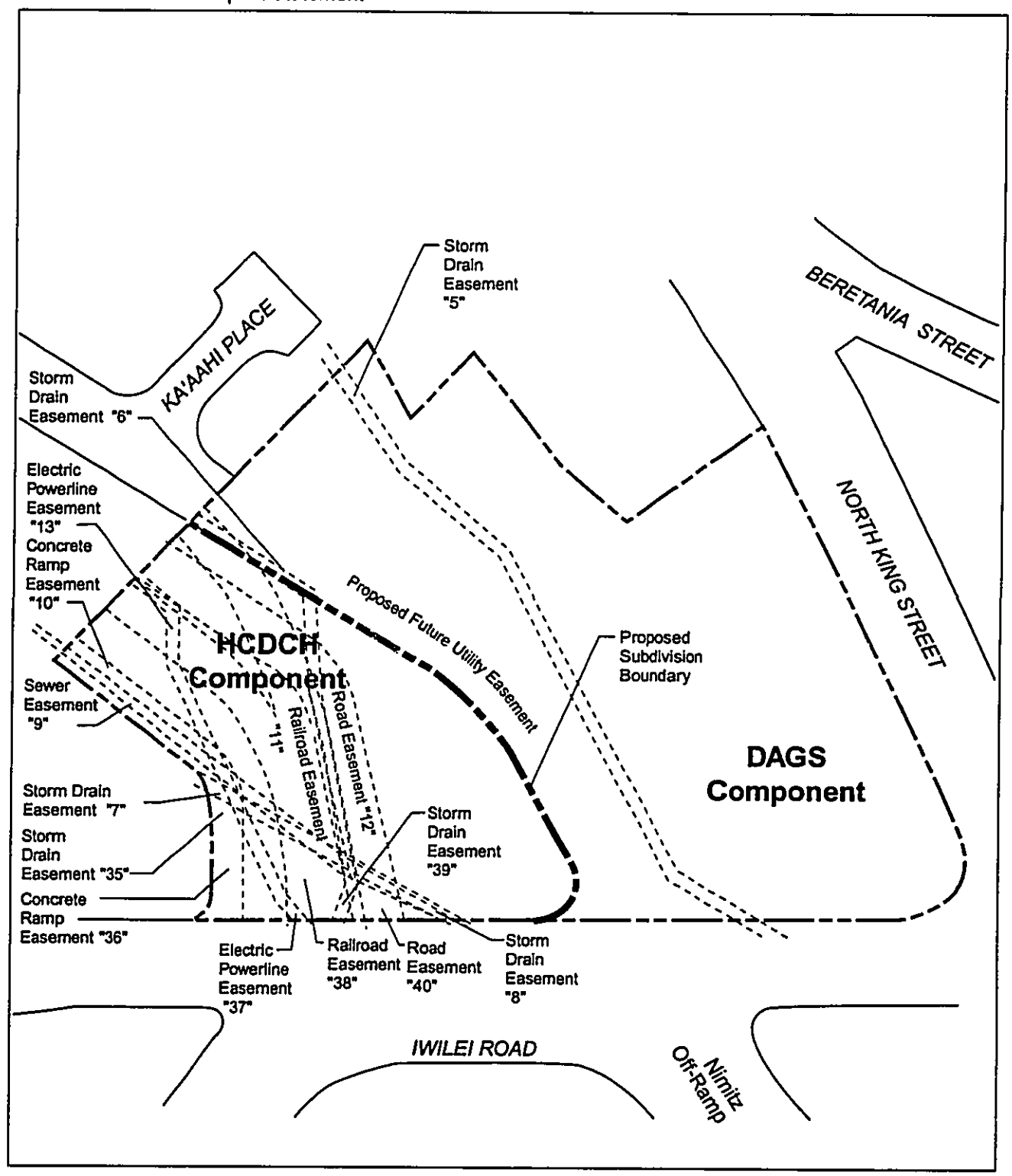


FIGURE 3

EASEMENT MAP

2. Proposed Action

2.1 Project Description

The project consists of a 21-story residential tower with 156 dwelling units connected to a 2-story community services building that will house an adult day care program, offices, and a recreation deck. A parking structure with 139 stalls for tenants and visitors is proposed as a separate structure to be connected to the residential tower by a breezeway on one or more levels.

Figure 4 shows a site plan for the residential development. Figures 5 and 6 show additional details related to the proposed development.

Components of the Residential Complex

21-story apartment building with 156 units
- 138 1-bedroom units (630 SF and 720 SF)
- 18 2-bedroom units (960 SF)

Community Service Building (18,000 SF)
- Senior day care center

Parking Structure
- 139 tenant and visitor parking stalls

Total gross floor area: 169,470 SF

The residential/community services building will have a gross floor area of approximately 169,470 square feet (SF) broken down as follows:

Level	Sq. Feet	Uses
1	15,930	Adult day care (9,000 SF), lobby, service and utility areas
2	15,930	Office (9,000 SF), common laundry, other common areas, 6 1-bedroom units
3	6,930	Six 1 bedroom units, recreation deck (for project tenants)
4 - 21	130,680	Seven 1-bedroom units and one 2-bedroom unit on each floor (7,260 SF per floor)

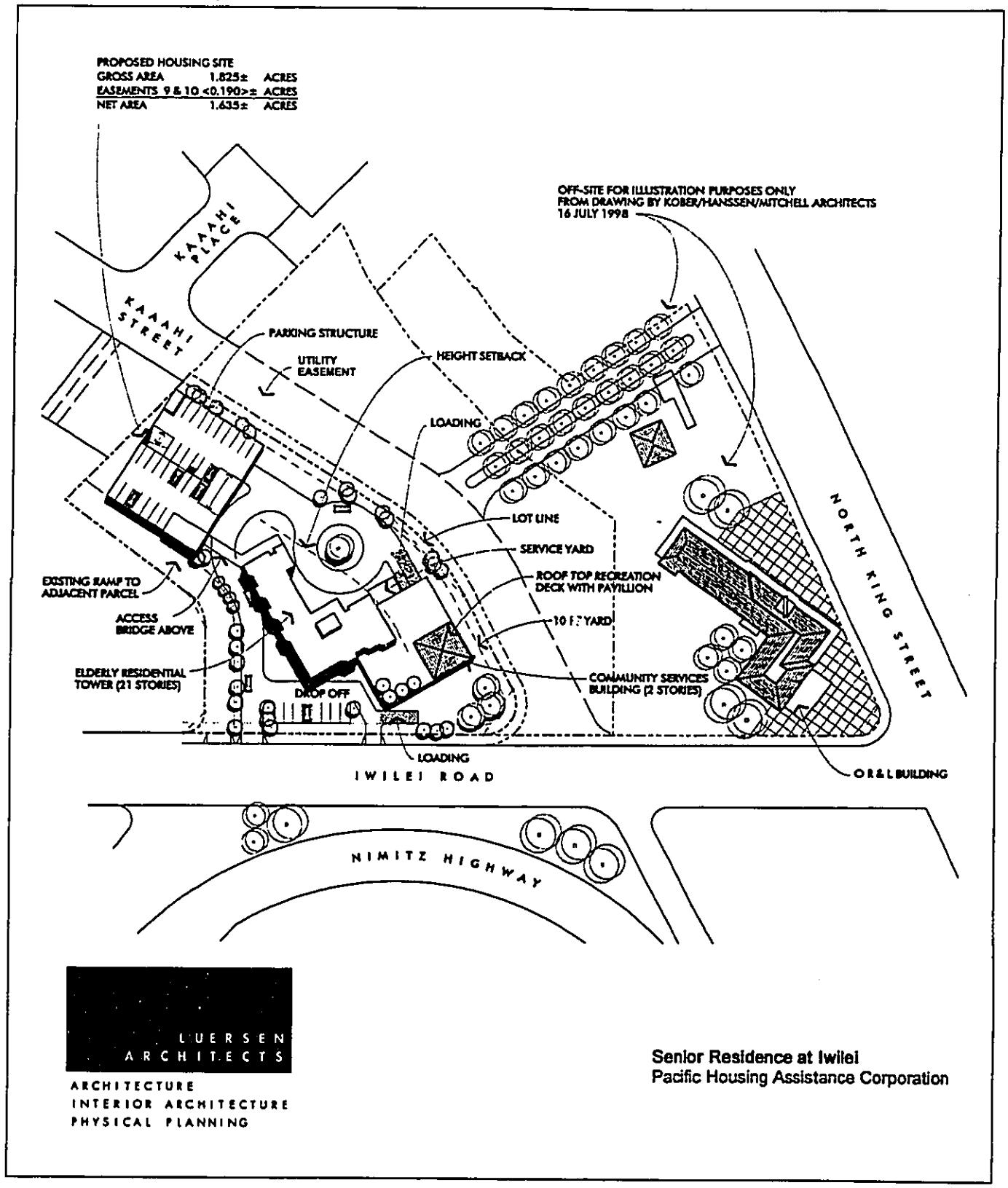
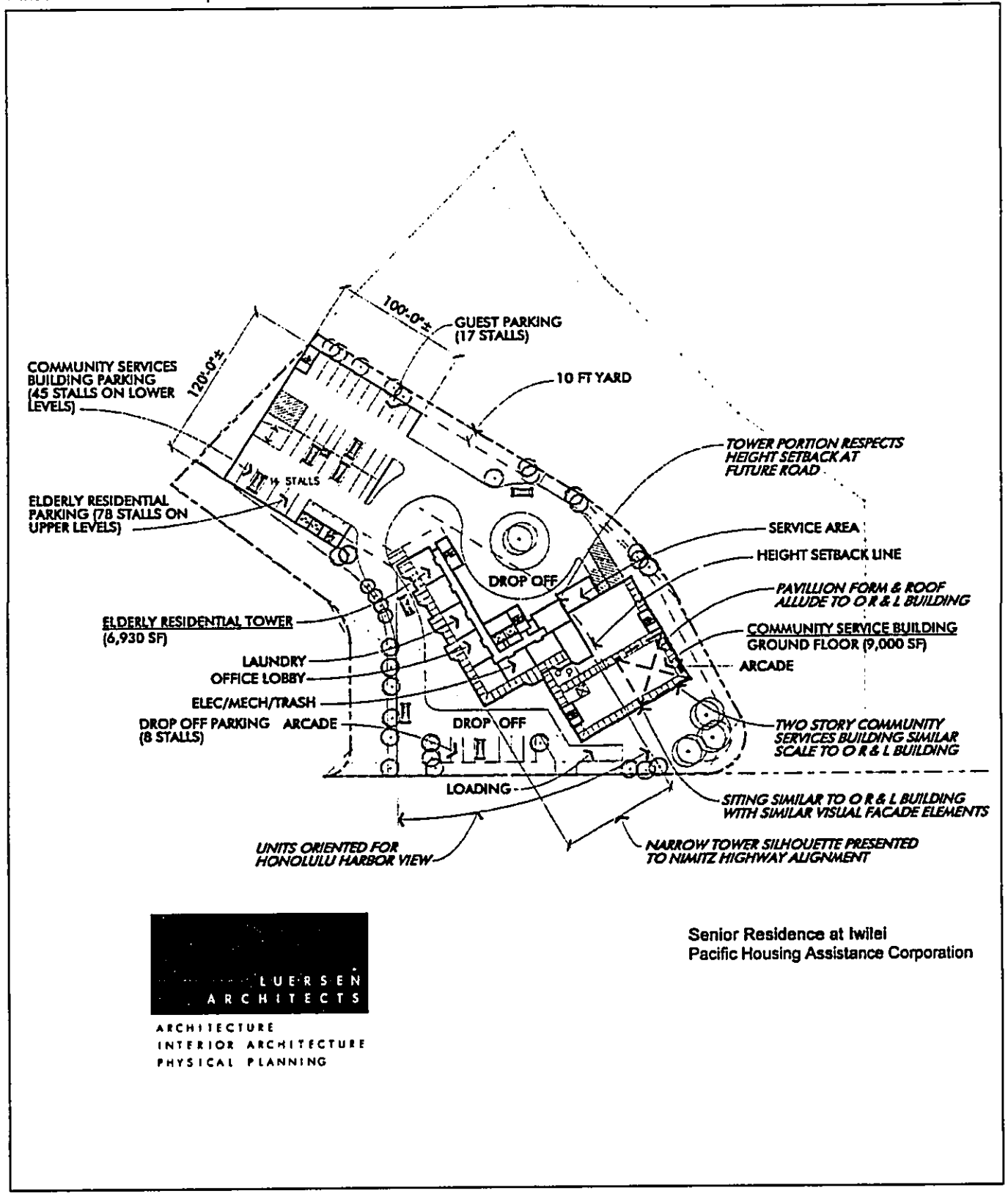


FIGURE 4
SITE PLAN

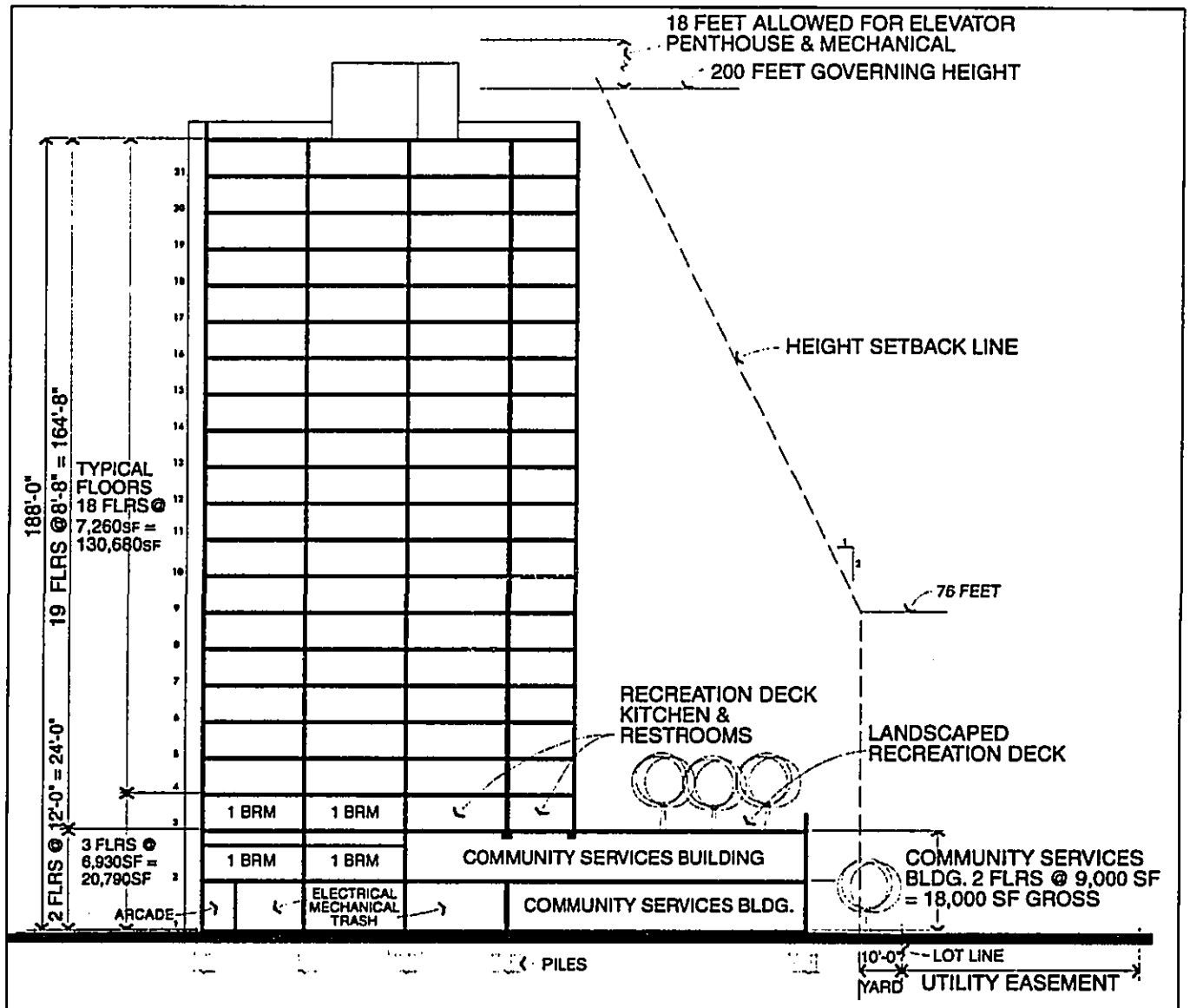


0 SCALE IN FEET 120

N

FIGURE 5

URBAN DESIGN NOTES



LUERSEN ARCHITECTS
ARCHITECTURE
INTERIOR ARCHITECTURE
PHYSICAL PLANNING

Senior Residence at Iwilei
Pacific Housing Assistance Corporation

0 SCALE IN FEET 24

FIGURE 6

BUILDING SECTION

2.2 Development Concept

The project design promotes an aging-in-place, elderly lifestyle through common spaces that encourage casual interaction and contact. These common areas allow provision of support services appropriate for elderly residents, such as housekeeping, social and recreational activities, and transportation. The entire project is designed to be in compliance with both the Americans with Disabilities Act (ADA) and the Fair Housing Amendment, and provides accessible routes, parking, passenger loading zone, elevators, and common activity areas. All living units are configured for accessibility and adaptability, and will feature individual unit call stations to a central monitoring station. The one-bedroom units allow spousal care-giving and the two-bedroom units allow for a live-in caretaker, either related or unrelated.

2.3 Proposed Rents

Proposed monthly rents are $322 to $685 for a one-bedroom unit and $750 to $822 for a two-bedroom unit.

2.4 Social Services Program

The proposed Community Services Building is intended to provide elderly services and day care activities and is contiguous with the residential tower. The Maluhia Adult Day Center at Iwilei will be able to accommodate 50 clients per day and available to interested seniors who could benefit from a program that offers a variety of health, exercise, recreation, and support services. The goal of the adult day center is to keep seniors as healthy and independent as possible by providing meaningful activities and health care monitoring in a stimulating social environment. These activities would include daily exercise, music, arts and crafts, entertainment, and outings. The center will be open on weekdays from 6:45 am to 5:30 pm. The day care program will be open to tenants of the Iwilei residential complex and other eligible seniors in the surrounding neighborhoods and community at large.

The center will provide a setting for people to interact socially with their peers, thereby promoting friendship and companionship. Such interactions play an important role in healthy living as the elderly are often at risk for isolation, loneliness, and depression, which diminishes their health and mental well-being.

The adult day center will be staffed with trained professionals who are experienced in caring for older adults. The center team will include nurses, a social worker, center assistants, and an activity coordinator to develop and provide the activities and services.

The social service program at Iwilei will not be limited to the Maluhia Adult Day Center only. The center social worker will be able to link residents seeking services from Catholic Services for the Elderly, City and County's Elderly Affairs Division's Kupuna Care Program, Project Dana, Honolulu Gerontology Program, Nursing Home without Walls, private home health agencies, meals on wheels, and other elder-care services including Maluhia's PACE Hawaii program (or Program of All-inclusive Care for the Elderly).

To be eligible for Maluhia Adult Day Center at Iwilei, an applicant must be 62 years or older, and have a medical condition or disability that requires supervision and assistance with everyday activities, such as walking, dressing, grooming, feeding, and bathing. As residents age in place and require more assistance, they may be referred to Maluhia's PACE program which offers in-home personal assistance and other health care services. Eligible residents may continue to attend the adult day center while receiving PACE services.

Maluhia Adult Day Center at Iwilei rates have not been determined. The average daily rates among the adult day centers in Hawaii range from $35-$75 per day depending on the facility and type of care received. Maluhia's fees will mostly likely be comparable with other adult day centers in the community. Most centers are paid out-of-pocket (private pay), through private grants, or reimbursed by long-term care insurance and Medicaid funds.

2.5 Project Developers

Pacific Housing Assistance Corporation is a private nonprofit corporation based in Hawaii. Over its 21-year history, Pacific Housing has designed, developed, and managed several major housing projects for the elderly, including Weinberg Senior Residence at Maluhia, Lani Huli Senior Housing, and Senior Residence at Kaneohe.

Malunia Long Term Care Health Center, under the Hawaii Health Systems Corporation, State of Hawaii, is a leading long-term care facility that provides a range of health services from skilled/intermediate and rehabilitation services to inpatient residents. It also sponsors the well-regarded Program of All-inclusive Care for the Elderly (PACE) for seniors residing in the community. Maluhia initiated one of the first adult day health centers in Hawaii in the 1980s which later evolved into the PACE Hawaii Program—a comprehensive health and long-term care system for the frail elderly.

2.6 *Kober Hanssen Mitchell Architects (KHMA) Concept Plan*

The 1998 KHMA Concept Plan is one of the foundation planning documents in redeveloping the Iwilei site. The residential component of this plan has since been updated by the development proposal submitted by Pacific Housing Assistance Corporation (PHAC). However, the KHMA Concept Plan still offers the most detailed description of the office/mixed use component. Some of the environmental analyses were based on the project parameters outlined in the KHMA Concept Plan, particularly in determining cumulative impacts of future development.

As shown in the numerical comparison below, the KHMA Concept Plan envisioned more intensive development than is currently proposed.

	KHMA Concept Plan (1998)	PHAC Proposal (2001)
Residential Component		
No. of units	200	156
No. of floors	20	21
Unit Mix		
One bedroom	80 units	126 units
Two bedrooms	120 units	18 units
Residential floor area	165,500 SF	151,470 SF
Community services building		
No. of floors	N.A.	2
Community services floor area	N.A.	18,000 SF
Residential parking structure		
No. of stalls	280 stalls	139 stalls
No. of floors	5	5
Parking structure floor area	100,000 SF	60,000 SF
Office/Mixed Use Component		
No. of mixed-use floors	16	N.A.
Mixed-use/office floor area	281,500 SF*	N.A.
Mixed-use parking structure		
No. of stalls	704 stalls	N.A.
No. of floors	9	N.A.
Parking structure floor area	235,000 SF	N.A.

N.A. = Not Applicable

* DAGS, the developer of the mixed-use tower, has expressed an interest in developing a smaller facility of perhaps 100,000 square feet, with a concomitant height reduction; however, there are no definitive plans at this time.

2.7 *Project Costs and Timetable*

The total estimated development cost is $34,673,001 and is proposed to be financed with a combination of loans and grants from the State of Hawaii, City and County of Honolulu, private investor under the Low Income Housing Tax Credit program, conventional private loans, and private foundation grants. A preliminary breakdown of project costs is shown below.

Land	1
Architecture & Engineering	1,568,000
Direct Construction	26,899,900
Financing	759,700
Marketing & Advertising	75,000
Project Management	500,000
Legal	200,000
Fees & Assessments	1,165,200
Miscellaneous	1,244,900
Contingency	2,261,000
Total Development Costs	**$34,673,701**

Groundbreaking is expected by mid-2002 and the project is expected to be complete by December 2004.

3. Affected Environment, Potential Impacts, and Mitigation Measures

3.1 Physical Environment

3.1.1 Topography, Geology, and Soils

The project area is on the coastal plain of southeastern Oahu, formed on the eroded flanks of the Koolau range. The site is level with an elevation of approximately 10 feet above mean sea level (MSL).

The two predominant soil types in the project area are Ewa silty clay loam (EmA) and mixed fill land (FL). Ewa silty clay loam is a well-drained soil common on alluvial fans. The Ewa soil lies inland of the fill areas and is underlain by coral limestones at depths of 20 to 50 inches. Permeability is moderate, runoff is very slow, and the erosion hazard is no more than slight. Fill areas are found along the southeastern shores of Oahu, particularly adjacent to Pearl Harbor and Honolulu Harbor. Fill areas are composed of material dredged from the ocean or hauled from nearby areas, garbage, and material from other sources. This land type is used for urban development, including airports, housing, and industrial facilities.

Geolabs, Inc. reviewed the findings of a 1992 geotechnical analysis by Harding Lawson Associates (HLA) and conducted additional surface and subsurface investigations of the project site, including drilling and sampling of two borings. Boring No. 1 was located within the footprint of the proposed residential tower and extended 115.5 feet below the existing ground surface. Boring No. 2 was located in the area proposed for a residential parking structure and extended 72 feet below the existing ground surface.

The field explorations encountered a three-inch thick layer of asphaltic concrete pavement underlain by fill materials consisting of medium dense to dense silty gravel and sand extending to depths of about 5 to 5.5 feet. The fill materials were underlain by lagoonal deposits consisting of very loose to loose silty sand and gravel, and very soft to medium stiff silty clay and clayey silts with some organics extending to depths of about 55 to 65.5 feet. In Boring No. 1, a hard to very hard basalt formation was present at depths between 65.5 and 80 feet. The basalt formation was underlain by alluvial/colluvial deposits consisting of basalt boulders interbedded with silty clay extending to a depth of about 112 feet. Finally, a very hard basalt formation extended to the maximum depth explored of about 115.5 feet below the existing ground surface. In Boring No. 2, the lagoonal deposits were underlain by alluvial/colluvial deposits consisting of basalt boulders interbedded with silty clay extending to the maximum depth explored of about 72 feet below the existing ground surface.

Groundwater was encountered at depths varying from approximately 6.2 to 7.0 feet below the existing ground surface. However, it should be noted that groundwater levels, are subject to change due to tidal fluctuation, seasonal precipitation, storm surge conditions, and other factors.

The geotechnical engineers concluded that proposed development (as laid out in the KHMA Concept Plan) is suitable for the site given the available subsurface information.

Potential Impacts and Proposed Mitigation Measures

Based on subsurface conditions and the anticipated high column loads, a deep foundation system consisting of driven piles is recommended to support the proposed towers and parking structures. Recommended are 16.5-inch octagonal precast, prestessed concrete piles, driven into the basal formation and/or alluvial/colluvial boulder layer. The minimum pile spacing recommended is 3.5 feet from center to center. Because the basalt formation and alluvial/colluvial boulder layer were encountered at depths of about 55 to 66 feet, it is anticipated that the average length of piles will be approximately 60 to 70 feet below the existing ground surface. (The estimated pile lengths are for initial cost estimation purposes only.)

Construction of a basement level is likely to be difficult due to the soft/loose soils and the shallow groundwater level encountered at the project site. An adequately designed and properly implemented shoring and dewatering system will be required. Because the proposed project is located in a developed area, the basement excavation will need to be adequately shored to reduce the potential for adjacent ground movement. In addition, the dewatering operation should be conducted in such a manner that the dewatering will not cause ground subsidence, which may cause potential damage to existing structures and utilities.

Additional field exploration will be conducted for the final design of the pile foundations and site grading.

3.1.2 Hydrology

Most of southern Oahu is underlain by an extensive basal aquifer and the project is situated above the Kalihi aquifer system. The upper part of the aquifer contains fresh water that floats on heavier sea water forming a lens-shaped body. Southern Oahu's coastal plain, where the site is located, is underlain by sedimentary deposits that form a caprock which retards the seaward movement of fresh groundwater from the basal aquifer.

This caprock extends along the coastline about 800 to 900 feet below sea level. The width and thickness of the caprock suggests that the basal potable water supply will be relatively unaffected by modifications near the coastline. This is supported by the fact that filling of most of Honolulu's salt marshes and lowlands over the past 40 years with dredged marine deposits of high saline content has produced no deterioration in the quality of the basal water

recovered by the Board of Water Supply's wells. The nearest municipal source supplying potable water is the Kalihi Pumping Station located approximately one mile north of the project site. In 1996, the wells at this site were permitted to draw 6.22 million gallons per day.[3]

Nuuanu Stream, located approximately one-tenth mile east of the project site, is the nearest surface water body. It is a perennial stream that has been channelized along its lower reaches and outlets into Honolulu Harbor. Honolulu Harbor itself is located about a quarter of a mile south of the project site. According to the *Hawaii Stream Assessment*, Nuuanu Stream has limited aquatic resource value, but substantial riparian and recreational resource value. There are eight archaeological sites along its reaches and a Category 1 (historically significant) bridge.

Potential Impacts

The proposed action is not expected to have a significant adverse impact on the hydrology system in the project area.

3.1.3 Flood Hazard

According to the Flood Insurance Rate Map (FIRM), Panel No. *15003C 0354E dated November 20, 2000,* ~~150001-0115C dated September 28, 1990~~ the entire property is designated as Zone X, an area determined to be outside the 500-year floodplain. Figure 7 shows the location of flood-prone areas in the vicinity of the project site.

Potential Impacts

The proposed action is not located in an area that is vulnerable to flooding, nor will it increase the risk of flooding in the area.

3.1.4 Climate and Air Quality

Climatic Conditions

Hawaii's climate can be explained largely by its geographic location. Ranging from approximately 19 to 22 degrees north latitude, the main islands lie within a belt of persistent trade winds. And because it is distant from continental land masses, the atmosphere over the islands is strongly influenced by the ocean, which supplies moisture to the air and regulates temperatures.

[3] City and County of Honolulu Board of Water Supply, Oahu Water Management Plan: Initial Revision to the Technical Reference Document, January 1998, Appendix B, Existing Water Use by Aquifer System.

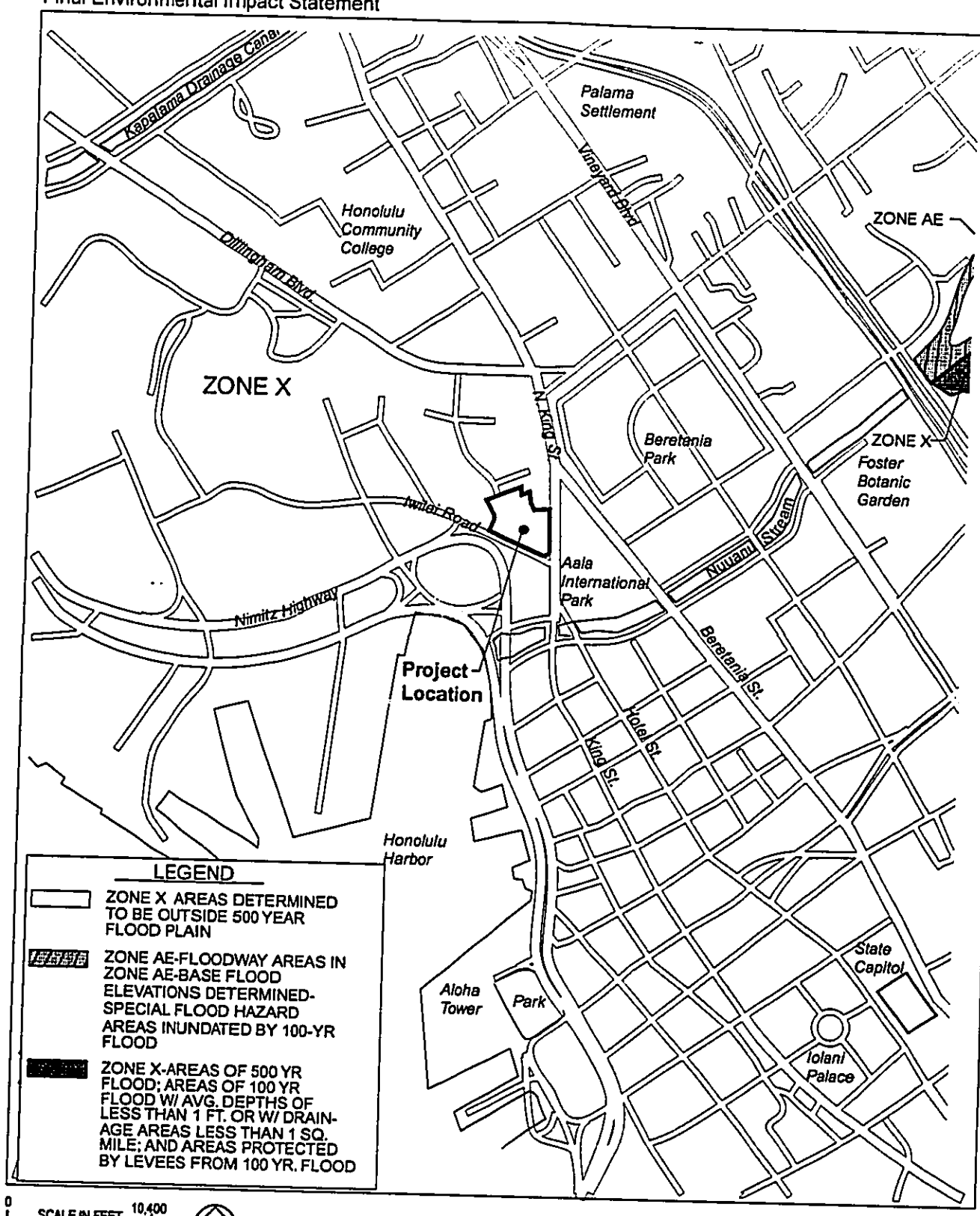


FIGURE 7

FLOOD HAZARDS MAP

The climate at the subject property is typical of the leeward coastal lowlands of Oahu. The area is characterized by abundant sunshine, trade winds, relatively even temperatures, moderate humidity, and infrequent severe storms.

The closest weather station to the project site is located at Honolulu International Airport, which is at an elevation comparable to the project site and has the same southeast orientation. Temperatures range from average monthly highs of 89 degrees in August and September to average monthly lows of 65 degrees in January and February.[4] Relative humidity varies from a 65 percent in June and July to 77 percent in January.[5] Median annual precipitation measured at the Board of Water Supply's Beretania Pumping Station is 32 inches.[6]

The prevailing wind throughout the year is the northeasterly trade wind, although its frequency varies. Normal trades tend to break down in the fall giving way to more light (less than 10 mph), variable wind conditions through the winter and on into early spring. It is during these times that Honolulu generally experiences elevated pollutant levels. [7]

Air Quality[8]

Existing air quality in and around the subject property is primarily affected by vehicular and industrial sources. Nitrogen oxide and carbon monoxide emissions from motor vehicles on heavily-used Dillingham Boulevard and King Street affect ambient air quality on the project site (particularly during infrequent periods of southerly or Kona winds). In addition, air pollutants such as salt spray from the ocean, allergens produced by vegetation, dust, and volcanic gases also affect the area.

The most significant stationary source of air emissions is Hawaiian Electric Company's (HECO) Honolulu Power Plant, located approximately 0.6 mile south of the project site. This steam-electric generating facility is the smallest of three power plants on Oahu and contains two units fired by low-sulfur fuel oil. The existing air quality in the project vicinity could be affected by nitrogen oxide and sulfur oxide emissions from the power plant's short boiler stacks.

The State Department of Health (DOH) operates a network of air quality monitoring stations at various locations on Oahu. The table below shows air quality measurements taken in 1999, the latest years for which published statistics are available. The monitoring station

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[4] James R. Owenby and D. S. Ezell. "Monthly Station Normals of Temperature, Precipitation, and Heating and Cooling Degree Days, 1961-90." U.S. National Climatic Data Center, National Oceanic and Atmospheric Administration, January 1992.
[5] Sonia P. Juvik and James O. Juvik eds. Atlas of Hawaii, 3rd Edition, University of Hawaii Press, 1998, p. 51.
[6] Owenby and Ezell, 1992.
[7] Wilson Okamoto & Associates Inc., Liliha Civic Center: Final Environmental Impact Statement, November 1992, p. 3-1.
[8] J.W. Morrow, "Air Quality Impact Report: Iwilei Center Project Site," October 3, 2001.

closest to the project site is located at Kauluwela Elementary School in Liliha; however, this site monitors only particulate matter that is 10 microns or less (PM_{10}). Another monitoring station atop the Department of Health (DOH) Building (Kinau Hale) on Punchbowl Street is approximately 1 mile from the project site. Particulate matter (PM_{10}), carbon monoxide (CO), and sulfur dioxide (SO_2) are sampled at this site. Two other pollutants are sampled at more distant locations: ozone at Sand Island and nitrogen dioxide (NO_2) at Campbell Industrial Park—both are more industrially oriented areas and, since these substances are typically of regional concern, places where high concentrations would be more evident.

Table 3 compares 1999 annual average readings against federal and State air quality standards. Ozone and carbon monoxide do not have federal or State annual standards, so the table shows the average of daily maximum 1-hour values for each day. In general, pollutant levels are significantly below federal and State ambient air quality standards.

Table 3
1999 Air Quality Data for Selected Monitoring Stations
(All units in $\mu g/m^3$ or micrograms per cubic meter)

Location	PM_{10} Annual Avg.	Ozone Annual Avg. of Daily Max. for 1 Hr.	CO Annual Avg. of Daily Max. for 1 Hr.	SO_2 Annual Avg.	$N0_2$ Annual Avg.
Liliha	15	--	--	--	--
Honolulu/DOH	14	--	706	2	--
Sand Island	--	40	--	--	--
Campbell I. Park	15	--	215	2	7
State Standard	50	100	10,000	80	70
Federal Standard	50	235	40,000	80	100

Source: State of Hawaii, Department of Health, Clean Air Branch, *Annual Summary, Hawaii Air Quality Data, 1999.*

In August 2001, air samples were taken on the King Street side of the project site. A continuous carbon monoxide (CO) instrument was set up and operated during the AM and PM peak traffic hours. An anemometer and vane were also installed to record on-site surface winds during the sampling period.

On Monday, August 6, 2001, sampling equipment was set up on the northwest side of the project site approximately 30 feet from North King Street. Weather conditions during the afternoon peak hour were characterized by partly cloudy skies (30%) and steady northeasterly trade winds averaging 8.9 mph. Carbon monoxide concentrations measured were low, averaging only 1.9 mg/m^3. Traffic on North King Street totaled 2,250 vehicles between 4:00–5:00 pm.

On Wednesday morning, August 8, 2001, at the same location, sky conditions were somewhat cloudier (40%) and the northeasterly trade winds continued but with a much lighter mean speed of 3.1 mph. Despite the slightly higher hourly traffic volume of 2,566 vehicles, the mean CO level of 1.7 mg/m^3 was similar to the afternoon measurement. The difference is not significant and is partly due to the greater variability in wind direction associated with such low wind speeds.

Potential Short-term Impacts and Proposed Mitigation Measures

On-site Construction Activities. The principal source of short-term air quality impact will be construction activity. Construction vehicle activity can at times increase automotive pollutant concentrations along adjoining streets as well as on the project site itself. Construction activity may also interrupt traffic flow with a concomitant increase in vehicle emissions due to "stop and go" traffic conditions.

Site preparation and earth moving will create particulate matter (PM) emissions. Construction movement on unpaved on-site areas will also generate PM emissions. EPA studies on fugitive dust emissions from construction sites indicate that about 1.2 tons/acre per month of activity may be expected under conditions of medium activity, moderate soil silt content (30%), and a precipitation/evaporation index of 50.

Due to the close proximity of existing establishments, and especially in light of continued occupation of the OR&L Building during construction, it will be very important to employ adequate dust control measures during *all phases of construction* ~~the construction period~~, particularly during the drier summer months. Dust control could be accomplished through installation of screens around the construction site and frequent watering of exposed soil. The EPA estimates that twice-daily watering can reduce fugitive dust emissions by as much as 50%. The soonest possible paving of driveways and landscaping of adjacent areas will also help.

Off-site Construction-related Activities. In addition to the on-site impacts attributable to construction activity, there will be off-site impacts due to the operation of concrete and asphalt batching plants needed for construction of buildings, sidewalks, and driveways. Such plants routinely emit particulate matter and other gaseous pollutants; however, it is too early to identify the specific facilities that will provide these materials and thus the discussion of air quality impacts is necessarily generic. The batch plants that produce this concrete and asphalt must be permitted by the Department of Health Clean Air Branch pursuant to State regulations. In order to obtain these permits, they must demonstrate their ability to continuously comply with both emission and ambient air quality standards. Under the Federal Title V operating permit requirements, now incorporated in Hawaii's rules, air pollution sources must regularly attest to their compliance with all applicable requirements. A typical concrete batch plant in Hawaii is equipped with fabric filters, i.e., "baghouses" for particulate matter control. Similarly, a typical asphalt plant is equipped with either a wet venturi scrubber or fabric filters. The efficiency of such controls is normally 95-99%.

Short-term air quality impacts due to off-site activities supporting the proposed development (i.e., concrete and asphalt production) appear to be minimal due, in large part, to control devices typically found at such production facilities and the high removal of pollutants. Emissions are strictly regulated by the DOH permit which each batch plant must have in order to operate.

Potential Long-term Impacts and Proposed Mitigation Measures

Analysis of Vehicular Emissions. Automotive emission factors for carbon monoxide were generated for calendar years 2001 and 2003 using EPA's Mobile Source Emissions Model (MOBILE-5B). To localize the emission factors as much as possible, an age distribution for registered vehicles in the City and County of Honolulu was used in lieu of national statistics. That same age distribution was the basis for the distribution of vehicle miles traveled. Mobile source air quality modeling has traditionally focused on estimating concentrations of non-reactive pollutants, primarily carbon monoxide, which is relatively stable in the atmosphere and comprises the largest fraction of automotive emissions.

Using data provided by the traffic analyses, modeling was performed to estimate near-intersection CO concentrations. CO concentrations were estimated at an array of 113 receptor sites, spaced at a distance of 30 feet, placed around the perimeter of the Iwilei site and along Iwilei Road and North King Street. A background concentration of 1.5 mg/m^3 from the DOH's 1999 monitoring data was also used as the background concentration in the model. Hourly meteorological data for the AM and PM peak traffic hours used in the model were extracted from the National Weather Service data collected at the Honolulu International Airport.

Parking Structure Analysis. The potential impacts of two proposed parking structures—one for the residential tower and another for the office/mixed use tower—were evaluated based on the traffic study. EPA's Industrial Source Complex-Version 3 (ISC3) model was used to estimate ambient impacts based on a series of ground-level to elevated area sources.

Results: 1-Hour Concentrations. Results of the model suggest that under worst-case conditions of meteorology and traffic, both the federal and State 1-hour CO standards would be met at receptor locations 30 feet and beyond the edge of streets expected to be affected by project-related traffic. The maximum AM peak hour CO level rose by 1.7% for the initial development scenario and 15% with full development. For the PM peak hour, the increases in maximum CO level were 6.4% and 14.1%, respectively, for initial and full development.

Results: 8-Hour Concentrations. The 8-hour values are very conservative estimate because they are based on averages of the worst case AM and PM peak hour traffic and meteorology. Nevertheless, the results are similar to the 1-hour findings in that compliance with State and federal standards are indicated. They suggest maximum changes of 0.5% and 9.5%, respectively, under the initial and full development scenarios as compared to existing conditions.

Compliance with federal and State carbon monoxide standards is demonstrated under worst-case conditions of meteorology and peak hour traffic; thus, no special mitigation measures are required.

3.1.5 Noise[9]

Ambient noise level measurements were conducted on September 27, 2001 between 9:30 am and 10:45 am to assess the existing acoustical environment at the project site and in the surrounding areas. Noise level measurements were taken using Larson-Davis Laboratories, Model 700 and Model 800B Sound Level Meters.

The noise indicator widely used to assess environmental acoustics is the A-weighted sound level or dBA, which describes the total sound level of all noises as measured with a sound level meter using the "A" weighting network. The measured ambient noise level taken at grade level and at the approximately tower location, expressed in terms of equivalent levels, L_{eq} and in units of A-weighted decibels, was 58 dBA, which is typical for busy urban areas. Measurements at locations above grade with a direct line-of-sight to Nimitz Highway were not possible. An L_{eq} of 74 dBA was measured along the *makai*-most portion of the project site. These higher levels were due to the proximity of Iwilei Road and Nimitz Highway.

The State Department of Health (DOH) has established maximum permissible sound levels for different zoning districts.[10] The following restrictions apply to the project area.

Zoning District	Daytime (7 a.m.-10 p.m.)	Nighttime (10 p.m.-7 a.m.)
Class B—Apartment, Business, Commercial Uses	60	50
Class C—Industrial Uses	70	70

Potential Short-term Impacts and Proposed Mitigation Measures

Project Construction Noise. Construction of the project will involve excavation, grading, and erection of new buildings and infrastructure. The various construction phases of the project may generate significant amounts of noise, which may impact residences and other noise sensitive areas, i.e., the residences mauka of the project along North King Street, Beretania Park and Aala International Park. The actual noise levels produced will be a function of the methods employed during each stage of construction. Impact tools, such as pile drivers, will probably be the loudest equipment used. The State DOH has set maximum

[9] D. L. Adams Associates, Ltd., "Environmental Noise Assessment: HCDCH Senior Housing Project, Honolulu, Hawaii" October 2001.
[10] Hawaii Administrative Rules, Title 11, Chapter 46 Community Noise Control, Section 4, "Maximum Permissible Sound Levels in dBA"

permissible sound levels of impulse noise at 10 dBA above the maximum permissible sound levels specified for the zoning district. A public notification meeting may be required to inform the surrounding community of construction noise impacts. Use of pile drivers, ho-rams, jack hammers (25 lbs or larger) and high-pressure sprayers may be restricted to the hours of 9:00 am to 5:30 pm.

In cases where construction noise exceeds, or is expected to exceed the DOH's "maximum permissible" property line noise levels, a permit must be obtained from the DOH to allow the operation of vehicles, construction equipment, power tools, etc., which emit noise levels in excess of "maximum permissible" levels. Specific permit restrictions disallow the emission of noise exceeding maximum permissible sound levels:

- before 7:00 am and after 6:00 pm of the same day, Monday through Friday
- before 9:00 am and after 6:00 pm on Saturday
- at any time on Sunday and on holidays

Potential Long-term Impacts and Proposed Mitigation Measures

Project-generated Traffic Noise. Traffic noise corresponding to the morning and afternoon peak hour travel periods were calculated. Peak hour traffic along North King Street is not expected to be affected by the project. The traffic noise levels with the project initially (residential only) and then fully constructed (with office/mixed use development) were estimated using a Federal Highway Administration traffic noise prediction model in conjunction with existing and predicted future peak hour traffic volumes.

The predicted AM and PM peak hour traffic noise-level increase along Iwilei Road due to initial development of the project is 0.3 dB and 0.4dB, respectively; while the AM and PM peak hour increase due to full development is 0.6 dB and 1.3 dB, respectively. The minimal change in noise levels perceptible to the average listener is generally taken to be 3 dB. Therefore, the increase in traffic noise due to the project will not be significant. Thus noise no impact will occur as a result of the project.

Traffic Noise Impacts on the Project. Traffic noise from Nimitz Highway may significantly impact the proposed development. High-rise units with a direct line-of-sight to Nimitz Highway could experience higher noise levels than those measured at ground level. Due to safety concerns with roof stability of the existing buildings, measurements were not taken at locations with a direct line-of-sight to Nimitz Highway.

The calculated traffic noise levels and measured site noise levels indicate that the proposed residential tower will experience an L_{dn} of 64.4 dBA at the lower stories. The higher stories with a direct line-of-sight to Nimitz Highway are expected to experience an L_{dn} greater than 65 dBA.

HUD has established Site Acceptability Standards for exterior noise exposure at housing areas. These standards are based on Ldn levels and identify the need for noise abatement.

Traffic noise from adjacent roadways and the internal roadways within each parcel should be considered in determining the use for lands contiguous to these roadways.

The EPA has set an interior noise level goal of Ldn 45 dBA or less for homes. This goal will likely be exceeded in living units with a direct line-of-sight to Nimitz Highway. Sound attenuation should be provided so interior noise levels do not exceed this goal.

The typical exterior-to-interior noise reductions for naturally ventilated homes, i.e., with open windows, is approximately 10 dB. Adding absorption to interior spaces (acoustical softening) can further reduce noise levels 1 to 5 dB, depending upon the absorption initially present, and the amount of absorption added to the space. Air-conditioned or mechanically ventilated homes exhibit higher exterior-to-interior noise reductions because windows can be closed.

Noise mitigation measures to be considered during design include:

- Air-conditioning the units closest to Iwilei Road and Nimitz Highway
- Accoustically softening interior spaces by adding thick carpeting with a padding underlayer, acoustical ceiling tiles, louvered closet doors, etc.
- *Wiring all apartments to accommodate installation of individual air-conditioning units*

Bus Rapid Transit System. The City's Bus Rapid Transit (BRT) station proposal should not impact the proposed residential tower, provided the vehicles are electrically powered as currently envisioned. However, should internal combustion engine-powered buses be used—similar to the City's existing fleet—impacts on tower living units will need to be evaluated and noise mitigation measures implemented, if necessary, to meet established noise standards.

3.1.6 Biological Resources

As the project site and surrounding area are fully developed with urban and industrial uses, little habitat is available for plant and animal life. Specifically, the site contains no known plants or animals that are currently on the Federal or State list of threatened or endangered species or are candidates for listing.

The plant species found within the project site include Pink Tecoma (*Tabebuia pentaphylla*), Plumeria (*Plumeria obtuse, P. sp.*), Coconut (*Cocos nucifera*), African Tulip (*Spathodea campanulata*), Autograph Tree (*Clusia rosea*), Manila Palm (*Veitchia merrilli*), Chinese Banyan (*Ficus retusa*), and Java Plum (*Eugenia cuminii*).

Cats and mice that are common to inner city environments can be seen on the site. Although the project site does not provide a habitat for threatened or endangered birds, species common to urban areas, such as mynahs, finches, and doves, are also found in the area.

Potential Impacts

The proposed project will not have significant adverse impacts on biological resources.

3.1.7 Hazardous Materials

Kimura International, Inc. (KI) performed a Phase I Environmental Site Assessment (ESA) and Limited Phase II Environmental Site Assessment, and coordinated initial remedial activities. The studies were based on interviews with current occupants, review of pertinent federal, State, and local records and reports, and site reconnaissance.

Investigators observed drums of various sizes containing apparent petroleum-related substances and unknown materials. Additionally, car batteries and miscellaneous debris were observed to be present throughout the property. Investigators observed suspect fuel dispenser islands in the northwest portion of the property, an area currently used for vehicle parking.

A visual inspection for hydraulic and electrical equipment and/or components that use potential polychlorinated biphenyl (PCB)-containing fluid was conducted. According to a previous study by Harding Lawson Associates, a hydraulic lift was removed from the Honolulu Community Action Program (HCAP) Building. The fluid from the lift was reportedly sampled and deemed acceptable for recycling. In addition, KI investigators observed fluorescent lighting that may have potential PCB-containing ballasts throughout the subject property and three pole-mounted transformers between the F&V Warehouse and the chain link fence along Iwilei Road.

The Iwilei site is not listed on any of the available federal databases reviewed. However, the property is listed in the January 2001 underground storage tank (UST) and leaking underground storage tank (LUST) facility databases.

KI reviewed one LUST file at the DOH Solid and Hazardous Waste Branch which had been transferred to the Hazard Evaluation and Emergency Response (HEER) office in 1997. The LUST facility is located in the area occupied by the former Honolulu Community Action Program building (Facility ID 9-101814). KI found that four USTs were removed from the Iwilei site, including one 4,000-gallon gasoline tank, one 4,000-gallon diesel tank, one 50-gallon fuel oil tank, and one 2,000-gallon tank of unknown contents. Documentation by HLA indicated that the UST closure activities occurred in 1993. HLA also documented that the 2,000-gallon tank of unknown contents appeared to be severely corroded with holes, indicating a possible release; however, prescribed soil samples from the surrounding area were not taken at the time. Additional investigation is likely to close the former UST site.

A search for properties listed in federal and State environmental databases identified numerous surrounding facilities within the radii recommended by the American Society for Testing and Materials (ASTM). Specifically, the database search identified the following:

- 3 active CERCLA sites
- 12 NFRAP CERCLA sites
- 1 RCRA TSD facility
- 78 RCRA generator facilities
- 1 CORRACTS facility
- 75 ERNS facility
- 5 PADS facilities
- 5 DOCKET facilities
- 106 UST facilities
- 90 LUST facilities

Based on findings from the government database search, KI concluded that the identified RCRA and LUST sites should not pose a substantial threat to soil and groundwater within the subject property.

Phase I ESA Recommendations

There are, however, indications of potential environment concern at the subject property. Therefore, KI recommended that further evaluation of the subject property be performed as follows:

- Piping observed within suspect dispenser islands, located in the northwest portion of the property, should be traced to determine whether USTs exist in the area. If USTs are discovered, they should be properly closed in accordance with the DOH "Technical guidance Manual for UST Closure and Release Response, 2nd Edition," dated March 2000.

- Although recommended by HLA, no documentation has been found regarding closure of the suspect injection well located adjacent to the Kalihi-Palama Culture and Arts Society (K-P) Building. KI concurs with HLA that the well should be properly sealed in accordance with the "Hawaii Well Construction and Pump Standards" established by the State of Hawaii Department of Land and Natural Resources (DLNR) Commission on Water Resource Management.

- Pole-mounted transformers located between the F&V Warehouse and Iwilei Road should be sampled to determine PCB content. If the transformers are not in use by the facility, they should be drained and disposed of in accordance with applicable State and federal regulations regardless of PCB concentrations detected in the samples. If the transformers are still used for facility operations and if PCB concentrations exceed 50 parts per million (ppm), the transformer oil should be replaced with non-PCB containing transformer oil to avoid a potential release in the future. A release of transformer oil containing PCB concentrations greater than 50

ppm will require release response activities in accordance with Title 40 Code of Federal Regulations Part 761.

- Analytical results from HLA's Phase II ESA indicated that petroleum hydrocarbon concentrations in near surface soil samples were below current HDOH Tier 1 Action Levels, and chemical constituents in subsurface soil samples and groundwater were below applicable cleanup criteria at the time and below current HDOH Tier 1 Action Levels. These results suggest that chemical constituents were present in relatively low concentrations, and were found primarily in soil within 1 to 2 feet of the ground surface. HLA's Phase II Report indicates that there is the possibility that other areas of the site may have higher levels of contaminants. KI recommended that additional subsurface investigation activities be conducted to characterize the site with respect to near surface petroleum contamination—see discussion of the Phase II ESA, below.

- The contents of miscellaneous 55-gallon drums and other unmarked containers should be identified and disposed of in accordance with applicable State and federal regulations. Accumulated debris located adjacent to the F&V Warehouse along Iwilei Road should be removed and properly disposed. Areas beneath accumulated debris should be inspected to determine whether soil has been impacted by leakage or dumping of petroleum-related material and/or other chemicals.

- Should the structures be renovated or demolished, KI recommended that fluorescent light ballasts be removed prior to such activities. Ballasts labeled "non-PCB" can be disposed as construction waste. Ballasts without such labeling should be assumed to contain PCBs and should be properly packaged and disposed in accordance with applicable State and federal regulations.

Limited Phase II Environmental Site Assessment

In April and May 2001, KI and Environmental Services Network (ESN) collected soil samples via direct push technology (DPT) from 20 boring locations. Eight of the soil borings were converted into groundwater monitoring wells. A groundwater sample was collected from each monitoring well and analyzed.

No petroleum staining or odors were observed in eighteen of the soil borings. Petroleum was detected in two of the soil samples.

- A sample (identified as Iwilei-10B-3.0) was analyzed for benzene, toluene, ethylbenzene, xylene (BTEX), and napthalene, acenapthene, fluoranthene, benzo(a)pyrene (PAHs), polychlorinated biphenyls (PCBs), halogenated volatile organic compounds (HVOCs), total lead, and total cadmium. Ethylbenzene was detected in one sample at a concentration of 0.505 mg/kg, which exceeds the State Department of Health's Tier I Soil Action Level (SAL) for the site. All other contaminants were not detected or were below Tier I SALs.

- Sample Iwilei-20B-5.5 was analyzed for BTEX and PAHs. All contaminants in this sample were below Tier I SALs or not detected.

Groundwater was encountered between 3.2 and 6.6 feet below ground surface. Petroleum was not detected in any of the eight groundwater samples.

Initial Remedial Activities

HCDCH contracted with KI to perform remedial activities in the northwest portion of the Iwilei site where petroleum contamination was previously detected. This is an area identified in the Phase I ESA as a possible underground storage tank site. In May 2001, a backhoe was used to excavate approximately 75 cubic yards of petroleum-impacted soil from the ground. The final limits of the excavation pit measured approximately 25 feet long by 15 feet wide by 7 feet deep. Groundwater seeped slowly into the excavation and filled it to a level of 6 feet below ground surface.

During the excavation, all petroleum-impacted soil removed from the ground was stockpiled on the site, and placed on and covered with plastic sheeting. A groundwater monitoring well was installed into the excavation, and the pit was backfilled with imported base course material and compacted.

Soil samples were collected from each wall of the excavation pit and analyzed for petroleum hydrocarbons. The laboratory analyses indicated that all four samples contained no detectable concentration of the contaminants or they were below the DOH Tier I SALs.

During the excavation, two concrete dispenser islands were observed in the area. The backhoe was used to remove the concrete dispenser islands and expose the subsurface piping. The piping was traced to a single steel tank measuring approximately 2,000 gallons. Base course material was imported to the site and used to backfill this excavation.

Recommendations

Based on field observations and laboratory analytical results, KI recommended the following:

- The 2,000-gallon steel underground storage tank and its associated piping should be properly removed from the ground in accordance with DOH rules and regulations.
- Petroleum-contaminated soil stockpiled on the site (approximately 75 cubic yards) should be properly characterized and disposed of as soon as possible.
- The DOH Hazard Evaluation and Emergency Response Office should be notified of investigative findings and remedial actions taken.

Lead-Containing Paint Survey

KI completed a lead-containing paint (LCP) survey at the project site in March 2001. The structures that were surveyed included:

- Fruit and Vegetable Warehouse and its detached storage sheds
- Aloha Upholstery
- K-P Building (also known as the OR&L Annex or Document Storage Building)
- Honolulu Community Action Program Building

Thirty-two paint chip samples were collected from the interior and exterior painted surfaces of the structures. All samples were properly logged and recorded and submitted to NVL Laboratories, Inc. in Seattle, WA for analysis.

Study Conclusions and Recommendations

All of the structures listed above were identified as having lead-containing paint, although lead was not detected in all chip samples. Some of the lead-containing paint is flaking and loose and should be addressed in a timely manner.

If future renovation or demolition activities are likely to disturb the lead-containing paint in such a way as to create airborne lead dust (e.g., sanding, grinding, cutting, drilling, etc.), the paint should first be removed by a qualified lead abatement contractor. In addition, the services of a qualified consultant should be obtained to monitor and inspect the removal activities to ensure compliance with applicable regulations of the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and Hawaii Occupational Safety and Health Administration (HIOSH) pertaining to the handling of lead.

In the case of demolition, representative core samples of the lead-containing painted building components must be collected prior to demolition and analyzed via the Toxicity Characteristic Leaching Procedure (TCLP) to determine if building components meet the definition of a Resource Conservation and Recovery Act (RCRA)-regulated hazardous waste. If the results exceed allowable limits, the entire building must be disposed of as a RCRA-regulated hazardous waste, or if the LCP is removed prior to demolition, then the removed paint chips must be disposed of as RCRA-regulated hazardous waste. In some instances the landfill may require more than TCLP-lead results to accept painted demolition debris.

Asbestos-Containing Material (ACM) Survey

KI reviewed the findings of the August 31, 1992 ACM Survey Report (Volumes 1 and 2) submitted by Harding Lawson Associates (HLA)[11].

[11] KI did not validate the accuracy of HLA's findings and, therefore, does not necessarily endorse HLA's findings.

The National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 61, defines asbestos containing materials as any material containing greater than 1% asbestos. NESHAP also categorizes ACM as either being a Friable material, a Category I non-friable material or a Category II non-friable material.

Friable materials are defined as those which can be reduced to powder by hand pressure. Category I non-friable materials include asphalt roofing materials, resilient floor covering (excluding linoleum), packing materials, and gaskets. Category II non-friable materials include cementitious materials, such as stucco and transite.

Summary of HLA Findings

Based on the August 31, 1992 ACM Survey Report submitted by HLA, Friable material and Category I non-friable material were identified in various locations. Table 4 summarizes the HLA ACM Survey results.

Table 4
Summary of HLA's August 31, 1992 ACM Survey Report
Asbestos Containing Material Locations

Building	Location	Asbestos Containing Material	Category
F&V Warehouse	Waialua Products, Ltd,	a. Mastic beneath the brown vinyl floor tile; b. Paper backing beneath the yellow sheet vinyl flooring; c. Paper backing beneath the yellow-brown sheet vinyl flooring; and d. Green vinyl floor tiles	a. Category I non friable b. Friable c. Friable d. Category I non friable
	Xpress Trucking Company	a. Green vinyl floor tiles; and b. Mastic beneath the green vinyl floor tiles	a. Category I non friable b. Category I non-friable
HCAP Building	Roof	a. Parapet wall flashing	a. Category I non friable
K-P Building Dry wall material	Second Floor	a. Green vinyl floor tiles; and b. White-green vinyl floor tiles	a. Category I non friable b. Category I non friable
	Roof	a. Gutter flashing; b. Roofing felt; c. Silver coating; and d. Mastic	a. Category I non friable b. Category I non friable c. Category I non friable d. Category I non friable
OR &L Building	Mechanical Equipment	a. Pipe insulation covering	a. Category I non friable

Recommendations

Renovation. If any future renovation activity is likely to disturb the asbestos-containing material as to render it friable (e.g., sanding, grinding, cutting, abrading, etc.), the material must be removed and disposed of by a qualified asbestos abatement contractor. In addition, the services of a qualified consultant should be obtained to monitor and inspect the removal

activities to ensure compliance with applicable EPA, OSHA, and HIOSH regulations pertaining to the handling of asbestos containing material.

Demolition. If the building is to be demolished, Category I non-friable materials identified in this report should be removed by a qualified asbestos abatement contractor. In addition, the services of a qualified consultant should be obtained to monitor and inspect the removal activities to ensure compliance with applicable EPA, OSHA, and HIOSH regulations pertaining to the handling of asbestos containing material.

Alternatively, the subject Category I non-friable material may be left in place as long as normal demolition practices are followed. Normal demolition practices are outlined in the EPA document 340/1-92-013 *A Guide to Normal Demolition Practices Under the Asbestos NESHAP.* In general, "normal" demolition practices generally include the use of wrecking balls, cranes, and tractors, etc. Demolition practices generally considered "not normal" and therefore not allowed in the demolition of Category I non-friable asbestos containing material are sanding, grinding, cutting, and abrading. Note that any asbestos containing material that is disturbed during the demolition should be monitored to avoid potential health hazards associated with asbestos exposure. Subsequently, the services of a qualified consultant should also be obtained to monitor and inspect the demolition activities to ensure compliance with applicable EPA, OSHA, and HIOSH regulations pertaining to the handling of asbestos containing material.

Friable asbestos containing material identified in this report, such as the paper backing material, must be removed and disposed prior to any demolition work. Removal should be performed by a qualified asbestos abatement contractor. In addition, the services of a qualified consultant should be obtained to monitor and inspect the removal activities to ensure compliance with applicable EPA, OSHA, and HIOSH regulations pertaining to the handling of asbestos containing material.

3.2 Archaeological, Historical, and Cultural Resources

An historical literature and documents search was conducted by Aki Sinoto Consulting in March 1992. The objectives of this search were to: (1) determine pre-Contact and post-Contact land uses of the project area through documentation; (2) evaluate the evidence indicating potential subsurface archaeological remains that may be impacted during development, and (3) provide recommendations for further archaeological work, if any, for review.

In addition, field investigation—consisting of six backhoe trench excavations—was performed by McGerty and Spear in 1993 to search for evidence of Kuwili Fishpond and associated architectural features. ~~The archaeological report (McGerty and Spear, 1995) concluded that no further fieldwork was recommended for the project site~~. *Their report,* Archaeological Excavations at Kuwili Fishpond, Site of the Proposed Liliha Civic Center, Kalihi-Palama, O'ahu, Hawai'i *(McGerty, Dega, and Spear, Revised, 1997) recommended that additional limited field work and additional laboratory research be conducted.* In a

letter dated May 19, 1999, the State Historic Preservation Division accepted the report's determination that Kuwili Fishpond is a historic site significant under criterion D because of the information obtained and likely to obtain on Hawaii's past.

According to the reconnaissance survey, the subject property is the site of an ancient fishpond known as Kuwili Fishpond. Historically, enclosures along the coral banks of the pond were used for stocking fish and for growing taro. Taro plots along the east bank of the pond were replaced by irrigated rice fields sometime between 1885 and 1890. Beginning in 1890, Kuwili Fishpond was intermittently filled with dredged materials and coral from Nuuanu Stream and Honolulu Harbor, and filling of the pond was completed in 1901.

The first railway terminal was built on the project site in 1890 and the second terminal built in 1924-25. Kuwili Fishpond and the walled enclosures appear to have been preserved beneath the imported landfill materials. No major ground disturbing impacts to the fill were recorded by the OR&L Company, owner and developer of the property between 1890 and 1961.

The OR&L Company's Honolulu station was built in 1889 by Benjamin F. Dillingham on land granted by King Kalakaua. A review of Sanborn Fire insurance maps and a 1924 site plan indicated that a passenger depot and office building, a freight shed, a paint shop, a land department building, two garages, a truck scale, and truck and trailer stalls were located on the site, among other unidentified buildings. The roundhouse, engine repair and machine shops, blacksmith and car shop, fumigating shed, truck and trailer stalls, and warehouses were on the property north and west of the project site. It is estimated that these buildings were razed in the 1950s.

OR&L ceased operations in 1947, but the Honolulu station remained active until 1962, serving the docks, canneries, and Kalihi stockyards. The State acquired approximately 5.6 acres of the Honolulu station in 1961 as a result of a lawsuit with Dillingham Corporation. With abandoning of the railway, the depot served as a bus station for a number of years and more recently has been rehabilitated for office use by State government agencies and non-profit organizations.

After 1961, portions of the site and buildings were leased to various tenants. In 1972, the few remaining miles of track and switching operations were abandoned, and the railway disappeared in Honolulu.

The OR&L Depot and an adjacent two-story building known as the Document Storage building are currently listed on the State Register of Historic Places and are "Determined Eligible" for the National Register of Historic Places. Although these properties are not formally listed on the National Register, for regulatory purposes, their "Determined Eligible" status carries the same significance.[12]

[12] Phone conversation with Tonia Moy, State Historic Preservation Division, April 5, 2001.

The 20,000-SF OR&L Depot is a distinctive two-story building in the Spanish mission revival style with stuccoed concrete walls, a four-sided clock tower, and first story arcade. The depot was designed and built in 1927 to replace an earlier frame depot. To the west of the depot is the Office and Document Storage Building (sometimes called the OR&L Annex or K-P Building). It is a two-story, reinforced concrete building designed in a Georgian revival style. This building currently houses the King Kamehameha Celebration Committee, a unit attached to the State Department of Accounting and General Services (DAGS).

Potential Impacts and Proposed Mitigation Measures

Although archaeological investigations appear substantially completed, a data recovery plan for laboratory research on uncurated samples remaining from previous fieldwork and/or limited additional fieldwork will be developed for review and approval by the SHPD. Furthermore, given the historic significance of the site, an archaeological monitoring program will be developed, including a monitoring plan (to be reviewed and accepted by SHPD in advance of construction), monitoring during construction, and an archaeological monitoring report, if significant items are unearthed. Any unidentified cultural remains will be reported immediately to the SHPD and the Oahu Island Burial Council.

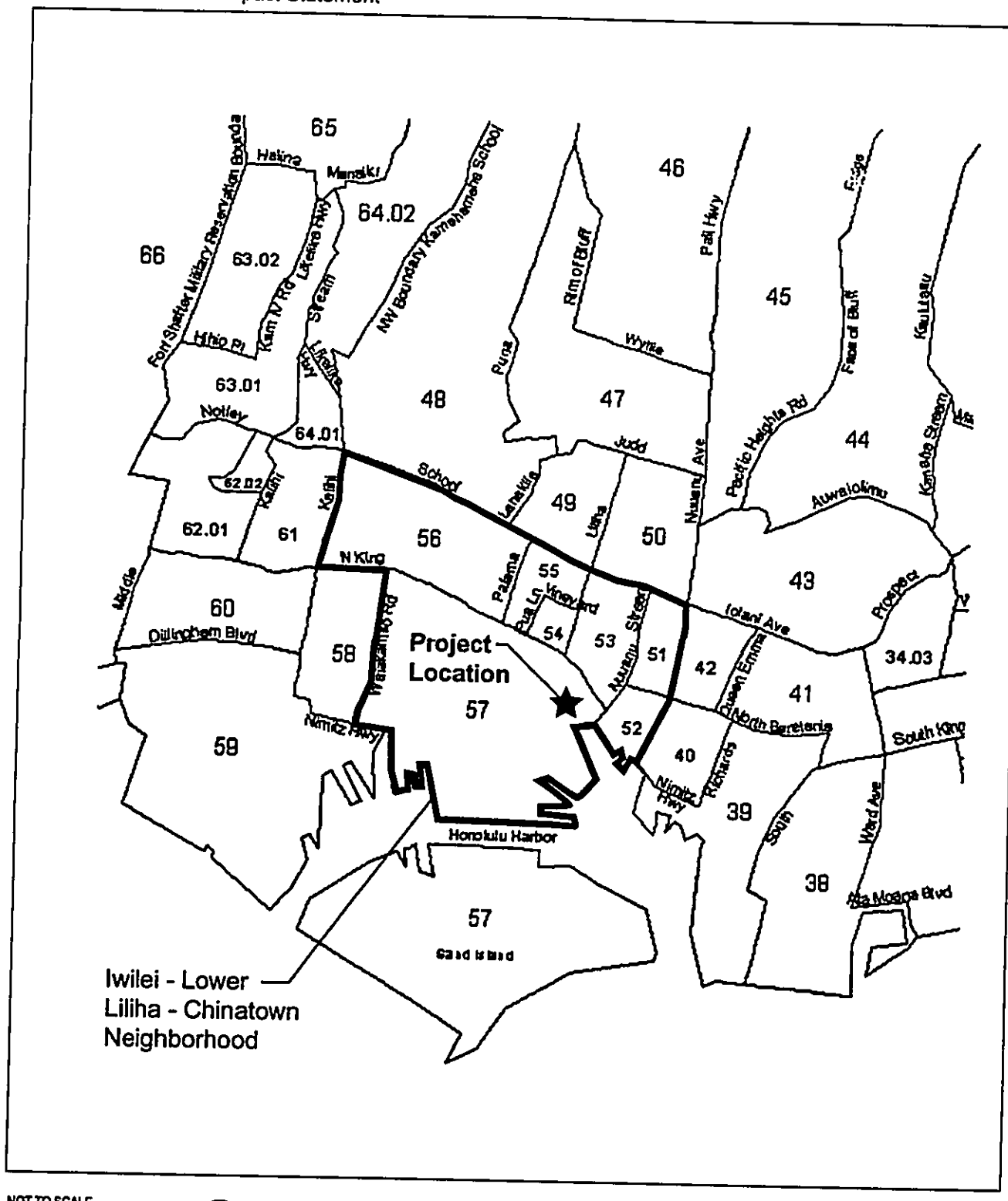
In light of Act 50 and statutory guidelines regarding cultural resources, a cultural assessment should be developed with the assistance of a Native Hawaiian specialist who can provide expert knowledge of cultural practices related to the former fishpond.

When the Liliha Civic Center project was being planned in the early 1990s, DAGS obtained approval to demolish the Document Storage Building. The more recent KHMA concept plan for the project site similarly assumes that this building will be removed. However, SHPD has stated that a new consultation process is needed to determine the appropriateness of demolishing this building. Because of its location at the *makai* end of the site, the proposed residential complex is not expected to affect the Document Storage Building.

3.3 Socio-economic Environment

3.3.1 Profile of the Existing Community

The 2000 Census counted 1,550 residents in Census Tract (CT) 57 which includes the project site (see Table 5). Between 1990 and 2000 the population in CT 57 dropped by almost 400 persons, or 20 percent. Of the seven census tracts that make up the Iwilei-Lower Liliha-Chinatown neighborhood, CT 57 experienced the sharpest decline (see Figure 8, Census Tract Map). Overall, the neighborhood grew by a scant 1 percent during the ten-year period. While this statistic may seem to indicate a stable urban area, there was significant flux within the area. Four census tracts lost measurable numbers of residents, but CT 51 and 52, both covering Chinatown, saw the net addition of hundreds of new residents after several new housing projects were completed.



NOT TO SCALE

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FIGURE 8

CENSUS TRACT MAP

Table 5
Population by Census Tract and Neighborhood, 1990 and 2000

	1990	2000	Net Change 1990-2000	Pct Change 1990-2000
CT 51	2,399	3,167	768	32%
CT 52	2,480	3,056	576	23%
CT 53	4,208	3,842	-366	-9%
CT 54	1,643	1,465	-178	-11%
CT 55	2,110	1,923	-187	-9%
CT 56	6,185	6,273	88	1%
CT 57 (incl. Project Site)	1,943	1,550	-393	-20%
Subtotal: Iwilei-Lower Liliha-Chinatown	20,968	21,276	308	1%
Honolulu CDP*	365,272	371,657	6,385	2%

*Honolulu CDP is the urbanized corridor from Moanalua-Salt Lake to Hawaii Kai
Source: *U.S. Census, 2000*

As this environmental impact statement is being written, only limited data are available from the 2000 census. Table 6 shows a breakdown of the population by two age categories: under 18 years (children and youth) and 18 years and over (adult and seniors). The different census tracts in this area show marked contrasts in age distribution. There is a particularly high concentration of children in CT 54, which includes the Mayor Wright Homes. Census Tract 57 and the Chinatown census tracts have disproportionately low numbers of children.

Table 6
Population by Age Category, by Census Tracts and Neighborhood, 2000

	Under 18 Years		18 Years & Over		All Ages	
	No.	Percent	No.	Percent	No.	Percent
CT 51	466	15%	2,701	85%	3,167	100%
CT 52	485	16%	2,571	84%	3,056	100%
CT 53	710	18%	3,132	82%	3,842	100%
CT 54	602	41%	863	59%	1,465	100%
CT 55	454	24%	1,469	76%	1,923	100%
CT 56	1,395	22%	4,878	78%	6,273	100%
CT 57 (incl. Project Site)	239	15%	1,311	85%	1,550	100%
Subtotal: Iwilei-Lower Liliha-Chinatown	4,351	20%	16,925	80%	21,276	100%
Honolulu CDP*	71,472	19%	300,185	81%	371,657	100%
Hawaii	295,767	24%	915,770	76%	1,211,537	100%

*Honolulu CDP is the urbanized corridor from Moanalua-Salt Lake to Hawaii Kai
Source: U.S. Census, 2000

Other statistics collected in the 1990 census show the area to be one of economic disadvantage. Census Tract 57 had a median household income of $12,010 in 1989, at the same time that median household income was $37,190 in Urban Honolulu and $38,829 in the state as a whole. Not surprisingly, poverty rates across all age groups were higher than average in CT 57 and the surrounding areas.

3.3.2 Housing

Housing statistics indicate an older, poorly maintained housing stock. The 1990 census counted 682 housing units in CT 57, the relatively small number reflecting the industrial-commercial character of the area. Of those 682 units, 670 were occupied and all of them were rental units. The median year of construction was 1959. If this statistic still stands, more than half the housing units in CT 57 are over 40 years old. Median rents in the area are typically very low--$299 per month in 1989, compared to $623 per month for Urban Honolulu generally. Rents in other nearby census tracts were similarly 22 to 46 percent

below the citywide median. While these numbers indicate affordability, without public subsidies, they are unlikely to support regular maintenance and repair of the housing units.

Potential Impacts

The proposed action is intended for use by the existing population and to accommodate the expected increase of elderly persons as the Baby Boom generation ages. Since this project—like most elderly housing projects—is sited in the urban core, it may be contributing to a shift in the age distribution of Oahu's population; however, the growing availability of urban housing for the elderly is a favorable trend. Historically, poverty has affected a disproportionate number of elderly people as their financial resources and living conditions decline. Urban housing often meant a choice between high-priced units or inexpensive, dilapidated units. Publicly subsidized, affordable housing enables elderly with fixed incomes to live in homes that meet building code and public health standards. Moreover, unlike auto-dependent suburbs, downtown areas provide more convenient access to public transportation (buses and taxis) and commercial districts within walking distance.

In addition to increased housing options among a population with special needs, the adult day center is expected to improve the quality of life for seniors who require varying levels of professional attention. These services will help family members in caring for aging parents and relatives, and be especially convenient for those working downtown.

3.3.3 Visual Resources

Impacts on visual resources associated with the proposed project involve replacing existing low-rise development with higher density development. While developing the KHMA concept plan, the architects, sought to reduce massing on the site and lower the project profile by dividing the targeted floor area among several buildings. Nevertheless, some members of the Iwilei Project Advisory Committee opposed the high-rise buildings during meetings held in 1998.[13] This issue may be mitigated with possible down-sizing of the DAGS mixed-use tower from 16 stories to 5 stories, which is closer in scale to the two-story OR&L Building and other commercial structures along North King Street. There would also be an associated reduction in the height of the parking structure.

The KHMA plan provided for a 20-story residential tower. The residential development proposed by Pacific Housing Assistance Corporation calls for a 21-story residential tower. (By comparison, the apartment building for seniors located adjacent to Kukui Gardens complex stands at 15 stories.)

In Figure 9 a rendering of the proposed residential tower has been overlaid on an oblique aerial photo from downtown, facing the *ewa* direction. The composite photo shows how the project would look in the context of the existing built environment.

[13] KHMA, *Conceptual Design Study for the Iwilei Project*, p. 22.

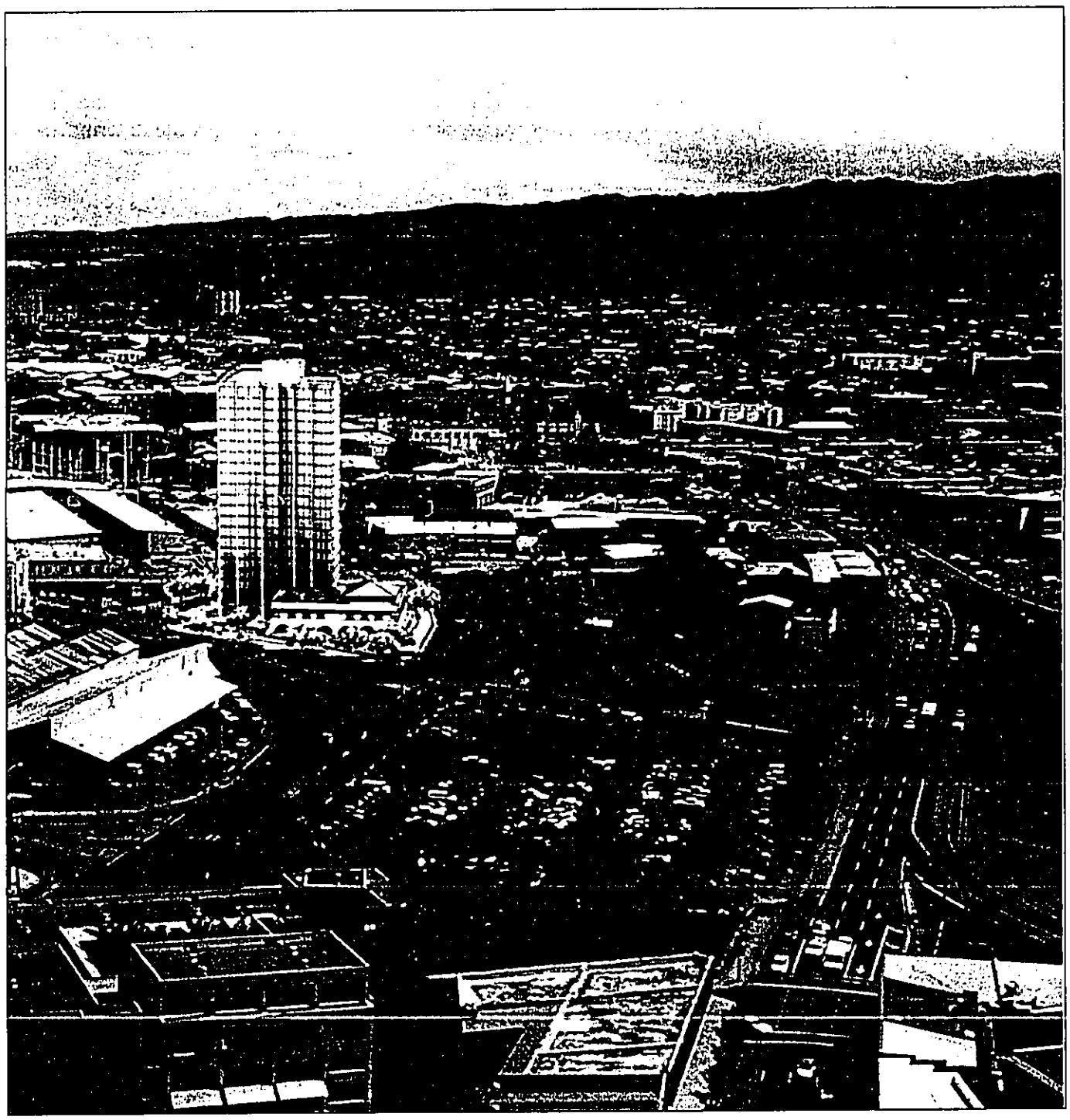


FIGURE 9

COMPOSITE PHOTO
SHOWING PROPOSED PROJECT

Potential Impacts and Proposed Mitigation Measures

The height of the building is dictated largely by the need to accommodate a financially viable number of units on a narrow, oblong-shaped lot. At 21 stories, the proposed tower would be significantly taller than any of the existing buildings in the Iwilei commercial and industrial area. On the other hand, the tower would present a relatively slim profile in terms of the *mauka-makai* view plane.

From the most conspicuous vantage point (facing King Street), the high-rise is located at the rear of the property. This placement allows considerable space to create an attractive buffer. The OR&L Terminal Building will still have the most prominent frontage along North King Street. If new structures are designed to showcase and complement this highly regarded landmark building—as is the case with the proposed community services building—a unified design theme would be created for the overall site.

After reviewing an artist's rendering of the proposed housing complex in its context, the State Historic Preservation Division determined that the new building "will have no adverse visual affect on the historic building since it will be set back further than existing buildings."[14]

The view from Nimitz Highway is typically experienced from automobiles traveling at highway speed. The impact of the high-rise building is less intrusive at this scale where viewers are likely to absorb larger swatches of visual information and the downtown skyline leaves a more dominant impression.

3.4 Transportation

3.4.1 Existing Roadway System

The project site is bordered by Iwilei Road to the south, King Street to the east, and existing industrial and commercial properties to the north and west. The property abuts the end of Kaaahi Street, a local street to the north.

King Street and Beretania Street form a one-way couplet (i.e, two parallel streets are paired to optimize operations, with traffic flowing in opposite directions) through most of central Honolulu. King Street traffic flows in the southbound and eastbound direction. In the Iwilei area, however, King Street carries two-way traffic in six lanes, with four lanes for southbound traffic and two lanes for northbound traffic. The northbound traffic consists of City buses from the Hotel Street Bus Mall and other vehicles that have turned left from Iwilei Road.

[14] Letter from Don Hibbard, Administrator, SHPD, dated December 24, 2001.

Iwilei Road is a local street serving the abutting industrial and commercial properties. Fronting the project site, it is four lanes wide, with two lanes for traffic in each direction. At its approach to the signalized King Street intersection, a third eastbound lane for right turns only is added to the two lanes which become left turn only lanes.

Nimitz Highway is a divided four-lane highway south of the vicinity of the project. As northbound traffic on three lanes of Nimitz Highway turns to the west near the project site, the fourth (right) lane becomes an "exit" to Iwilei Road. This exit intersects with Iwilei Road in a "T"- intersection, where exit traffic is controlled by a stop sign. A second lane is added on the exit very close to the intersection for left turns to Iwilei Road.

Kaaahi Street is a local street serving commercial and industrial uses north of the project site. It includes on-street parking or loading zones on both sides and serves traffic in one lane in each direction. Kaaahi Street intersects with Dillingham Boulevard in a signalized "T"-intersection. Dillingham Boulevard at this intersection has two lanes for westbound traffic and three lanes for eastbound traffic.

~~King Street and Kaaahi Street are under the jurisdiction of the City and County of Honolulu. Iwilei Road is primarily a City road; however, a segment adjacent to the project site is within the Nimitz Highway right-of-way and under the jurisdiction of the State of Hawaii.~~ King Street, Kaaahi Street, and Iwilei Road are under the jurisdiction of the City and County of Honolulu; Nimitz Highway is under the jurisdiction of the State of Hawaii.[15]

3.4.2 Traffic Conditions

A traffic study was done to evaluate existing and future traffic conditions on the streets in the vicinity of the project site, in order to identify roadway improvements that will be needed to provide adequate vehicular access to the site. Traffic count data were collected and estimates of existing daily and peak hour volumes were developed for streets in the area. Trip generation analyses were done to estimate the volume of traffic added by the project, and intersection capacity analyses were done at the site driveways. The traffic analyses were based on the KHMA master plan and, therefore, provide "high" estimates of traffic generation and impacts since the current residential proposal calls for 156 elderly units, rather than 200 units for families and elderly tenants. The KHMA master plan was used because it is most recent plan for redeveloping the entire Iwilei site, including the DAGS component.

The State Highways Division estimates the average daily traffic and "K" (peak hour/daily) and "D" (directional distribution) factors on defined segments of all highway facilities in the State. For the island of Oahu, estimates are made for each year based on traffic count data. The latest published highway statistics for Oahu are for year 1998. Table 7 summarizes the

[15] Clarification of jurisdiction over Iwilei Road provided in letter from Brian Minaai, Director, State Department of Transportation dated January 16, 2002.

recent estimates of average daily traffic and peak hour volumes on Nimitz Highway near the project site.

Table 7
Average Daily Traffic
Nimitz Highway between Waiakamilo Road and Bishop Street

	Average	AM Peak Hour		PM Peak Hour	
	Daily Traffic	Eastbound	Westbound	Eastbound	Westbound
1993	76,575	3,370	2,755	2,930	3,580
1994	76,880	3,690	2,460	2,940	3,595
1995	87,376	3,845	3,145	3,145	4,720
1996	86,200	3,880	2,585	3,100	3,795
1997	77,702	3,495	2,335	3,105	3,110
1998	74,373	3,345	2,235	2,845	3,475

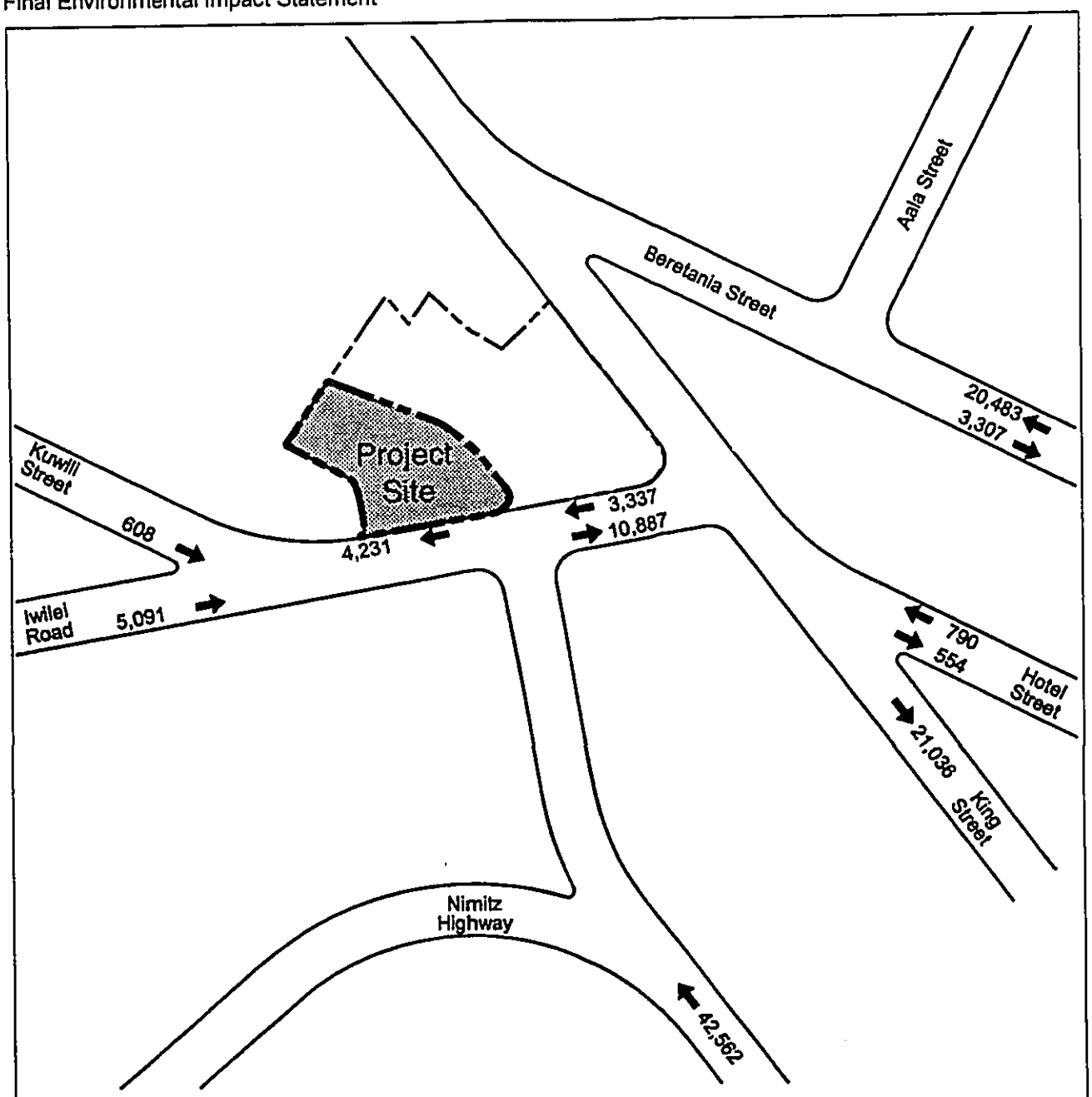
Source: State Highways Division. *Traffic Summary, Island of Oahu* (various years).

The State Highways Division average daily traffic estimates indicate that traffic volumes on Nimitz Highway near the project site have not changed significantly since 1993. Weekday totals from traffic counts collected in 1994, 1997, and 1998 near the project site are shown in Figure 10. From these data and the traffic patterns in the area, estimates of daily traffic volumes on the streets system near the project site were made and are shown in Figure 11.

The traffic count data were also used to develop estimates of peak hour traffic volumes in the area. These estimates are shown in Figures 12 and 13.

3.4.3 Future Traffic without the Proposed Project

As indicated in Table 8, recent traffic volumes on Nimitz Highway in the vicinity of the project do not show a consistent trend, other than remaining at approximately the same level. Future traffic volumes in the vicinity of the project site are not expected to change. Conditions at several nearby intersections with multi-phase traffic signals constrain traffic volumes at other locations. Therefore, the estimates of existing traffic volumes (Figures 11, 12, and 13) are also applicable for future volumes without the proposed project.



Sources: State of Hawaii, Department of Transportation, Highways Division
August, 1998 counts (Nimitz Highway, King Street, Hotel Street, Beretania Street)

City and County of Honolulu, Department of Transportation Services
June, 1997 and February, 1994 counts (Iwilei Road, Kuwili Street)

Prepared by Julian Ng, Inc. April, 2001

FIGURE 10

24-HOUR TRAFFIC COUNTS

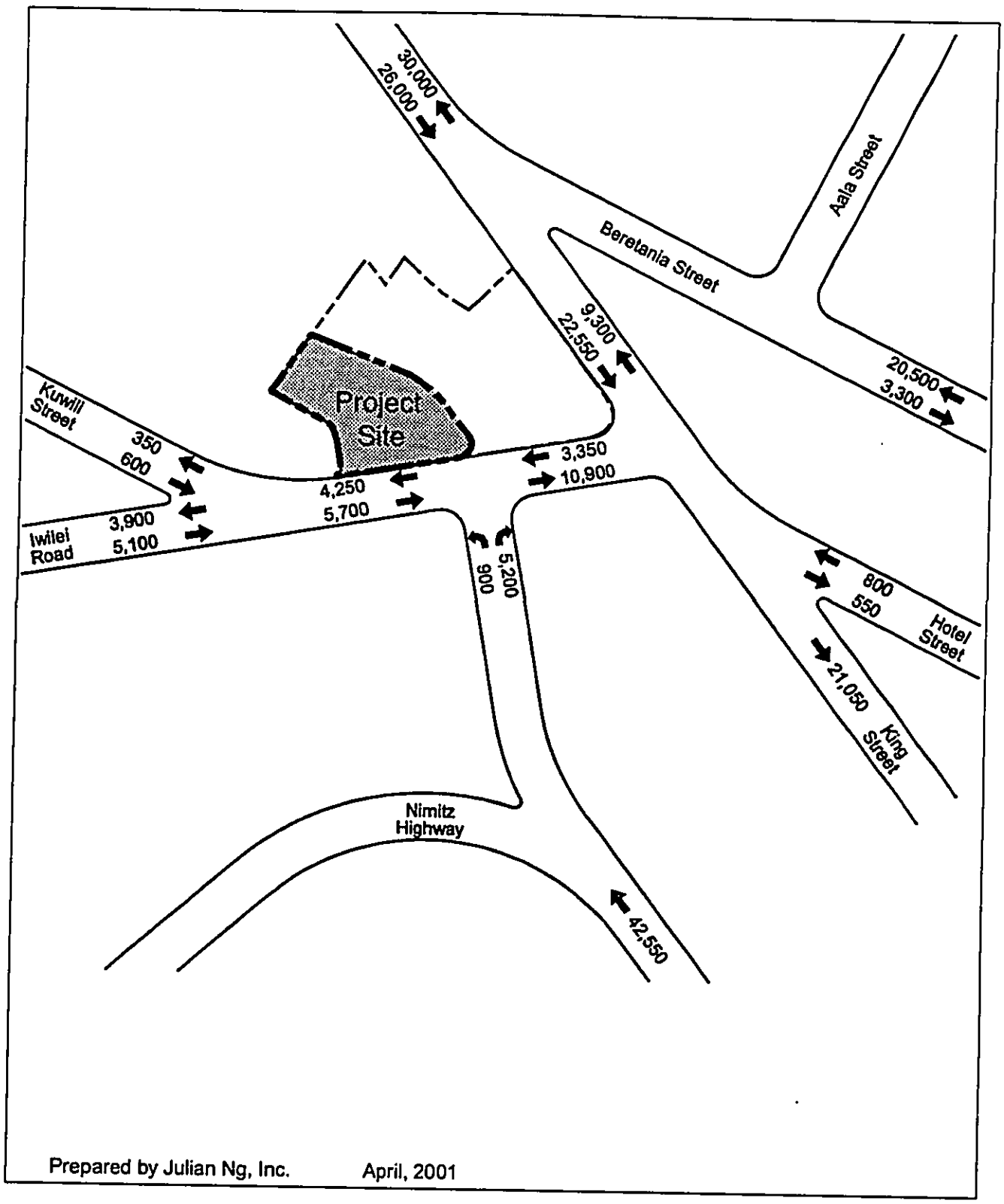


FIGURE 11

EXISTING WEEKDAY TRAFFIC

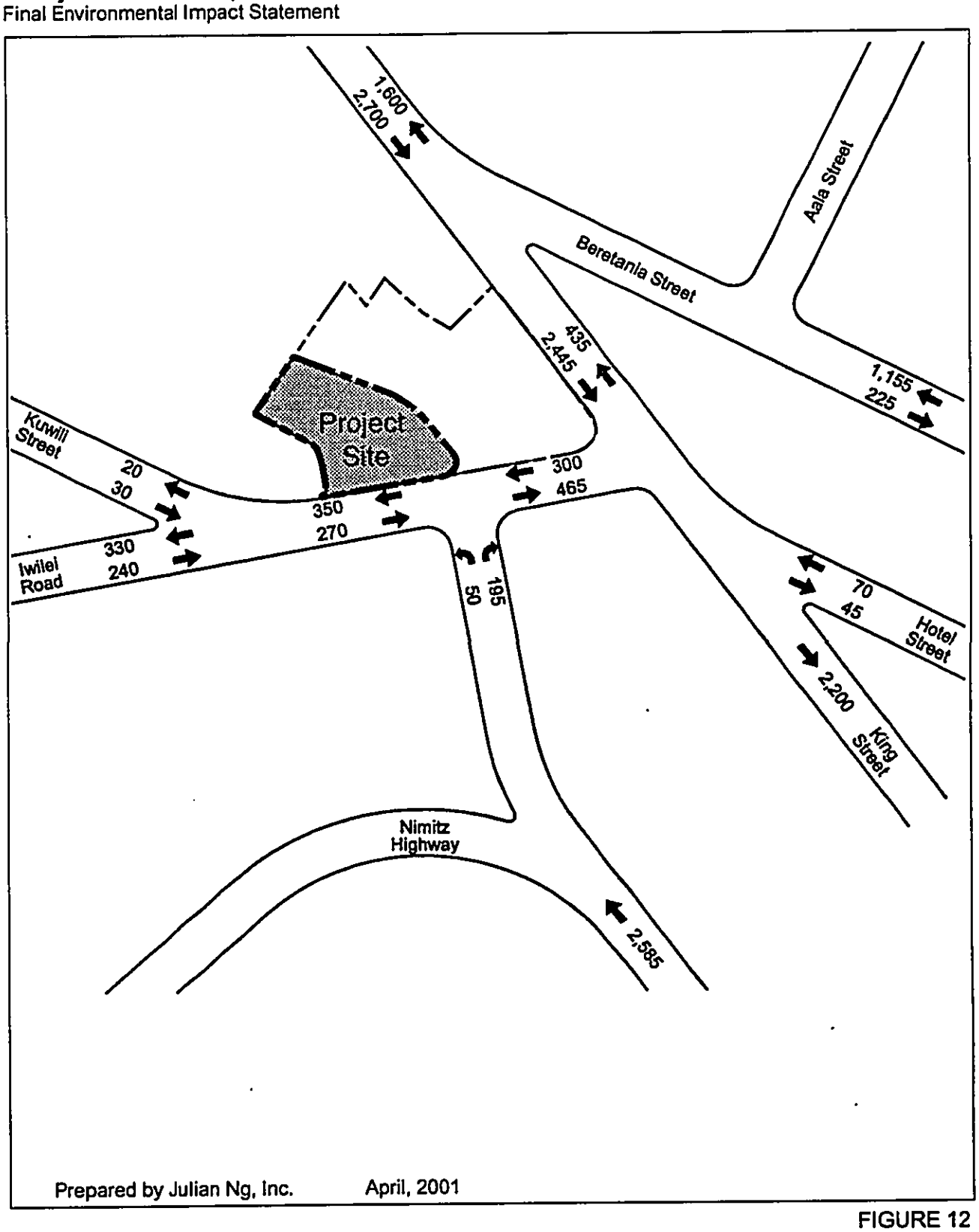


FIGURE 12

AM PEAK HOUR TRAFFIC

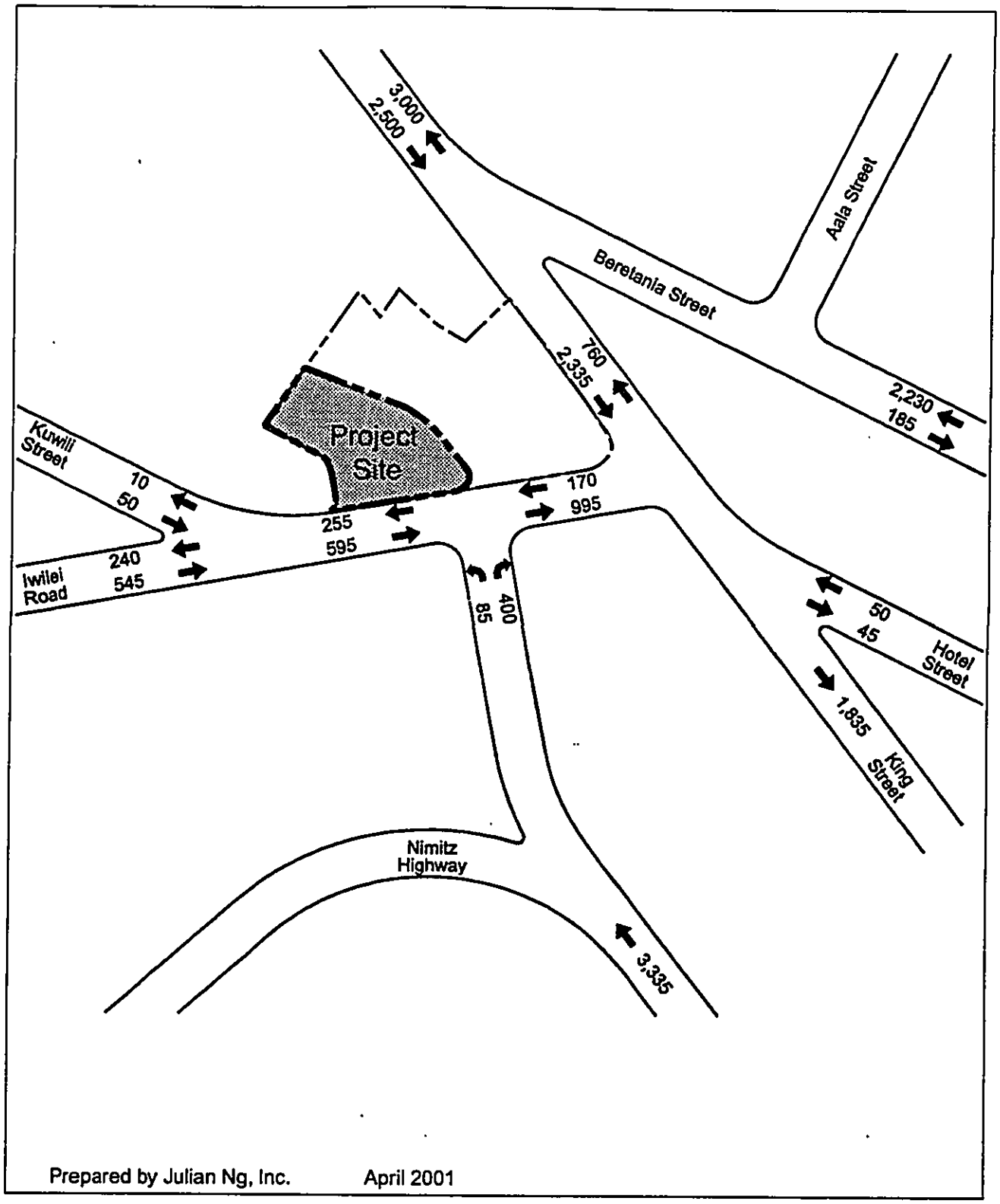


FIGURE 13

PM PEAK HOUR TRAFFIC

3.4.4 Project Traffic

The number of vehicle trips generated by development of the Iwilei site has been estimated using factors from *Trip Generation*, a publication from the Institute of Transportation Engineers. Uses on the site include high-rise apartments, elderly housing, adult day care, government offices, and a possible transit center. For the traffic analyses, the transit center has been assumed to generate no additional vehicular traffic to the site. Trips due to other uses were estimated from the project descriptions using the factors shown in Table 8.

Table 8
Traffic Generation Rates

	AM Peak Hour		PM Peak Hour	
	Rate	Entering	Rate	Entering
High-rise apartments (per dwelling unit)	0.30	31%	0.39	58%
Elderly housing (per dwelling unit)	0.07	63%	0.10	59%
Adult Day Care (per employee)	3.76	54%	3.90	47%
Government services office (per employee)	1.02	84%	1.06	34%
Government office building (per 1,000 GSF)	2.07	80%	3.11	27%

Several alternatives are being considered for development of the project site. For this traffic analyses, the project site has been assumed to include a high-rise residential tower and a second high-rise to be used as State offices. The existing OR&L building would also be used for offices where public services are provided. Parking garages to support these uses will also be constructed. The development of the high-rise residential tower and use of the OR&L building are expected to be developed initially (within five years). Funding for the high-rise office tower is not in place and it would be developed sometime later. The estimates of site-generated traffic are shown in Tables 9 and 10.

Table 9
Traffic Generation -- Initial Development

	AM Peak Hour		PM Peak Hour	
	Entering	Exiting	Entering	Exiting
OR & L Terminal (Department of Human Services - 70 employees)	60	11	25	49
HCDCH Housing tower (120 DUs)	11	25	27	20
HCDCH Housing tower (80 elderly DUs)	4	2	5	3
HCDCH Adult Day Care (34 employees)	69	59	62	70
Initial Development Total	144	97	119	142

Table 10
Traffic Generation -- Full Development

	AM Peak Hour		PM Peak Hour	
	Entering	Exiting	Entering	Exiting
Initial Development Total	144	97	119	142
DAGS office tower (281,500 GSF)	465	117	237	639
Total, Full Development of Site	609	214	356	781

Of the traffic attracted to the site, 20% is estimated to approach from the east, with the remainder approaching from the west. Traffic leaving the site is assumed to follow the same distribution.

Access to the site would be provided by three connections to the existing street system. A single driveway will be located on Iwilei Road, approximately 150 feet west of the existing intersection where traffic from Nimitz Highway exits onto the City streets. All movements will be permitted into and out from this driveway. Vehicles can approach this driveway from the west (from Nimitz Highway via Pacific Street or Sumner Street), or from the east (via southbound King Street or northbound Nimitz Highway, through the connector roadway).

According to the KHMA master plan, a single driveway to King Street would be located near its intersection with Beretania Street; however, the northern property line is located south of the intersection and the driveway cannot be aligned with the intersection. Due to the angle of the existing intersection and the proximity of the driveway, only right turns in and right turns out to the southbound lanes of King Street will be permitted; the restriction of left turns in will have little impact, since the only vehicles other than public buses on the northbound lanes of King Street would have turned from Iwilei Road. The third connection will be made to the north, connecting to the end of Kaaahi Street.

Based on the layout of the street system in the vicinity of the project site, the site-generated traffic volumes were assigned to the driveways as shown in Tables 11 and 12.

Table 11
Project Traffic Assigned – Initial Development

	AM Peak Hour		PM Peak Hour	
	Entering	Exiting	Entering	Exiting
King Street driveway	6	20	30	28
Iwilei Road driveway (to/from west)	22	15	18	22
Iwilei Road driveway (to from east)	36	29	30	42
Kaaahi Street driveway	50	33	41	50

Table 12
Project Traffic Assigned -- Full Development

	AM Peak Hour		PM Peak Hour	
	Entering	Exiting	Entering	Exiting
King Street driveway	153	43	89	156
Iwilei Road driveway (to/from west)	91	32	54	117
Iwilei Road driveway (to from east)	152	64	89	234
Kaaahi Street driveway	213	75	124	274

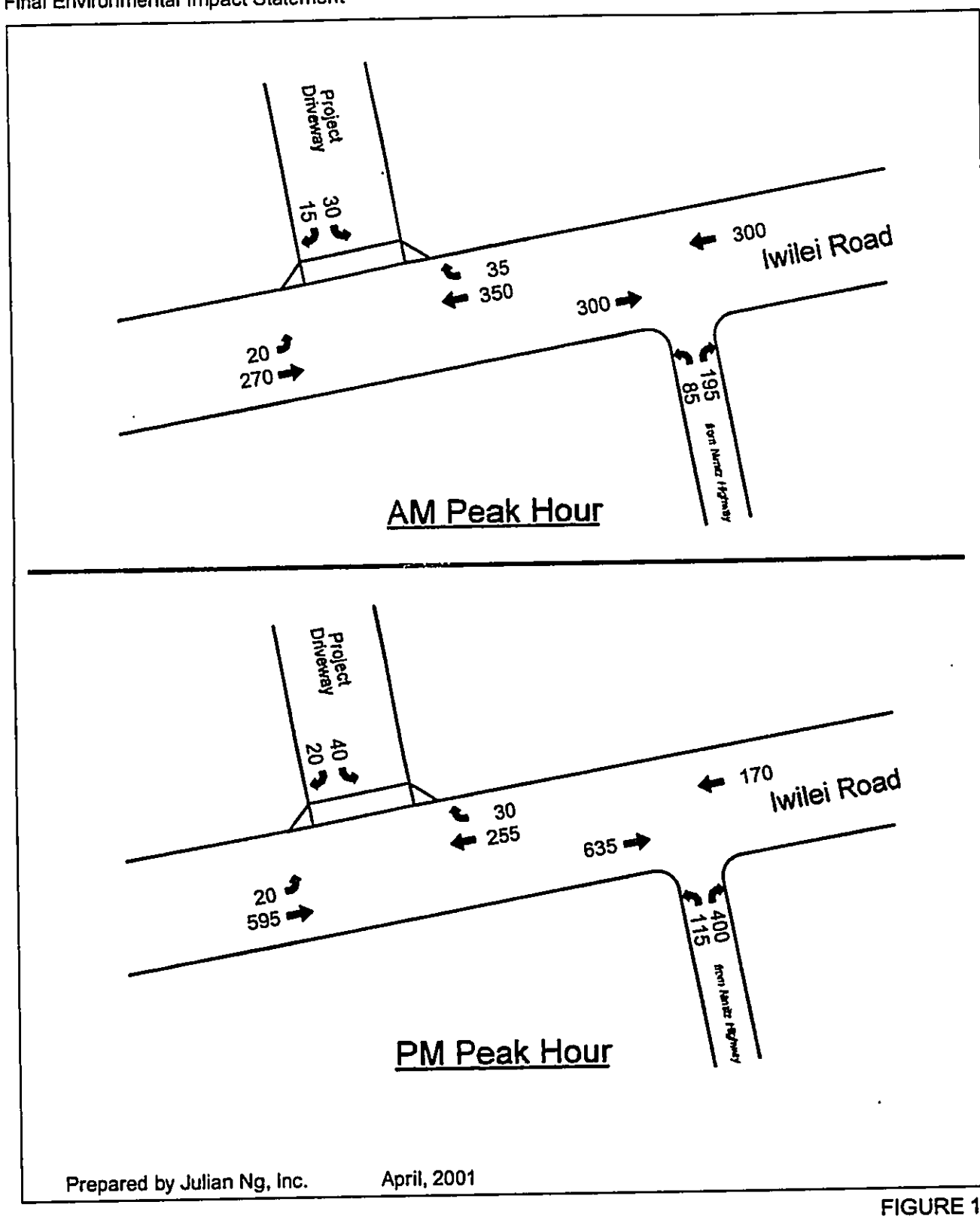
Figure 14 shows the peak hour traffic along Iwilei Road with the initial development—consisting of the elderly residential complex. Figure 15 shows the peak hour traffic along Iwilei Road with full development of the site.

Traffic Analyses

Existing and future conditions with the proposed project were described using levels of service, as described in the *Highway Capacity Manual*. Six levels are defined, using the letters A through F. The range is from Level of Service (LOS) A describing low densities or no delays to LOS F describing very high densities and very long delays at intersections. While desirable conditions are LOS C or better in rural areas and LOS D or better in urban areas, many locations in urban areas already operate at LOS E. In densely developed urban areas such as downtown Honolulu, mitigation of specific congested conditions as described by LOS E may not be the most desirable solution.

The analysis procedure for unsignalized intersections as described in Chapter 10 of the 1997 update to the *Highway Capacity Manual* was used to determine average vehicular delays and levels of service at unsignalized intersections. In this analysis, traffic flows on the major street (those that do not yield to other traffic) are used to determine the capacities and delays to minor flows at the intersection. From these parameters, average vehicular delays are computed and levels of service for each minor flow (major street left turns against oncoming traffic and minor street movements wishing to enter the major street) are determined using the following criteria:

Level of Service A:	0 seconds <	delay	≤ 10 seconds
Level of Service B:	10 seconds <	delay	≤ 15 seconds
Level of Service C:	15 seconds <	delay	≤ 25 seconds
Level of Service D:	25 seconds <	delay	≤ 35 seconds
Level of Service E:	35 seconds <	delay	≤ 50 seconds
Level of Service F:	50 seconds <	delay	



Prepared by Julian Ng, Inc. April, 2001

FIGURE 14

TRAFFIC ASSIGNMENTS WITH PROJECT (INITIAL DEVELOPMENT)

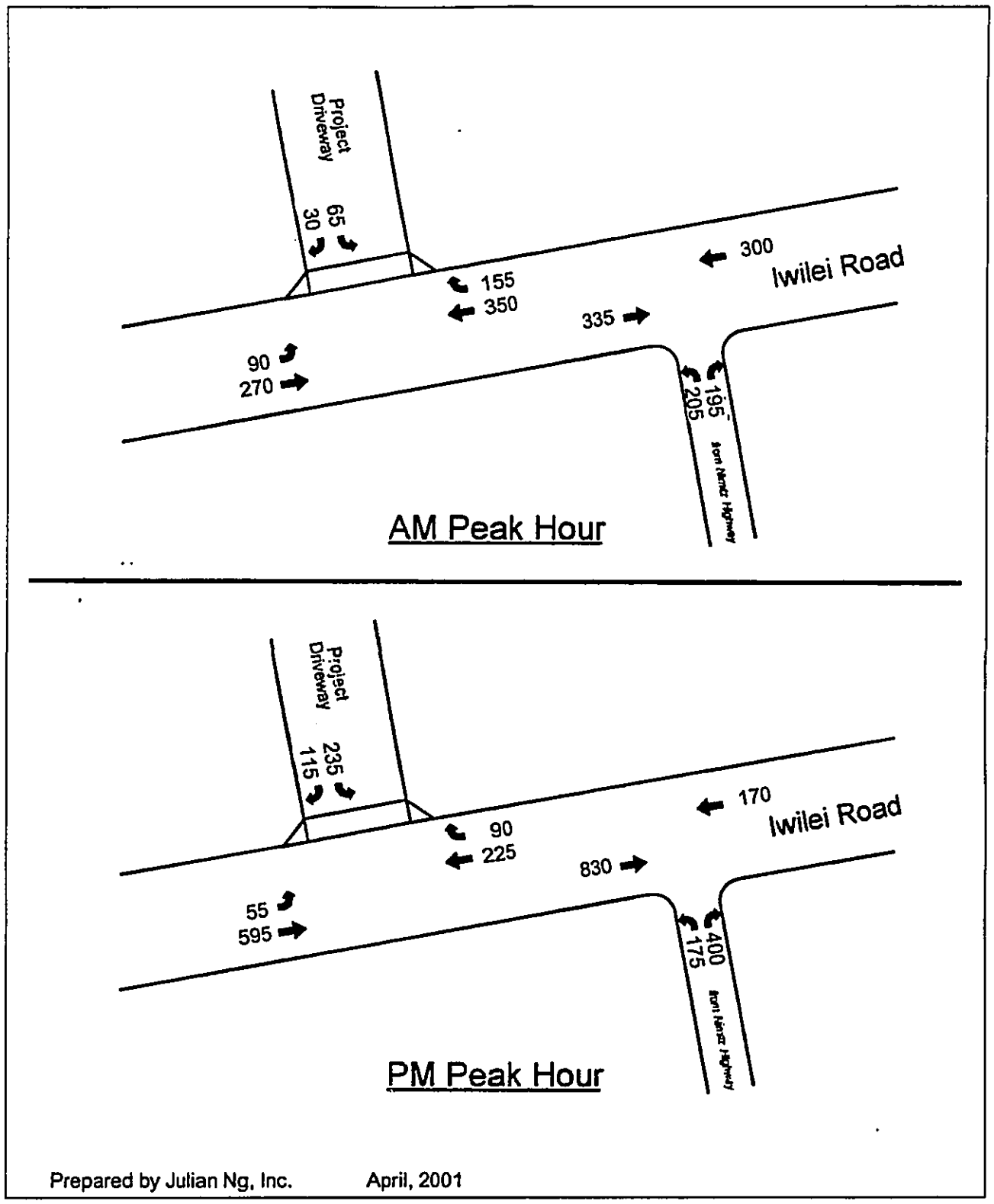


FIGURE 15

TRAFFIC ASSIGNMENTS WITH PROJECT (FULL DEVELOPMENT)

Conditions at the driveways to King Street and to Iwilei Road were evaluated using the unsignalized intersection analysis procedure described in the *Highway Capacity Manual*. Results of the analyses are shown in Table 13.

For the interim development, the increase in traffic on King Street would be less than 90 vehicles per hour during the peak hours. The increase in southbound peak hour traffic volumes would be approximately 2½ percent in the AM Peak Hour and less than 2 percent in the PM Peak Hour. The increase in northbound volumes on King Street would be less but would be a greater portion of the existing peak hour volumes. For full development of the site, the increase in peak hour volume on King Street would be 220 vehicles per hour in the AM Peak Hour and 270 vehicles per hour in the PM Peak Hour.

At the project's King Street driveway, right turns in would be made from the right lane, between bus stops located before and after the intersection with Beretania Street. Right turns out from the project driveway to King Street will generally have opportunities to enter King Street when traffic is stopped to allow pedestrians to cross at the intersection. The analysis, which assumes the more difficult case in which there would be no interruption of traffic on the street to assist driveway traffic, shows adequate capacity for the right turns from the property.

Increases in traffic on Iwilei Road west of the project will have minor impacts to turns made from Kuwili Street. Delays are expected to increase, but conditions would remain in the same level of service ranges for both peak hours.

At the site driveway to Iwilei Road, acceptable conditions can be expected for the initial development. For full development, however, the high volume of exiting left turns wishing to proceed eastbound on Iwilei Road will cause very long delays in the PM Peak Hour. At the intersection of the connector from Nimitz Highway to Iwilei Road, interim development of the site will cause increased delay, with a degradation of one level of service in the AM Peak Hour, when compared with conditions without development of the site; levels of service in the PM Peak Hour remain the same as existing. The delays and levels of service, however, will remain in acceptable ranges. With full development of the site, delays in the PM Peak Hour will increase to unacceptable levels.

Table 13
Unsignalized Intersection Levels of Service

	Existing Traffic		Initial Project		Fully Developed	
	AD (sec.)	LOS	AD (sec.)	LOS	AD (sec.)	LOS
AM Peak Hour						
Site Driveway to King Street						
existing right turns	-	-	18.7	C	22.0	C
Kuwili Street at Iwilei Road						
left turns from Iwilei Road	8.5	A	8.5	A	8.6	A
sidestreet (shared lane, stopped)	13.0	B	13.6	B	14.6	B
Site Driveway at Iwilei Road						
left turns from Iwilei Road	-	-	8.3	A	9.0	A
exiting left turns	-	-	16.1	C	24.8	C
exiting right turns	-	-	10.6	B	11.3	B
Nimitz Highway connector at Iwilei Road						
left turn to Iwilei Road	14.7	B	16.4	C	25.5	D
right turn to Iwilei Road	12.0	B	12.2	B	12.5	B
PM Peak Hour						
Site Driveway to King Street						
existing right turns	-	-	18.4	C	32.9	D
Kuwili Street						
left turns from Iwilei Road	8.2	A	8.3	A	8.7	A
sidestreet (shared lane, stopped)	16.6	C	17.7	C	20.3	C
Site Driveway at Iwilei Road						
left turns from Iwilei Road	-	-	8.2	A	8.5	A
exiting left turns	-	-	21.9	C	>120.0	F
exiting right turns	-	-	10.2	A	11.4	B
Nimitz Highway connector at Iwilei Road						
left turn to Iwilei Road	20.7	C	24.9	C	68.0	F
right turn to Iwilei Road	27.7	D	21.9	D	48.0	E

AD = Average Delay LOS = Level of Service

The unacceptable conditions at the unsignalized intersections along Iwilei Road could be mitigated with traffic signals. However, due to the proximity of the site driveway and the existing connector from Nimitz Highway, the closely spaced signals may disrupt flow on Iwilei Road.

Project traffic using Kaaahi Street would increase volumes on the street. While no count data are available, the project would increase the volume by approximately 45% over an estimated existing peak hourly volume of 200 vehicles per hour on Kaaahi Street. The capacity of the signalized intersection of Kaaahi Street and Dillingham Boulevard, however, is expected to be adequate for the initial development of the site. For full development, intersection conditions in the PM Peak Hour are expected to be in the near capacity range. Table 14 summarizes the results from the critical movement analysis of this intersection.

Table 14 also shows the results of a similar analysis of the signalized intersection of Iwilei Road and King Street, where acceptable under capacity conditions are expected to continue even with full development of the project site.

Table 14
Signalized Intersection Conditions

(sum of critical movements, condition)	Existing Traffic		Initial Project		Fully Developed	
Dillingham Boulevard & Kaaahi Street						
AM Peak Hour	565	under	615	under	745	under
PM Peak Hour	1,100	under	1,150	under	1,320	near
King Street & Iwilei Road						
AM Peak Hour	795	under	810	under	825	under
PM Peak Hour	940	under	960	under	1,055	under

The analyses and results shown in Table 14 do not consider the effects of the existing congestion at the signalized intersection of King Street, Dillingham Boulevard, and Liliha Street. Congestion at this intersection causes congestion along King Street and will tend to limit the increase in traffic that could occur on King Street near the project site.

Discussion of Findings

The proposed development of the site may be affected by a concurrent planning effort to place a transit center on the site as part of the City and County of Honolulu's Bus Rapid Transit (BRT) project. The analyses summarized herein have not included any transit vehicles within the site; the BRT project has proposed that the main line of the in-town system run through the site, with peak hour volumes of 30 vehicles in each direction. The City's proposal also would extend Kaaahi Street to Iwilei Road, *although only BRT vehicles would be permitted to use Kaaahi Street as a through route between Dillingham Boulevard and Iwilei Road. Access would be controlled by gate arms activated only by transponders*

on board the BRT vehicles. ~~which would alter traffic patterns in the area and provide through traffic with an alternative path between Dillingham Boulevard and Iwilei Road.~~

~~The BRT project has also considered a possible relocation of Iwilei Road so that it intersects King Street closer to the Beretania Street intersection. If this is done, the site would be changed, either reconfigured if the new roadway right-of-way is obtained by swapping for the existing right-of-way, or reduced as a new right-of-way is taken from the north side of the property.~~

The proposed use of the site by transit vehicles and the extension of Kaaahi Street will have greater impacts than the initial development of the site. The addition of an office tower, however, would significantly increase traffic in the area. In either case, a new traffic signal on Iwilei Road would be necessary.

~~If the site is not used for a transit center, the proposed plan of providing access from Kaaahi Street, Iwilei Road, and King Street could result in significant number of through (non-site related) traffic using the driveways to avoid congestion at other locations, such as the intersection of Dillingham Boulevard, King Street, and Liliha Street. A possible mitigation measure would be to reconfigure the site roadways to prevent their use by through traffic, such as providing only access to and from the site parking garages via Kaaahi Street.~~

Potential Impacts and Proposed Mitigation Measures

The traffic analyses indicate that the proposed connections from the project site would adequately serve the initial housing development proposed at the site. For full development, which would include an office tower, increased traffic would require an additional traffic signal on Iwilei Road. In this case, the preferred location of the site driveway to Iwilei Road would be directly opposite the existing connector roadway from Nimitz Highway. [Subsequent to this traffic study, HCDCH adjusted the subdivision line so that a future internal driveway/utility easement would be aligned squarely with the Nimitz Highway off-ramp.]

The proposed use of the site as a transit center for the City's Bus Rapid Transit project will have significant impact to traffic conditions in the area. Preliminary plans for the transit center include the extension of Kaaahi Street to Iwilei Road, opposite the connector from Nimitz Highway. ~~This extension could divert traffic away from the congested intersection of Dillingham Boulevard, King Street, and Liliha Street, and through the project site.~~ The City's main line of the BRT project is expected to have peak hour headways of 2 minutes, or 30 vehicles per hour, with provisions to give these vehicles priority over other traffic in passing through the area. A traffic signal at the new cross-intersection would be necessary to ~~implement this priority treatment~~ *accommodate the expected flow of transit vehicles.*

Construction of the Kaaahi Street extension is not included in the scope of the residential complex development. Residential and community service uses on the site would be best

served if there is no through traffic on the site. Project-generated traffic will enter and exit the site from driveways off Iwilei Road.

3.4.5 Public Transportation, Bikeways, and Parking

Bus

The subject property is located at the gateway to the Honolulu central business district, and thus can be considered a natural hub for transit services. Historically the OR&L property served as a transit center first for rail transportation, then for bus in the 60s and 70s. Today, there are many bus routes that pass in front of the property along North King Street, including in-town, suburban, and express bus routes. One bus route (No. 20 Airport-Pearlridge) uses Iwilei Road to get to Nimitz Highway.

See also, Section 4.2.5, Proposed Rapid Transit Improvements.

Bikeways

The subject property is not a significant location in terms of the Oahu bicycle network. It is located along the Central Bike Corridor which has a Priority 2 ranking in the Honolulu Bicycle Master Plan (1999). The nearest bicycle route is a marked lane on Nimitz Highway.

Parking

Portions of the Iwilei site have been used for parking by neighboring businesses. The Iwilei Business Center and the Institute for Human Services (IHS) had revocable permits (RPs) with the Department of Land and Natural Resources to park cars on the property; however, the RPs were terminated in October 2001 and parking will not be allowed after January 31, 2002. Parking availability is limited, particularly in the industrial area as it transitions to more customer-oriented uses.

According to the Land Use Ordinance, the proposed actions would require 309 parking stalls. Table 15 shows the LUO standards and calculation of required parking. The developers are proposing to reduce the amount of parking provided by ~~50%~~ *55%*, so the complex will include 139 parking stalls rather than 309 stalls. *The proposed reduction in parking is for the elderly residential and services component of the project only. Parking for visitors, employees of the day-care facility and offices, and the loading stalls will be fully compliant with the City's Land Use Ordinance requirements.* The reduction is justified because significantly fewer tenants are expected to drive compared to the population at large. Similarly, clients of the day care facility would be dropped off *by family members* or arrive by Handi-Van. A 201G exemption will be requested for the shortfall in parking provided.

Table 15
Parking Analysis (based on BMX-3 Zoning)

	Standard	Required	Proposed
Multi-family dwellings	1 per unit if 600 SF or less 1.5 per unit if > 600 SF, but < 800 SF 2 per unit if > 800 SF	138 1-BR units @ 1.5 ea. = 207 stalls 18 2-BR units @ 2 ea. = 36 stalls Total = 243 stalls	156 units @ 50% = 78 stalls
Guest parking	1 per 10 units	156 units = 16 stalls	16 stalls
Offices	1 per 400 SF	18,000 SF/400 = 45 stalls	45 stalls
Day-care facilities	1 for each 10 care recipients	50 clients/10 = 5 stalls	
Total parking		309 stalls	139 stalls

3.5 Public Utilities and Services

3.5.1 Water System

The Honolulu Board of Water Supply (BWS) provides water service to the existing buildings. Two water lines (24-inch and 12-inch) are installed in North King Street and two water lines (16-inch and 8-inch) are installed in Iwilei Road.

Project Impacts

Based on the BWS's water system standards, the proposed residential tower is projected to generate an average daily demand of 60,000 gallons per day (GPD), while average daily demand for the proposed mixed-use tower is projected at 33,780 gpd. Peak-hour demands are 125 gallons per minute (GPM) and 70 gpm, respectively.

The BWS has confirmed that the off-site water system currently serving the project area is adequate to accommodate the proposed improvements. However, the State is required to obtain a water allocation from the Department of Land and Natural Resources and the BWS will make a determination of water availability when building permit applications are submitted for review and approval.

One possible connection is to tap off the 16-inch water line in Iwilei Road. A 12-inch water line could be installed in the driveway off Iwilei Road; then, two 6-inch lateral lines would distribute water to the residential and mixed-use towers.

3.5.2 Wastewater System

A 24-inch sewer line runs through the property along the western and southern property lines.

Project Impacts

Using design standards established by the City Department of Environmental Services, the average wastewater flow will be approximately 84,800 gpd for the residential tower and 30,240 gpd for the mixed-use tower.

Based on the KHMA plan, a single 10-inch sewer line could be installed to service both proposed towers. An existing manhole on the property, located south of the proposed residential tower, is the most accessible and likely connection point to the sewer system.

3.5.3 Stormwater Drainage System

Three drainage alignments containing 24- and 36-inch drain lines and box culverts cross the project site, generally conveying stormwater from the Kaaahi Street industrial/commercial area to Iwilei Road.

Project Impacts

The building footprint of the residential tower and ancillary parking structure extend over portions of the existing drainage alignments. Underground storm drains in conflict with proposed structures will be rerouted to the proposed utility easement located adjacent to the project site.

It is unlikely that the project itself will have a long-term adverse impact on stormwater runoff. At present the site is paved extensively with asphalt and concrete. Therefore, redevelopment of the site with additional landscaping will produce a net decrease in the amount of impermeable surfaces on site.

3.5.4 Solid Waste Disposal System

Solid waste collection and disposal services are provided by the City Department of Environmental Services. Most of the residential and commercial trash is disposed of at H-POWER, a waste-to-energy plant, where recyclables are removed and the remainder is burned to produce electricity. Noncombustible construction and demolition debris and industrial wastes go directly to the Waimanalo Gulch landfill on the leeward side of Oahu.

In the 1990s, the City Council passed a series of mandatory recycling laws. Most large commercial and government customers are affected, either directly or indirectly, by bans and

restrictions on targeted materials at municipal disposal sites. Although refuse haulers are responsible for complying with the recycling laws, the businesses that generate the waste need to insure that their refuse is within allowable disposal limits. At present regulations affect green waste (yard trimmings), cardboard, office paper and newspaper, food waste, glass containers, and tires, auto batteries, white goods, and scrap metals.

Project Impacts

In the short term, the project will generate construction debris and contribute to the waste stream that enters the Waimanalo Gulch Landfill, which is nearing capacity. Materials identified as hazardous and slated for site clean-up and removal will be handled and disposed of in compliance with applicable federal and State regulations. *Some demolished material, notably steel structures, may be recycled.*

In the long term, the project is not expected to be a net generator of residential and commercial trash. Based on past experience with similar projects, virtually all tenants are expected to be Hawaii residents and will have relocated from homes elsewhere on the island.

3.5.5 Electrical and Communication Systems

Electrical service to the project site is provided by Hawaiian Electric Company and communication service is provided by Verizon Hawaii. ~~There are overhead communication and 12 kilovolt (kV) power lines along King Street and underground communication and 12kV power lines along Iwilei Road.~~ *There is an overhead communication line along King Street and an underground communication line along Iwilei Road. There are overhead 4 kilovolt (kV) and 12 kV power lines along Iwilei Road and an overhead 4 kV power line along King Street. There are underground 12 kV and 25 kV power lines along Iwilei Road and an underground 12 kV power line along King Street.*

Project Impacts

~~The project will require dual voltage 11.5kv/25kv electrical service.~~ *The project will require 25 kV electrical service from Iwilei Road.* The project developer will coordinate with electrical and telecommunications companies to ensure appropriate service and connections.

3.5.6 Public Services

Police Protection

The project area is situated within District 5 (Kalihi), Patrol Beat 566 (Iwilei), and is serviced by the Kalihi Police Station located at 1865 Kamehameha IV Road. District 5

extends from Pali Highway to Red Hill. The project area is at the eastern end of District 5, close to the boundary of adjacent District 1 (Downtown). District 1's administrative offices are located at the Honolulu Police Department's Alapai headquarters. In addition, there is substation at Maunakea and North Hotel Streets (approximately one-quarter mile from the project site) which provides a permanent police presence in the Chinatown area.
The Honolulu Police Department's 1999 Annual Report contains the latest available crime statistics for the area. The numbers in Table 16 represent reported offenses, not convictions.

Table 16
Reported Criminal Offenses, 1999

	Beat 566 (Iwilei)	Beat as % of District	District 5 (Kalihi)
Murder	7	64%	11
Negligent Homicide			3
Rape	1	2%	50
Robbery	12	8%	150
Aggravated Assault	13	10%	132
Burglary	38	6%	601
Larceny	411	10%	4145
Auto Theft	36	5%	726
Total	520	9%	5818

Source: Honolulu Police Department, 1999 Annual Report, as posted on website http://www.honolulupd.org/ar1999/stats/d5beats.htm

The crime statistics indicate that the project area has relatively high rates of certain types of crime, and that security will be of some concern to any future development. Of the 21 beats in District 5, Beat 566 had the second highest number of total offenses, second to the Beat 552—which includes the airport—and reported a large number of larcenies. Assuming that crime is distributed evenly across the district, each beat would contain slightly less than 5 percent in all categories. Beat 566 experienced disproportionately high rates of reported murders, robberies, aggravated assaults, burglaries, and larcenies. Especially noteworthy is the number of murders. However, because the data only reflect a single point in time, it is not known to what degree these numbers are typical or statistical anomalies.

Police have reported fewer incidences of crime in the area since the Aala Park renovation project began and the park was closed to the public. The project is expected to reopen in early 2002, but design modifications are intended to deter public nuisance and illegal activities.

During the short-term demolition and construction period at the project site, potential crime may be mitigated through the use of locks, adequate lighting, barricades and/or screening, in addition to hiring security personnel during evening, weekend, and holiday hours.

Coordination with HPD should be undertaken during construction to ensure public safety regarding parking and traffic congestion.

In the long-term, on-site security measures, including well-designed and ~~lighted~~ *adequately lit* areas, building security, and an attendant-operated parking structure can help to reduce and prevent crime. HPD has initiated a program called Crime Prevention through Environmental Design (CPTED) which offers many good ideas for deterring crime through appropriate site planning and architectural design. The addition of an on-site residential community will also help to lower crime by maintaining vigilant presence around the clock.

Fire Protection

Fire protection services for the project area are provided by the Honolulu Fire Department (HFD). Engine Company 1 at the Central Fire Station (intersection of Beretania and Fort Streets) is situated closest to the project site. Engine Company 9 at the Kakaako Fire Station on Queen Street and Engine and Ladder Company 31 at the Kalihi Kai Fire Station (intersection of Nimitz Highway and Waiakamilo Road are also in relatively close proximity. All of these units are part of Battalion 1 which covers the area from Kalihi to Makiki. Given the compact urban form in this region, response times are very quick, averaging less than four minutes.

Prior to commencement of the project, building and construction plans need to be submitted to the fire department for permit review and approval. It is expected that the project will comply with fire protection requirements, including access for fire apparatus, water supply, and building construction.

Emergency Medical Services

The Honolulu Department of Emergency Services, Emergency Medical Services Division (EMS) responds to all 911 calls for EMS on the island of Oahu. There are 16 ambulance units and 1 Medivac helicopter unit on the island, of which the closest is the Baker-1 unit based at Queens' Medical Center. The Honolulu Fire Department provides co-response with trained personnel. HFD also coordinates HAZMAT (Hazardous Materials) incidents, search and rescue, and vehicle extrication.

The project site is conveniently located near the following medical services:

Facility	**Location**	**Distance**
Queens' Medical Center	Punchbowl Street	1.00 mile
Straub Clinic and Hospital	King and Ward Streets	1.75 miles
St. Francis Medical Center	Puunui Street	1.25 miles
Kuakini Medical Center	Kuakini Street	1.00 mile

These medical facilities are located 5 to 15 minutes away from the project site by car and provide a full range of medical services, including 24-hour emergency care. Given the target population to be served by the proposed development, convenient access to major health providers is seen as highly advantageous.

Project Impacts

The project will increase calls for police service in District 5 due to more intensive use of the project site and the generation of higher traffic levels. In addition, given a tenant population of elderly persons and the underlying "aging in place" concept of the proposed development, calls to emergency medical service and fire personnel providing first response are expected to increase.

4. Relationship of the Project to Land Use Plans, Policies, and Controls

4.1 State of Hawaii

Various State plans, policies, and land use controls provide guidelines for development within the State of Hawaii, including the Hawaii State Plan, State Functional Plans, and the State Land Use Plan.

4.1.1 Hawaii State Plan

The 1996 Hawaii State Plan is the umbrella document in the statewide planning system. It serves as a written guide for the long-range development of the State by describing a desired future for the residents of Hawaii and providing a set of goals, objectives, and policies that are intended to shape the general direction of public and private development.

The proposed residential development is consistent with the following State objectives and policies:

SEC. 226-19 Objectives and policies for socio-cultural advancement—housing.
To achieve the housing objectives, it shall be the policy of this State to:

(1) Effectively accommodate the housing needs of Hawaii's people.
(2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.
(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.
(5) Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.
(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.

4.1.2 State Functional Plans

The Hawaii State Plan directs appropriate State agencies to prepare Functional Plans that address and prioritize statewide needs and recommend specific, implementable actions that can be directly related to budget items. State Functional Plans are intended to act in a coordinated fashion with each other and with the County General Plans in order to

implement the Hawaii State Plan. They are to contain short-term actions that can be taken within a two- to six-year period.

State Housing Functional Plan[16]

The proposed development responds directly to two of the six major concerns listed in the State Housing Functional Plan:

- Expanding rental housing opportunities
- Expanding rental opportunities for the elderly and other special need groups

In the area of rental housing, the proposed development is consistent with the following policies and implementing actions:

Policy B (1): Direct State, county and federal resources toward the financing and development of rental housing projects.

> Implementing Action B (1)(a): Participate in the development of below-market rental projects.

Policy B (2): Encourage increased private sector participation in the development of affordable rental housing.

> Implementing Action B (2)(a): Offer developers tax incentives, financing tools and other incentives to make the development of affordable rental housing projects possible.
>
> Implementing Action B (2)(b): Form public/private partnerships and/or enter into public/private development agreements to develop affordable rental housing projects.
>
> Implementing Action B (2)(c): Effectively use new and existing federal, State and county funds to finance the development of affordable rental housing.

Policy B (4): Fully utilize rental subsidy programs funded by the federal, State or county governments.

> Implementing Action B (4)(a): Pursue a continuous source of funding for the Rental Assistance Program, which subsidizes rents of qualified tenants in newly constructed rental projects.

[16] State Housing Functional Plan, preparation coordinated by the Housing Finance and Development Corporation, approved May 8, 1989.

State Human Services Functional Plan[17]

The proposed development is related to two of the four priority issues in the Human Services Functional Plan: elderly care and service delivery improvements. In the area of elderly care, the functional plan endorses policies and actions that will build a continuum of services, including home support and community-based services, to prevent premature placement in an institutional setting. HCDCH has recognized that persons living in senior units may need different types of services during their tenure, therefore the housing component of the project incorporates an assisted-living facility from which various support services can be offered.

Proposed improvements to the OR&L Terminal Building address another priority issue, i.e., service delivery improvements. The renovated building will provide a comprehensive and convenient location where clients of the Department of Human Services can obtain necessary information and services.

State Historic Preservation Functional Plan[18]

The proposed development is consistent with the Historic Preservation Functional Plan's concern with Preservation of Historic Sites. Redevelopment of the Iwilei project site will not only restore a historic landmark, but once again make the corner of North King and Iwilei Road a hub of activity; a place that is safe and useful to the surrounding community. A 24-hour a day residential presence that puts "eyes on the street" and is backed up with adequate security provisions, can significantly deter public nuisance activities that have troubled the area in the past.

State Transportation Functional Plan[19]

The proposed development supports the Transportation Functional Plan's efforts to relieve congestion. Several objectives in the plan address the linkage between land use and transportation, specifically building homes in places that will minimize the use of private automobiles. The proposed development sites new residential units in a central location that is close to shops and services and at the heart of the public transportation network. Even if rates of auto use decline with age, ready access to an extensive bus system mean that elderly residents would not necessarily experience a loss of mobility.

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[17] State Human Services Functional Plan, preparation coordinated by the Department of Human Services, approved May 8, 1989.
[18] State Historic Preservation Functional Plan, preparation coordinated by the Department of Land and Natural Resources, approved May 22, 1991.
[19] State Transportation Functional Plan, preparation coordinated by the Department of Transportation, approved May 22, 1991.

4.1.3 State Land Use Classification

The State Land Use Commission, pursuant to Chapter 205 and 205A, HRS and Chapter 15-15, Hawaii Administrative Rules, is empowered to classify all lands in the State into one of four land use districts: Urban, Rural, Agriculture, and Conservation. The project site falls within the "Urban" district. The proposed development is permitted within the Urban classification, therefore no boundary amendment is required. Activities, uses, and development in the Urban district are regulated by County governments.

4.1.4 Housing and Community Development Corporation of Hawaii

The Housing and Community Development Corporation of Hawaii (HCDCH) is a public corporation attached to the Department of Business, Economic Development, and Tourism. Its mission is to serve as a catalyst to provide Hawaii's residents with affordable housing and shelter opportunities in a balanced and supportive environment without discrimination. The Legislature has granted HCDCH broad powers to execute its responsibilities. In particular, Section 201G-118(a) of the Hawaii Revised Statutes states that:

> The corporation may develop, on behalf of the State or with an eligible developer, or may assist under a government assistance program in the development of, housing projects which shall be exempt from all statutes, ordinances, charter provisions, and rules of any governmental agency relating to planning, zoning, construction standards or subdivisions, development and improvement of land, and the construction of units thereon...

provided that:

- the corporation has determined that the project is consistent with the purpose and intent of the law and meets minimum requirements of health and safety
- the project does not contravene safety standards, tariffs, or rates and fees approved by the public utilities commission or any board of water supply
- the project has been approved by the City Council or County Council in which it is situated

4.2 *City and County of Honolulu*

4.2.1 Oahu General Plan

First adopted in 1977, the City and County of Honolulu General Plan specifies long-range objectives and policies to guide both the quantity and quality of future growth on Oahu. 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, and also provides broad policies that help realize the objectives of the Plan.

The project is consistent with the following General Plan objectives and policies:

Physical Development and Urban Design

Objective A: To coordinate changes in the physical environment of Oahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.

> Policy 5: Provide for more compact development and intensive use of urban lands where compatible with the physical and social character of existing communities.
>
> Policy 6: Encourage the clustering of developments to reduce the cost of providing utilities and other public services.
>
> Policy 7: Locate community facilities on sites that will be convenient to the people they are intended to serve.

Objective D: To create and maintain attractive, meaningful, and stimulating environments throughout Oahu.

> Policy 3: Encourage distinctive community identities for both new and existing districts and neighborhoods.
>
> Policy 9: Design public structures to meet high aesthetic and functional standards and to complement the physical character of the communities they will serve.

4.2.2 Primary Urban Center (PUC) Development Plan

Development Plans (DPs), a mandate of the City Charter, have been adopted by ordinance for eight geographic regions of the island since 1985. The project site is located in the Primary Urban Center (PUC) which stretches from Pearl City in the west to Kahala in the

east. City Charter amendments in 1992 refined the DPs by changing their definition from "relatively detailed plans" to "conceptual schemes." The Charter amendments further provided that the purpose of the DPs is: (1) to establish priorities for the coordination of major development activities and (2) to give sufficient description of the "desired urban character and the significant natural, scenic and cultural resources" to serve as a policy guide for more detailed zoning maps and regulations and public and private sector investment decisions.

Another major change enacted in 1992 was the distinction between *development plans* and *sustainable community plans*. Of the eight geographic regions, six areas are envisioned as relatively stable regions for which public actions will focus on supporting existing populations and their guiding documents, therefore, are called *sustainable community plans*. Only the Ewa and PUC areas have *development plans*, so designated because these are areas to which the City intends to direct growth and redevelopment, with the requisite supporting facilities, over the next 20 years.

The PUC Development Plan is currently going through a revision process. Based on the draft that has been circulated publicly to date, the proposed development at Iwilei is consistent with the thrust of the plan. In particular, the plan focuses on strengthening the "Heart of Honolulu," by, among other actions:

- promoting mixed land uses
- allowing higher densities and more flexible development standards
- redeveloping the Downtown/Chinatown/Iwilei waterfront with a new shoreline pedestrian promenade and mixed-use commercial/recreational/residential complexes.

Development Plan Land Use Map

Figure 16 shows the land use designations currently in effect. The project site contains three land use designations: Commercial-Industrial Emphasis Mixed Use, Commercial Emphasis Mixed Use, and Public Facility.

Public Infrastructure Map

The Public Infrastructure Map (formerly called Public Facilities Map) is a planning device that identifies all major publicly funded facilities and mandates that no funds for land acquisition or construction be expended or encumbered unless the project is shown on the map. It is amended regularly to show a composite picture of upcoming capital improvement projects. In 1999 the City Council passed an ordinance clarifying the status of public infrastructure maps which "shall not be deemed part of the development plans," but a public infrastructure map shall be adopted for each of the eight development plan areas.

Figure 17 shows the projects currently shown on the PUC Public Infrastructure Map. Of particular note, is the GB symbol for "government building" that was placed on the map when the Liliha Civic Center project was under consideration.

4.2.3 Land Use Ordinance

Zoning

The City and County of Honolulu Land Use Ordinance (LUO) provides the most detailed regulation of urban land uses and the built form. Under current LUO zoning, part of the proposed project is designated Industrial-Commercial Mixed Use District (IMX-1) and part of the site is designated Community Business Mixed Use District (BMX-3) (see Figure 18). Zoning restrictions applicable to the project site are summarized in Table 17.

The IMX-1 district is intended to promote and maintain a mix of light industrial and commercial uses. This district provides diversified business and employment opportunities by permitting a broad range of uses, but without exposing non-industrial uses to unsafe and unhealthy environments. A limited amount of residential use is permitted.

This BMX-3 designation recognizes that certain areas of the city have historically been mixtures of commercial and residential uses, occurring vertically and horizontally and to encourage the continuance and strengthening of this pattern. BMX-3 specifically provides areas for both commercial and residential uses outside of the Central Business Mixed Use District. This district applies to areas along major thoroughfares adjacent to higher intensity districts, such as B-2 and BMX-4. The maximum height allowed in this zone is 200 feet.

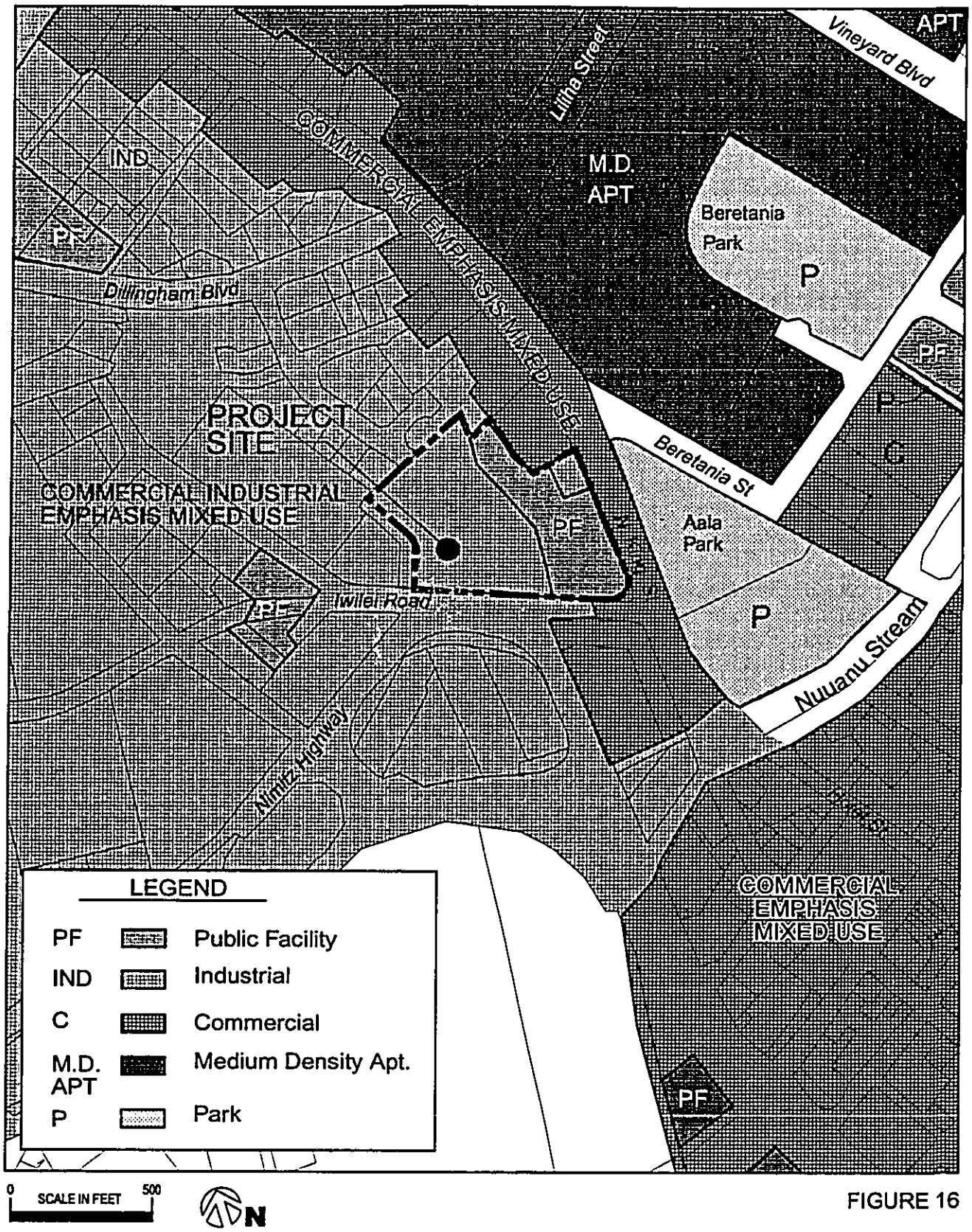
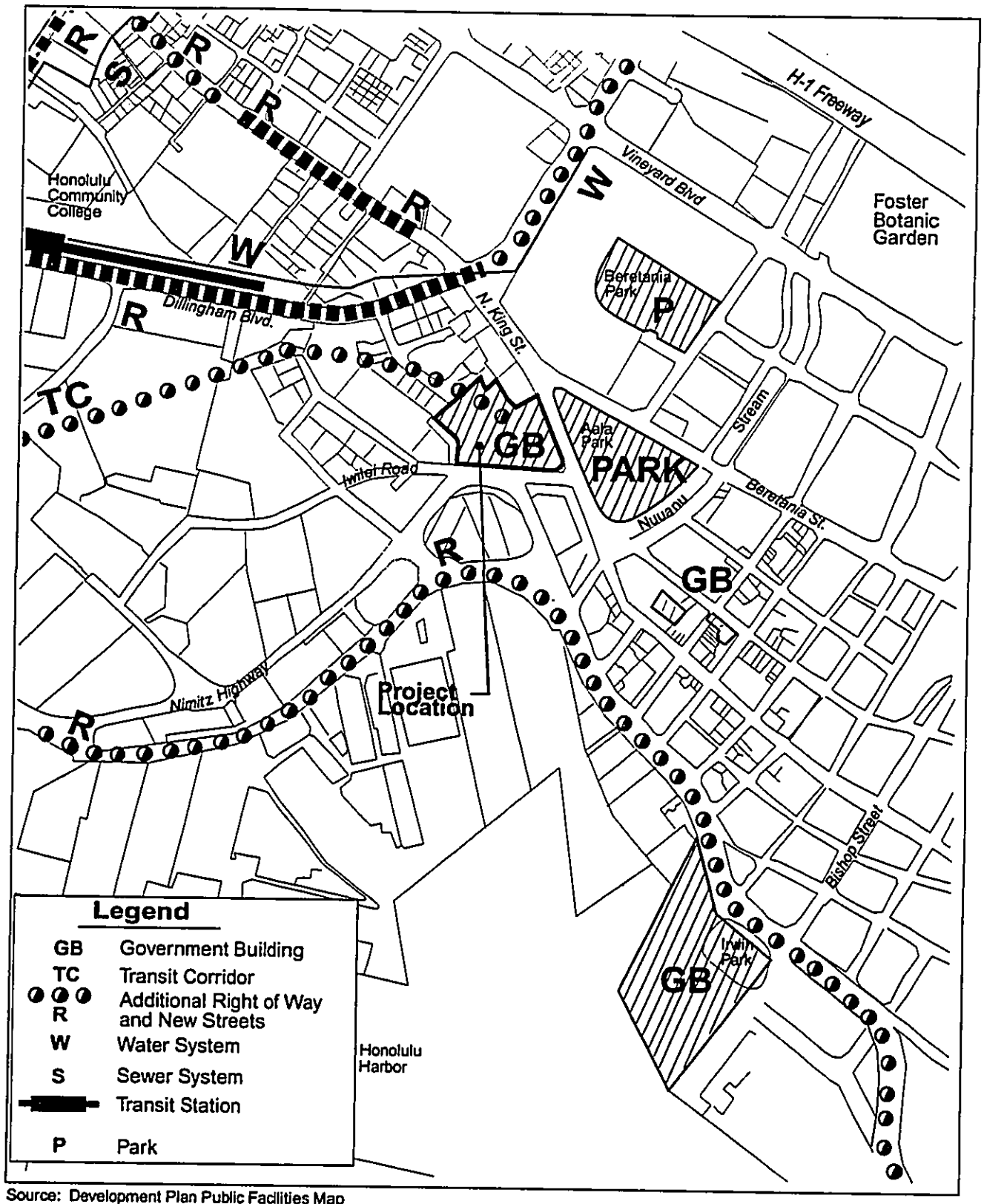


FIGURE 16

DEVELOPMENT PLAN LAND USE MAP



Source: Development Plan Public Facilities Map

FIGURE 17

PUBLIC INFRASTRUCTURE MAP

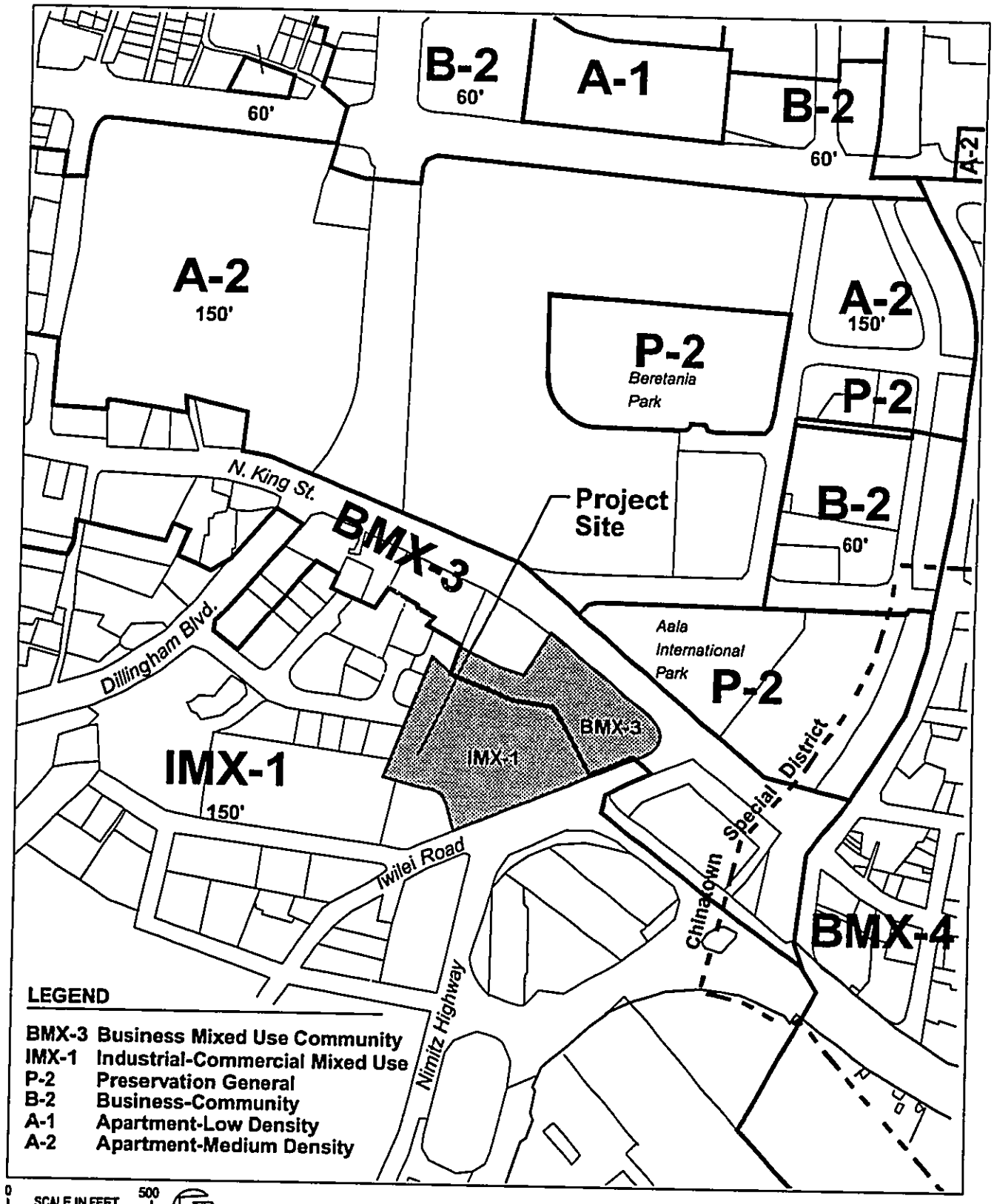


FIGURE 18

ZONING MAP

Table 17
Summary of Land Controls and Development Standards
City and County of Honolulu Land Use Ordinance

Development Standard *(As applied to the project site)*	**IMX-1** *Industrial-Commercial Mixed Use*	**BMX-3** *Community Business Mixed Use*
Minimum lot area (sq. ft.)	5,000	5,000
Minimum lot width/depth (ft.)	50	50
Front yard (ft.)	5	5
Side and rear yard (ft)	0	0
Maximum building area (percent of zoning lot)	80*	Not regulated
Maximum density (FAR)	1.5-2.5	2.5
	Depending on the amount of noncommercial use	Maximum FAR of 3.5 with open space bonus
Maximum height (ft.)	150	200**

* LUO contains provisions to increase the building area.

** The current Development Plan for the Primary Urban Center designates Kalihi-Palama as a Special Area. The Commercial-Industrial Emphasis Mixed Use area—bounded by the King Street corridor, Nuuanu Stream, Nimitz Highway, Waiakamilo Road, Kaumualii Street, and Kapalama Drainage Canal—establishes a general height limit of 150 feet.

The IMX-1 zone does not allow multi-family dwellings as a permitted use.[20] Therefore, the portion of the site currently within the IMX-1 district will have to be rezoned to BMX-3.[21] A consistent zoning classification would allow for multi-family residential development anywhere on the site.

[20] City and County of Honolulu, Department of Planning and Permitting. May 1999. Land Use Ordinance, Table 21-3, Master Use Table.
[21] Multi-family residential dwellings are permitted in the BMX-3 zone with the minor condition that pedestrian access to the dwellings be independent from other uses and designed to enhance privacy for residents and their guests.

For future development in the DAGS area, office buildings and parking structures are considered principal uses in both IMX-1 and BMX-3 zones.

Chinatown Special Design District

Chinatown is the oldest section of downtown Honolulu. In recognition of its historic role in the city's growth and its architectural significance, the City established the Chinatown Special District. The land use objectives are to maintain the urban form and character of the district, reverse physical and economic deterioration, and encourage compatibility in new development.

The district is located about 1,000 feet east of the project site. The design controls and development standards are intended for buildings within the district itself. However, the special district ordinance makes note of prominent view corridors that look out into surrounding areas. Of particular relevance, is the street level view along River Street in an *ewa* direction. Because Aala Park is mentioned specifically as an important public viewing area, the OR&L site may be considered part of the view plane as well. Therefore, it will be necessary to consider how the project looks from the Chinatown area, and an effort made to create a visually cohesive tableau.

Special Management Area

Coastal zone management objectives and policies and the Special Management Area (SMA) guidelines have been developed to preserve, protect, and, where possible, to restore the natural resources of Hawaii's coastal zone. The project site is not located within the SMA boundaries.

4.2.4 Neighborhood Involvement

Thirty-two communities on the island of Oahu have established neighborhood boards under the aegis of the City and County of Honolulu Neighborhood Board Commission. Neighborhood boards have no legislative or discretionary authority in land-use decision making; however, they have come to play an important advisory role. The project site is officially located in the Kalihi-Palama area, but it is also close to the Liliha-Kapalama and Downtown areas and all three areas have taken an active interest in the proposed development. At present, the Kalihi-Palama Community Vision Group (CVG) is working on an action plan for the community. Although the CVG is still in the earliest stages of plan making, the group has been apprised of the proposed action and will be consulted through the environmental review process.

A citizens group called the Iwilei Project Advisory Committee was established for the master plan effort undertaken by HCDCH and KHMA. Among the members of that group

were representatives of the three neighborhood boards, State and local elected officials, and neighborhood business and civic organizations.

4.2.5 Proposed Rapid Transit Improvements

Islandwide Mobility Concept Plan
Primary Corridor Transportation Project

The City and County of Honolulu, Department of Transportation Services has developed a Mobility Concept Plan—*now known as the Primary Corridor Transportation Project (PCTP)*—to address the city's ongoing transportation concerns, particularly traffic congestion between downtown and the suburban residential communities. *The Major Investment Study/Draft EIS for the PCTP was released for public review and comment in August 2000.*

The core of the ~~Concept Plan~~ *PCTP* is a bus rapid transit (BRT) system, operating on a hub-and-spoke model. The hubs are transit centers for transferring between modes of travel (for example, from car to bus) or between buses, and the spokes are feeder lines of varying lengths from longer express routes that connect suburbs to the shorter local routes and community circulators. A key objective is to develop high-capacity, frequent transit service to make it a more attractive and viable alternative to the automobile.

As currently planned, buses (and possibly other high-occupancy vehicles) would be given preference on certain lanes of highways and city streets. One BRT alignment currently favored by city transportation planners runs along Dillingham Boulevard, detours onto Kaaahi Street, passing through the subject property, then connects to the Hotel Street, which is already a dedicated bus corridor.

Iwilei Transit Center

The ~~Mobility Concept Plan~~ *PCTP* envisions a hierarchy of transit centers: regional, community, and neighborhood. A community-scale transit center is being planned for the subject property.[22]

> *Community transit centers* are medium sized facilities that would serve several surrounding neighborhoods. Here, passengers would transfer between different community circulators, express or local routes, or Bus Rapid Transit services. Community transit centers would typically be off-street facilities located close to shopping centers or other activity nodes. Features could include multiple bus bays

[22] Discussion with James Burke, Department of Transportation Services and Roy Yamachi, architectural consultant, March 29, 2001.

around a sheltered structure, comfortable seating, route information, vending machines, and other small-scale services.[23]

Should the City wish to implement plans for the BRT Kaaahi Street alignment and/or the Iwilei Transit Center, all or a portion of the Iwilei site must be acquired from the State of Hawaii; however, there are no agreements or formal discussions for such a transaction.

4.3 List of Required Permits and Approvals

State of Hawaii

- Compliance with Chapter 343 HRS, the Environmental Review Process
- Compliance with Chapter 6E, HRS, State Historic Preservation Division
  - regarding archaeological monitoring during construction and
  - disposition of historic structures on the National or State Register of Historic Places.
- Compliance with Department of Health regulations regarding
  - hazardous and contaminated materials disposal, including asbestos and lead-based paint, site remediation
  - noise permit during construction
  - National Pollutant Discharge Elimination System (NPDES) Permit, e.g., dewatering during construction
- Compliance with Section 103-50, HRS, Americans with Disabilities Act Accessibility Guidelines

City and County of Honolulu

- Consolidation and resubdivision
- Zoning change from IMX-1 to BMX-3 or exempted using 201-G powers.
- Park dedication—required for multi-family residential projects. May be waived using 201-G powers.
- Development plan change for exceeding height limit
- Demolition Permit
- Grading Permit
- Trenching Permit
- Dewatering Permit
- Building Permit
- Sewer Connection Permit
- Municipal Storm Drain Connection Permit
- Certificate of Occupancy (post building permit)
- Water connection (Board of Water Supply)

[23] Parsons Brinckerhoff/Carter & Burgess Team, *Islandwide Mobility Concept Plan*, p. 27.

5. Alternatives to the Proposed Action

No Action Alternative

The no-action alternative would involve no change to existing uses of the site for the foreseeable future. One exception is work already contracted by the Department of Accounting and General Services to renovate the OR&L Terminal Building.

Environmental impacts related to construction of major new facilities and long-term changes in traffic patterns around the subject property would be avoided. There would be savings in capital improvement funds, though these savings would be offset by lease payments if government offices remain in privately owned buildings. On the other hand, the site is currently underdeveloped and, if continued "as is," this alternative carries large opportunity costs in forgone benefits that might result from more intensive development and the possibility of neighborhood revitalization.

Alternative Uses—Commercial and Industrial Development

In May 1999, Hastings, Conboy, Braig & Associates prepared a market study that identified the highest and best use of the site.[24] The study examined the several relevant market sectors, including residential (market and affordable), commercial office, retail, and industrial.

Commercial and industrial projects were dismissed as being infeasible development alternatives. They pointed to Castle and Cooke's experience with the Dole Cannery development and the difficulties of creating a destination center and changing public perception in an area not typically associated with retail and leisure. Despite the apparent success of large discount outlets, such as K-Mart, Hilo Hatties, and Home Depot, the subject property was deemed too far away to take advantage of an emerging critical mass. Similarly, office use was not recommended because of low market interest and the availability of more attractive space in downtown Honolulu. They reported that brokers operating in the Iwilei area were consigned to negotiating flexible terms and giving concessions to sign and keep tenants.

According to the authors the forecast for the industrial market indicated higher vacancies and declining rents. The trend was toward owner-users with an emphasis on fee simple

[24] This environmental assessment is being written approximately two years after the Hastings Conboy market study was released and economic conditions have changed in the interim. In 1999, the state's recovery was in its early stages and the economic picture has clearly strengthened in the intervening two years. However, in early 2001, the national economy appears stalled, making Hawaii's economic future more tenuous. The state is unlikely to match growth rates of the past two years and economic prospects look ambivalent at best. This scenario is not dissimilar to the economic conditions in existence when the Hastings Conboy study was conducted, therefore the conclusions of that study remain viable.

ownership rather than speculative development. They felt that tenants in search of lower rents in quality industrial subdivisions would continue to migrate westward.

After examining supply and demand factors in the residential market, the authors determined that an affordable multi-family rental project catering to low-income families and independent-living seniors would be the highest and best use of the property. Easy access to public transportation and proximity to the downtown area were cited as advantages of the site.

Alternative Configurations

The conceptual design study by Kober/Hanssen/Mitchell Architects, Inc. (July 1998) included an exercise that developed different configurations for the project components. KHMA developed two variations of an all-residential scheme and three variations of a residential and mixed-use commercial scheme.

Scheme 1-A
- Two residential towers
- Single parking structure (detached)

Scheme 1-B
- Two residential towers
- Single parking structure (attached)

Scheme 2-A
- One residential tower
- One mixed-use tower
- Single parking structure (detached)

Scheme 2-B
- One residential tower
- One-mixed-use tower
- Single parking structure (attached)

Scheme 2-C
- One residential tower
- One residential parking structure (attached)
- One mixed-use tower
- One mixed-use parking structure (detached)

By using bubble diagrams, the architects, HCDCH, and members of the public were able to compare massing and relationships among the structures on site. Scheme 2-C represented the consensus based on feedback received, consideration of financial requirements, and phasing. Separate structures allow for phased development and for each tower to build its own identity. The two parking structures decrease the overall mass required to accommodate all of the parking.

The proposed action, as conceived by Pacific Housing Assistance Corporation, is consistent with Scheme 2-C. Concentrating residential use on the makai side of the site, leaves the balance for future complex of office and other uses integrating the OR&L Terminal Building.

6. Relationship between Local Short-term Uses of the Environment and Long-term Productivity

6.1 Short-term Uses

In the context of this project, short-term uses of the environment amount to disturbances associated with construction of new infrastructure and buildings. During this period, there will be increased noise, fugitive dust, and disruptions in traffic. Most of these impacts are temporary and will last for the duration of construction. At the same time, there are positive benefits in the form of construction expenditures, including both employment of local labor and purchase of material from local suppliers. Infusion of dollars into the economy will, in turn, have multiplier effects as the money circulates and benefits other local retail and service establishments.

6.2 Long-term Productivity

The proposed improvements are compatible with zoning and land uses in the area. Redevelopment of the site will enhance the environment and character of the neighborhood as a whole by eliminating deteriorated structures and increasing the productive use of the land. Specifically, the proposed development will improve housing resources and support services for individuals with special needs. With 156 one- and two-bedroom units, the apartment building is expected to house more than 200 tenants, while the adult day center will be able to accommodate up to 50 clients per day.

The project is consistent with the State's long-term environmental policies, goals, and guidelines as expressed in Chapter 344, HRS, State Environmental Policy. In particular, the proposed action will implement the following objectives from the "Community Life and Housing" section:

(a) Foster lifestyles compatible with the environment; preserve the variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods which reflect the culture and mores of the community;
(b) Develop communities which provide a sense of identity and social satisfaction in harmony with the environment and provide internal opportunities for shopping, employment, education, and recreation;
(d) Foster safe, sanitary, and decent homes;
(e) Recognize community appearances as major economic and aesthetic assets of the counties and the State; encourage green belts, plantings, and landscape plans and designs in urban areas; and preserve and promote mountain-to-ocean vistas.

Overall, the project is expected to have a positive effect on the social welfare of the community. The proposed action will increase housing options for a growing population needing affordable and accessible housing. The adult day care service is expected to improve the quality of life for seniors who require varying levels of professional attention and will help family members in caring for aging parents and relatives.

7. Irreversible and Irretrievable Commitments of Resources

A major development, such as the proposed action, will consume significant resources in the form of finances, material, labor, and land. Once these resources are used, they are irretrievable. However, it would be misleading to suggest that these resources are available for an unlimited number of alternative uses. In many cases, the resources are specialized—e.g., construction financing, construction materials, and construction labor—and would be deployed for one development project or another. The viability of this particular development project will be determined, in part, by the lending industry since the residential complex will require some private financing. Lenders have an inherent interest in carefully evaluating the merits of a development project. This type of market discipline provides a stringent test as to the worthiness of resources committed to development.

To the extent that public funds (or tax credits) are used, the question is whether this is an appropriate use of those funds among alternative projects that might qualify for the same pool of funds. In this case, the developer was selected through a competitive process to find the development package that would best meet the needs of Hawaii's residents.

Developing public land for residential and community service uses also means that it will not be available for alternative uses. While this is not an irreversible commitment (note the site's previous "lives" as a fishpond, then a railway station), for all practical purposes, the land would be tied up for the economic life of the buildings, possibly for several decades. Because land is a valuable resource, its long-term commitment is rightly based on careful analysis of market conditions. A market study of the Iwilei site conducted in 1999 found that the highest and best use for the property is affordable, multi-family housing.

Given past disturbances of the project site, natural resources have long been altered or obliterated by a continuous succession of development activities. It is possible, however, that early forms of human occupation and land development—for example, the historic fishponds—may underlie the project site. In the event that resources of potential cultural value are discovered during construction, the State Historic Preservation Office and Oahu Burial Council will be contacted.

8. Summary of Probable Adverse Environmental Impacts that Cannot be Avoided and Mitigation Measures

Because most of the adverse environmental impacts are expected to be short-term in nature and related to construction, substantial degradation of environmental quality is not expected. If the proposed action is able to diminish the visual blight and public nuisance activities, as anticipated, long-term environmental quality in the area will improve.

Beyond the HCDCH elderly housing complex, future development on the project site faces an unknown timetable. This EIS discusses impacts that might occur from future development on the DAGS component of the Iwilei site; however, the subject project is not tied to this or any other development proposal.

Soils and Subsurface Conditions. Based on subsurface conditions and the anticipated high column loads, a deep foundation system consisting of driven piles is recommended to support the proposed towers and parking structures. (See Noise Quality, below.)

Construction of a basement level is likely to be difficult due to soft or loose soils and the shallow groundwater level encountered at the project site. An adequately designed and properly implemented shoring and dewatering system will be required. Furthermore, because the proposed project is located in a developed area, the basement excavation will need to be adequately shored to reduce the potential for adjacent ground movement. The dewatering operation should be conducted in such a manner that the dewatering will not cause ground subsidence, which may cause potential damage to existing structures and utilities. (See Water Quality, below.)

Air Quality. Temporary and localized negative impacts on air quality will occur in areas adjacent to the construction site. Equipment used during the construction phase will emit exhaust and airborne particulates, and construction work will produce dust. Due to the close proximity of existing establishments, and especially in light of continued occupation of the OR&L Building during construction, appropriate mitigation measures should be employed to control fugitive dust. Best construction management practices, such as installation of screens around the construction site, frequent watering of exposed soil, and expeditious pavement of driveways and landscaping, will help to reduce the amount of dust in the air.

Noise Quality. The various construction phases of the project will generate varying amounts of noise that will impact noise-sensitive areas, i.e., the residences mauka of the project along North King Street, Beretania Park and Aala International Park. The actual noise levels produced will be a function of the methods employed during each stage of construction. Impact tools, such as pile drivers, will probably be the loudest equipment used. Mitigation of construction noise will be accomplished by complying with Department of Health noise regulations and noise mufflers on construction equipment.

The proposed apartment units may be impacted by traffic noise from Nimitz Highway. These impacts can be mitigated by a combination of measures, such as carpeting, louvered closet doors, acoustic ceiling tiles in affected bedrooms; quality window seals and double wall construction; insulation; and air conditioning.

Water Quality. Previous geotechnical studies have indicated that groundwater will be encountered during construction. An NPDES permit and City dewatering permit will be required and all conditions attached to those permits will be followed to ensure proper disposal.

Flora and Fauna. The project will not have an adverse impact on any rare, threatened, or endangered species, or their habitats. However, redevelopment and improved site maintenance is expected to help control pests and nuisance wildlife.

Hazardous Materials. Environmental studies have identified the presence of a 2,000-gallon steel underground storage tank and some petroleum-contaminated soil on the site. The underground storage tank and its associated piping will be removed in accordance with Department of Health rules and regulations, and the contaminated soil will be properly characterized and disposed of.

Virtually all of the on-site structures that are slated for demolition contain lead paint and asbestos. Lead-containing paint and asbestos-containing materials will be removed by qualified lead and/or asbestos abatement contractors. The contractors will be required to monitor and inspect the removal activities and ensure compliance with applicable regulations of the Environmental Protection Agency, Occupational Safety and Health Administration, and Hawaii Occupational Safety and Health Administration.

Archaeological, Historic, and Cultural Resources. Although archaeological investigations appear substantially completed, a data recovery plan for laboratory research on uncurated samples remaining from previous fieldwork and/or limited additional fieldwork will be developed for review and approval by the State Historic Preservation Division (SHPD). Furthermore, given the historic significance of the site, an archaeological monitoring program will be developed, including a monitoring plan (to be reviewed and accepted by SHPD in advance of construction), monitoring during construction, and an archaeological monitoring report, if significant items are unearthed. Any unidentified cultural remains will be reported immediately to the SHPD and the Oahu Island Burial Council.

In light of Act 50 and statutory guidelines regarding cultural resources, a cultural resources assessment will be developed with the assistance of a Native Hawaiian specialist who can provide expert knowledge of cultural practices related to the former Kuwili fishpond.

Visual Impacts. Impacts on visual resources associated with the proposed project involve replacing existing low-rise development with higher density development. The residential development proposed by Pacific Housing Assistance Corporation calls for a 21-story residential tower. The developer and project architect have sought to reduce massing on the site by designing a relatively slim tower that would be less intrusive on the *mauka-makai* view plane.

Traffic Impacts. The traffic analyses indicate that proposed connections from the project site would adequately serve the initial housing development proposed at the site. With full development—i.e., the DAGS office/mixed use complex—increased traffic would require an additional traffic signal on Iwilei Road. In this case, the preferred location of the site driveway to Iwilei Road would be directly opposite the existing off-ramp from Nimitz Highway.

Public Facilities and Services. The building footprint of the residential tower and parking structure will extend over portions of the existing drainage alignment. Underground storm drains in conflict with proposed structures will be rerouted to the proposed utility easement.

With more intensive use of the project site and higher traffic levels, the proposed action is likely to increase calls for police service. Fire and emergency medical service calls are also expected to increase. In most cases, these calls would have occurred in any case, but with a new concentration of elderly residents in the Kalihi-Palama area, may draw more heavily on resources in the local service area.

9. Unresolved Issues

Full Development of the Iwilei Project Site

Since the 1998 KHMA conceptual master plan was prepared for the overall site, significant modifications in programmatic content and design have occurred. While substantial progress is being made on the residential component, there is no overall timetable or agreement on cost allocation to address needs for the entire site, such as internal circulation and infrastructure.

DAGS Mixed-Use Tower. The KHMA plan called for a 16-story tower flanked by two mid-rise wings with a total floor area of 281,520 gross square feet. More recent estimates are that State agencies will need about 100,000 square feet of floor space in the proposed mixed-use office tower—in other words, down-sizing the proposed building by 65 percent.

Development Phasing. There is no explicit coordination in phasing full build-out of the site:

- Renovation of the existing OR&L Terminal Building will commence in 2001.
- HCDCH issued an RFP for the residential complex in 2001 and selected a project developer.
- There are no funds to plan or construct the DAGS tower. By one estimate, groundbreaking may occur in four years.

Proposed Transit Center

The City's Iwilei Transit Center plan is not necessarily incompatible with the components of the KHMA master plan. However, if the former plan proceeds, all other uses on the site would have to be re-planned. Because senior citizens tend to rely on public transportation, co-location with the transit center could be an amenity for the senior housing project by affording residents greater mobility. Similarly, the transit center could have a symbiotic relationship to the one-stop service center run by the State Department of Human Services (DHS) and slated to occupy the OR&L Terminal Building since a significant number of clients are likely to be dependent on bus service. *The transit center requires that walkways be provided between bus stops on King Street and the BRT stop and would not require use of the former OR&L Terminal Building as formerly envisioned.* ~~If the OR&L Building is used as a transit center, the space available to DHS would be cut dramatically.~~ The DAGS mixed-tower would be adversely impacted if the buildable area is restricted or displaced by the transit center.

201G Exemptions

Section 201G-118(a) of the Hawaii Revised Statues provides that developers of affordable housing be exempt from State and County laws relating to planning, zoning, construction standards or subdivision, development and improvement of land, and construction of units. Pacific Housing Assistance Corporation has requested exemptions under 201G as follows:

1. Related To Land Use And Zoning

1.1. Exemption from Section 24-2.4, ROH, Land use and public facilities maps, to permit proposed project uses in an area designated for commercial-industrial emphasis mixed use.

1.1.1. **NOTE**: Section 24-1.3(o), ROH, Land use categories, appears to permit proposed project uses in areas designated as commercial-industrial emphasis mixed use.

1.2. Exemption from Ordinance No. 81-79, Primary Urban Center Development Plan Land Use Map, to permit proposed project uses in an area designated as commercial-industrial emphasis mixed use.

1.3. Exemption from Ordinance No. 81-79, Primary Urban Center Development Plan Public Facilities Map, to permit proposed project uses in an area designated as government building and transit corridor and rapid transit route designations east side of proposed project site.

1.4. Exemption from Section 24-2.2 (a)(3), ROH, Height controls, to permit 200 feet as the general height limit in a land use category designated as commercial-industrial emphasis mixed use.

1.5. Exemption from Section 24-2.2(b)(10)(D), ROH, Kalihi-Palama, to permit 200 feet as the general height limit.

1.6. Exemption from any provisions of the pending Primary Urban Center Development Plan, pursuant to 1992 City Charter amendments, that would preclude the project as proposed.

1.6.1. Exemption from any provision or designation under Article 4-8, ROH, Public Infrastructure Maps, which would be adopted pursuant to the pending Primary Urban Center Development Plan, that would preclude the project as proposed.

1.7. Exemption from LUO Sections 21-3.30, Zoning maps and interpretations, Zoning Map No. 5, Kalihi-Nuuanu, and 21-3.140, Industrial-commercial mixed use district, to permit in an area zoned IMX-1 (150 feet), Industrial Mixed Use District, development and construction of the proposed project in accordance with BMX-3, Business Mixed Use District, uses and development standards with a height limit of 200 feet, except as certain development standards may be exempted.

1.8. Exemption from LUO Section 21-3.120-2(c)(5), Street Setbacks and Street Trees, in the event Kaaahi Street is extended to Iwilei Road, to permit encroachment into the BMX-3 district development standards relating to height setback along the uncertain Kaaahi Street extension.

1.9. Exemption from Section 21-6.20, Off-street parking requirements, and Table 21-6.1, Off street parking requirements, relating to parking requirements and number of parking stalls required, to permit provision of parking stalls at a ratio of 1 parking stall per 2 multi-family dwellings (elderly).

1.10. Need FAR exemption (may need additional SF), as the project may not be able to take floor area bonuses for arcade and open space, which would not be accessible by the public because of perimeter site security due to the nature of the elderly day-care and elderly residents.

2. Related to Payment of Permit Fees and Other Charges

2.1. Exemption from Section 14-14.4, ROH, Permit fees, to waive payment of grading and grubbing fees.

2.2. Exemption from Section 14-14.8, ROH, Bonds, to allow issuance of a grading and grubbing permit prior to filing a bond with the City.

2.3. Exemption from Section 18-6.1, ROH, Plan review fees, to waive payment of plan review fees.

2.4. Exemption from Section 18-6.2, ROH, Building permit fees, to waive payment of building permit fees.

2.5. Exemption from Article 14-10, ROH, Wastewater System Facility Charges, to postpone payment of charges for one year from the date of adoption of the resolution approving this exemption.

2.6. Exemption from the payment of Water Development Fees for one year from the date of adoption of the resolution approving this exemptions pursuant to the applicable rules of the Board of Water Supply.

3. Exemptions Related to Park Dedication

3.1. Exemption from Chapter 22, Article 7, ROH, Parks and Playgrounds, to waive all requirements for dedication and in-lieu payment for park and playground purposes. Under this exemption, the project would also be exempt from the following Sections.

3.1.1. Section 22-7.3, ROH, Scope, related to dedication of land requirements for park and playground purposes.

3.1.2. Section 22-7.5, ROH, Land area required for parks and playgrounds.

3.1.3. Section 22-7.6, ROH, In-lieu payment – Combination in-lieu payment and dedication.

3.2. Exemption from the Park Dedication Rules and Regulations, promulgated pursuant to the authority of Park Dedication Ordinance, Article 7, Chapter 22, ROH, as amended, to waive all requirements under the Rules and Regulations.

4. Exemptions Related to Subdivision (If Required)

4.1. Exemption from Section 22-1.1, (ROH), and Section 1-113 of the Subdivision Rules and Regulations ("Subdivision Rules"), relating to subdivision filing fees to waive payment of subdivision filing fees.

4.2. Exemption from Section 22-2.2, ROH, and Section 5-505 of the Subdivision Rules, relating to required street lights, to waive installation of street lights in abutting public streets, until construction of the proposed project.

4.3. Exemption from Section 22-4.1, ROH, and applicable sections of the Subdivision Rules, relating to required sidewalks and curbs, to waive the immediate imposition of the requirement to construct sidewalks and curbs until construction of the proposed project.

4.4. Exemptions from the following sections of the Subdivision Rules and Regulations of the City and County of Honolulu.

4.4.1. Section 5-502, relating to improvement of streets and highways to waive the immediate requirement to improve abutting streets or public rights-of-way.

4.4.2. Sections 6-601 and 6-602, relating to construction plans and completion of improvements for final map approval to waive preparation of any construction plans caused by the proposed subdivision and from bonding requirements or completion of improvements that may be caused by the proposed subdivision until construction of the proposed project are completed, such that Final Map Approval may be granted by the Director prior to completion of subdivision improvements.

4.5. Exemption from Chapter 22, Article 7, ROH, and the Park Dedication Rules and Regulations of the City and County of Honolulu, to waive park dedication requirements and payment of in lieu fee as it relates to the subdivision application.

10. Bibliography

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11. Preparers of the Draft EIS

The Draft EIS for the Elderly Residential Complex at Iwilei was prepared for the applicant, the Housing and Community Development Corporation of Hawaii (HCDCH) by Kimura International, Inc. The following list identifies individuals and organizations involved in the preparation of this report and their respective contributions.

Housing and Community Development Corporation of Hawaii
Ron Hedani, Project Manager
Neal Wu, Project Manager (through January 2002)

Pacific Housing Assistance Corporation
Marvin Awaya, Developer, Project Description

Luersen Architects, Inc.
Robert Luersen, AIA, Project Description and Graphics

Kimura International, Inc.
Glenn Kimura, Principal in Charge
Nancy Nishikawa, Principal Author
Kevin Purell, Graphics Specialist

Technical Consultants

Julian Ng Julian Ng, Inc.	Traffic Analysis
J. W. Morrow Environmental Management Consultant	Air Quality
Tim Noonan and Jeanette Hesedahl D.L. Adams Associates	Noise Quality
Brant Tanaka Kimura International, Inc.	Hazardous Materials Phase I, Environmental Site Assessment Phase II, Limited Environmental Site Assessment

12. Agencies and Persons Consulted

12.1 Agencies and Persons Consulted in Preparing the EISPN/EA

State of Hawaii

Department of Accounting and General Services, Planning Branch
Department of Accounting and General Services, Survey Office
Department of Health, Solid and Hazardous Waste Branch
Department of Human Services
Department of Land and Natural Resources, Historic Preservation Division
Department of Land and Natural Resources, Land Division
Housing and Community Development Corporation of Hawaii

City and County of Honolulu

Honolulu Police Department, Kalihi Station
Department of Design and Construction, Aala Park Improvements Project Manager
Department of Facility Maintenance
Department of Planning and Permitting, Land Use Permits Division
Department of Planning and Permitting, Wastewater Branch
Department of Transportation Services, Public Transit Branch

12.2 Agencies and Persons Consulted in Preparing the Draft EIS

The EIS Preparation Notice was published in the August 23, 2001 issue of the *OEQC Environmental Notice* and provided for a 30-day public comment period which ended on September 22, 2001. A copy of the EISPN/EA and cover letter requesting comments were sent to the agencies and individuals listed below. In addition, public review copies of the EISPN/EA were sent to the Hawaii State Library (Main Branch), Liliha Public Library, and Kalihi-Palama Public Library.

Comments were received from 15 agencies (indicated by an "*" asterisk). Comment letters and responses from HCDCH are reproduced in this chapter.

Federal Agencies

* Army Corps of Engineers, Pacific Ocean Division
Department of Housing and Urban Development
U.S. Fish and Wildlife Service
U.S. Geological Survey

State Agencies

* Department of Accounting and General Services
Department of Business, Economic Development & Tourism, Office of Planning
*Department of Hawaiian Home Lands
Department of Land and Natural Resources, Land Division
* Department of Land and Natural Resources, State Historic Preservation Division
Department of Health, Environmental Management Division
Department of Human Services
* Department of Transportation
* Office of Environmental Quality Control
* Office of Hawaiian Affairs
University of Hawaii, Environmental Center

City and County of Honolulu

*Board of Water Supply
Department of Environmental Services
* Department of Planning and Permitting
* Department of Transportation Services
* Fire Department
* Police Department

Community Organizations, Elected Officials, and Other Organizations

Rep. Lei Ahu Isa
Chinatown Merchants Association
Rep. Ben Cabreros
Sen. Suzanne Chun Oakland
Downtown Neighborhood Board
Downtown Vision Team
* Hawaiian Electric Company
Rep. Ken Hiraki
Historic Hawai'i Foundation
* Institute for Human Services
Iwilei Business Community Association
Iwilei Center Management
Kalihi-Palama Community Council
Kalihi-Palama Neighborhood Board
Kalihi-Palama Vision Team
Liliha-Kapalama Neighborhood Board
Sen. Rod Tam
* Verizon Hawaii
Weinberg Foundation
Councilmember Jon Yoshimura

12.3 Agencies and Persons Consulted in Reviewing the Draft EIS

The Draft EIS was filed with OEQC and notice of its availability was published in the December 8, 2001 issue of the OEQC Environmental Notice, *thus beginning a 45-day public review period. A copy of the DEIS and a cover letter requesting comments were sent to the agencies and organizations listed below; numbers in parentheses indicate agencies receiving multiple copies. In addition, public review copies were sent to local and regional libraries. Comments were received from 15 agencies (indicated by double asterisks "**"). Comment letters and responses from HCDCH are reproduced in this chapter.*

Federal Agencies

U.S. Fish and Wildlife Service

State Agencies

Department of Agriculture
**Department of Accounting and General Services
Department of Business, Economic Development & Tourism
**Department of Business, Economic Development & Tourism, Energy Resources & Technology Division
**Department of Business, Economic Development & Tourism, Office of Planning
Department of Defense
Department of Hawaiian Home Lands
**(3) Department of Health
**Department of Land and Natural Resources
**Department of Land and Natural Resources, State Historic Preservation Division
Department of Human Services
Department of Transportation
**(4) Office of Environmental Quality Control
Office of Hawaiian Affairs
**(4) University of Hawaii, Environmental Center
University of Hawaii, Water Resources Research Center

City and County of Honolulu

Board of Water Supply
Department of Design and Construction
Department of Environmental Services
Department of Facility Maintenance
**Department of Parks and Recreation
(4) Department of Planning and Permitting
**Department of Transportation Services
**Fire Department
**Police Department

Community Organizations, Elected Officials, and Other Organizations

Rep. Lei Ahu Isa
Chinatown Merchants Association
Rep. Ben Cabreros
Sen. Suzanne Chun Oakland
Downtown Neighborhood Board
Downtown Vision Team
**Hawaiian Electric Company
Rep. Ken Hiraki
Institute for Human Services
Iwilei Business Community Association
Iwilei Center Management
Kalihi-Palama Community Council
Kalihi-Palama Neighborhood Board
Kalihi-Palama Vision Team
Liliha-Kapalama Neighborhood Board
Nimitz Beautification Task Force
Sen. Rod Tam
**Verizon Hawaii
**Councilmember Jon Yoshimura

Libraries and Depositories

Liliha Public Library
Kalihi-Palama Public Library
Main Library
DBEDT Library
UH Hamilton Library
Legislative Reference Bureau
Honolulu Municipal Reference and Records Center

Other regional libraries:
Wailuku Public Library
Hilo Public Library
Lihue Public Library
Hawaii Kai Public Library
Pearl City Public Library
Kaneohe Public Library
Kaimuki Public Library

News Media

Honolulu Advertiser
Honolulu Star Bulletin

Comments on the EISPN/EA and Responses

DEPARTMENT OF THE ARMY
U S ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

August 24, 2001

Aug 28 11 52 AM '01
RECEIVED
H.C.D.C.H.

Civil Works Technical Branch

Mr. Neal Wu
Housing and Community Development
Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Thank you for the opportunity to review and comment on the Environmental Impact Statement Preparation Notice and Environmental Assessment (EISPN/EA) for the Elderly Residential Complex at Iwilei, Honolulu, Oahu (TMKs 1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, and, 78-84). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, a DA permit will not be required for the project.

b. The flood hazard information provided on page 21 of the EA is correct.

A copy of this letter has also been furnished to Mr. Glenn Kimura, 1600 Kapiolani Boulevard, Suite 1610, Honolulu, Hawaii 96814. Should you require additional information, please contact Ms. Jessie Dobinchick of my staff at (808) 438-8876.

Sincerely,

James Pennaz

James Pennaz, P.E.
Chief, Civil Works
Technical Branch

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

01:DEV/2444

October 25, 2001

Mr. James Pennaz, P.E.
Chief, Civil Works Technical Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Pennaz:

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated August 24, 2001. We acknowledge your assessment that a Department of Army permit is not required and your verification of flood hazard information presented in the report.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn Miyashiro

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BENJAMIN J. CAYETANO
GOVERNOR

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

RECEIVED
OCT 02 2001
OEQC

OCT - 1 2001

LETTER NO. (P)1626.1

MEMORANDUM

TO: Mr. Neal Wu
Housing and Community Development Corporation of Hawaii (HCDCH)

FROM: Gordon Matsuoka
Public Works Administrator

SUBJECT: Elderly Residential Complex at Iwilei, Oahu, Honolulu District
Tax Map Key Numbers 1-5-7: 1,2,14,15,18,66-69,71,74,75,78-84,
Environmental Impact Statement Preparation Notice and
Environmental Assessment (EISPN/EA)

Thank you for the opportunity to review the EISPN/EA for the subject project. In response, we offer the following comments (regarding the Liliha Civic Center located at and around the old OR& L Building near the intersection of King Street and Iwilei Road):

1. Since HCDCH plans to build first, will the associated infrastructure (i.e., water, sewer, etc.) be sized for full build out? In addition to the HCDCH facility, this would also provide expansion for the new Department of Accounting and General Services building, which is currently planned to be approximately 100,000 square feet of office space, along with an associated parking garage.

2. A proposed plan (Figure 4 Easement Map on Sheet 17) extends Kaaahi Street (at grade) toward Diamond Head to Iwilei Road, dividing the site more or less in half.

   A. What is the volume and type of traffic, since the traffic study addresses only single driveways on King Street, Iwilei Road and connecting to the end of Kaaahi Street (Sheet 47)?

   B. Will private vehicles be permitted to use Kaaahi Street to cross through the site to Iwilei Road (Sheet 54)?

   C. We also question the assumption that a transit center will not generate new vehicular traffic to the site (Sheet 46).

   D. The proposed easement would result in maximum disruption to the planned civic center site. We therefore oppose this "thru" street and recommend that the "proposed easement" be deleted from the scope.

3. Any proposed Bus Rapid Transit (BRT) corridor (Sheet 73), transit center, station, or parking on site would adversely affect the development of the civic center.

Should there be any questions, please have your staff call Mr. Bruce Bennett of the Planning Branch at 586-0491.

BB:mo
c: Mr. Glenn Kimura, Kimura International, Inc.
OEQC

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2446

October 25, 2001

To: Gordon Matsuoka
Public Works Administrator

From: Sharyn L. Miyashiro
Executive Director

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated October 1, 2001. We are writing in response to your concerns.

Infrastructure Sizing:

New water and sewer lines are being designed to serve the needs of the proposed residential complex. Existing storm drain lines that must be relocated because of conflict with proposed structures primarily serve off-site storm-water runoff and will be sized as replacement facilities.

Kaaahi Street Extension:

Extension of Kaaahi Street to Iwilei Road was originally proposed in the 1998 Master Plan for the overall site. We continue to show this roadway on the current site plan, and our project has been designed to respect the setbacks associated with this road; however, the residential and community service uses on the site would be best served if there is no through traffic on the site. Construction of the Kaaahi Street extension is not included in the scope of the residential complex. Project-generated traffic will enter and exit the site from driveways off Iwilei Road.

Proposed Bus Rapid Transit (BRT) Development:

We note your concern that a BRT corridor, transit center, and parking facility would adversely affect future development of the civic center.

If you have any questions, please call contact Neal Wu at 587-0543.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BENJAMIN J. CAYETANO
GOVERNOR

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

WAYNE H. KIMURA
COMPTROLLER

MARY ALICE EVANS
DEPUTY COMPTROLLER

NOV 09 2001

NOV - 8 2001

LETTER NO. (P)1697.1

MEMORANDUM

TO: Ms. Sharyn L. Miyashiro, Executive Director
Housing and Community Development Corporation of Hawaii (HCDCH)

FROM: Gordon Matsuoka
Public Works Administrator

SUBJECT: Elderly Residential Complex at Iwilei
Oahu, Honolulu District
TMK: 1-5-7: 1,2,14,15,18,66-69,71,74,75,78-84
Environmental Impact Statement Preparation Notice and Environmental Assessment (EISPN/EA)

This is in reply to your memo dated October 25, 2001, and to reiterate our original October 1, 2001, comments. We do not believe you have adequately addressed our concerns. Hence, we offer the following additional comments (regarding the Liliha Civic Center located at and around the old OR&L Building near the intersection of King Street and Iwilei Road):

1. Infrastructure: *We are asking if you would design the main trunk utilities on the site to include both HCDCH and other planned State of Hawaii facilities.* This would aid in the overall development of the site and would possibly minimize future delays and inconveniences. [We had asked: Since HCDCH plans to build first, will the associated infrastructure (i.e., water, sewer, etc.) be sized for full build out? In addition to the HCDCH facility, this would also provide expansion for the new Department of Accounting and General Services building, which is currently planned to be approximately 100,000 square feet of office space, along with an associated parking garage.]

2. Kaaahi Street Extension: *We do not agree that the plan you show is a continuation of the 1998 Master Plan.* The 1998 Master Plan was conceptual in scope, showing driveways between King Street, Iwilei Road, and Kaaahi Street joined at a traffic circle or turnabout. Traffic metering and/or restrictions were not identified or defined in the 1998 Master Plan. Therefore, we restate our concerns and

questions. The proposed plan (Figure 4 Easement Map on Sheet 17) extends Kaaahi Street (at grade) toward Diamond Head to Iwilei Road, dividing the site more or less in half.

A. What is the volume and type of traffic, since the traffic study addresses only single driveways on King Street, Iwilei Road and connecting to the end of Kaaahi Street (Sheet 47)?

B. Will private vehicles be permitted to use Kaaahi Street to cross through the site to Iwilei Road (Sheet 54)?

C. We also question the assumption that a transit center will not generate new vehicular traffic to the site (Sheet 46).

D. The proposed easement would result in maximum disruption to the planned civic center site. We therefore oppose this "thru" street and recommend that the "proposed easement" be deleted from the scope.

3. Proposed Bus Rapid Transit (BRT) Development: Thank you for noting our concern that any proposed BRT corridor (Sheet 73), transit center, station, or parking on site would adversely affect the development of the civic center.

We look forward to your prompt response addressing our concerns.

Should there be any questions, please have your staff call Mr. Bruce Bennett of the Planning Branch at 586-0491.

BB:mo

c: Mr. Glenn Kimura, Kimura International, Inc.
Ms. Genevieve Salmonson, Office of Environmental Control

BENJAMIN J. CAYETANO
GOVERNOR

NOV 26 2001

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2703

November 19, 2001

To: Gordon Matsuoka
Public Works Administrator
Department of Accounting and General Services

From: Sharyn L. Miyashiro
Executive Director

Subject: Environmental Impact Statement Preparation Notice and
Environmental Assessment for an Elderly Residential Complex
at Iwilei, Oahu, Hawaii

We are responding to follow-up comments sent to us by letter dated November 8, 2001.

Infrastructure Sizing
Currently, the project developer is planning to design and build new water and sewer lines for the proposed residential complex only. To make this project work as affordable housing, the developer has limited financial cushion. If you are requesting that we provide main trunk utilities to serve new development elsewhere on the site, additional financial resources must be found. We are open to this idea, but it will require a partnered effort.

Kaaahi Street Extension
At no time was extension of Kaaahi Street included in the scope of the elderly residential complex. At the present time, all ingress and egress to the development is via a driveway off Iwilei Road. We are not precluding a future driveway off Kaaahi Street (as shown in the 1998 master plan); however, we have no need or desire for a through street. To avoid further confusion, the Draft EIS will not contain any graphic depictions of a future road easement through the site. References to extension of Kaaahi Street will be made in the context of the City's BRT proposal, which must be addressed under the mandates of Chapter 343 and the environmental review process.

The traffic study was based on the 1998 master plan; therefore, it does not cover traffic through the site or traffic generated by a BRT station.

If you have any questions, please call Neal Wu, Project Manager, at 587-0543.

c: ✓Glenn Kimura, Kimura International Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

SEP 11 01 15 12 FROM HCDCH ID 8005070500 PAGE 1/1

BENJAMIN J. CAYETANO
Governor
State of Hawaii

RAYNARD C. SOON
Chairman
Hawaiian Homes Commission

JOBIE M. K. M. YAGODICH
Deputy to the Chairman

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

RECEIVED
H.C.D.C.H.
SEP 7 12 56 PM '01

September 7, 2001

The Honorable Neal Wu
Housing and Community Development
Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, HI 96813

Dear Mr. Wu:

Subject: Elderly Residential Complex at Iwilei, Oahu
TMK 1-5-7: 1,2,14,15,18,66-69,71,74,75,78-84, EISPN/EA

Thank you for the opportunity to review the subject application. The Department of Hawaiian Home Lands has no comment to offer.

If you have any questions, please call Mr. Darrell Yagodich at 586-3835.

Aloha,

Darrell Yagodich
for Raynard C. Soon, Chairman
Hawaiian Homes Commission

cc: Glen Kimura, Kimura International, Inc.
Office of Environmental Quality Control

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

01:DEV/2447

October 25, 2001

To: Raynard C. Soon, Chairman
Hawaiian Home Lands Commission

From: Sharyn L. Miyashiro
Executive Director

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and responding in your letter dated September 7, 2001. We understand that you have no comments on the proposed development at this time.

If you have any questions, please call contact Neal Wu at 587-0543.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
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COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

September 10, 2001

Mr. Neal Wu
Housing and Community Development
Corporation of Hawaii (HCDCH)
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

LOG NO: 28148
DOC NO: 0109tm03
Architecture

Dear Mr. Wu:

SUBJECT: Environmental Impact Statement Preparation Notice and
Environmental Assessment (EISPN/EA) for
Elderly Residential Complex at Iwilei
At the OR&L Depot and Document Storage Building Site
TMK: 1-5-7:1,2,14,15,18,66-69,71,74,75,78-84, Honolulu, Oahu

Thank you for transmitting the EISPN/EA for the above project. We are glad to see the retention of the Document Storage Building in the current conceptual plan. We do have concerns, however, that the DAGS mixed-use tower is not identified on the conceptual plan. A tower housing 1,160 employees will most likely be a fairly massive structure. The siting of the tower should be in coordination with the residential tower such that neither will adversely impact the historic site. If there is an existing master plan for the entire site, it should be included in the Environmental Impact Statement (EIS) so that the overall concept can be coordinated. Otherwise, a conceptual site plan should be developed for the entire site to be included in the EIS.

Archaeology Comments
According to our records, Parcels 014, 015, 018, 066-069, 071, 074, 075, and 078 were included in an archaeological inventory survey conducted during the mid-1990s (*Archaeological Excavations at Kuwili Fishpond, Site of the Proposed Liliha Civic Center, Kalihi-Palama, O'ahu, Hawai'i [TMK: 1-5-7:1, 14, 15, 18, 57, 58, 60-78]*. 1997, SCS ms.). The report documented fieldwork done at Kuwili Fishpond, which underlies much of this area. Our office accepted the report and concurred with its recommendations, which included that archaeological data recovery work be conducted (see attached letter, Hibbard to Spear, DOC NO: 9905SC03, dtd May 19, 1999). The data recovery work could include the analyses of additional sedimentary and paleoenvironmental samples, or limited additional fieldwork to collect such items. Prior to executing any data recovery action, an acceptable archaeological data recovery

plan needs to be reviewed and accepted by our office; any ensuing data recovery work will be carried out in accordance with this plan. Thus, the next step would be the submission of an acceptable data recovery plan.

Thank you for the opportunity to comment. Should you have further questions regarding architecture or the site plan and its affect on the OR&L Depot and Document Storage Buildings, please call Tonia Moy at (808)692-8030. Should you have any questions about archaeology, please feel free to contact Sara Collins at 692-8026.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

TM:jk

c: ✓ Kimura International, Inc., 1600 Kapiolani Blvd., Suite 1610, Honolulu, HI 96814

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

TIMOTHY E. JOHNS, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
AMY E. KAMEKA

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

SEP 20 2001

May 19, 1999

Dr. Robert Spear
Scientific Consultant Services, Inc.
711 Kapiolani Boulevard, Suite 777
Honolulu, Hawai'i 96813

LOG NO: 23423
DOC NO: 9905SC03

Dear Dr. Spear:

SUBJECT: Chapter 6E-42 Historic Preservation Review of a Revised Report Documenting the Results of an Archaeological Inventory Survey at Kuwili Fishpond, Site of the Proposed Liliha Civic Center
Palama, Kona, O'ahu
TMK: 1-5-007: 014, 015, 018, 057, 508, 060 - 078

Thank you for the submission of a revised draft of the report documenting the results of an archaeological inventory survey at Kuwili Fishpond, site of the proposed Liliha Civic Center in Honolulu, Hawaii (*Archaeological Excavations at Kuwili Fishpond, Site of the Proposed Liliha Civic Center, Kalihi-Palama, O'ahu, Hawai'i [TMK: 1-5-7:1, 14, 15, 18, 57, 58, 60 - 78]*, SCS, 1997). Our comments are very late and we apologize for any inconvenience this may cause you.

We believe that you have generally addressed the prior review comments. The revised report reflects your efforts at integrating both the record of fieldwork, and the specialist studies prepared on palaeoenvironmental and radiocarbon findings. While the differences in interpretation of the stratigraphy and its chronology have not been resolved, we can accept the report at this point. You have determined that Kuwili Fishpond is a historic site, significant under Criterion D because of the information on Hawai'i's past it has yielded and is likely to yield. You have further recommended that some form of data recovery work -- analyses of additional samples and/or limited additional fieldwork -- be undertaken. We concur with both the significance assessment and recommendation that data recovery work be undertaken. The next step, therefore, would be the submission of an acceptable data recovery plan for our review and approval.

Should you have any questions, please feel free to call Sara Collins at 692-8026.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

SC:jk

MAY 26 1999

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

01:DEV/2442

October 25, 2001

To: Don Hibbard, Administrator
State Historic Preservation Division

From: Sharyn L. Miyashiro
Executive Director

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated September 10, 2001. We are writing in response to your concerns.

Project Area Site Plan:

The Draft EIS will contain a revised site plan showing the footprint of structures associated with the proposed residential development. As yet, there is no conceptual site plan for the DAGS component of the project area, beyond the 1998 master plan produced by Kober Hanssen Mitchell Architects. The Draft EIS will also include an artist's rendering of the residential complex, to show the visual relationship between new buildings and existing historic buildings.

Additional Research and Fieldwork:

After further consultation with Sara Collins, we are putting together a scope of work for a data recovery plan that will supplement previous studies and provide additional fieldwork and analysis. The data recovery plan will be submitted to your office for approval.

If you have any questions, please call contact Neal Wu at 587-0543.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BENJAMIN J. CAYETANO
GOVERNOR

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

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OCT 03 2001

BRIAN K. MINAAI
DIRECTOR

DEPUTY DIRECTORS
GLENN M. OKIMOTO
JADINE Y. URASAKI

IN REPLY REFER TO:
HWY-PS
2.4332

OCT 2 2001

Mr. Neal Wu
Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Subject: Environmental Impact Statement Preparation Notice (EISPN) and Environmental Assessment (EA), Elderly Housing Complex at Iwilei (HCDCH), Honolulu, TMK: 1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, 78-84

The proposed project is located along streets under the jurisdiction of the City and County of Honolulu.

The project is not anticipated to have a significant impact to Nimitz Highway, our State facility.

If you have any questions regarding our comments, contact Ronald Tsuzuki, Head Planning Engineer, at 587-1830.

Very truly yours,

Brian K. Minaai
BRIAN K. MINAAI
Director of Transportation

c: OEQC
Kimura International, Mr. Glenn Kimura

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

01:DEV/2448

October 25, 2001

To: Brian K. Minaai
Director of Transportation

From: Sharyn L. Miyashiro
Executive Director Sharyn Miyashiro

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and responding in your letter dated October 21, 2001. We acknowledge your assessment that the proposed development is not expected to have a significant impact on State highway facilities.

If you have any questions, please call contact Neal Wu at 587-0543.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

RECEIVED
SEP 24 2001

GENEVIEVE SALMONSON
DIRECTOR

September 21, 2001

Ms. Sharyn L. Miyashiro, Director
Housing and Community Development Corporation of Hawai'i
677 Queen Street, Suite 300
Honolulu, Hawai'i 96813

Dear Ms. Miyashiro:

Subject:: EISPN for the Iwilei Residential Complex, O'ahu

Thank you for the opportunity to review the subject document. We have the following comments.

1. Please illustrate the visual impacts of the proposed 20-story building from public places such as roads and lookouts. Photos of existing conditions taken from public view points are helpful in evaluating visual impacts. Renderings of future structures superimposed on photos of existing views should be provided. We recommend constructing and painting the buildings with materials and colors that blend with the surroundings.

2. Please consider applying sustainable building techniques as presented in the enclosed "Guidelines for Sustainable Building Design in Hawaii." In the draft EIS include a description of any of the techniques you will implement.

3. This project should comply with sections 103D-407 and 408 of Hawaii Revised Statutes concerning the use of indigenous plants and recycled glass.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson
Director

c: Kimura Intl.

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

01:DEV/2435

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

October 25, 2001

To: Genevieve Salmonson, Director
Office of Environmental Quality Control

From: Sharyn L. Miyashiro
Executive Director

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated September 21, 2001. We are writing in response to your concerns.

Visual Impacts:

A key design objective for this project is visual compatibility with surrounding buildings, especially the OR&L terminal. We believe the developer selected for this project has successfully incorporated historic design motifs into the new structures, thereby extending the aesthetic significance of the OR&L terminal across the project site. The Draft EIS will include an artist's rendering of the proposed residential complex. Other illustrative techniques will be used to give the public a clear understanding of potential visual impacts.

Sustainable Building Design:

This project will incorporate as many sustainable building design features as possible. As an affordable housing project, economy and efficiency are some of the primary considerations in design, construction, and operation. These objectives frequently lead to decisions and practices that are consistent with those advocated in the sustainable building guidelines.

Recycled Glass and Native Plants:

We have notified the developer of the statutes promoting use of recycled glass and native plants.

If you have any questions, please call contact Neal Wu at 587-0543.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

PHONE (808) 594-1888

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

P 5 2 16 PM '01 FAX (808) 594-1865

RECEIVED
H.C.D.C.H.

August 28, 2001

Mr. Neal Wu
Housing and Community Development
Corporation of Hawaii
677 Queen Street – Suite 300
Honolulu, HI 96813

Subject: Elderly Residential Complex at Iwilei – EISPN

Dear Mr. Wu:

Thank you for the opportunity to comment on the above referenced project, which will provide an elderly residential complex at Iwilei.

The Office of Hawaiian Affairs agrees with the recommendations made by the State Historic Preservation Division that additional research and fieldwork is necessary and recommends that an Archaeological Inventory Survey be undertaken. OHA is also in agreement that a Hawaiian Traditional Customs and Practices Impact Assessment should be undertaken. OHA suggests that Native Hawaiians familiar with the area be contacted to ensure that any cultural practices associated with the area be included in the Assessment.

OHA believes that archaeological monitoring in support of this project is very important and relies on the developer to execute the archaeological monitoring, deposit recording, and sampling as required. The conduct of various monitoring activities may be a very import and unique opportunity for documenting and learning about Hawaiian cultural resources, usage or occupation in the area. We request that any information uncovered be shared with us, so as to improve our information and understanding of historic and traditional cultural features in the Iwilei area

The EIS needs to reflect that should there be an inadvertent discovery of remains at any time, work will cease and that State Historic Preservation Division and the Oahu Island Burial Council should be contacted

Should you have any questions, please contact Jerry B. Norris at 594-1847.

Sincerely,

Colin C Kippen Jr

Colin C. Kippen, Jr.
Deputy Administrator
Hawaiian Rights Division

cc: OHA Board of Trustees
Clyde Namu'o, OHA Administrator
Glenn Kimura, Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2440

October 25, 2001

To: Colin C. Kippen, Jr., Deputy Administrator
Hawaiian Rights Division

From: Sharyn L. Miyashiro
Executive Director

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated August 28, 2001. We are writing in response to your concerns.

Additional Research and Fieldwork:

After further consultation with the State Historic Preservation Division (SHPD), we are putting together a scope of work for a data recovery plan and additional data recovery fieldwork and analysis. A consultant will also be engaged to perform a Hawaiian traditional customs and practices impact assessment in compliance with Act 50.

Archaeological Monitoring during Construction:

We anticipate that SHPD will require a monitoring program. This effort will include a monitoring plan (to be reviewed and accepted by SHPD in advance of construction), archaeological monitoring during construction, and an archaeological monitoring report.

Inadvertent Discovery of Remains:

The Draft EIS will state specifically that if any unidentified cultural remains are discovered, the State Historic Preservation Division and the Oahu Island Burial Council are to be notified.

If you have any questions, please call contact Neal Wu at 587-0543.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

September 27, 2001

Ms. Sharyn L. Miyashiro
Executive Director
Housing and Community
Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Attention: Neal Wu

Dear Ms. Miyashiro:

Subject: Your Transmittal of August 20, 2001 of the Environmental Impact Statement Preparation Notice for the Elderly Residential Complex at Iwilei, Honolulu, TMK: 1-5-07: 01, 02, 14-15, 18, 66-69, 71, 74-75, 78-84

Thank you for the opportunity to review the subject document for the elderly housing project.

We have the following comments to offer:

1. The existing off-site water system is presently adequate to accommodate the proposed project.

2. The applicant will be required to obtain a water allocation from the Department of Land and Natural Resources.

3. The availability of water will be determined when the Building Permit Applications are submitted for our review and approval. If water is made available, the applicant will be required to pay our Water System Facilities Charges for transmission and daily storage.

4. There are four active water services consisting of two 3/4-inch, one 1½-inch water meter, and one 2-inch water meter serving TMK: 1-5-07: 01. There is also one inactive water service that was ordered off in 1998 serving TMK: 1-5-07: 67.

5. If a three-inch or larger water meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.

6. The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

7. Board of Water Supply approved Reduced Pressure Principle Backflow Prevention Assemblies are required to be installed immediately after all water meters serving the site.

If you have any questions, please contact Scot Muraoka at 527-5221.

Very truly yours,

for CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Office of Environmental Quality Control
Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2445

October 25, 2001

Mr. Clifford S. Jamile
Manager and Chief Engineer
Honolulu Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Mr. Jamile:

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated September 27, 2001. We are writing in response to your concerns.

We note that the off-site water system is able to accommodate the proposed improvements. But, we are required to obtain a water allocation from the Department of Land and Natural Resources and determination of water availability will be made when building permit applications are submitted to the BWS for review and approval.

The Draft EIS will specify that four active water services currently serve TMK: 1-5-07:01.

On-site fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn Miyashiro

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4414 • FAX: (808) 527-6743 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

2001/CLOG-3564(BA)

October 3, 2001

Mr. Neal Wu
Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Environmental Impact Statement Preparation Notice and Environmental Assessment
Elderly Residential Complex at Iwilei
Tax Map Keys 1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, 78-84

The Department of Planning and Permitting (DPP) appreciates the opportunity to review the proposed project. The DPP finds the project concept to be an appropriate development at its proposed location, which is in close proximity to public transit along the King Street corridor, public open space and passive recreation, and a mix of commercial uses.

As you may be aware, the DPP and the Kalihi-Palama Community Vision Group (CVG) are in the early stages of developing a master community action plan (Kalihi-Palama Community Plan) for the area. We recommend that the CVG be provided the opportunity to review and comment on this proposal. Please coordinate this review through the project planning consultant, Townscape Inc.

In addition, we offer the following comments:

Primary Urban Center Development Plan

The current Development Plan (DP) for the Primary Urban Center (PUC) designates Kalihi-Palama as a Special Area. The Commercial-Industrial Emphasis Mixed Use area bounded by the King Street corridor, Nuuanu Stream, Nimitz Highway, Waiakamilo Road, Kaumualii Street and Kapalama Drainage Canal establishes a general height limit of 150 feet.

Public projects, including affordable housing projects, are considered priority developments in the Primary Urban Center.

Civil Engineering Branch

1. Pg. 3, Sec. 1.4 and Pg. 83, Sec. 8.1: Under City and County of Honolulu, please add "Department of Planning and Permitting, Civil Engineering Branch".

2. Pg. 15, Sec. 2.8, Table 2: Please indicate to whom are the drainage easements are in favor of.

3. Pg. 21, Sec. 3.1.2 - Flood Hazard: Section erroneously states that Figure 11 indicates the various flood-proned areas. Please correct reference and provide the appropriate figure.

4. Pg. 56, Sec. 3.5.3 - Stormwater Drainage System: Please confirm statement made under Project Impacts relating to rerouting of underground storm drains. Should the sentence be revised to "... rerouted to the proposed drain easement."?

5. Pg. 74, Sec. 4.3: Trenching and Dewatering Permits from the Department of Planning and Permitting may be required.

Wastewater Branch

A Sewer Connection Application form for sewer capacity reservation will need to be submitted.

Should you have any questions, please feel free to contact Bonnie Arakawa of my staff at 527-5837.

Sincerely yours,

RANDALL K. FUJIKI, AIA
Director of Planning and Permitting

RKF:lh
doc117072

cc: OEQC
Glenn Kimura, Kimura International, Inc.
Townscape, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2449

October 25, 2001

Mr. Randall K. Fujiki, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated October 3, 2001. We are writing in response to your concerns.

Land Use Compatibility:

We note your assessment on the proposed development is appropriate in the context of the surrounding built environment.

Kalihi-Palama Community Action Plan:

A copy of the EISPN/EA was sent to the Kalihi-Palama Community Vision Group (CVG) via the Vision Office. We will follow-up with their planning consultant and continue to invite the CVG to participate in the environmental review process.

Primary Urban Center Development Plan:

The general height limit of 150 feet for the Commercial-Industrial Emphasis Mixed-Use area is noted.

Civil Engineering Branch:

The Draft EIS will include the revisions and/or clarifications requested regarding various infrastructure systems.

Wastewater Branch:

The project developer will submit a Sewer Connection Application form.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn Miyashiro

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

Glenn Kimura

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
TELEPHONE (808) 523-4529 • FAX (808) 523-4730 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

October 5, 2001

TP8/01-03701R

Mr. Neal Wu
Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Subject: Elderly Residential Complex at Iwilei

In response to the August 20, 2001 letter from Kimura International, Inc., the environmental impact statement (EIS) preparation notice/environmental assessment prepared for the subject project was reviewed. The following comments are the result of this review:

1. It is advisable that the on-going efforts to accommodate a proposed transit station and park-and-ride on the 5.7-acre project site continue. Our previous discussions with your department has indicated minimal impact of the City's project on your plans. However, we will continue our coordination with your department on our plans to extend Kaaahi Street to Iwilei Road.

2. The subject project must meet or exceed the minimum Americans with Disabilities Act accessibility requirements.

   - An off-street, drive through passenger loading area accessible to TheHandi-Van or similar type paratransit vehicle is recommended for this project.

   - The project should consider pedestrian paths to and from major pedestrian and transit routes. Paths to King Street, Iwilei Road and Dillingham Boulevard should be made to be friendly, safe and accessible. Street utility devices, such as traffic control boxes, should not obstruct any portion of the pedestrian and transit paths.

3. Section 3.4 of the EIS preparation notice discusses Transportation.

   - The reference to Table 8 in the second paragraph of Page 53 should be to Table 15.

   - The draft EIS should discuss the effectiveness/impact of the measures recommended to mitigate the traffic impacts of the project.

   - The existing bus stop and shelter on North King Street fronting the 5.7- acre parcel will not be affected by the proposed elderly housing complex as shown in the EIS preparation notice.

We look forward to reviewing the draft EIS. In order to facilitate this review, please provide us with two copies of the document.

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

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Ms. Genevieve Salmonson
Office of Environmental Quality Control

✓ Mr. Glenn Kimura
Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2450

October 25, 2001

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated October 5, 2001. We are writing in response to your concerns.

Transit Station and Park-and-Ride Facility:

We acknowledge ongoing efforts by the City to establish a transit center at Iwilei.

Americans with Disabilities Act (ADA) Accessibility Requirements:

Because this project is intended for an elderly population and a significant number will have difficulties with mobility, special attention will be paid to ensure full compliance with ADA requirements, including provisions for passenger loading, accommodating paratransit vehicles, and pedestrian walkways.

Transportation Impacts:

The Draft EIS will further discuss the effectiveness of traffic mitigation measures.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET SUITE H425 • HONOLULU HAWAII 96819-1869
TELEPHONE (808) 831-7761 • FAX (808) 831-7730 • INTERNET www.honolulufire.org

JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

SEP 21 11 21 AM '01
RECEIVED
H.S.D.C.H.

September 13, 2001

Mr. Neal Wu
Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Subject: Environmental Impact Statement Preparation Notice and
Environmental Assessment
Elderly Residential Complex at Iwilei
Tax Map Key: 1-5-007: 001, 002, 014, 015, 018, 066-069, 071, 074, 075, 078-084

We received a letter dated August 20, 2001, from Glenn Kimura of Kimura International, Inc., requesting that the Honolulu Fire Department (HFD) review and comment on the above-mentioned project.

The HFD requests that the following be complied with:

1. Provide a private water system where all appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.

2. Provide a fire department access road within 150 feet of the first floor of the most remote structure. Such access shall have a minimum vertical clearance of 13 feet 6 inches, be constructed of an all-weather driving surface complying with Department of Transportation Services (DTS) standards, capable of supporting the minimum 60,000 pound weight of our fire apparatus, and with a gradient not to exceed 20%. The unobstructed width of the fire apparatus access road shall meet the requirements of the appropriate county jurisdiction. All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround having a radius complying with DTS standards.

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Acting Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 831-7778.

Sincerely,

ATTILIO K. LEONARDI
Fire Chief

AKL/SK.jo

cc: Glenn Kimura, Kimura International, Inc.
Office of Environmental Quality Control

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2451

October 25, 2001

Mr. Attilio K. Leonardi, Fire Chief
Honolulu Fire Department
3375 Koapaka Street, Suite H425
Honolulu, Hawaii 96819-1869

Dear Chief Leonardi:

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated September 13, 2001. We are writing in response to your concerns.

Adequacy of Water System and Access for Fire Fighting and Emergency Access Purposes:

The water system for fire protection, including hydrant spacing, fire flow requirements, and appurtenances, will meet Board of Water Supply standards.

A driveway capable of providing emergency access will be provided within 150 feet of the most remote structure. It will be able to accommodate emergency fire vehicles and designed in accordance with Department of Transportation Services standards.

Civil engineering plans will be submitted to HFD for review and approval.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111
http://www.honolulupd.org
www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF
MICHAEL CARVALHO
ROBERT AU
DEPUTY CHIEFS

OUR REFERENCE CS-KP

September 12, 2001

SEP 17 11 33 AM '01
RECEIVED
H.C.D.C.H.

Mr. Neal Wu
Housing and Community Development
Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Thank you for the opportunity to review and comment on the Environmental Impact Statement Preparation Notice and Environmental Assessment for the Elderly Residential Complex at Iwilei.

The section on Police Protection on pages 57 and 58 of the document reflect the Honolulu Police Department's concerns and recommendations relative to this proposal. We would, however, like to state for the record that the address of the Kalihi Police Station is 1865 Kamehameha IV Road.

Because it is in a heavily traveled area, we would like to further comment that the additional traffic which will be generated by this project, as well as by the alternatives, will have a significant impact on our workload.

If there are any questions, please call Ms. Carol Sodetani of the Support Services Bureau at 529-3658.

Sincerely,

LEE D. DONOHUE
Chief of Police

By
EUGENE UEMURA
Assistant Chief of Police
Support Services Bureau

cc: OEQC
Kimura International, Inc.

Serving and Protecting with Aloha

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

01:DEV/2441

October 25, 2001

Mr. Lee D. Donohue, Chief of Police
Honolulu Police Department
801 South Beretania Street
Honolulu, Hawaii 96813

Attention: Assistant Chief Eugene Uemura

Dear Chief Donohue:

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated September 12, 2001. We are writing in response to your concerns.

Correction:

The Draft EIS will be revised with the correct address for the Kalihi Police Station.

Impact on Police Calls:

The Draft EIS will note that increased calls for police service will result from more intensive use of the project site and the generation of higher traffic levels.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

GEN-6 (EIS/EA)

RECEIVED
R.L.C.H. October 3, 2001

Housing and Community Development
Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, HI 96813

Attention: Mr. Neal Wu

Subject: **Elderly Residential Complex at Iwilei**

Thank you for the opportunity to comment on the August 2001 Draft EA for the Elderly Residential Complex at Iwilei. We have reviewed the subject document and would like to point out that electrical service for the complex should be dual-voltage 11.5kv/25kv.

Our point of contact for this project, and the originator of these comments, is Ronald Wong (543-7714) principal planning engineer. I suggest your staff and consultants deal directly with Ronald to coordinate HECO's continuing input on this project.

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 EIS.

Sincerely,

Kirk Tomita
Senior Environmental Scientist

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2452

October 25, 2001

Mr. Kirk Tomita
Senior Environmental Scientist
Hawaiian Electric Company
P. O. Box 2750
Honolulu, Hawaii 96740

Dear Mr. Tomita:

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and responding to your letter dated October 3, 2001.

We note that the proposed residential complex will require dual-voltage 11.5kv/25kv electrical service. We also acknowledge your concerns about protecting existing power-lines around the project area. Our project developer has been notified that Ronald Wong is the point of contact for HECO and we anticipate ongoing coordination for the duration of the project.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn Miyashiro
Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

INSTITUTE FOR HUMAN SERVICES, INC.
ending the cycle of homelessness

IHS

Locations:
Business Office
Women & Families' Shelter
546 Ka'aahi Street
Honolulu, HI 96817
Phone 808.845.7150
Fax 808.845.7190

Men's Shelter
350 Sumner Street
Honolulu, HI 96817
Phone 808.537.2724
Fax 808.537.2697

IHS-hawaii.org

August 23, 2001

AUG 23 11 44 AM '01
RECEIVED
H.C.D.C.H.

Mr Neal Wu
Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Thank you for the opportunity to respond to the EISPN/EA that was prepared for the proposed Elderly Residential Complex at Iwilei. IHS, The Institute for Human Services is one of the 14 entities on the project site with a revocable (month-to-month) lease. Both of my comments are related to transportation and traffic.

First of all the project will result in the loss of the parking lot that IHS has used for a number of years. This will be a relatively minor inconvenience as long as we enjoy the generosity of the current Big K General Manager who allows the agency to use the store's "overflow" lot. However should we "fall out of grace" with Big K, parking in the area will become a problem. Other business will be impacted as well; IHS tries to be a "good neighbor" by allowing neighborhood businesses to park in our lot because there is virtually no available street parking.

The greatest concern we have regards the City's proposal cited on page 53 which "extends Kaaahi St. to Iwilei Road, which would alter traffic patterns in the area and provide through traffic with an alternative path between Dillingham Boulevard and Iwilei Road." IHS operates a Homeless Resource Center for Women and Families with Children on Ka'aahi St. and our concern is for the children's safety should the street be extended. We would appreciate a mitigation measure such as the one identified on page 54 that would limit traffic by "providing only access to and from the site parking garages on Ka'aahi Street." Additionally, we would support appropriate signage indicating "Children At Play" and maybe even speed bumps to help to further mitigate the traffic flow and enhance the children's safety.

Thank you for the opportunity to respond.

Sincerely,

Lynn Maunakea

Lynn C. Z. Maunakea
Executive Director

cc: Glenn Kimura

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

01:DEV/2453

October 25, 2001

Ms. Lynn C. Z. Maunakea, Executive Director
Institute for Human Services, Inc.
546 Kaaahi Street
Honolulu, Hawaii 96817

Dear Ms. Maunakea:

Subject: Environmental Impact Statement Preparation Notice and Environmental Assessment for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and providing comments in your letter dated August 23, 2001. We are writing in response to your concerns.

Parking:

We recognize the lack of street parking in the Iwilei business area and the informal cooperative arrangements that are currently employed to satisfy parking requirements. The parking situation suggests that this should be one of the issues addressed by the Kalihi-Palama Community Vision Group as it formulates a community action plan.

Kaaahi Street Extension:

Extension of Kaaahi Street to Iwilei Road was originally proposed in the 1998 Master Plan for the overall site. We continue to show this roadway on the current site plan, and our project has been designed to respect the setbacks associated with this road; however, the residential and community service uses on the site would be best served if there is no through traffic on the site. Construction of the Kaaahi Street extension is not included in the scope of the residential complex. Project-generated traffic will enter and exit the site from driveways off Iwilei Road.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

SEP 07 2001

verizon

Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, HI 96841

August 31, 2001

Mr. Glenn Kimura
KIMURA INTERNATIONAL, INC.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Subject: ELDERLY RESIDENTIAL COMPLEX AT IWILEI -
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
AND ENVIRONMENTAL ASSESSMENT

Dear Mr. Kimura:

Thank you for providing Verizon Hawaii Incorporated, the opportunity to comment on the Environmental Impact Statement Preparation Notice and Environmental Assessment for the Elderly Residential Complex at Iwilei.

We have no comments or changes to the EISPN/EA at this time.

If there are any questions, please call Glenn Morita at 840-5809.

Sincerely Yours,

Jay Furukawa
Section Manager –
Access Design

c: File (1025 ALAK)
G. Morita

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

01:DEV/2443

October 12, 2001

Mr. Jay Furukawa
Section Manager, Access Design
Verizon Hawaii, Inc.
P. O. Box 2200
Honolulu, Hawaii 96841

Dear Mr. Furukawa:

Subject: Environmental Impact Statement Preparation Notice and
Environmental Assessment for an Elderly Residential Complex
at Iwilei, Oahu, Hawaii

Thank you for reviewing the EISPN/EA and responding in your letter dated August 31, 2001. We understand that you have no comments on the proposed development at this time.

If you have any questions, please contact Neal Wu at 587-0543.

Sincerely,

Sharyn Miyashiro
Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

Comments on the Draft EIS

BENJAMIN A. CAYETANO
GOVERNOR

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

RECEIVED
JAN 11 2002

GLENN M. OKIMOTO
COMPTROLLER

MARY ALICE EVANS
DEPUTY COMPTROLLER

LETTER NO. (P)1011.2

JAN 10 2002

MEMORANDUM

TO: Ms. Sharyn L. Miyashiro, Executive Director, HCDCH

FROM: Gordon Matsuoka
Public Works Administrator

SUBJECT: Elderly Residential Complex at Iwilei
Oahu, Honolulu District
Draft Environmental Impact Statement

Thank you for the opportunity to review the Draft Environmental Impact Statement for the subject project. In response, we offer the following additional comments (beyond those already stated on our memos dated October 1 and November 8, 2001):

1. We were pleased to note that per your memo dated November 19, 2001, to avoid future confusion, the Draft EIS would not contain any graphic depictions of a future road easement through the site. Unfortunately, although identified as "utility easement," dashed lines seem to represent a future extension of Kaaahi Street to Iwilei Road (Figure 4 Site Plan, page 14).

2. A typo: "dispalced" should read "displaced" (last sentence, page 93)

Should there be any questions, please have your staff call Mr. Bruce Bennett of the Planning Branch at 586-0491.

BB:mo
c: Mr. Glenn Kimura, Kimura International, Inc.
Ms. Genevieve Salmonson, Office of Environmental Control
Ms. Charlene Unoki, DLNR Land Div.

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

02:DEV/0279

February 11, 2002

To: Gordon Matsuoka
Public Works Administrator
Department of Accounting and General Services

From: Sharyn L. Miyashiro
Executive Director

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 10, 2002. We note your concurrence with clarifications made to the EIS graphics indicating that the corridor running adjacent to and mauka of our housing site is a future utility easement.

If you have any questions, please call Ron Hedani, Project Coordinator, at 587-0550.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

Energy, Resources & Technology Division
235 South Beretania Street, Leiopapa A Kamehameha Bldg., 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, HI 96804-2359
Web site: www.hawaii.gov/dbedt/ert

BENJAMIN J. CAYETANO
Governor
SEIJI F. NAYA
Director
SHARON S. NAZIMATSU
Deputy Director
DAVID W. BLANE
Director, Office of Planning

Telephone: (808) 587-3807
FAX: (808) 587-3820

December 14, 2001

Housing and Community Development Corporation
of Hawaii (HCDCH)
677 Queen Street, Suite 300
Honolulu, HI 96813

Attn: Neal Wu

Dear Mr. Wu:

Subject: Elderly Residential Complex at Iwilei, Oahu
Tax Map Key Numbers: 1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, 78-84

Thank you for the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) for the proposed Elderly Residential Complex at Iwelei. We would like to call your attention to: (1) State energy conservation goals, (2) energy saving design practices and technologies, and (3) recycling and recycled-content products.

1. **State energy conservation goals.** Project buildings, activities, and site grounds should be designed with energy saving considerations. The mandate for such consideration is found in Chapter 344, HRS ("State Environmental Policy") and Chapter 226 ("Hawaii State Planning Act"). In particular, we would like to call to your attention HRS 226 18(c)(4) which includes a State objective of promoting all cost-effective energy conservation through adoption of energy-efficient practices and technologies.

We recommend that you consult the City & County of Honolulu Energy Code early on in your project. Hawaiian Electric Co., Inc., (HECO) may also have demand-side management programs that offer rebates and/or incentives for installation of energy efficient technologies.

2. **Energy saving design practices and technologies.** We recommend that energy efficient design practices and technologies be specifically addressed. Some of the methods and technologies that could be considered, as appropriate, include:

- Use of natural ventilation to increase comfort of occupants;
- Maximum use of natural lighting without heat gain;
- Use of efficient windows or window film to cut heat gain;
- Use of high efficiency compact fluorescent lighting;
- Use of insulation/radiant barrier for an equivalent R-19 value in ceiling; use of ceiling fans;
- Use of landscaping for dust control and to minimize heat gain to area; and
- Use of photovoltaics, fuel cells and other renewable energy sources.

3. Recycling and recycled-content products.

- Develop a job-site recycling plan for construction and recycle as much construction and demolition waste as possible;
- Incorporate provisions for recycling into the project – a collection system and space for bins for recyclables; and
- Specify and use products with recycled content such as: steel, concrete aggregate fill, drywall, carpet, and glass tile.

Please refer to the attached *Guidelines for Sustainable Building Design In Hawaii: A planner's checklist* and *A Contractor's Waste Management Guide"* for additional information.

Sincerely,

Maurice H. Kaya
Energy, Resources, and Technology
Program Administrator

Attachments

c: OEQC
Kimura International

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0281

February 11, 2002

To: Maurice H. Kaya
Energy, Resources, and Technology Program Administrator
Department of Business, Economic Development and Tourism

From: Sharyn L. Miyashiro
Executive Director

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated December 14, 2001. We note your recommendations regarding State energy conservation goals, energy-saving design practices and technologies, and recycling and recycled-content products. The project developer is preparing detailed plans, designs, and drawings for the residential complex, and we have conveyed your letter, together with *Guidelines for Sustainable Building Design in Hawaii* so that he may incorporate as many sustainable technologies, practices, and products, as is feasible.

If you have any questions, please call Ron Hedani, Project Coordinator, at 587-0550.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING
235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
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GOVERNOR
SELJI F. NAYA, Ph.D.
DIRECTOR
SHARON S. NARIMATSU
DEPUTY DIRECTOR
DAVID W. BLANE
DIRECTOR, OFFICE OF PLANNING

Telephone: (808) 587-2846
Fax: (808) 587-2824

JAN 25 2002

Ref. No. P-9343

January 23, 2002

To: Sharyn L. Miyashiro, Executive Director
Housing and Community Development Corporation of Hawaii

Attn: Neal Wu

From: David W. Blane
Director, Office of Planning

Subject: Elderly Residential Complex at Iwilei, Honolulu, Oahu
TMK: 1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, and 78-84

The Office of Planning has reviewed the Draft Environmental Impact Statement (DEIS) for an elderly residential and service complex in Iwilei, Oahu. The project is proposed by the Housing and Community Development Corporation of Hawaii (HCDCH), attached to the State of Hawaii Department of Business, Economic Development and Tourism.

The proposed project consists of a 21-story residential tower surrounded by a 2-story service building and attached to a 5-story parking garage. The residential tower would have 138 one-bedroom units and 18 two-bedroom units and would house more than 200 tenants. The attached service building would contain space for an adult day care program, a lobby, support and utility areas, a laundry and a recreation deck. The project is designed for an area of 1.6 acres, which is part of a larger State-owned 5.7-acre parcel of land that comes to a triangular point where N. King Street and Iwilei Road meet.

The proposed project is a continuing effort started more than 10 years ago to develop the entire 5.7-acre parcel. In 1992, the State proposed an office complex called the Liliha Civic Center. Soon after an environmental impact statement for the site was accepted, the project was halted due to an economic downturn and the availability of new State office space in Kapolei.

Five years later, the HCDCH began to consider the site for affordable rental housing and a second conceptual plan was proposed in 1998. This plan included a residential tower, an office tower, and two parking structures.

Then sometime in the past two years, HCDCH, further refined their concept into an elderly housing development, due in part to the "availability of federal and State tax credits". The project was also limited to the 1.6 acres currently being proposed.

The sequence of events leading to this particular development concept is significant because it leads to questions about what is being planned for the remaining State land adjacent to the proposed project. The EIS should discuss State plans for the adjacent land. The EIS should also address the impacts of the anticipated high interior noise levels on elderly tenants.

The DEIS should further describe two major city transportation projects that are being considered immediately adjacent and through the site: the Iwilei Transit Center and a route of the bus rapid transit (BRT) system. The DEIS appears to indicate that the site will not be utilized for these proposed projects by stating that if the City wishes to implement such plans, it must purchase the entire site, and that there are "no agreements or formal discussions for such a transaction."

Both of the City transit proposals have potentially significant impacts on the elderly housing proposal that should be fully evaluated and discussed in the EIS. The Transit Center could pose security risks to a frail population in an already defined high crime area. The BRT running through the site could add significant noise to the project.

Security and noise are also issues that require further discussion in the EIS, considering it is a project designed for an elderly population. Three separate times in the EIS there is a reference to how an elderly population provides the area with 24-hour vigilance. However, there is not an acknowledgement that an elderly population is more vulnerable to crime. (There is one indirect reference in the list of exemptions sought by the project. The project cannot use bonuses for arcade and open space, since those areas would be closed to the public due to perimeter site security. No other description of this or other security measures was included in the DEIS.)

Finally, it seems clear that the noise from traffic on Nimitz Highway alone will exceed State Department of Health standards and the standards of the U.S. Environmental Protection Agency. Rather than recommend that just some units get air-conditioning, or that the units be acoustically protected, it would be advisable to require a fully air-conditioned building. We assume that the building's offices and the adult day care center on the first two floors were designed to be air-conditioned, as were all the State offices and other mixed-use spaces previously proposed for the site.

Thank you for the opportunity to comment. Should you have any questions, please call Heidi Meeker at 587-2802.

c: Genevieve Salmonson, Office of Environmental Quality Control
✓ Glenn Kimura, Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

IN REPLY REFER TO:
02:DEV/0264

February 8, 2002

To: David W. Blane, Director
Office of Planning
Department of Business, Economic Development and Tourism

From: Sharyn L. Miyashiro
Executive Director

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 23, 2002. We are writing in response to your concerns.

1. Development on Adjacent Site. The EIS contains the most detailed and current information currently available on future development of the adjacent site. As noted in the EIS, the Department of Accounting and General Services, slated to assume jurisdiction of this site, has not yet produced a formal development plan.

2. City Transit Proposals. Descriptions of the City's transit proposals in the EIS are based on our communications with City officials and consultants. The proposals are described and impacts evaluated as fully as possible, given the limited planning materials—drawings and documentation—that are available at this time. The EIS does not state, nor should it be interpreted to "indicate that the (Iwilei) site will not be utilized for these proposed projects." We are simply unaware of any agreement or action by the City toward site acquisition for transportation purposes.

3. Security. Your letter raises two security concerns. The first relates to the City's proposed Transit Center, specifically: "The Transit Center could pose security

risks to a frail population in an already defined high crime area." The nature of this risk is not clear from your letter; however, the statement suggests that a transit center might add to existing criminal activity in the area. A second concern is that the elderly population is more vulnerable to crime. However, this perception is contradicted by detailed statistics on crime victimization that are compiled by the U.S. Department of Justice, Bureau of Justice Statistics (BJS).

In general, BJS statistics reveal that the elderly, persons aged 65 or older, experience less violence and fewer property crimes than younger persons. In 1999, persons aged 12-24 were the victims of personal crime at rates higher than individuals of all other ages. Persons 16-19 were more than twice as likely to be robbed than persons aged 25-34 and about ten times more likely as persons aged 65 or older. Nor is it the case the elderly women are more vulnerable than elderly men, as seen below.

Victimization Rates for Persons Age 12 and Over, by Gender and Age of Victims, 1999 (including attempted/threatened violence, rape/sexual assault, robbery, assault, and purse snatching/pocket picking)

Rate per 1,000 persons in each age group

Gender & Age	Violent Crime Rate	Gender & Age	Violent Crime Rate
Male		*Female*	
12-15	85.0	12-15	63.4
16-19	87.7	16-19	66.7
20-24	74.1	20-24	62.9
25-34	37.3	25-34	35.3
35-49	26.5	35-49	23.9
50-64	17.1	50-64	11.9
65 and over	5.4	65 and over	2.5

Source: U.S. Department of Justice, Bureau of Justice Statistics. *Criminal Victimization in the United States, 1999 Statistical Tables*. January 2001, NCJ 184938

Statistics notwithstanding, elderly persons may still be affected by perceptions of vulnerability to crime, especially if they feel isolated or exposed. The Iwilei site was selected for elderly housing precisely because it mitigates against these social conditions. It is a central site that draws many people and there is some comfort and security in the truism "safety in numbers." Furthermore, the site has excellent proximity to shopping, recreation, and public transportation which means that seniors don't have to travel as far to get to desired destinations or wait as long for the next bus to come along—thus minimizing their exposure.

4. Noise. The developer is examining several options to mitigate anticipated traffic noise impacts on the residential units, including centralized air conditioning and electrical wiring to accommodate individual air conditioning units. The final design will depend on the anticipated levels of noise relief, as well as capital and operational costs (and the concomitant effect on rents and market demand).

If you have any questions, please call Ron Hedani, Project Coordinator, at 587-0550.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

BRUCE S. ANDERSON, Ph.D., M.P.H.
DIRECTOR OF HEALTH

In reply, please refer to
File

01-184/epo

January 23, 2002

Mr. Glenn Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Draft Environmental Impact Statement (DEIS)
Elderly Residential Complex, Iwilei, Honolulu, Hawaii
Tax Map Key: 1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, 78-84

Thank you for the opportunity to review and comment on the subject proposal. The DEIS was routed to the various branches of the Environmental Health Administration. We have the following comments:

Clean Water Branch (CWB)

1. The applicant should contact the Army Corps of Engineers to identify whether a federal permit (including a Department of Army permit) is required for this project. If a federal permit is required, then a Section 401 Water Quality Certification is required from the State Department of Health, Clean Water Branch;

2. A National Pollutant Discharge Elimination System (NPDES) general permit is required for the following discharges to waters of the State:

   a. Storm water discharges relating to construction activities, such as clearing, grading, and excavation for projects equal to or greater than five acres;

   b. Storm water discharges from industrial activities;

   c. Construction dewatering activities;

   d. Non-contact cooling water discharges less than one million gallons per day;

   e. Treated groundwater from underground storage tank remedial activities;

   f. Hydro testing water;

   g. Treated effluent from petroleum bulk stations and terminals; and

   h. Treated effluent from well drilling activities.

Any person requesting to be covered by a NPDES general permit for any of the above activities should file a Notice of Intent with the Department's Clean Water Branch at least 30 days prior to commencement of any discharge to waters of the State; and

3. After construction of the proposed facility is completed, an NPDES individual permit will be required if the operation of the facility involves any wastewater discharge into State waters.

Any questions regarding these comments can de directed to the Clean Water Branch at (808) 586-4309.

Wastewater Branch (WWB)

The facility must utilize the County sewer system service. All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules.

If you have any questions, please contact the Wastewater Branch at (808) 586-4294.

Solid and Hazardous Waste Branch (SHWB)

While the discussion of solid waste issues in the DEIS made reference to pertinent City and County of Honolulu ordinances regarding mandatory recycling, there is no explanation on how these requirements will be met. Therefore, it is recommended that a solid waste management plan be developed. The plan must encompass all project phases including demolition, construction and occupation of the buildings. Specific examples of elements that the plan should address include:

1. The recycling of green-waste during clear and grub activities;

2. The recycling construction and demolition wastes;

3. The use of locally produced compost in landscaping;

4. The use of recycled content building material; and

5. Te provision of recycling facilities in the design of the project.

If you have any questions, please contact SHWB at (808) 586-4226.

Clean Air Branch (CAB)

Due to the location of the project, the development and construction activities would impact neighboring areas and thoroughfares. It is recommended that a dust control management plan be developed which identifies and addresses those activities that have a potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of the project is warranted.

Fugitive Dust Control

Construction activities must comply with provisions of Hawaii Administrative Rules, Chapter 11-60.1, on Air Pollution Control, Section 11-60.1-33, on Fugitive Dust. The contractor should provide adequate measures to control dust from the road areas and during the various phases of construction. These measures include, but are not limited to:

a. Planning the different phases of construction, focusing on minimizing the amount of dust generating materials and activities, centralizing on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;

b. Providing an adequate water source at the site prior to start up of construction activities;

c. Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;

d. Controlling of dust from shoulders and access roads;

e. Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and

f. Controlling of dust from debris being hauled away from the project site.

If you have any questions regarding these issues on fugitive dust, please contact the Clean Air Branch at (808) 586-4200.

Noise, Radiation and Indoor Air Quality (NRIAQ)

All project activities shall comply with the following Administrative Rules of the Department of Health: Chapter11-501, on Asbestos Requirements; Chapter 11-503, on Fees for Asbestos Removal and Certification; and Chapter 11-504, on Asbestos Abatement Certification Program.

If you have any questions, please contact NRIAQ at (808) 586-4701.

Sincerely,

GARY GILL
Deputy Director
Environmental Health Administration

c: CWB
WWB
SHWB
CAB
NRIAQ

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

IN REPLY REFER TO:
02:DEV/0265

February 7, 2002

To: Gary Gill, Deputy Director
Environmental Health Administration
Department of Health

From: Sharyn L. Miyashiro
Executive Director

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 23, 2002. We are writing in response to your concerns.

Clean Water Branch (CWB)

1. In responding to our EIS Preparation Notice, the Army Corps of Engineers notified us that a Department of Army permit is not required for this project.

2. We have noted the conditions under which a National Pollutant Discharge Elimination System (NPDES) general permit is needed. This information will be conveyed to the project developers.

3. All wastewater will be discharged into the City's sanitary sewer system; therefore, we do not anticipate a need for an NPDES individual permit.

Wastewater Branch (WWB)

4. We note the applicable administrative rules governing wastewater systems and acknowledge your department's right to review the detailed wastewater plans.

Solid and Hazardous Waste Branch (SHWB)

5. Section 02050, Part 1.03C of the bid specifications for building demolition requires that the contractor submit to the State, the location of the off-site facility for ultimate disposal of the demolished materials. Demolition activities will largely be limited to steel structures, and this material is likely to be recycled. Most of the concrete and asphalt material will be left in place. No grubbing or landscape clearing activities are anticipated. The contractor is required to dispose of all material at a DOH-licensed facility. A formal solid waste management plan will not be prepared for the demolition activities. However, waste management will be addressed by the contractor in the work plans prepared for the underground storage tank removal and other hazardous materials abatement activities. The developer of the housing project may require that solid waste management plans will be prepared for the construction and occupation phases of the project.

Clean Air Branch (CAB)

6. We appreciate the list of fugitive dust control measure provided. The building contractor will be required to prepare and implement a dust control management plan covering all phases of the project.

Noise, Radiation, and Indoor Air Quality (NRIAQ)

7. Section 13281 of the bid specifications for building demolition requires that the contractor comply with all rules and regulations with respect to asbestos. Specifically, 13281, Part 1.11A.1 of the bid specifications states that the demolition contractor is to comply with Hawaii Administrative Rules, Title 11, Chapters 501, 502, 503, and 504.

If you have any questions, please call Ron Hedani, Project Coordinator, at 587-0550.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

January 14, 2002

LD-NAV
LOG1744

IWILEIRC.RCH

Kimura International, Inc.
Glenn Kimura
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

SUBJECT: Review: Draft Environmental Impact Statement (DEIS)
Applicant: HCDCH
Project: Elderly Residential Complex at Iwilei
Location: Honolulu, Island of Oahu, Hawaii
TMK: 1st /1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 78-84

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement covering the proposed Elderly Residential Complex at Iwilei, Island of Oahu, Hawaii. A copy of the DEIS was submitted to the Department of Land and Natural Resources' Land Division Engineering Branch and Oahu District Land Office for their review and comment.

Attached is a copy of the Land Division Engineering Branch comment. The Oahu District Land Office had no comment

The Department has no other comment to offer on the subject matter.

Should you have any questions, please feel free to contact Nicholas A. Vaccaro at of the Land Division Support Services Branch at 587-0438.

Very truly yours,

HARRY M. YADA
Acting Administrator

C: Oahu District Land Office
Engineering Branch

LNR-LAND DIVISION
ENGINEERING BRANCH

LD/NAV
Ref.: IWILEIERC.COM

COMMENTS

Please correct page 23: Item 3.1.3. Flood Hazard: The project site according to FEMA Community Panel Number 15003C 0354 E (dated November 20, 2000) is located in Zone X. This is an area determined to be outside 500-year floodplain.

However if further studies determined that the project is within the flood zone, the project must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State Coordinator, Sterling Yong, of the Department of Land and Natural Resources at 587-0248. If there are questions regarding flood ordinances, please contact applicable County representative.

The Board of Water Supply has approved HCDCH water allocation request of 60,000 gpd for the proposed residential tower. HCDCH is required to obtain a water allocation from the Department of Land Natural Resources for the proposed mixed-use tower.

M:\WLD\MAKAI\SUZIE\OAHU\wilie.DEA.Oahu.133.DOC

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0261

February 7, 2002

To: Harry Yada
Acting Administrator, Land Division
Department of Land and Natural Resources

From: Sharyn L. Miyashiro
Executive Director Sharyn Miyashiro

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 14, 2002. We are writing in response to comments submitted by the Engineering Branch.

1. Flooding Information. We note that the Federal Emergency Management Agency has issued an updated map showing flood hazard areas. After checking the current flood map, we have verified that the information presented in the DEIS is still accurate and the project area lies outside the 500-year floodplain. The Final EIS will reference the newer map.

2. Water Allocation. The Housing and Community Development Corporation of Hawaii (HCDCH) is obtaining a water allocation for the proposed residential tower; however, the proposed mixed-use tower will be developed by the Department of Accounting and General Services and not HCDCH. A separate water allocation will be obtained by the developing agency.

If you have any questions, please call Ron Hedani, Project Coordinator, at 587-0550.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

RECEIVED
DEC 28 2001

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
LYNNE MATUSOW

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

December 24, 2001

LOG NO: 28830
DOC NO: 0112EJ24

Mr. Neal Wu
Housing and Community Development
Corporation of Hawaii (HCDCH)
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

SUBJEC: **Chapter 6E-8 Historic Preservation Review Draft Environmental Impact Statement (DEIS) Elderly Residential Complex at Iwilei, Palama, Kona, O'ahu**
TMK: (1) 1-5-007:001, 002, 014, 015, 018, 066-069, 071, 074, 075, 078-084

Thank you for the opportunity to comment on the draft EIS for the proposed elderly residential complex at Iwilei. We have the following comments.

Archaeology Concerns

Section 3.2 Archaeological, Historical, and Cultural Resources of the EIS mistakenly states that the archaeological report documenting the results of an archaeological inventory survey conducted in 1993, stated that no further fieldwork was recommended for the project site. The report, *Archaeological Excavations at Kuwili Fishpond, Site of the Proposed Liliha Civic Center, Kalihi-Palama, O'ahu, Hawai'i* (McGerty, Dega and Spear Revised 1997) reviewed by SHPD in 1999 (SHPD Log 28148, May 1999), documented the remains of Kuwili Fishpond (State Site No. 50-80-14-5368) and recommended that additional limited field work and additional laboratory research be conducted. SHPD accepted the report and concurred with the findings that "archaeological data recovery work be conducted. The data recovery work could include the analyses of additional sedimentary and paleoenvironmental samples, or limited additional fieldwork to collect such items. Prior to executing any data recovery action, an acceptable archaeological data recovery plan needs to be reviewed and accepted by our office." We have no reason to change our concurrence at this time.

Section 8 Summary of Probably Adverse Environmental Impacts that Cannot Be Avoided and Mitigation Measures of the DEIS on pg. 90 also commits to a data recovery program. To date, we have not received a data recovery plan for review and acceptance.

Architecture Concerns

Thank you for revising the site plan to include the retention of the OR&L Document Storage Building and for the artist's rendering of the new buildings in its context. We understand that the Kaaahi Street extension will not occur at this time, nor will the boulevard leading to King Street. We concur that the new affordable housing buildings will have no adverse visual affect on the historic buildings since it will

be set back further than existing buildings Since the OR&L building will have just completed its renovation when construction on this project gets started, please have contractor ensure that pilings and construction staging does not damage the existing historic buildings.

Should you have any questions regarding archaeological concerns, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027. For questions regarding architectural concerns please call Tonia Moy at 692-8030.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

EJ:amk

c. Genevieve Salmonsen, OEQC
Glenn Kimura, Kimura International, Inc. 1600 Kapi'olani Boulevard, Suite 1610, Honolulu, HI 96814

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0280

February 11, 2002

To: Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources

From: Sharyn L. Miyashiro
Executive Director

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated December 24, 2001. We are writing in response to your concerns.

1. Archaeological Concerns. We are in the process of contracting a qualified consultant to prepare an archaeological data recovery plan. This plan will be submitted to your office for review and approval.

2. Architectural Concerns. We acknowledge your determination that the proposed elderly housing complex will not have an adverse visual affect on historic buildings located on the larger Iwilei site. Construction plans will specify that adequate measures must be taken to avoid damage to existing historic buildings.

   Please note, however, that the primary intent of the site plan shown in the EIS is to depict proposed development within the Housing and Community Development Corporation area. We cannot speak for the Department of Accounting and General Services on the future disposition of the OR&L Document Storage Building.

If you have any questions, please call Ron Hedani, Project Coordinator, at 587-0550.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

RECEIVED
JAN 23 2002

January 22, 2002

Ms. Sharyn L. Miyashiro, Director
Housing and Community Development Corporation of Hawai'i
677 Queen Street, Suite 300
Honolulu, Hawai'i 96813

Dear Ms. Miyashiro:

Subject: Draft Environment Impact Statement for the Elderly Residential Complex at Iwilei

Thank you for the opportunity to review the subject document. We have the following comments.

1. Please describe briefly the following information in the project summary.
   a) project description
   b) significant beneficial and adverse impacts
   c) proposed mitigation measures
   d) alternatives considered
   e) unresolved issues
   f) compatibility with land use plans and policies
   g) listing of permits and approvals.

2. The proposing agency must sign and date the original copy of the final EIS and shall indicate that the statement and all ancillary documents were prepared under the signatory's direction or supervision and that the information submitted, to the best of the signatory's knowledge fully addresses EIS content requirements as set forth in sections 11-200-17 and 11-200-18, Hawai'i Revised Statutes.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Genevieve Salmonson
Director

c: Kimura International

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

IN REPLY REFER TO:
02:DEV/0263

February 7, 2002

To: Genevieve Salmonson, Director
Office of Environmental Quality Control

From: Sharyn L. Miyashiro
Executive Director

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 22, 2002. The Final EIS will include a project summary chapter and a cover page with the proper signature blocks.

If you have any questions, please call Ron Hedani, Project Coordinator, at 587-0550.

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
Krauss Annex 19 • 2500 Dole Street • Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 • Facsimile (808) 956-3980

January 22, 2002
RE: 0722

Mr. Neal Wu
Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, HI 96813

Dear Mr. Wu:

Iwilei Elderly Residential Complex
Draft Environmental Impact Statement
Honolulu, Oahu

The Housing and Community Development Corporation of Hawaii proposes to redevelop a portion of state-owned land located in Iwilei between the OR&L terminal building and the Iwilei Business Center. This housing project will include 156 affordable elderly rental units, an assisted and supported adult day care center, a detached 139-stall parking structure and landscaping.

The Environmental Center has reviewed this document with the assistance of Panos Prevedouros, Civil Engineering Department and Kevin Polloi of the Environmental Center.

General Comments

While it is safe to assume that this project will add to the existing traffic problems in the Iwilei/N. King Street area (section 3.4.4), one of our main concerns is the safety of the elderly residents of the project. It is common knowledge that in heavy traffic situations, agitated drivers tend to be impatient and careless. This poses a great risk to elderly residents walking to and from the bus stops and other locations in the area.

Parking unavailability is also a recurring problem in this area. The document proposes to decrease parking stalls by 50% from 309 to 139 stalls due to non-driving residents. Does the reduction take into account the number of possible visitors to the facility at any given time? Is the decision based on similar facilities/situations elsewhere where visitors are taken into account? Is it possible to offer empty stalls as paid parking to people working in the area as well as the general public?

The Environmental Center would also like to raise a planning issue. Is there a conscious thought to produce an enclave elderly community in this area in light of other existing elderly housing nearby? What are the potential social and economic implications of such an endeavor? What about a strategy to spread and mix-in elderly housing complexes in different neighborhoods to promote cultural mixing between different age groups?

Specific Comments

3.4.4 Project Traffic

A detailed review of the document's traffic analysis has found some inadequacies. They are further explained below.

While the Trip Generation procedure follows appropriate methodologies, it is insufficient due to its basis on historical trends as well as the proportions used have been rounded and not analytically justified. Capacity analysis follows a widely accepted methodology but the actual analysis and the extent of the analysis are inadequate for the reasons explained below.

A substantial weakness is that the entire study was based on historical daily counts, which were converted to peak volumes using unreliable K and D factors. This practice would have been acceptable if the development had minor traffic impacts in an area with low or moderate traffic. However, when fully implemented, this development is forecast to generate a substantial amount of traffic. In addition, traffic in this area goes through busy and at times congested intersections. These conditions prevail at the present time and are likely to worsen in the future. The study assumes that these conditions will not worsen in the future, because throughput is constrained by surrounding traffic signals. This is not an appropriate assumption, as signal technology and/or improvements may allow substantial throughput improvements.

Furthermore, the study concludes that a new traffic signal would be required at full project deployment at the intersection of Iwilei/Nimitz off-ramp. However, this intersection is in close proximity to existing signalized intersections and, unless analyzed with a standard simulation tool such as TRANSYT or NETSIM, it cannot be known whether this signal can actually function properly. Specifically, this signal may create queues that create hazardous conditions on Nimitz Highway as well as unacceptable level of service at the adjacent signals. It is possible that an interconnect (offset) setting that provides acceptable LOS cannot be estimated, which, in turn, would render the proposed traffic signal infeasible.

In conclusion, due to the magnitude of the impact of the proposed development and the congested conditions of the surrounding street network, a detailed traffic study including simulation of the proposed signal set in the immediate neighborhood of the project should be required.

Typographical Errors

There is a typographical error in the Table of Contents, under Section 3.2.1 - Profile of Existing Community. The page number should be 40 instead of 39.

In addition, a typographical error occurs on page 20, under Section 2.7 – Project Costs and Timetable. The total estimated development cost in the first paragraph is $34,673,001, while the total estimated development cost in following breakdown is $34,673,701.

Thank you for the opportunity to review this Draft Environmental Impact Statement.

Sincerely,

John T. Harrison, Ph.D.
Environmental Coordinator

Cc: OEQC
Glen Kimura, Kimura International, Inc.
James Moncur
Panos Prevedouros
Kevin Polloi

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0262

February 7, 2002

Dr. John T. Harrison
Environmental Coordinator
Environmental Center
University of Hawaii at Manoa
Krauss Annex 19, 2500 Dole Street
Honolulu, HI 96822

Dear Dr. Harrison:

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 22, 2002. We are writing in response to your concerns.

General Comments

1. Hazards to Elderly Pedestrians. The statement "that in heavy traffic situations, agitated drivers tend to be impatient and careless" seems to be common sense, but we are not aware of any reliable studies that make this statement "common knowledge." To the contrary, some traffic professionals feel that safety increases with traffic congestion because of slower speeds and the increased vigilance or alertness on the part of drivers and pedestrians. Therefore, we see no reason why elderly citizens who live at the Iwilei development should face any greater risk from errant drivers than in any other location. Indeed, this concern could be raised for any elderly housing project, whether in an urban area or in a lower density area. An even greater concern may be raised if a project were located in a lower density area where walking distances tend to be greater with lower volumes of traffic traveling at higher speeds. In contrast, the Iwilei site is advantageous for senior housing precisely because it is convenient to public transportation and commercial areas, thus minimizing the amount of

street exposure, and the surrounding area is designed for heavy pedestrian activity with wide sidewalks, signaled intersections, and bus shelters.

2. Parking. The reduction in parking that has been proposed is for the residential component of the project only. Parking for visitors, the day-care facility and offices, and the loading stalls are fully compliant with the City's Land Use Ordinance requirements. Historically, the City has allowed senior housing parking ratios of 1 stall for 4 units when using 201G exemptions. These ratios are justified by sharply lower rates of vehicle ownership and operation among people of advanced age due to the high cost of maintaining a car on low, fixed incomes and deteriorating driving skills.

3. Agglomeration of Elderly Housing. The issue of centralization versus decentralization is the subject of perennial debate among city planners. Even when there is no intent to "produce an enclave elderly community," concentrations of certain land uses tend to emerge because of synergistic relationships. Several elderly complexes have been developed in the downtown area because it contains the favorable combination of scale, accessibility, and amenities that attract this group. In turn, elderly residents provide a critical mass that makes it fiscally viable to provide enhanced services, such as the array of senior citizen classes offered at the Pauahi Community Center in Chinatown. Elderly housing projects can be found in more suburban locations—but they're frequently designed as gated or exclusive communities with little apparent "cultural mixing between different age groups." These developments feature on-site amenities or rely on privately operated shuttle service that makes them expensive places to live.

Specific Comments: Section 3.4.4, Project Traffic

Given the technical nature of these comments, traffic consultant Julian Ng, Inc. assisted in preparing our response.

Historical daily traffic estimates were used, rather than specific count data (typically a one-day sample) because the historic data provided a better representation of typical traffic in the area. The K and D factors, used to convert daily traffic to peak hour traffic and direction of travel, are from a published report from the State Highways Division. While these may not be "exact," they are not "unreliable." The most unreliable data would be an inconsistent or inaccurate sample of 24-hour or peak hour—there are many counts that fall in this category. Substantial fieldwork would be necessary to

collect enough data to avoid any questions about estimates of typical day traffic volumes.

This procedure (using estimates of average daily traffic to derive peak-hour volumes) should be acceptable in cases where there is existing congestion and there are no plans for comprehensive roadway improvements to address existing and expected future congestion (this description can be applied to downtown Honolulu and many other areas within the Primary Urban Center). Being more precise may not be correct since the system is constrained.

Your letter's statement that "signal technology and/or improvements may allow substantial throughput improvements" does not recognize two relevant factors: (1) traffic density in Honolulu is among the highest in the nation and many drivers are already following too closely, and (2) the City and County of Honolulu has stated publicly that improvements to increase traffic capacity will not happen. Even if the policy stance is changed, we cannot realistically assume that traffic carrying capacity in the area will be improved in the near future.

The first sentence of the fourth paragraph erroneously states, "the study concludes that a new traffic signal would be required at full development at the intersection of Iwilei/Nimitz off-ramp." The traffic study found that signalization would be a possible mitigation measure for the very long delays at the off-ramp and at the site driveway, and if signals were to be installed, the site driveway should be relocated so that a single signal could control all movements. In addition, a recommendation was made that any improvements for site access be coordinated with the roadway modifications that would be part of the City's plan to implement their proposed transportation center at the Iwilei site. (The latter recommendation is intended to avoid the prospect of installing multiple traffic signals on Iwilei Road from King Street to the project's ewa driveway.)

The remainder of the fourth paragraph and the fifth paragraph suggest that additional, more detailed analysis be done. But this type of detailed analysis is not appropriate in an environmental document for a site-specific development project. If required by the operating agency, such an analysis could be done as part of the planning or design of any new traffic signal. The cooperation and participation of the operating agency would be needed, since any findings, if not implemented, would not produce the desired benefits. A requirement for such an analysis, however, should be made only if similar analyses are being made throughout the traffic signal system.

The research and analyses that were done were appropriate considering the size and location of the project and the existing conditions that will be affected. The analyses provided sufficient information for disclosure of potential traffic impacts and the report presented the material within the context of other transportation efforts in the area. The more detailed study would not have significantly increased the amount of usable information.

If you have any questions, please contact Ron Hedani, Project Coordinator, at 587-0550.

Sincerely,

Sharyn Miyashiro

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation
Julian Ng, Julian Ng, Inc.

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

WILLIAM D. BALFOUR, JR.
DIRECTOR

EDWARD T. "SKIPPA" DIAZ
DEPUTY DIRECTOR

December 14, 2001

Mr. Neal Wu
Housing and Community Development
Corporation of Hawaii (HCDCH)
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Subject: Elderly Residential Complex at Iwilei
Draft Environmental Impact Statement
Tax Map Key Numbers: 1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, 78-84

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement relating to the Elderly Residential Complex at Iwilei.

The Department of Parks and Recreation has no comments at this time.

Should you have any questions, please contact Mr. John Reid, Planner, at 547-7396.

Sincerely,

W. D. Balfour Jr.

WILLIAM D. BALFOUR, JR.
Director

WDB:cu (G254)

cc: Mr. Don Griffin, Department of Design and Construction
✓ Mr. Glenn Kimura, Kimura International, Inc.
Office of Environmental Quality Control

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0282

February 11, 2002

Mr. William D. Balfour, Jr.
Director
Department of Parks and Recreation
City and County of Honolulu
650 South King Street, 10th Floor
Honolulu, HI 96813

Dear Mr. Balfour:

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated December 14, 2001. We note that you have no comments on the project at this time.

If you have any questions, please contact Ron Hedani, Project Coordinator, at 587-0550.

Sincerely,

Sharyn Miyashiro

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

Kimura Int'l

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

RECEIVED
JAN 24 2002

CHERYL D. SOON
DIRECTOR

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

TPD12/01-05344R

January 22, 2002

Mr. Neal Wu
Housing and Community Development
Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Subject: Elderly Residential Complex at Iwilei

In response to your letter of December 4, 2001, the draft environmental impact statement (DEIS) for the subject project was reviewed. The following comments are the results of this review:

1. We appreciate your coordinating the subject project with our Primary Corridor Transportation Project (PCTP). Although the DEIS for the subject project makes reference to the PCTP project, a statement should be made that the Major Investment Study/Draft Environmental Impact Statement for the PCTP project was released for public review and comment in August 2000. The document refers to a Kaaahi Street extension adjacent to your project site to accommodate the proposed BRT (Bus Rapid Transit) project.

2. The DEIS for the subject project incorrectly states that the PCTP proposed extension of Kaaahi Street would enable through traffic to use it as a shortcut around the King/Dillingham/Liliha intersection. The current BRT plan for Iwilei presented to your agency indicated that auto traffic would be allowed access to the street extension from Iwilei Road. The autos would be allowed to access the proposed park-and-ride parking structure but would not be allowed through access to Dillingham Boulevard. Only BRT vehicles would be permitted to use Kaaahi Street as a through route. Through access would be controlled by gate arms activated only by transponders on-board the BRT vehicles.

3. The PCTP is no longer considering relocating Iwilei Road. Reference to this should be dropped from the DEIS.

4. The proposed transit center would not require the use of the former OR&L Terminal Building. The transit center merely requires that walkways be provided between the bus stops on King Street and the BRT stop at the Iwilei site.

5. A park-and-ride at the Iwilei site is highly desirable because there are many successful examples where transit centers and park-and-ride facilities share a site with office and/or residential uses. Projects in San Diego, Santa Ana and Fullerton, California are notable examples. Besides the functional advantages of enhanced access and reduced parking needs, these projects were able to use discretionary federal dollars to help fund site improvements.

6. As acknowledged in the DEIS, the combination of the subject project, State offices in the OR&L Terminal Building, and the transit center would benefit one another by reducing the amount of parking required due to economies of scale and by offering users of the site an excellent transit option to using an automobile. Furthermore, it is anticipated that the elderly housing project will provide increased ridership because of the convenience and safety of the BRT stop on Kaaahi Street.

7. All provisions for loading/unloading of freight and passengers should be provided for off-street. Commercial vehicles should not be allowed to back out of driveways. Turnarounds need to be provided.

8. The traffic analysis should include the traffic due to the development of the new Costco store in close proximity to the project.

We look forward to continued coordination of our projects. Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Ms. Genevieve Salmonson, Office of Environmental Quality Control
Mr. Glenn Kimura, Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0283

February 11, 2002

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 22, 2002. We are writing in response to your concerns:

1. The Final EIS will refer to the Major Investment Study/Draft Environmental Impact Statement for the Primary Corridor Transportation Project (PCTP), and that document's reference to extension of Kaaahi Street for the proposed Bus Rapid Transit (BRT) project.

2. We understand that the City has no plans to allow through traffic if Kaaahi Street is extended, and that its use will be limited to transit vehicles equipped with transponders and autos entering and leaving the park-and-ride facility. The Final EIS will be revised accordingly.

3. In response to current plans for the PCTP, any reference to relocating Iwilei Road will be deleted.

4. The Final EIS will note that the former OR&L Terminal Building is required only to provide a walkway between the bus stops on King Street and the BRT stop at the Iwilei site.

5. We note several reasons supporting construction of a park-and-ride facility at the Iwilei site.

6. We are fully in agreement about the benefits of co-locating elderly housing and a hub for mass transit.

7. All requirements for off-street loading and unloading of freight and passengers will be accommodated in the project plans.

8. Traffic consultant Julian Ng, Inc. assisted us in responding to your inquiry regarding traffic due to development of the new Costco store.

Our original traffic analysis considered conditions in the weekday peak hours. The proposed Iwilei Costco store will have minimal impact on traffic volumes both on Iwilei Road and King Street. Based on the traffic counts and projections shown in the traffic report prepared for the Iwilei Costco project, that project is expected to have the following impacts on peak-hour traffic volumes:

Peak Hour:	AM	PM
King Street, Koko Head-bound, Ewa of Beretania St.	+ 4 vph	+64 vph
Iwilei Road, Makai-bound, Mauka of King St.	+5 vph	+10 vph

Vph= vehicles per hour

Some of the increase in the King Street traffic will turn onto Beretania Street and not affect traffic volumes in front of the Iwilei elderly housing site. Similarly, some of the increase in traffic on Iwilei Road will use Sumner Street and not be on Iwilei Road fronting the housing site. In either case, we anticipate the additional traffic due to the Costco project will be less than shown above. (Traffic impacts from the Costco project at other locations evaluated by the Iwilei traffic study are not expected.)

Further, on King Street, our traffic analyses used peak-hour traffic volumes that were higher than the volumes used in the traffic study for the Costco project:

Peak Hour:	AM	PM
HCDCH-Iwilei*	2,700	2,500
Costco**	2,360	1,575

* Exhibit 4, HCDCH Iwilei Project Site Traffic Analysis Report
** Figure 5, Costco Traffic Report

If you have any questions, please contact Ron Hedani, Project Coordinator, at 587-0550.

Sincerely,

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation
Julian Ng, Julian Ng, Inc.

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

December 28, 2001

Mr. Neal Wu
Housing and Community Development Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Subject: Draft Environmental Impact Statement
Elderly Residential Complex at Iwilei
Oahu, Honolulu District
Tax Map Keys: 1-5-007: 001, 002, 014, 015, 018, 066-069, 071, 074, 075, 078-084

We received a letter dated December 4, 2001, from Glenn Kimura, of Kimura International, Inc., requesting that the Honolulu Fire Department (HFD) review and comment on the above-mentioned project.

The HFD requests that the following be complied with:

1. Provide a private water system where all appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.

2. Provide a fire department access road within 150 feet of the first floor of the most remote structure. Such access shall have a minimum vertical clearance of 13 feet 6 inches, be constructed of an all-weather driving surface complying with Department of Transportation Services (DTS) standards, capable of supporting the minimum 60,000 pound weight of our fire apparatus, and with a gradient not to exceed 20%. The unobstructed width of the fire apparatus access road shall meet the requirements of the appropriate county jurisdiction. All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround having a radius complying with DTS standards.

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

Sincerely,

JOHN CLARK
Acting Fire Chief

AKL/SK:

cc: Glenn Kimura, Kimura International, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0277

February 11, 2002

Mr. John Clark, Acting Fire Chief
Fire Department
City and County of Honolulu
3375 Koapaka Street, Suite H425
Honolulu, HI 96819-1869

Dear Fire Chief Clark:

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 14, 2002. We note your requirements for a water system that meets Board of Water Supply standards and adequate fire department access. This information had been conveyed to the project developer. Civil engineering drawings will be submitted to your department for review and approval.

If you have any questions, please contact Ron Hedani, Project Coordinator, at 587-0550.

Sincerely,

Sharyn Miyashiro

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
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JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF

MICHAEL CARVALHO
ROBERT AU
DEPUTY CHIEFS

OUR REFERENCE CS-KP

January 14, 2002

Mr. Neal Wu
Housing and Community Development
Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Wu:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement for the Elderly Residential Complex at Iwilei.

We would like to further expand on our original comments made in our September 12, 2001, letter. We recommend that a minimum of one outlet be designed along the extension of Kaaahi Street to alleviate some of the anticipated traffic-related calls for police service.

Further, we are concerned about pedestrian traffic because of the large addition of elderly to the area. We recommend that strong lighting be considered for their safety and well-being.

If there are any questions, please call Ms. Carol Sodetani of the Support Services Bureau at 529-3658.

Sincerely,

LEE D. DONOHUE
Chief of Police

By
KARL GODSEY
Acting Assistant Chief of Police
Support Services Bureau

cc: Kimura International, Inc.
OEQC

Serving and Protecting with Aloha

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
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02:DEV/0276

February 11, 2002

Mr. Lee D. Donohue
Chief of Police
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, HI 96813

Attn: Mr. Karl Godsey, Acting Assistant Chief
Support Services Bureau

Dear Assistant Chief Godsey:

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 14, 2002. We are writing in response to your concerns.

We acknowledge your recommendation for a vehicular outlet off Kaaahi Street to facilitate police service and response to anticipated traffic-related calls. The scope of the elderly housing complex does not include extension of or improvements to Kaaahi Street. We are, however, designating a corridor adjacent to the residential development as a utility easement. And until such time as the adjoining (DAGS) site is developed, we expect the existing pavement to remain.

We also note—and share—your concern about the safety of elderly pedestrians, and have informed the project developer of your recommendation to provide strong outdoor lighting.

If you have any questions, please contact Ron Hedani, Project Coordinator, at 587-0550.

Sincerely,

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-00(

GEN-6 (EA/EIS)

January 22, 2002

Housing and Community Development
Corporation of Hawaii (HCDCH)
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Attention: Mr. Neal Wu

Subject: **Elderly Residential Complex at Iwilei**

Thank you for the opportunity to comment on your November 2001 Draft EIS for the Elderly Residential Complex at Iwilei. We have reviewed the subject document and have the following comments:

1. Page 65, section 3.5.5 Electrical and Communication Systems

   Please consider revising the sections as follows:

   Electrical service to the project is provided by Hawaiian Electric Company and communication service is provided by Verizon Hawaii. There is an overhead communication line along King Street and an underground communication line along Iwilei Road. There are an overhead 4 kilovolt (kV) power line along King Street and overhead 4 kV and 12 kV power lines along Iwilei Road. There are also an underground 12 kV power line along King Street and underground 12 kV and 25 kV power lines along Iwilei Road.

   Project Impacts

   The project will require 25 kV electrical service from Iwilei Road. The project developer will coordinate with electrical and telecommunications companies to ensure appropriate service and connections.

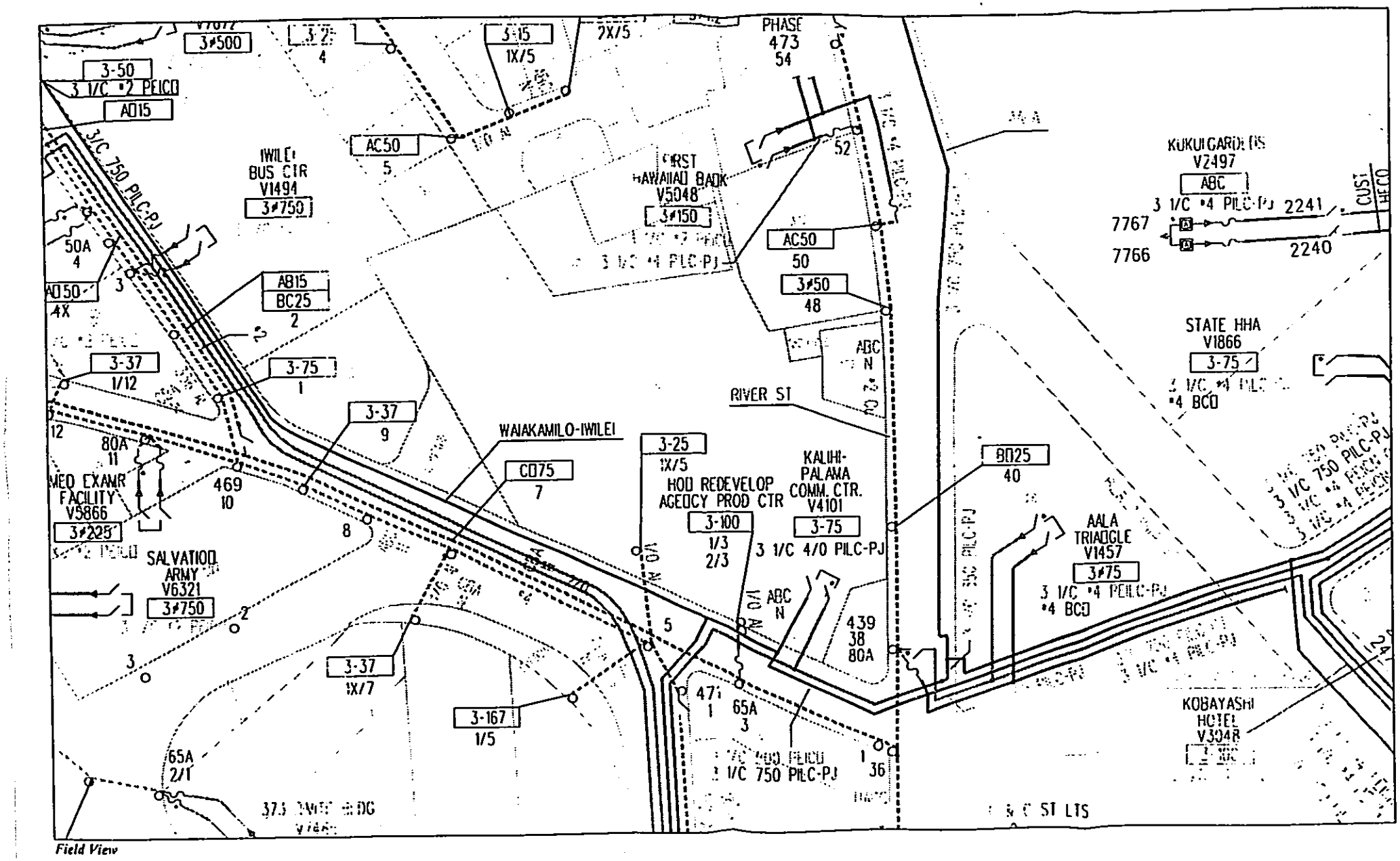
2. Page 9, section 1.9 Encumbrances

   Table 1 (Easements on the Iwilei Project Site) notes that Easements 13 & 37 for electrical power lines will be cancelled. Page 11 (Figure 3 – Easement Map) shows the location of Easements 13 & 17. HECO will need to investigate whether these easements are for HECO facilities and if they are, whether there exist ducts and cables that need to be relocated. A preliminary investigation as noted on HECO's FieldView map (see Attachment) indicates that we do not have any existing distribution facilities within this parcel. However, a more extensive investigation needs to be conducted. In addition, the easements documents will need to be checked to verify the terms and conditions of these easements.

Our points of contact for this project, and the originators of these comments, are Ronald Wong (543-7714) principal planning engineer and Francis Hirakami (543-7536) principal engineer. I suggest your staff and consultants deal directly with Ronald and Francis to coordinate HECO's continuing input on this project.

Sincerely,

Kirk Tomita
Senior Environmental Scientist
Hawaiian Electric Company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HOTEL
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Field View

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0270

February 8, 2002

Mr. Kirk Tomita
Senior Environmental Scientist
Hawaiian Electric Company
P.O. Box 2750
Honolulu, Hawaii 96840

Dear Mr. Tomita:

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 22, 2002. We are writing in response to your concerns.

1. The Final EIS will be revised to include the information you provided describing the existing electrical network in the immediate project area.

2. We acknowledge the need for ongoing consultation with HECO to resolve issues pertaining to electrical easements. Your letter will also be forwarded to the developer's engineer to ensure proper coordination with your staff.

If you have any questions, please contact Ron Hedani, Project Coordinator, at 587-0550.

Sincerely,

Sharyn Miyashiro

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

verizon
Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, HI 96841

December 18, 2001

Mr. Glenn Kimura
KIMURA INTERNATIONAL, INC.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Subject: ELDERLY RESIDENTIAL COMPLEX AT IWILEI -
DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Mr. Kimura:

Thank you for providing Verizon Hawaii Incorporated, the opportunity to comment on the Draft Environmental Impact Statement for the Elderly Residential Complex at Iwilei.

We have no comments or changes to the DEIS at this time.

If there are any questions, please call Glenn Morita at 840-5809.

Sincerely Yours,

Jay Furukawa
Section Manager –
Access Design

c: File (1025 ALAK)
G. Morita

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0278

February 11, 2002

Mr. Jay Furukawa
Section Manager-Access Design
Verizon Hawaii Inc.
P.O. Box 2200
Honolulu, HI 96841

Dear Mr. Furukawa:

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated December 18, 2001. We note that you have no comments on the project at this time.

If you have any questions, please contact Ron Hedani, Project Coordinator, at 587-0550.

Sincerely,

Sharyn Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

FROM :JON YOSHIMURA FAX NO. :5276101 Jan. 22 2002 04:18PM P1/1

JON C. YOSHIMURA, Chair
District 6
(808) 547-7006
Fax (808) 527-6101
email: jyoshimura@co.honolulu.hi.us
website: www.jonyoshimura.com

CITY COUNCIL

CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII 96813-3065 / TELEPHONE 547-7000

January 22, 2002

Ms. Sharyn Miyashiro
Executive Director
Housing and Community Development
Corporation of Hawaii
677 Queen Street, Suite 300
Honolulu, HI 96813

Dear Ms. Miyashiro:

I have just been briefed on the details of the proposed senior residence at Iwilei and I am in total support of this project. I would like to request that you consider the inclusion of the City's BRT project on the adjoining site.

If you have any questions or concerns, please feel free to call my office.

Sincerely,

Jon C. Yoshimura, Chair

JCY:dsf

BENJAMIN J. CAYETANO
GOVERNOR

SHARYN L. MIYASHIRO
EXECUTIVE DIRECTOR

ROBERT J. HALL
EXECUTIVE ASSISTANT

STATE OF HAWAII

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

02:DEV/0275

February 11, 2002

The Honorable Jon C. Yoshimura
Chair, City Council
City and County of Honolulu
City Hall
Honolulu, HI 96813-3066

Dear Chair Yoshimura:

Subject: Draft Environmental Impact Statement (DEIS)
for an Elderly Residential Complex at Iwilei, Oahu, Hawaii

Thank you for reviewing the DEIS and providing comments by letter dated January 22, 2002. We appreciate your strong support for this project. As noted in the EIS, the City's BRT project, as currently proposed, would be compatible with our elderly housing project.

If you have any questions, please contact Ron Hedani, Project Coordinator, at 587-0550.

Sincerely,

Sharyn L. Miyashiro
Executive Director

c: Glenn Kimura, Kimura International, Inc.
Marvin Awaya, Pacific Housing Assistance Corporation

Appendix A:

Minutes of the Informational Meeting for the Proposed Elderly Residential Complex at Iwilei held on October 16, 2001

INFORMATIONAL MEETING

For The
Proposed Elderly Residential Complex at
Iwilei Civic Center Site

October 16, 2001
2:30 p.m. – 4:30 p.m.

Family Investment Center
Building L
1002 N. School Street

Agenda

1. Introduction
2. Overview of Planning Program
3. Presentation by Pacific Housing Assistance Corporation
4. Question, Comments, and Responses
5. Adjournment

INFORMATIONAL MEETING
For The Proposed Elderly Residential Complex at Iwilei
October 16, 2001 2:30 p.m. – 4:30 p.m.
Family Investment Center Building L
1002 N. School Street

Minutes

The meeting was called to order at 2:40 p.m. by Neal Wu, HCDCH staff, who gave a historical overview of the project's planning program, followed by introductions by the attendees.

Attendees were: Sun Hung Wong, Hin Chiu Lau, (Chinatown Merchants Association); Gail Suzuki-Jones, (DBEDT/ERTB); Glenn Kimura, Nancy Nishikawa, (Kimura International, Inc.); Marvin Awaya, Audrey Yoshii, Karen Arakawa, (PHAC); Bob Luersen, (Luersen Architects); Audrey Nakagawa, (PACE Hawaii-Maluhia); Neal Wu, (HCDCH)

The planning process began nearly 3 years earlier with input from community representatives which resulted in a conceptual master plan for the site. Since then the HCDCH retained Kimura International, Inc. to conduct the due-diligence studies Which identified contaminated areas. HCDCH also selected Pacific Housing Assistance Corporation as the developer for the Elderly Residential Complex.

Marvin Awaya, Executive Director of the Pacific Housing Assistance Corporation gave a power-point presentation on the proposed elderly residential complex for independent living seniors under an "aging-in-place" concept. PHAC proposing: a 21-story residential tower with 138 one-bedroom/one bath units and 18 two-bedroom/one bath units for a total of 156 units; a two-story community service building with a 9,000 s.f. adult day care center on the ground level and a 9,000 s.f. 2nd floor for support services; a 5-story parking structure for 139 stalls. The unit sizes are: 630 s.f. for a one-bedroom and 960 s.f for a two-bedroom. The proposed monthly rents are: $322-$685 for a one bedroom and $750-$822 for a two-bedroom. Groundbreaking is expected by mid-2002 and project completion by December 2004. He stated that the proposed project is still preliminary and conditioned upon obtaining financing, site control, EIS, subdivision, 201G exemption approvals.

Bob Luersen of Luersen Architects, Inc. gave a power-point presentation of the proposed site plan, floor plan, typical unit plan, building section and perspective rendering of the completed project. The overall height of the residential structure is 204 feet. The portion of the site is currently zoned IMX or Industrial Mixed Use. The project will require an exemption under 201G to allow multi-family development. The residential structure is set-back from a future roadway that extends Kaaahi Street to Iwilei Road. An access driveway with a turn-around and drop-off area is provided for the residential tower.

Separate drop-off areas are also provided for the community service building. He also stated that the proposed design is subject to change.

Audrey Nakagawa of PACE Hawaii described the types of services, care and activities to be provided. The proposed Adult Day Care Center would open M-F from 6:45 a.m. to 5:30 p.m. and be available to residents and seniors in the surrounding community. The capacity of the day care center will be 50 adults.Daily activities include: exercise, music, videos, & outings, entertainment, arts & crafts, special diet lunches and snacks, peer discussion and groups, counseling and referrals. The day care center will be staffed with a program director, licensed nurse, center assistants, recreation activities coordinator, social worker and clerical staff. Costs and fees are to be determined.

Questions, Comments and Responses

According to Sun Hung Wong, CMA's experience involving residential and commercial has been mixed. 10 years ago we had no complaints about mixed-use projects and the businesses had patronage. Today however, the residents are complaining a lot more about noise, odor, etc. generated by the businesses. What is the impact on this project from the surrounding Iwilei industrial neighborhood?
This will be the first mixed use project in an already changing neighborhood with box retail outlets like Home Depot, K-Mart and Costco moving in. With more residents, the surrounding retail establishments should benefit.

What kind of seniors are you catering to?
We will be renting to seniors that are 62 years and older within the HUD income limits.

The location is near the harbor, how will you deal with the odors from the harbor activity and the feed storage area, say during Kona weather?
All the units will be naturally-ventilated. We may provide each unit with an electrical outlet for an air conditioner to help resolve the odor problem from the harbor.

What is your experience with bio-remediation?
Our Maluhia Assisted Living project site we found 4 underground fuel tanks which we had to remediate and dispose of. The contaminated soil was taken to place in Waianae for remediation.

What about solar systems for this project?
The roof area is limited for solar panels. If they can be integrated with the building's walls it may be a possibility.

What about nstalling louvered jalousie windows within the unit door? Or a screen door?
The building code does not allow them. We need to reduce the heat from the afternoon sun by using low heat glazing. Gail Suzuki-Jones suggested ceiling fans and awnings.

What about storage space for the tenants?
We are studying shared storage spaces that are enclosed with screen.

What about security from the parking structure for tenants?
An elevated walkway at the 3rd floor of the parking structure will be connected to the residential tower with access only by card.

What about the open space under the concrete driveway ramp? Perhaps it could be used for storage? Unless the space is secured, it may become an attractive nuisance.
The space is being used as a day care center and exposed to weather. Yes, the space needs to be studied.

The meeting adjourned at 4:00 p.m.

Prepared by: _____ *10/18/01*

Appendix B:

Traffic Analysis Report for the Iwilei Project Area (April 2001) Julian Ng, Inc.

Traffic Analysis Report

Iwilei Project Site

Honolulu, Hawaii

Prepared for:

State of Hawaii
Housing and Community Development Corporation of Hawaii

Prepared by:

Julian Ng, Incorporated
P. O. Box 816
Kaneohe, Hawaii 96744

April, 2001

Table of Contents

Traffic Analysis Report
Iwilei Project Area
April, 2001

Introduction

The Housing and Community Development Corporation of Hawaii has proposed to develop a residential tower on State land in Iwilei, Honolulu. The project site is also planned to eventually include State offices and other uses.

A traffic study was done to evaluate existing and future traffic conditions on the streets in the vicinity of the project site, in order to identify roadway improvements that will be needed to provide adequate vehicular access to the site. Traffic count data were collected and estimates of existing daily and peak hour volumes were developed for streets in the area. Trip generation analyses were done to estimate the volume of traffic added by the project, and intersection capacity analyses were done at the site driveways.

Existing and future conditions with the proposed project were described using levels of service, as described in the *Highway Capacity Manual*. Six levels are defined, using the letters A through F. The range is from Level of Service (LOS) A describing low densities or no delays to LOS F describing very high densities and very long delays at intersections. While desirable conditions are LOS C or better in rural areas and LOS D or better in urban areas, many locations in urban areas already operate at LOS E. In densely developed urban areas such as downtown Honolulu, mitigation of specific congested conditions as described by LOS E may not be the most desirable solution.

The analysis procedure for unsignalized intersections as described in Chapter 10 of the 1997 update to the *Highway Capacity Manual* was used to determine average vehicular delays and levels of service at unsignalized intersections. In this analysis, traffic flows on the major street (those that do not yield to other traffic) are used to determine the capacities and delays to minor flows at the intersection. From these parameters, average vehicular delays are computed and levels of service for each minor flow (major street left turns against oncoming traffic and minor street movements wishing to enter the major street) are determined using the following criteria:

Level of Service A:	0 seconds < delay ≤ 10 seconds
Level of Service B:	10 seconds < delay ≤ 15 seconds
Level of Service C:	15 seconds < delay ≤ 25 seconds
Level of Service D:	25 seconds < delay ≤ 35 seconds
Level of Service E:	35 seconds < delay ≤ 50 seconds
Level of Service F:	50 seconds < delay

A critical movement analysis as described in the 1985 edition of the *Highway Capacity Manual* was used to evaluate signalized intersections. In this analysis, conflicting movements at an intersection are summed to determine overall conditions. A sum of 1,200 vehicles per hour per lane is considered under capacity (desirable condition) and a sum greater than 1,400 would indicate over capacity (unacceptable) conditions. Between these limits, conditions would be described as "near capacity" which may or may not be acceptable.

Existing Roadway System

The project site is located in Iwilei, on the northwest fringe of downtown Honolulu. The project site is bordered by Iwilei Road to the south, King Street to the east, and existing industrial and commercial properties to the north and west. The property abuts the end of Kaaahi Street, a local street to the north.

King Street and Beretania Street form a one-way couplet (i.e., two parallel streets paired to optimize operations, with traffic flowing in opposite directions) through most of central Honolulu. King Street traffic flows in the southbound and eastbound direction. In the Iwilei area, however, King Street carries two-way traffic in six lanes, with four lanes for southbound traffic and two lanes for northbound traffic. The northbound traffic consists of City buses from the Hotel Street Bus Mall and other vehicles that have turned left from Iwilei Road.

Iwilei Road is a local street serving the abutting industrial and commercial properties. Fronting the project site, it is four lanes wide, with two lanes for traffic in each direction. At its approach to the signalized King Street intersection, a third eastbound lane for right turns only is added to the two lanes, which become left turn only lanes.

Nimitz Highway is a divided eight-lane highway (four lanes in each direction) south of the vicinity of the project. As northbound traffic on three lanes of Nimitz Highway turns to the west near the project site, the fourth (right) lane becomes an "exit" to Iwilei Road. This exit intersects with Iwilei Road in a "T"- intersection, where exit traffic is controlled by a stop sign. A second lane is added on the exit very close to the intersection for left turns to Iwilei Road.

Kaaahi Street is a local street serving commercial and industrial uses north of the project site. It includes on-street parking or loading zones on both sides and serves traffic in one lane in each direction. Kaaahi Street intersects with Dillingham Boulevard in a signalized "T"-intersection. Dillingham Boulevard at this intersection has two lanes for westbound traffic and three lanes for eastbound traffic.

Existing Traffic

The State Highways Division estimates the average daily traffic and "K" (peak hour/daily) and "D" (directional distribution) factors on defined segments of all highway facilities in the State. For the island of Oahu, estimates are made for each year based on traffic count data. The latest published highway statistics for Oahu are for year 1998. Table 1 summarizes the recent estimates of average daily traffic and peak hour volumes on Nimitz Highway near the project site.

Table 1
Average Daily Traffic
Nimitz Highway between Waiakamilo Road and Bishop Street

	Average	AM Peak Hour		PM Peak Hour	
	Daily Traffic	Eastbound	Westbound	Eastbound	Westbound
1993	76,575	3,370	2,755	2,930	3,580
1994	76,880	3,690	2,460	2,940	3,595
1995	87,376	3,845	3,145	3,145	4,720
1996	86,200	3,880	2,585	3,100	3,795
1997	77,702	3,495	2,335	3,105	3,110
1998	74,373	3,345	2,235	2,845	3,475

Source:State Highways Division. *Traffic Summary, Island of Oahu* (various years).

The State Highways Division average daily traffic estimates indicate that traffic volumes on Nimitz Highway near the project site have not changed significantly since 1993. Weekday totals from traffic counts collected in 1994, 1997, and 1998 near the project site are shown in Exhibit 2. From these data and the traffic patterns in the area, estimates of daily traffic volumes on the streets system near the project site were made and are shown in Exhibit 3.

The traffic count data were also used to develop estimates of peak hour traffic volumes in the area. These estimates are shown in Exhibits 4 and 5.

Future Traffic Without the Proposed Project

As indicated in Table 1, recent traffic volumes on Nimitz Highway in the vicinity of the project do not show a consistent trend, other than remaining at approximately the same level. Future traffic volumes in the vicinity of the project site are not expected to change. Conditions at several nearby intersections with multi-phase traffic signals constrain traffic volumes at other locations. Therefore, the estimates of existing traffic volumes (Exhibits 2, 3, and 4) are also applicable for future volumes without the proposed project.

Project Traffic

The number of vehicle trips generated by the proposed project has been estimated using factors from *Trip Generation*, a publication from the Institute of Transportation Engineers. Uses on the site include high-rise apartments, elderly housing, adult day care, government offices, and a transit center. For the traffic analyses, the transit center has been assumed to generate no additional vehicular traffic to the site. Trips due to other uses were estimated from the project descriptions using the factors shown in Table 2.

Table 2
Traffic Generation Rates

	AM Peak Hour		PM Peak Hour	
	Rate	Entering	Rate	Entering
High-rise apartments (per dwelling unit)	0.30	31%	0.39	58%
Elderly housing (per dwelling unit)	0.07	63%	0.10	59%
Adult Day Care (per employee)	3.76	54%	3.90	47%
Government services office (per employee)	1.02	84%	1.06	34%
Government office building (per 1,000 GSF)	2.07	80%	3.11	27%

Several alternatives are being considered for development of the project site. For this traffic analyses, the project site has been assumed to include a high-rise residential tower and a second high-rise to be used as State offices. The existing OR&L building would also be used for offices where public services are provided. Parking garages to support these uses will also be constructed. The development of the high-rise residential tower and use of the OR&L building are expected to be developed initially (within five years). Funding for the high-rise office tower is not in place and it would be developed sometime later. The estimates of site-generated traffic are shown in Tables 3 and 4.

Table 3
Traffic Generation – Initial Development

	AM Peak Hour		PM Peak Hour	
	Entering	Exiting	Entering	Exiting
OR & L Terminal (Department of Human Services - 70 employees)	60	11	25	49
HCDCH Housing tower (120 DUs)	11	25	27	20
HCDCH Housing tower (80 elderly DUs)	4	2	5	3
HCDCH Adult Day Care (34 employees)	69	59	62	70
Initial Development Total	144	97	119	142

Table 4
Traffic Generation – Full Development

	AM Peak Hour		PM Peak Hour	
	Entering	Exiting	Entering	Exiting
Initial Development Total	144	97	119	142
DAGS office tower (281,500 GSF)	465	117	237	639
Total, Full Development of Site	609	214	356	781

Of the traffic attracted to the site, 20% is estimated to approach from the east, with the remainder approaching from the west. Traffic leaving the site is assumed to follow the same distribution.

Access to the site would be provided by three connections to the existing street system. A single driveway will be located on Iwilei Road, approximately 150 feet west of the existing intersection where traffic from Nimitz Highway exits onto the City streets. All movements will be permitted into and out from this driveway. Vehicles can approach this driveway from the west (from Nimitz Highway via Pacific Street or Sumner Street), or from the east (via southbound King Street or northbound Nimitz Highway, through the connector roadway).

A single driveway to King Street would be located near its intersection with Beretania Street; however, the northern property line is located south of the intersection and the driveway cannot be aligned with the intersection. Due to the angle of the existing intersection and the proximity of the driveway, only right turns in and right turns out to the southbound lanes of King Street will be permitted; the restriction of left turns in will have little impact, since the only vehicles other than public buses on the northbound lanes of King Street would have turned from Iwilei Road.

The third connection will be made to the north, connecting to the end of Kaaahi Street.

Based on the layout of the street system in the vicinity of the project site, the site-generated traffic volumes were assigned to the driveways as shown in Tables 5 and 6.

Table 5
Project Traffic Assigned – Initial Development

	AM Peak Hour		PM Peak Hour	
	Entering	Exiting	Entering	Exiting
King Street driveway	36	20	30	28
Iwilei Road driveway (to/from west)	22	15	18	22
Iwilei Road driveway (to/from east)	36	29	30	42
Kaaahi Street driveway	50	33	41	50

Table 6
Project Traffic Assigned – Full Development

	AM Peak Hour		PM Peak Hour	
	Entering	Exiting	Entering	Exiting
King Street driveway	153	43	89	156
Iwilei Road driveway (to/from west)	91	32	54	117
Iwilei Road driveway (to/from east)	152	64	89	234
Kaaahi Street driveway	213	75	124	274

Exhibit 6 shows the peak hour traffic along Iwilei Road with the initial development. Exhibit 7 shows the peak hour traffic along Iwilei Road with full development of the site.

Traffic Analyses

Conditions at the driveways to King Street and to Iwilei Road were evaluated using the unsignalized intersection analysis procedure described in the *Highway Capacity Manual.* Results of the analyses are shown in Table 7.

For the interim development, the increase in traffic on King Street would be less than 90 vehicles per hour during the peak hours. The increase in southbound peak hour traffic volumes would be approximately 2 ½percent in the AM Peak Hour and less than 2 percent in the PM Peak Hour. The increase in northbound volumes on King Street would be less but would be a greater portion of the existing peak hour volumes. For full development of the site, the increase in peak hour volume on King Street would be 220 vehicles per hour in the AM Peak Hour and 270 vehicles per hour in the PM Peak Hour.

At the project's King Street driveway, right turns in would be made from the right lane, between bus stops located before and after the intersection with Beretania Street. Right turns out from the project driveway to King Street will generally have opportunities to enter King Street when traffic is stopped to allow pedestrians to cross at the intersection. The analysis, which assumes the more difficult case in which there would be no interruption of traffic on the street to assist driveway traffic, shows adequate capacity for the right turns from the property.

Increases in traffic on Iwilei Road west of the project will have minor impacts to turns made from Kuwili Street. Delays are expected to increase, but conditions would remain in the same level of service ranges for both peak hours.

At the site driveway to Iwilei Road, acceptable conditions can be expected for the interim development. For full development, however, the high volume of exiting left turns wishing to proceed eastbound on Iwilei Road will cause very long delays in the PM Peak Hour.

At the intersection of the connector from Nimitz Highway to Iwilei Road, interim development of the site will cause increased delay, with a degradation of one level of service in the AM Peak Hour, when compared with conditions without development of the site; levels of service in the PM Peak Hour remain the same as existing. The delays and levels of service, however, will remain in acceptable ranges. With full development of the site, delays in the PM Peak Hour will increase to unacceptable levels.

Table 7
Unsignalized Intersection Levels of Service

	Existing Traffic		Initial Project		Fully Developed	
	AD (sec.)	LOS	AD (sec.)	LOS	AD (sec.)	LOS
AM Peak Hour						
Site Driveway to King Street						
exiting right turns	-	-	18.7	C	22.0	C
Kuwili Street at Iwilei Road						
left turns from Iwilei Road	8.5	A	8.5	A	8.6	A
sidestreet (shared lane, stopped)	13.0	B	13.6	B	14.6	B
Site Driveway at Iwilei Road						
left turns from Iwilei Road	-	-	8.3	A	9.0	A
exiting left turns	-	-	16.1	C	24.8	C
exiting right turns	-	-	10.6	B	11.3	B
Nimitz Highway connector at Iwilei Road						
left turn to Iwilei Road	14.7	B	16.4	C	25.5	D
right turn to Iwilei Road	12.0	B	12.2	B	12.5	B
PM Peak Hour						
Site Driveway to King Street						
exiting right turns	-	-	18.4	C	32.9	D
Kuwili Street						
left turns from Iwilei Road	8.2	A	8.3	A	8.7	A
sidestreet (shared lane, stopped)	16.6	C	17.7	C	20.3	C
Site Driveway at Iwilei Road						
left turns from Iwilei Road	-	-	8.2	A	8.5	A
exiting left turns	-	-	21.9	C	>120	F
exiting right turns	-	-	10.2	A	11.4	B
Nimitz Highway connector at Iwilei Road						
left turn to Iwilei Road	20.7	C	24.9	C	68.0	F
right turn to Iwilei Road	27.7	D	29.9	D	48.0	E

AD = Average Delay LOS = Level of Service

The unacceptable conditions at the unsignalized intersections along Iwilei Road could be mitigated with traffic signals. However, due to the proximity of the site driveway and the existing connector from Nimitz Highway, the closely spaced signals would disrupt flow on Iwilei Road.

Project traffic using Kaaahi Street would increase volumes on the street. While no count data are available, the project would increase the volume by approximately 45% over an estimated existing peak hourly volume of 200 vehicles per hour on Kaaahi Street. The capacity of the signalized intersection of Kaaahi Street and Dillingham Boulevard, however, is expected to be adequate for the initial development of the site. For full development, intersection conditions in the PM Peak Hour are expected to be in the near capacity range. Table 8 summarizes the results from the critical movement analysis of this intersection.

Table 8 also shows the results of a similar analysis of the signalized intersection of Iwilei Road and King Street, where acceptable under capacity conditions are expected to continue even with full development of the project site.

Table 8
Signalized Intersection Conditions

(sum of critical movements, condition)	Existing Traffic		Initial Project		Fully Developed	
Dillingham Boulevard & Kaaahi Street						
AM Peak Hour	565	under	615	under	745	under
PM Peak Hour	1,100	under	1,150	under	1,320	near
King Street & Iwilei Road						
AM Peak Hour	795	under	810	under	825	under
PM Peak Hour	940	under	960	under	1,055	under

The analyses and results shown in Table 8 do not consider the effects of the existing congestion at the signalized intersection of King Street, Dillingham Boulevard, and Liliha Street. Congestion at this intersection causes congestion along King Street and will tend to limit the increase in traffic that could occur on King Street near the project site.

Discussion of Findings

The proposed development of the site may be affected by a concurrent planning effort to place a transit center on the site as part of the City and County of Honolulu's Bus Rapid Transit (BRT) project. The analyses summarized herein have not included any transit vehicles within the site; the BRT project has proposed that the main line of the in-town system run through the site, with peak hour volumes of 30 vehicles in each direction. The City's proposal also would extend Kaaahi Street to Iwilei Road,

which would alter traffic patterns in the area and provide through traffic with an alternative path between Dillingham Boulevard and Iwilei Road.

The BRT project has also considered a possible relocation of Iwilei Road so that it intersects King Street closer to the Beretania Street intersection. If this were done, the site would be changed, either reconfigured if the new roadway right-of-way is obtained by swapping for the existing right-of-way, or reduced as a new right-of-way is taken from the north side of the property.

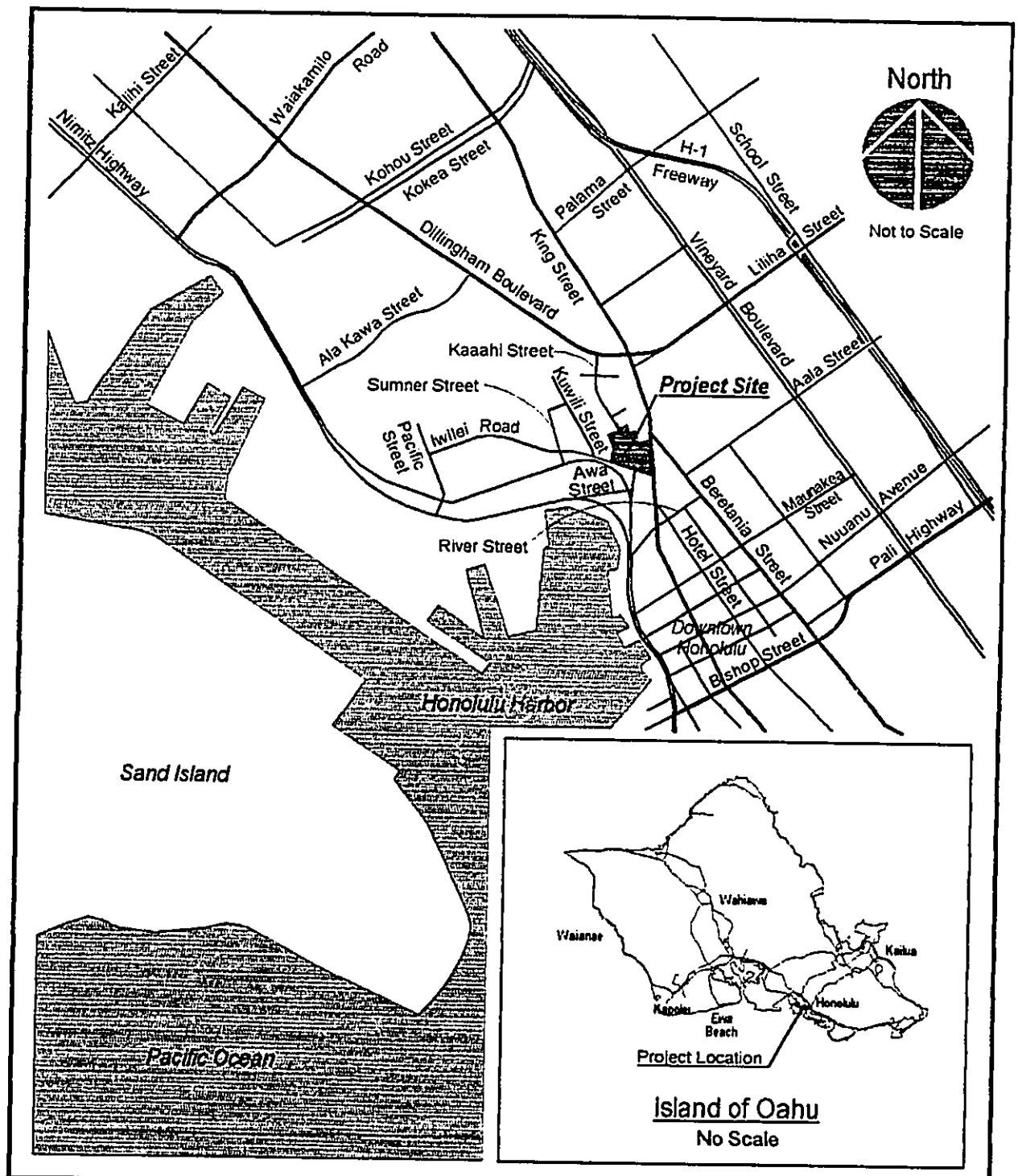
The proposed use of the site by transit vehicles and the extension of Kaaahi Street will have greater impacts than the interim development of the site. The addition of an office tower, however, would significantly increase traffic in the area. In either case, a new traffic signal on Iwilei Road would be necessary.

If the site is not used for a transit center, the proposed plan of providing access from Kaaahi Street, Iwilei Road, and King Street could result in significant numbers of through (non-site related) traffic using the driveways to avoid congestion at other locations, such as the intersection of Dillingham Boulevard, King Street, and Liliha Street. A possible mitigation measure would be to reconfigure the site roadways to prevent their use by through traffic, such as providing only access to and from the site parking garages via Kaaahi Street.

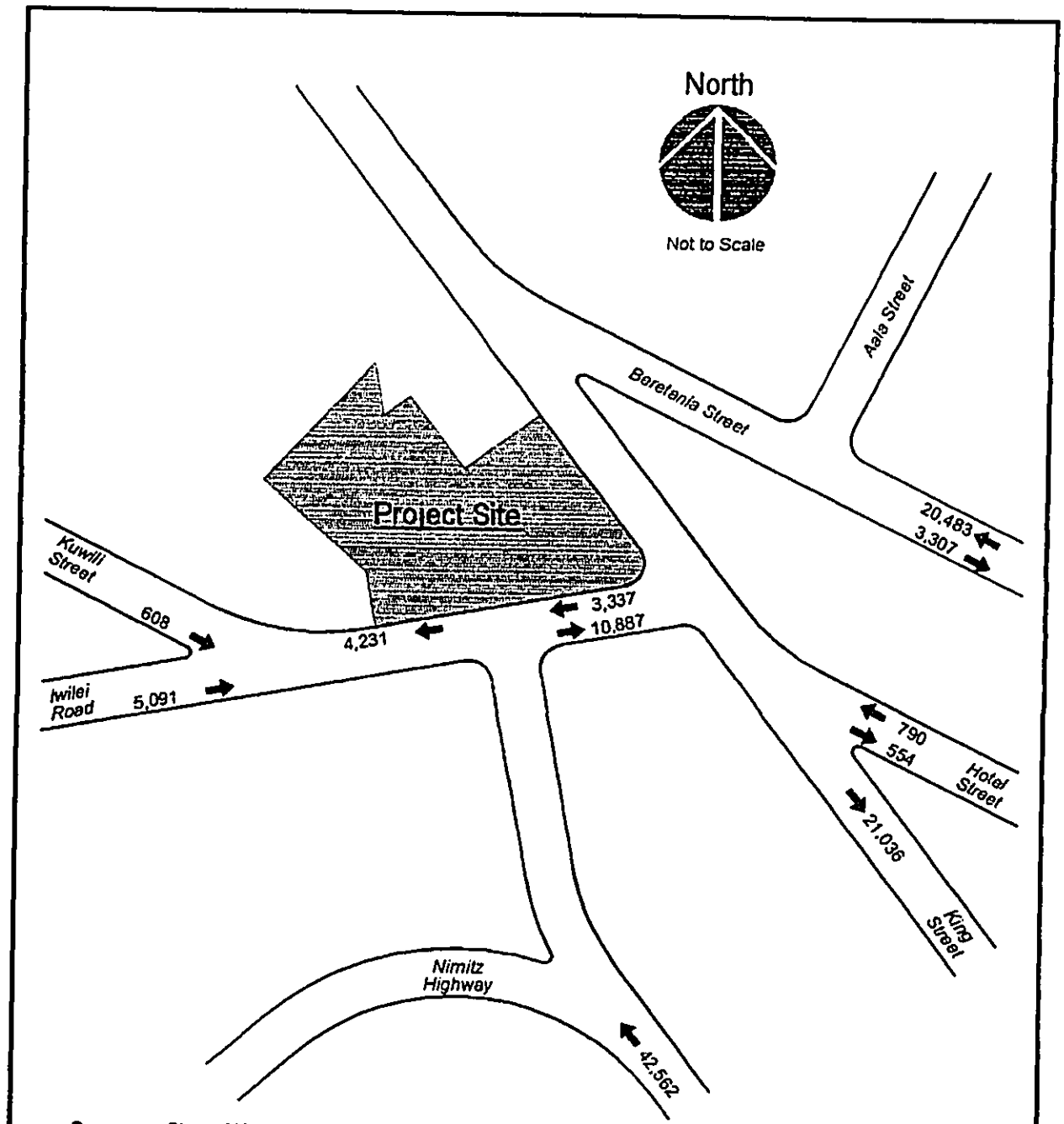
Conclusions and Recommendations

The traffic analyses indicate that the proposed connections from the project site would adequately serve the initial development proposed at the site. For full development, which would include an office tower, increased traffic would require an additional traffic signal on Iwilei Road. In this case, the preferred location of the site driveway to Iwilei Road would be directly opposite the existing connector roadway from Nimitz Highway.

The proposed use of the site as a transit center for the City's Bus Rapid Transit project will have significant impact to traffic conditions in the area. Preliminary plans for the transit center include the extension of Kaaahi Street to Iwilei Road, opposite the connector from Nimitz Highway. This extension could divert traffic away from the congested intersection of Dillingham Boulevard, King Street, and Liliha Street, and through the project site. The City's main line of the BRT project is expected to have peak hour headways of 2 minutes, or 30 vehicles per hour, with provisions to give these vehicles priority over other traffic in passing through the area. A traffic signal at the new cross-intersection would be necessary to implement this priority treatment. The plans for development of the site should be coordinated with those of the transit center.



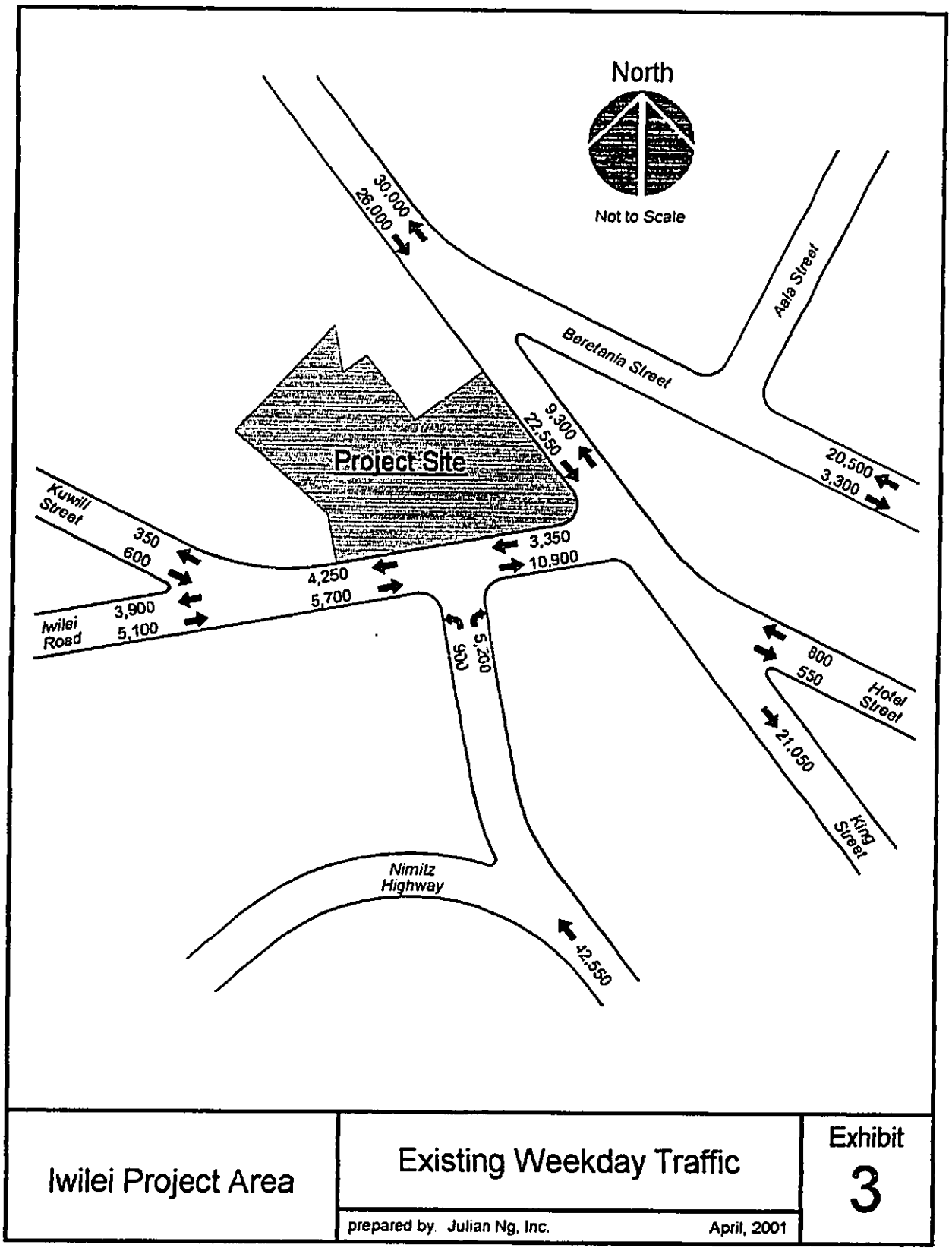
Iwilei Project Area	Project Vicinity Map	Exhibit 1
	prepared by. Julian Ng, Inc. April, 2001	



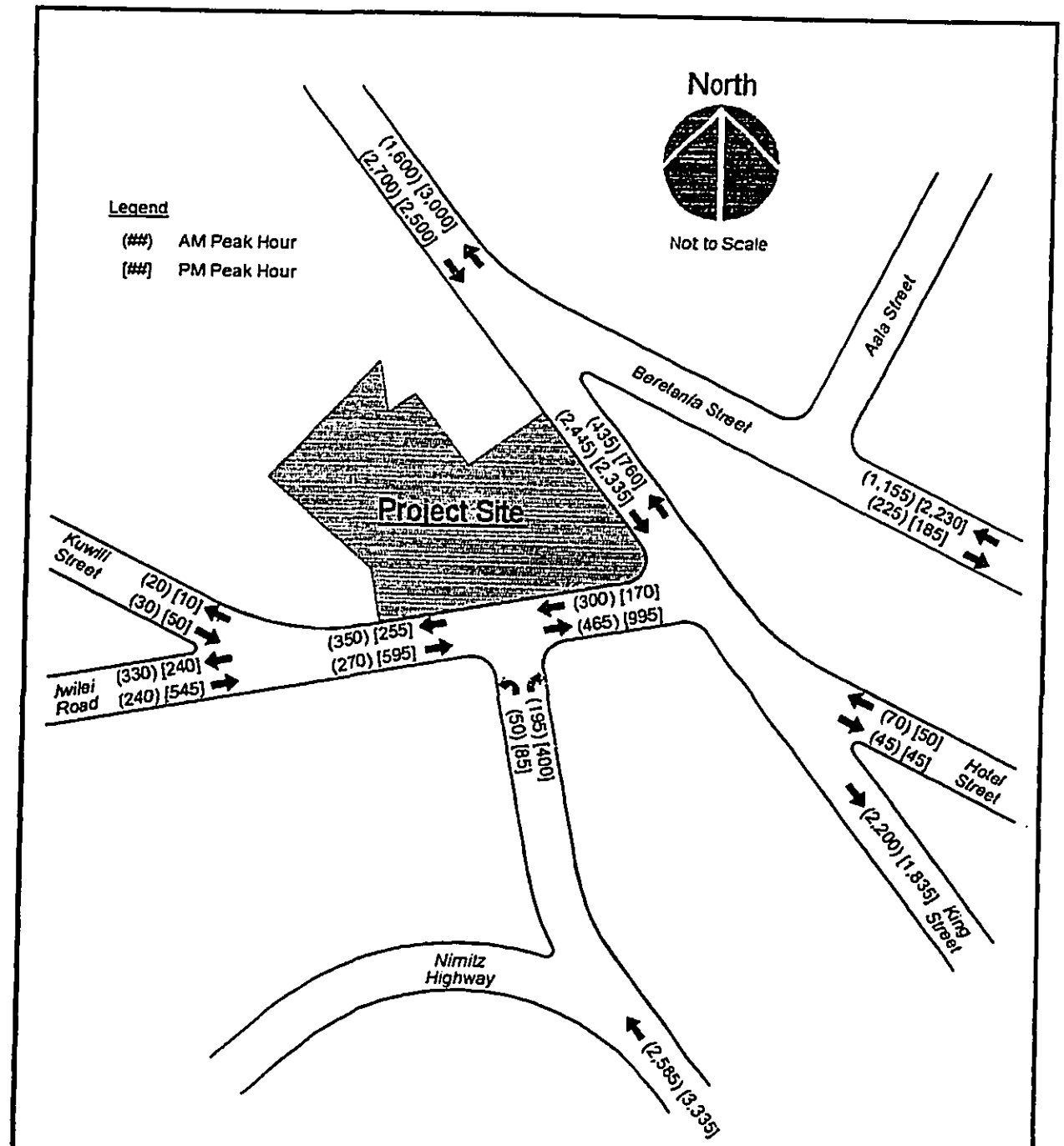
Sources: State of Hawaii, Department of Transportation, Highways Division
August, 1998 counts (Nimitz Highway, King Street, Hotel Street, Beretania Street)

City and County of Honolulu, Department of Transportation Services
June, 1997 and February, 1994 counts (Iwilei Road, Kuwili Street)

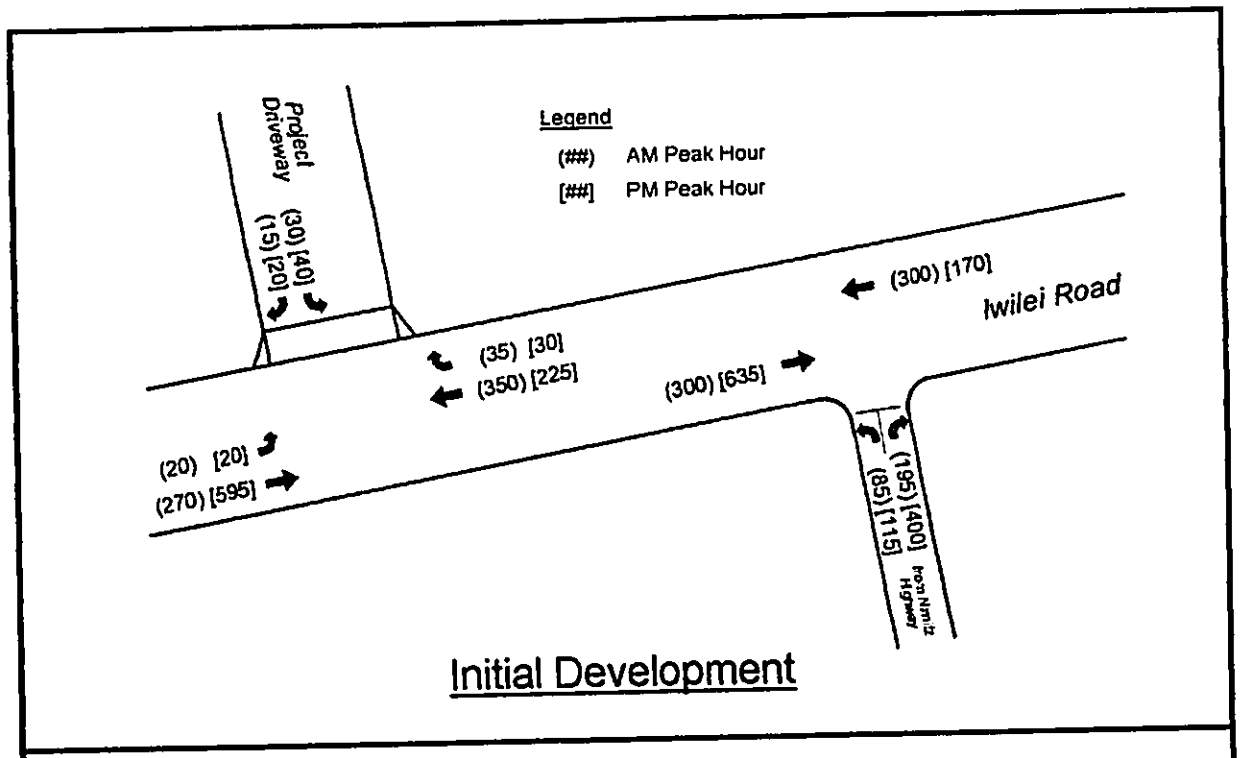
Iwilei Project Area	24-Hour Traffic Counts	Exhibit 2
	prepared by: Julian Ng, Inc. April, 2001	



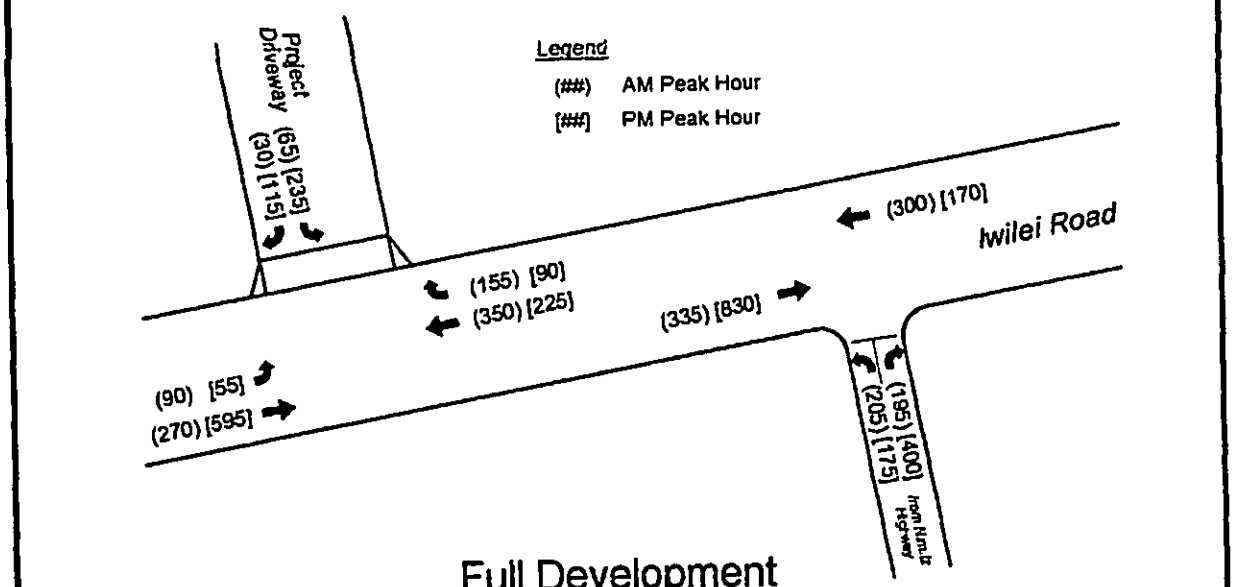
Iwilei Project Area	Existing Weekday Traffic	Exhibit 3
	prepared by: Julian Ng, Inc. April, 2001	



Iwilei Project Area	Peak Hour Traffic Volumes	Exhibit 4
	prepared by. Julian Ng, Inc. April, 2001	



Initial Development



Full Development

Iwilei Project Area	Traffic Assignments With Project	Exhibit 5
	prepared by. Julian Ng, Inc. April, 2001	

Appendix C:

Environmental Noise Assessment, HCDCH Senior Housing Project Honolulu, Hawaii (October 2001) D. L. Adams Associates

DLAA Project No. 01-47

ENVIRONMENTAL NOISE ASSESSMENT
HCDCH SENIOR HOUSING PROJECT
HONOLULU, HAWAII

October 2001

Prepared for
Kimura International Inc.
Honolulu, Hawaii

CONTENTS

1.0 SUMMARY

1.1 A study was conducted to assess the noise impact due to and on a proposed residential tower. This proposed tower will contain 20 floors and provide senior living apartments and assisted living facilities.

1.2 The project area and vicinity are currently exposed to daytime ambient noise levels of 58 dBA, with the dominant noise sources being traffic. The calculated day-night (L_{dn}) noise level at the tower may exceed 65 dBA at units with a direct line of sight to Nimitz Highway.

1.3 Traffic noise levels, due to the project, are not expected to significantly increase along the existing roadways in the vicinity of the project.

1.4 The dominant noise source during project construction will probably be impact equipment, such as pile drivers. The noise from construction activities could impact nearby residences. Noise from construction activities should be short term and must comply with State Department of Health noise regulations.

1.5 Living units with a direct line-of-sight to Nimitz Highway may experience noise levels that exceed Federal Housing and Urban Development (HUD) and Environmental Protection Agency (EPA) design goals and criteria.

1.6 Design of the residential tower will need to provide sound attenuation so interior noise levels will be below 45 dBA.

2.0 PROJECT DESCRIPTION

The proposed HCDCH Senior Housing Project site is to be located on a portion of a 5.72-acre site in the Iwilei district on the western edge of downtown Honolulu, as shown in Figure 1. The project involves the construction of a residential tower that rises 200 feet and 20 stories with 200 units comprised of 120 one-bedroom units and 80 two-bedroom units. Portions of the building may be utilized for assisted living facilities which could involve a library, health clinic, physical therapy room, recreation area, beauty/barber shop, kitchen, pantry, conference room, offices and staff lounge. A parking garage for the residential tower may consist of 5 floors with 280 parking stalls. The conceptual site plan is shown in Figure 2.

3.0 NOISE STANDARDS

Various local and federal agencies have established guidelines and standards for assessing environmental noise impacts and set noise limits as a function of land use. A brief description of common acoustic terminology used in these guidelines and standards is presented in Appendix A.

3.1 U.S. Department of Housing and Urban Development (HUD)

HUD's environmental noise criteria and standards in 24 CFR 51 [Reference 1] were established for determining housing project site acceptability. These standards are based on day-night equivalent sound levels, L_{dn}, and are not limited to traffic noise exposure. However, for project sites in the vicinity of highways, the L_{dn} may be estimated to be equal to the design hour $L_{eq(h)}$, provided "heavy trucks (vehicles with three or more axles) do not exceed 10 percent of the total traffic flow in vehicles per 24 hours and the traffic flow between 10:00 p.m. and 7:00 a.m. does not exceed 15 percent of the average daily traffic flow in vehicles per 24 hours." For these same conditions, L_{dn}, may also be estimated as 3 dB less than the design hour L_{10}.

HUD site acceptability criteria rank sites as Acceptable, Normally Unacceptable, or Unacceptable. "Acceptable" sites are those where exterior noise levels do not exceed an L_{dn} of 65 dBA. Proposed housing projects on "Acceptable" sites do not require additional noise attenuation other than that provided by customary building techniques. "Normally Unacceptable" sites are those where the L_{dn} is above 65 dBA, but does not exceed 75 dBA. Housing on "Normally Unacceptable" sites requires some form of noise abatement, either at the property line or in the building construction, to ensure the interior noise levels are acceptable. "Unacceptable" sites are those where the L_{dn} is 75 dBA or higher. The term "Unacceptable" does not necessarily mean that housing cannot be built on those sites. It means that more sophisticated sound attenuation will likely be needed.

3.2 U.S. Environmental Protection Agency (EPA)

The U.S. EPA has identified a range of yearly day-night equivalent sound levels, L_{dn}, sufficient to protect public health and welfare from the effects of environmental noise [Reference 2]. The EPA has established a goal to reduce exterior environmental noise to an L_{dn} not exceeding 65 dBA and a future goal to further reduce exterior environmental noise to an L_{dn} not exceeding 55 dBA. The EPA has set an interior noise level goal of L_{dn} 45 dBA or less for homes [Reference 3]. Additionally, the EPA states that these goals are not intended as regulations as it has no authority to regulate noise levels, but rather they are intended to be viewed as levels below which the general population will not be at risk from any of the identified effects of noise.

3.3 U.S. Federal Highway Administration (FHWA)

The FHWA defines four land use categories and assigns corresponding maximum hourly equivalent sound levels, L_{eq}, for traffic noise exposure [Reference 4], which are listed in Table 1. For example, Category B, defined as picnic and recreation areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals,

has a corresponding maximum exterior L_{eq} of 67dBA and a maximum interior L_{eq} of 52 dBA. These limits are viewed as design goals, and all projects meeting these limits are deemed in conformance with FHWA noise standards.

3.4 Hawaii Department of Transportation (HDOT)

The HDOT has adopted FHWA's design goals for traffic noise exposure in its noise analysis and abatement policy [Reference 5]. According to the policy, a traffic noise impact occurs when the predicted traffic noise levels "approach" or exceed FHWA's design goals or when the predicted traffic noise levels "substantially exceed the existing noise levels." The policy also states that "approach" means at least 1 dB less than FHWA's design goals and "substantially exceed the existing noise levels" means an increase of at least 15 dB.

3.5 City and County of Honolulu Land Use Ordinances (LUO)

The City and County of Honolulu LUO [Reference 6] noise regulations differ from the DOH noise regulations in that maximum permissible octave band sound pressure levels are specified instead of A-weighted sound pressure levels. Also, there is no specified period of time associated with the exceedence of these levels. The LUO noise regulations which are presented in Figure 3. The LUO noise regulations are theoretically enforced by the Building Department, however, since they do not have noise measurement capabilities, noise complaints are usually handled by the State Department of Health.

3.6 State Department of Health (DOH)

The State DOH defines three classes of zoning districts and specifies corresponding maximum permissible sound levels due to stationary noise sources such as air-conditioning units, exhaust systems, generators, compressors, pumps, etc., and equipment related agricultural, construction, and industrial activities [Reference 7]. These levels are enforced for any location at or beyond the property line and shall not be exceeded for more than 10% of the time during any 20-minute period. The specified noise limits which apply are a function of the zoning and time of day as shown in Figure 4. With respect to mixed zoning districts, DOH specifies the primary land use designation shall be used to determine the applicable zoning district class and the maximum permissible sound level.

4.0 EXISTING ACOUSTICAL ENVIRONMENT

4.1 General

Ambient noise level measurements were conducted on September 27, 2001 between 9:30 A.M. and 10:45 A.M. to assess the existing acoustical environment at the project site and in the surrounding areas as illustrated in Figure 5. Noise level measurements were taken using Larson-Davis Laboratories, Model 700 and Model 800B Sound Level Meters.

The measured ambient noise level taken at grade level and at the approximate tower location, expressed in terms of equivalent sound levels, L_{eq}, and in units of A-weighted decibels, was 58 dBA, which is typical for busy urban areas. Measurements at locations above grade with a direct line-of-sight to Nimitz Highway were not possible. An L_{eq} of 74 dBA was measured along the makai-most portion of the project site. These higher levels were due to the proximity of Iwilei Road and Nimitz Highway.

5.0 POTENTIAL NOISE IMPACT DUE TO THE PROJECT AND NOISE MITIGATION

5.1 Project Construction Noise

Construction of the project will involve excavation, grading, and erection of the new buildings and infrastructure. The various construction phases of the project may generate significant amounts of noise, which may impact residences and other noise sensitive areas, i.e., the residences Mauka of the project along North King Street, Beretania Park and Ala International Park. The actual noise levels produced will be a function of the methods employed during each stage of the construction process. Typical ranges of construction equipment noise are shown in Figure 6. Impact tools, such as pile drivers, will probably be the loudest equipment used during construction. The State Department of Health has set maximum permissible sound levels of impulsive noise at 10 dBA above the maximum permissible sound levels specified for the zoning district. A public notification meeting may be required to inform the surrounding community of the possibly construction noise impact. Use of pile drivers, ho-rams, jack hammers (25 lbs. or larger) and high pressure sprayers may be restricted to the hours of 9:00 a.m. to 5:30 p.m.

In cases where construction noise exceeds, or is expected to exceed the DOH's "maximum permissible" property line noise levels [Reference 7], a permit must be obtained from the DOH to allow the operation of vehicles, construction equipment, power tools, etc., which emit noise levels in excess of "maximum permissible" levels. Specific permit restrictions for construction activities are:

"No permit shall allow any construction activities which emit noise in excess of the maximum permissible sound levels . . . before 7:00 a.m. and after 6:00 p.m. of the same day, Monday through Friday."

"No permit shall allow any construction activities which emit noise in excess of the maximum permissible sound levels . . . before 9:00 a.m. and after 6:00 p.m. on Saturday."

"No permit shall allow any construction activities which emit noise in excess of the maximum permissible sound levels on Sundays and on holidays."

5.2 Project Generated Traffic Noise

Traffic noise levels corresponding to the morning and afternoon peak hour travel periods were calculated at the location shown on Figure 7. Peak hour traffic along North King Street is not expected to be affected by the project. The traffic noise levels with the project initially and then fully constructed were estimated using a Federal Highway Administration traffic noise prediction model in conjunction with existing and predicted future peak hour traffic volumes *without* the project [Reference 8]. The existing and predicted traffic noise level results are presented in Table 2.

As can be seen, the predicted AM and PM peak hour traffic noise level increase along Iwilei Road due to initial development of the project is 0.3 dB and 0.4 dB, respectively; while the AM and PM peak hour increase due to full development is 0.6 dB and 1.3 dB, respectively. The minimal change in noise levels perceptible to the average listener is generally taken to be 3 dB, therefore, the increase in traffic noise due to the project will not be significant. Thus, no traffic noise impact will occur as a result of the project. The traffic noise levels presented in Table 2 are those expected at a distance of 30 feet from the roadway centerline.

6.0 POTENTIAL NOISE IMPACT ON THE PROJECT AND NOISE MITIGATION

6.1 Traffic

Traffic noise from Nimitz Highway may significantly impact the proposed development. High rise units with a direct line-of-sight to Nimitz Highway could experience higher noise levels than those measured at the locations shown on Figure 5. Due to safety concerns with roof stability of the existing buildings,

measurements were not taken at locations with a direct line-of-sight to Nimitz Highway.

The calculated traffic noise levels and measured site noise levels indicate that the proposed residential tower will experience an L_{dn} of 64.4 dBA at the lower stories. The higher stories with a direct line-of-sight to Nimitz Highway are expected to experience an L_{dn} greater than 65 dBA.

HUD has established Site Acceptability Standards for exterior noise exposure at housing areas. These standards are based on L_{dn} levels and identify the need for noise abatement. Traffic noise from adjacent roadways and the internal roadways within each parcel should be considered in determining the use for lands contiguous to these roadways.

The EPA has set an interior noise level goal of L_{dn} 45 dBA or less for homes. This goal will likely be exceeded in living units with a direct line-of-sight to Nimitz Highway. Sound attenuation should be provided so interior noise levels do not exceed this goal.

The typical exterior-to-interior noise reductions for naturally ventilated homes, i.e., with open windows, is approximately 10 dB. Adding absorption to interior spaces, (acoustically softening), can further reduce the noise levels 1 to 5 dB, depending upon the absorption initially present, and the amount of absorption added to the space. Air-conditioned or mechanically ventilated homes exhibit higher exterior-to-interior noise reductions because windows can be closed. Noise reductions achieved by several types of building constructions are presented in Table 3 [Reference 9].

Effective noise mitigation measures to consider during the design include:

- Air-conditioning the units closest to Iwilei Road and Nimitz Highway; or,
- Acoustically softening interior spaces by the addition of thick carpeting with a padding underlayment, an acoustical tile ceiling, louvered closet doors, etc.

6.2 Bus Rapid Transit System

The City's Bus Rapid Transit station should not impact the proposed residential tower, provided the vehicles are electrically powered as currently envisioned. However, should internal combustion engine powered buses be used, as currently used in the existing city bus system, impacts on the tower living units will need to be evaluated and noise mitigation measures implemented, if necessary, to meet established goals and criteria.

7.0 REFERENCES:

1. *Department of Housing and Urban Development Environmental Criteria and Standards*, Title 24, CFR, Part 51, 44 FR 40860, July 12, 1979; Amended by 49 FR 880, January 6, 1984.

2. *Toward a National Strategy for Noise Control*, U.S. Environmental Protection Agency, April 1977.

3. *Protective Noise Levels*, U.S. Environmental Protection Agency, November 1978.

4. *Department of Transportation, Federal highway Administration Procedures for Abatement of Highway traffic Noise*, Title 23, CFR, Chapter 1, Subchapter J, Part 772, 38 FR 15953, June 19, 1973; Revised at 47 FR 29654, July 8, 1982.

5. *Noise Analysis and Abatement Policy*, Department of Transportation, Highways Division, State of Hawaii, June 1977.

6. *Section 3.11 Noise Regulations*, Land Use Ordinance, City and County of Honolulu, Oahu, October 22, 1986.

7. Chapter 46, *Community Noise Control*, Department of Health, State of Hawaii, Administrative Rules, Title 11, September 23, 1996.

8. Traffic Analysis Report: Iwilei Project Site, Julian Ng, Inc., April 2001.

9. *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, U.S. Department of Transportation, Federal Highways Administration, June 1995.

Table 1
Federal Highways Administration Recommended Equivalent Hourly Sound Levels Based On Land Use [Reference 1]

Activity Category	$L_{eq(h)}$	Noise Reduction Exterior-to-Interior
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	---	Undeveloped Land
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Table 2
Peak Hour Traffic Noise Levels and Predicted Noise Level Increases
(L_{eq} in dBA, 30 feet from centerline of Iwilei Road)

	Existing		Predicted Future With Initial Development		Predicted Future With Full Development	
Peak Traffic Noise Level	AM	PM	AM	PM	AM	PM
	72.4	72.3	72.7	72.7	73.0	73.6
Increase Above Existing	---	---	0.3	0.4	0.6	1.3

Table 3
Building Noise Reduction Factors [Reference 9]

Building Type	Window Condition	Noise Reduction Exterior-to-Interior
All	Open	10 dB
Light Frame	Ordinary Sash (closed)	20 dB
	Storm Windows	25 dB
Masonry	Single Glazed	25 dB
	Double Glazed	35 dB

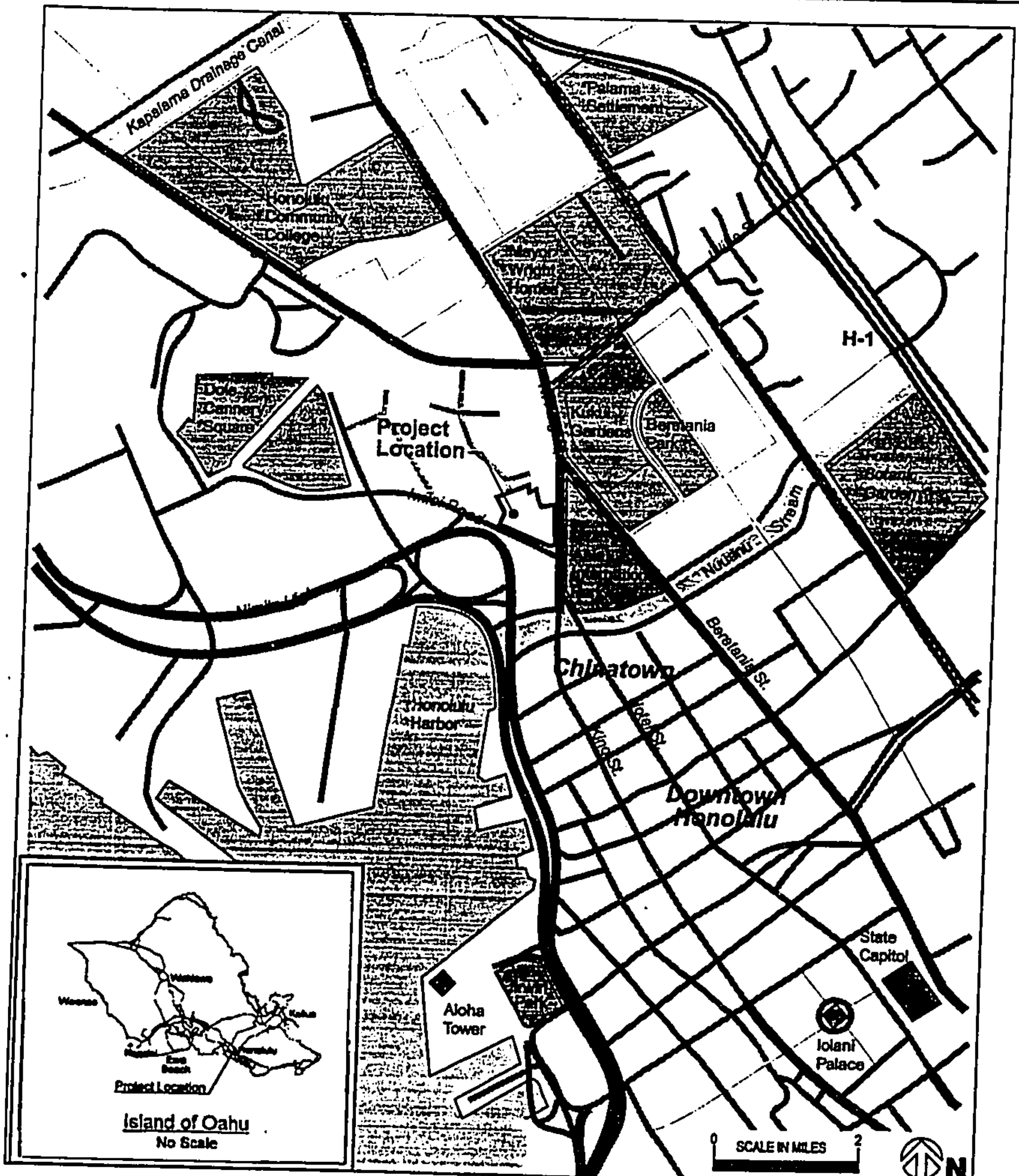


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FIGURE 1 - PROJECT LOCATION AND STUDY AREA

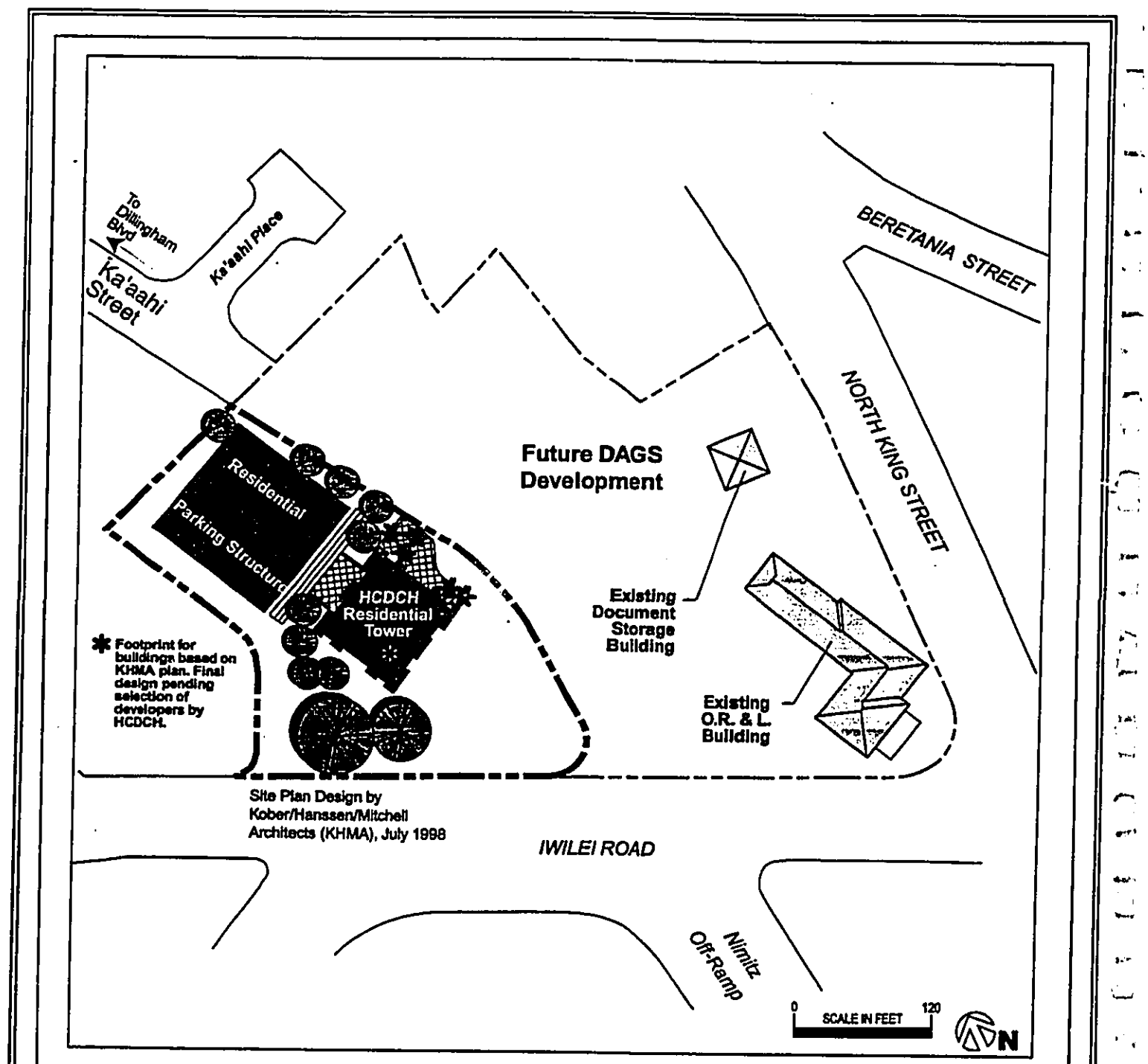

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FIGURE 2 - CONCEPTUAL SITE PLAN

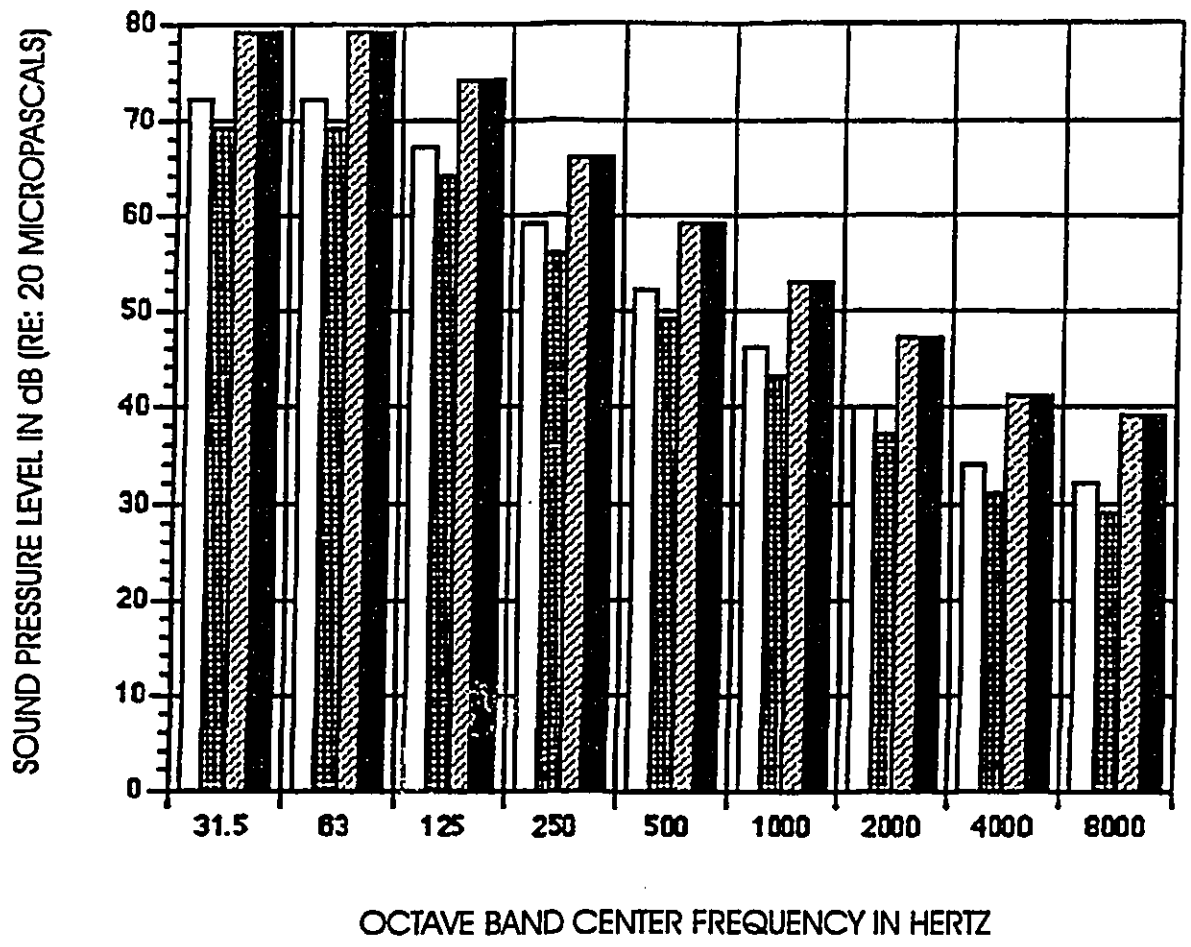

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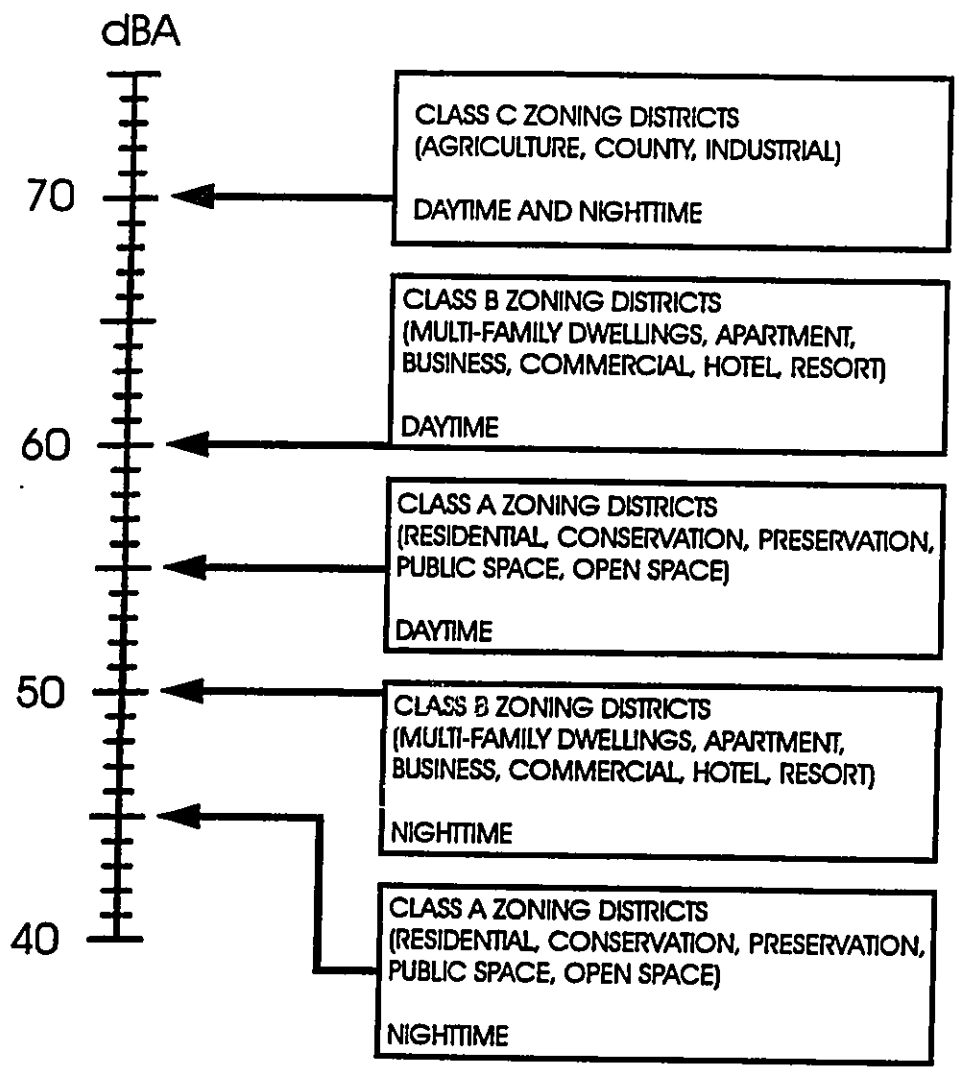
FIGURE 3 - LUO NOISE REGULATION



NOTE: SOUND LEVELS INDICATED BY ZONING DISTRICT ARE THE "MAXIMUM PERMISSIBLE" SOUND LEVELS DUE TO EXCESSIVE NOISE SOURCES SUCH AS STATIONARY MECHANICAL EQUIPMENT AND EQUIPMENT RELATED TO AGRICULTURAL, CONSTRUCTION AND INDUSTRIAL ACTIVITIES THAT SHALL NOT BE EXCEEDED FOR MORE THAN 10% OF THE TIME WITHIN ANY 20-MINUTE PERIOD DURING THE TIME PERIOD SHOWN.

(DAYTIME: 7:00 A.M. TO 10:00 P.M., NIGHTTIME: 10:00 P.M. TO 7:00 A.M.)

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FIGURE 4 - DOH MAXIMUM PERMISSIBLE SOUND LEVELS FOR VARIOUS ZONING DISTRICTS

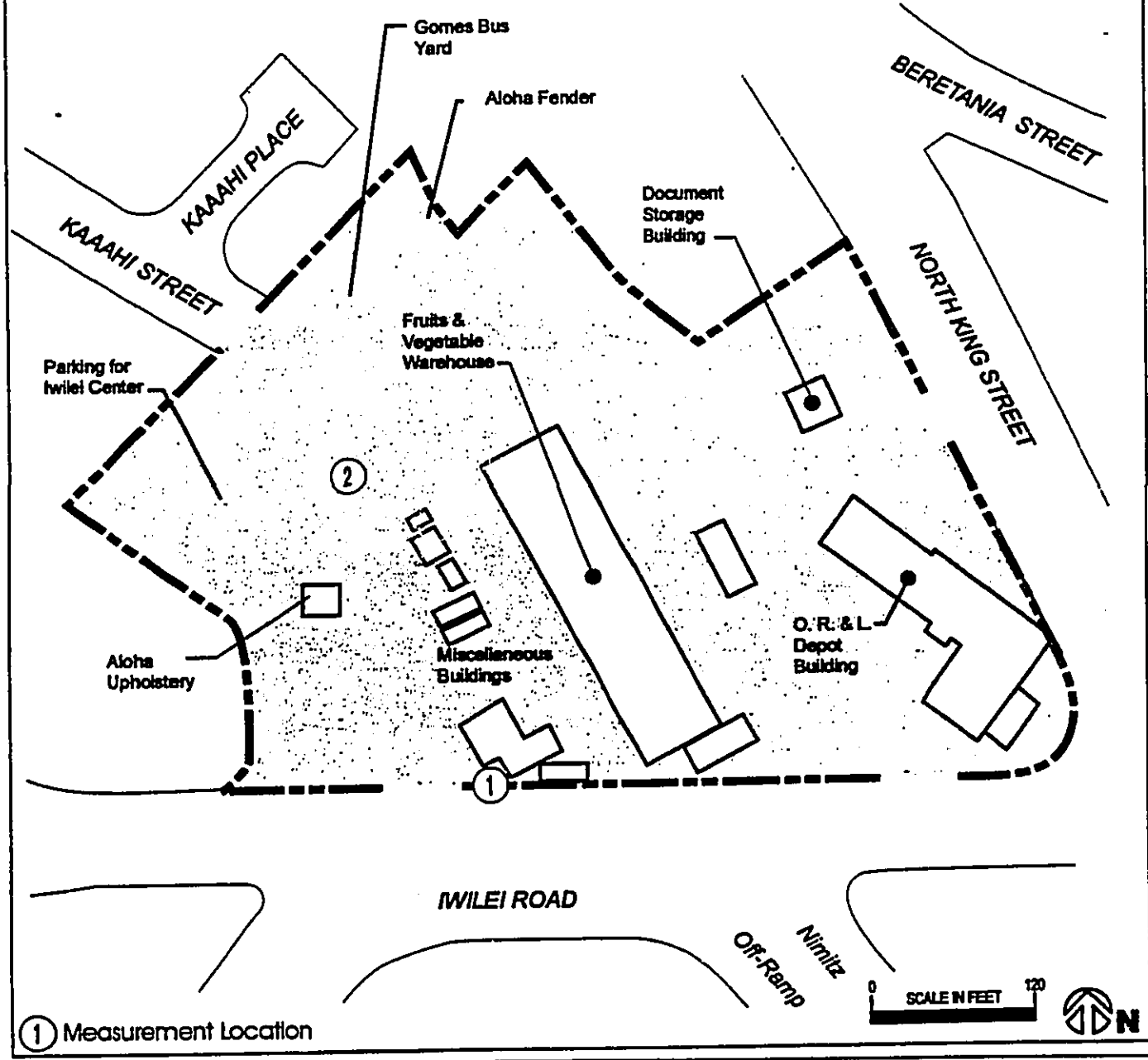

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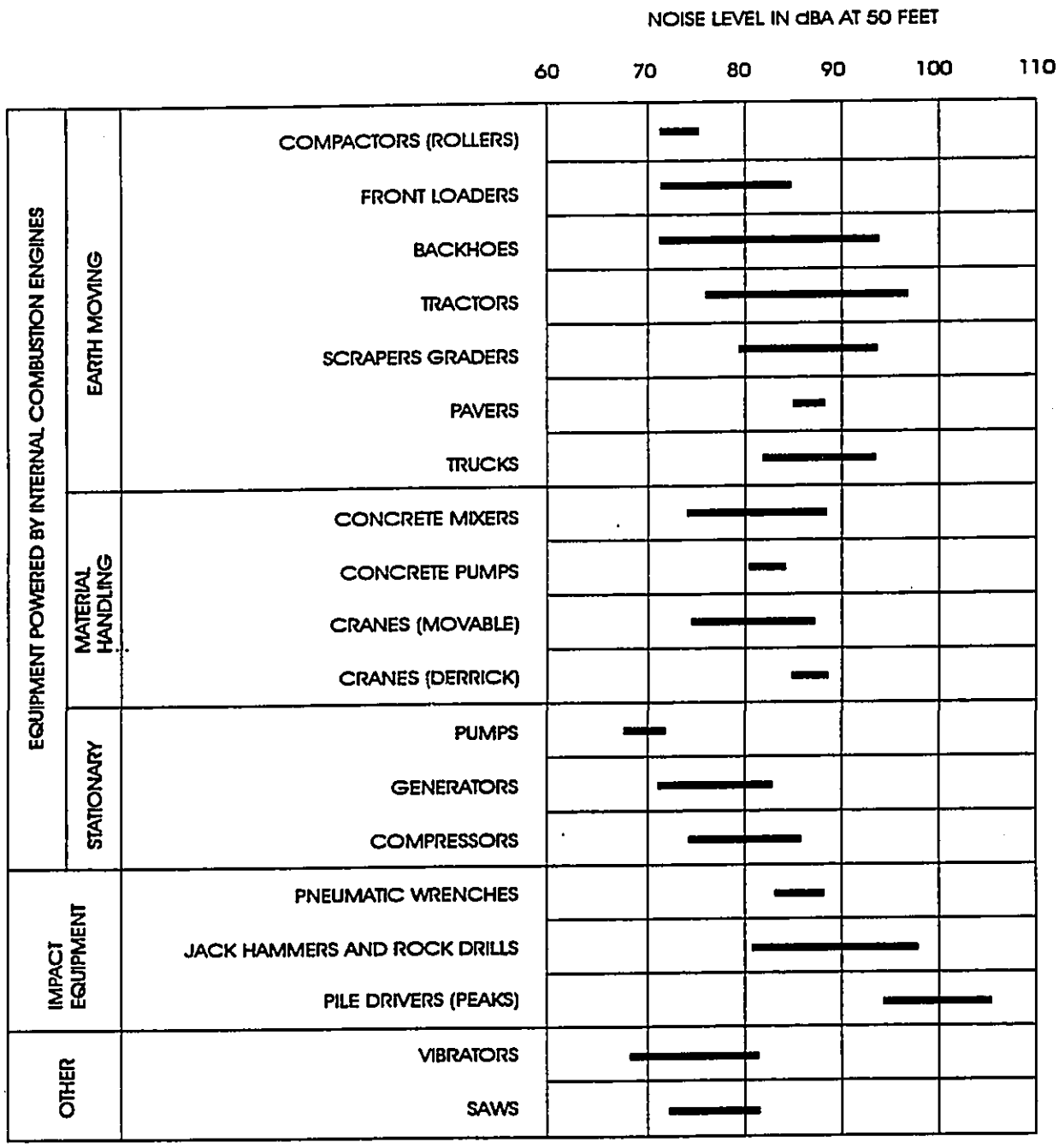
FIGURE 5 - LOCATIONS OF NOISE MEASUREMENTS



NOTE: BASED ON LIMITED AVAILABLE DATA SAMPLES

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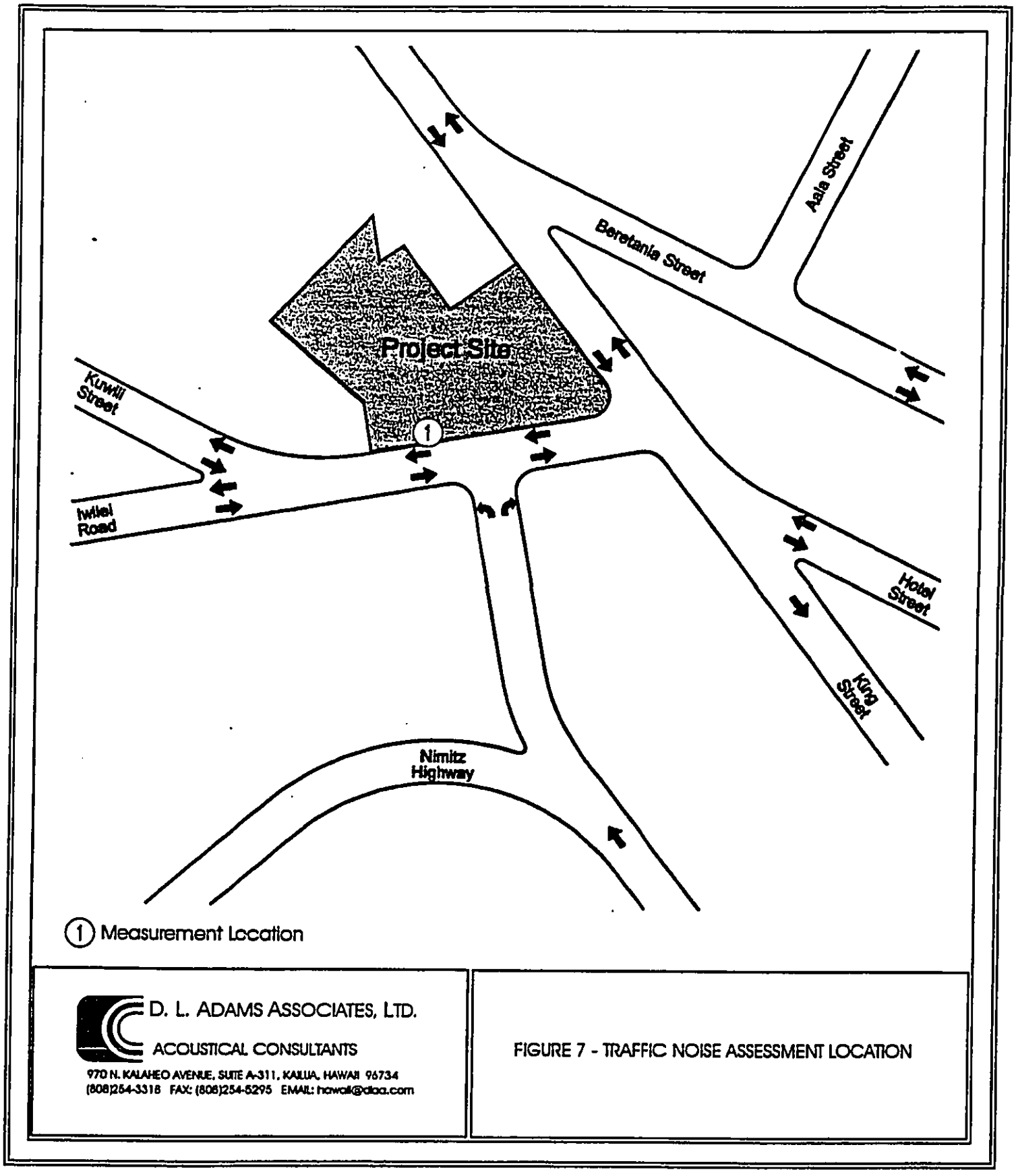
FIGURE 6 - TYPICAL SOUND PRESSURE LEVELS FROM CONSTRUCTION EQUIPMENT



① Measurement Location

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FIGURE 7 - TRAFFIC NOISE ASSESSMENT LOCATION

APPENDIX A

ACOUSTICAL TERMINOLOGY

Sound Pressure Level

Sound or noise consists of minute fluctuations in atmospheric pressure capable of evoking the sense of hearing. It is measured in terms of decibels (dB) using precision instruments known as sound level meters. Noise is defined as "unwanted" sound.

Technically, sound pressure level (SPL) is defined as:

$$SPL = 20 \log (P/Pref) \text{ dB}$$

where P is the sound pressure fluctuation (above or below atmospheric pressure) and Pref is the reference pressure, 20 micropascals, which is approximately the lowest sound pressure that can be detected by the human ear. For example, if P is 20 micropascals, then SPL = 0 dB, or if P is 200 micropascals, then SPL = 20 dB. The relation between sound pressure in micropascals and sound pressure level in decibels (dB) is shown in Figure A-1.

The sound pressure level that results from a combination of noise sources is not the arithmetic sum of the individual sound levels, but rather the logarithmic sum. For example, two sound levels of 50 dB produce a combined level of 53 dB, not 100 dB; two sound levels of 40 and 50 dB produce a combined level of 50.4 dB.

Human sensitivity to changes in sound pressure level is highly individualized. Sensitivity to sound depends on frequency content, time of occurrence, duration, and psychological factors such as emotions and expectations. However, in general, a change of 1 or 2 dB in the level of a sound is difficult for most people to detect. A 3 dB change is commonly taken as the smallest perceptible change and a 5 dB change corresponds to a noticeable change in loudness. A 10 dB increase or decrease in sound level corresponds to an approximate doubling or halving of loudness, respectively.

A-Weighted Sound Level

The human ear is more sensitive to sound in the frequency range of 250 Hertz (Hz) and higher, than in frequencies below 250 Hz. Due to this type of frequency response, a frequency weighting system, was developed to emulate the frequency response of the human ear. This system expresses sound levels in units of A-weighted decibels (dBA). A-weighted sound levels de-emphasizes the low frequency portion of the spectrum of a signal. The A-weighted level of a sound is a good measure of the loudness of that sound. Different sounds having the same A-weighted sound level are perceived as being about equally loud. Typical values of the A-weighted sound level of various noise sources are shown in Figure A-1.

Appendix A
Acoustical Terminology (Continued)

Statistical Sound Levels

The sound levels of long-term noise producing activities, such as traffic movement, aircraft operations, etc., can vary considerably with time. In order to obtain a single number rating of such a noise source, a statistically-based method of expressing sound or noise levels developed. It is known as the Exceedence Level, L_n. The Exceedence Level, L_n, represents the sound level which is exceeded for n% of the measurement time period. For example, L_{10} = 60 dBA indicates that for the duration at the measurement period, the sound level exceeded 60 dBA 10% of the time. Commonly used Exceedence Levels include L_1, L_{10}, L_{50}, and L_{90}, which are widely used to assess community and environmental noise. Figure A-2 illustrates the relationship between selected statistical noise levels.

Equivalent Sound Level

The Equivalent Sound Level, L_{eq}, represents a constant level of sound having the same total acoustic energy as that contained in the actual time-varying sound being measured over a specific time period. L_{eq} is commonly used to describe community noise, traffic noise, and hearing damage potential. It has units of dBA and is illustrated in Figure A-2.

Day-Night Equivalent Sound Level

The Day-Night Equivalent Sound Level, L_{dn}, is the Equivalent Sound Level, L_{eq}, measured over a 24-hour period. However, a 10 dB penalty is added to the noise levels recorded between 10 pm and 7 am to account for people's higher sensitivity to noise at night when the background noise level is typically lower. The L_{dn} is a commonly used noise descriptor in assessing land use compatibility, and is widely used by federal and local agencies and standards organizations. Qualitative descriptions, as well as local examples of L_{dn}, are shown in Figure A-3.

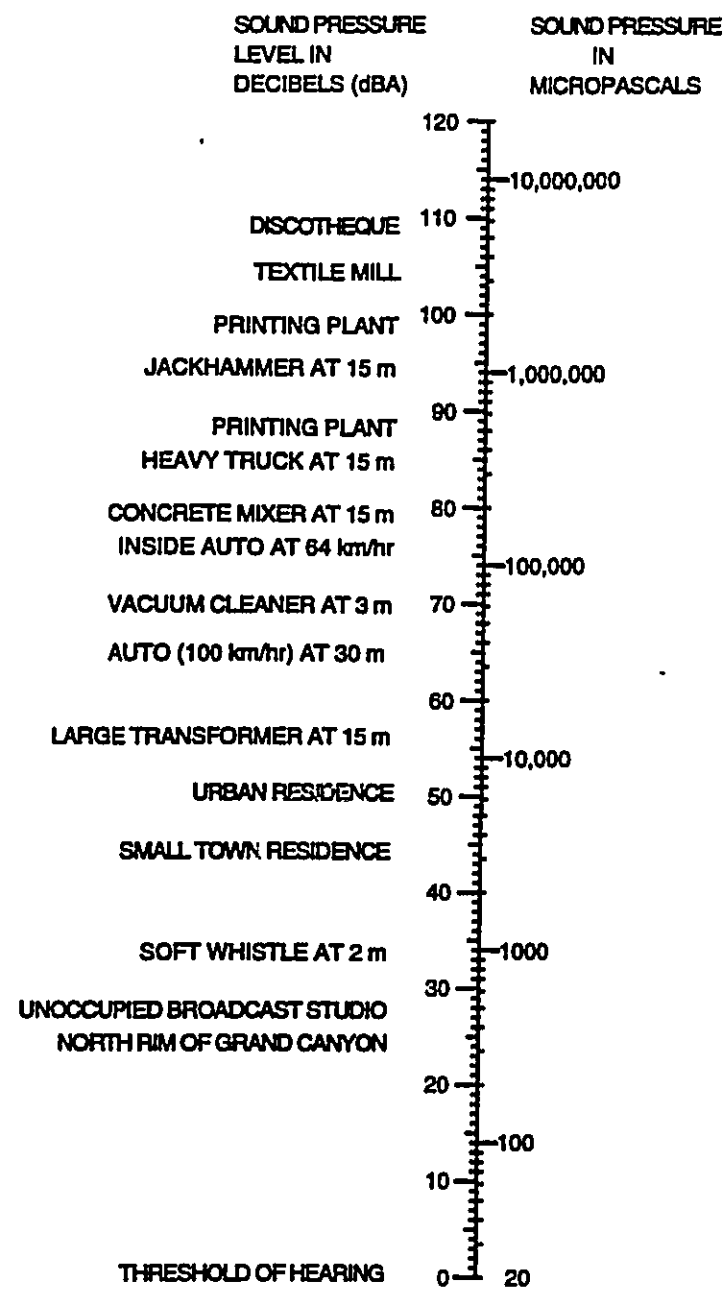

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FIGURE A-1 - THE RELATION BETWEEN SOUND PRESSURE, P, AND SOUND PRESSURE LEVEL, SPL. ALSO SHOWN ARE TYPICAL VALUES OF A-WEIGHTED SOUND LEVELS OF VARIOUS NOISE SOURCES.

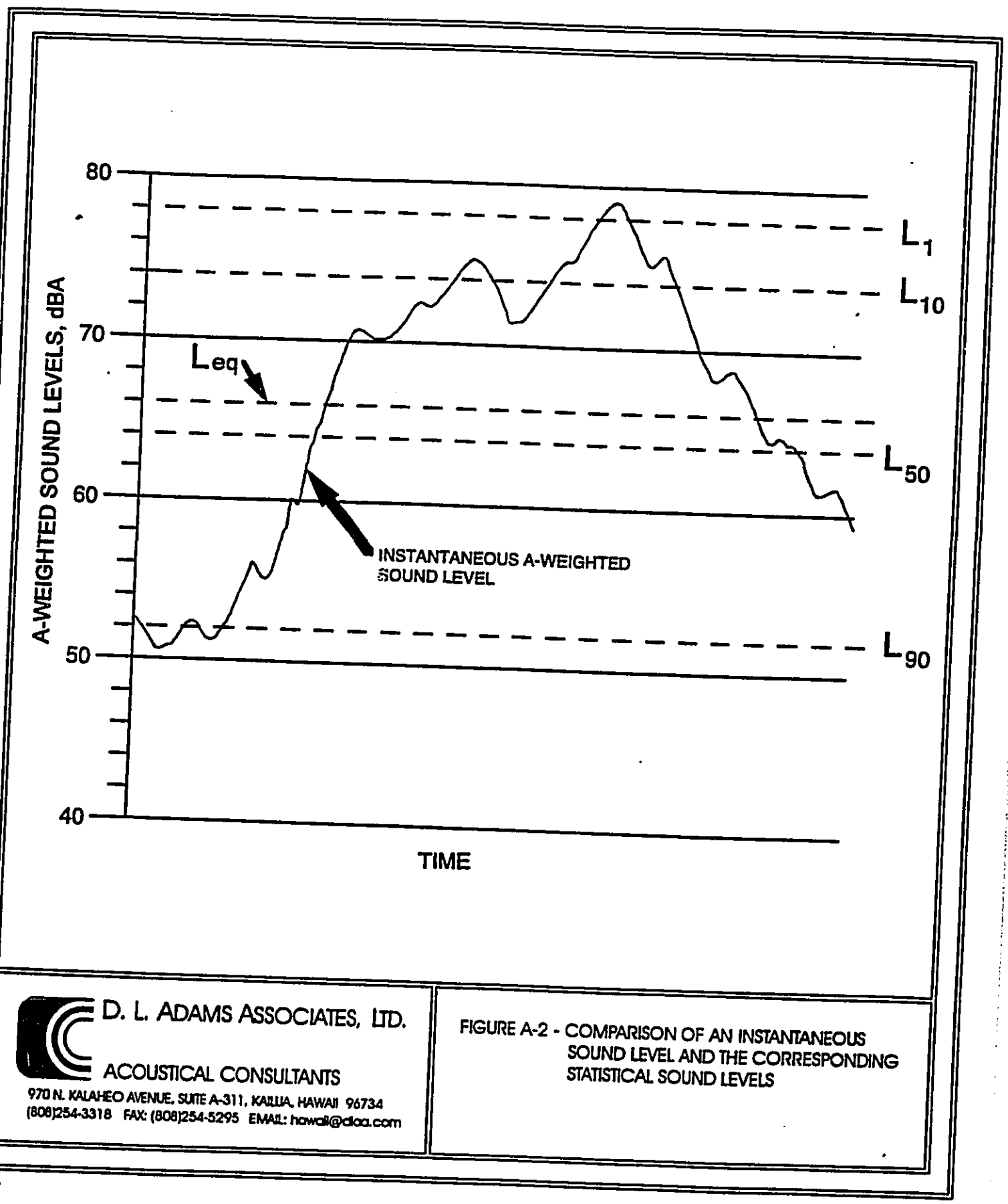

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FIGURE A-2 - COMPARISON OF AN INSTANTANEOUS SOUND LEVEL AND THE CORRESPONDING STATISTICAL SOUND LEVELS

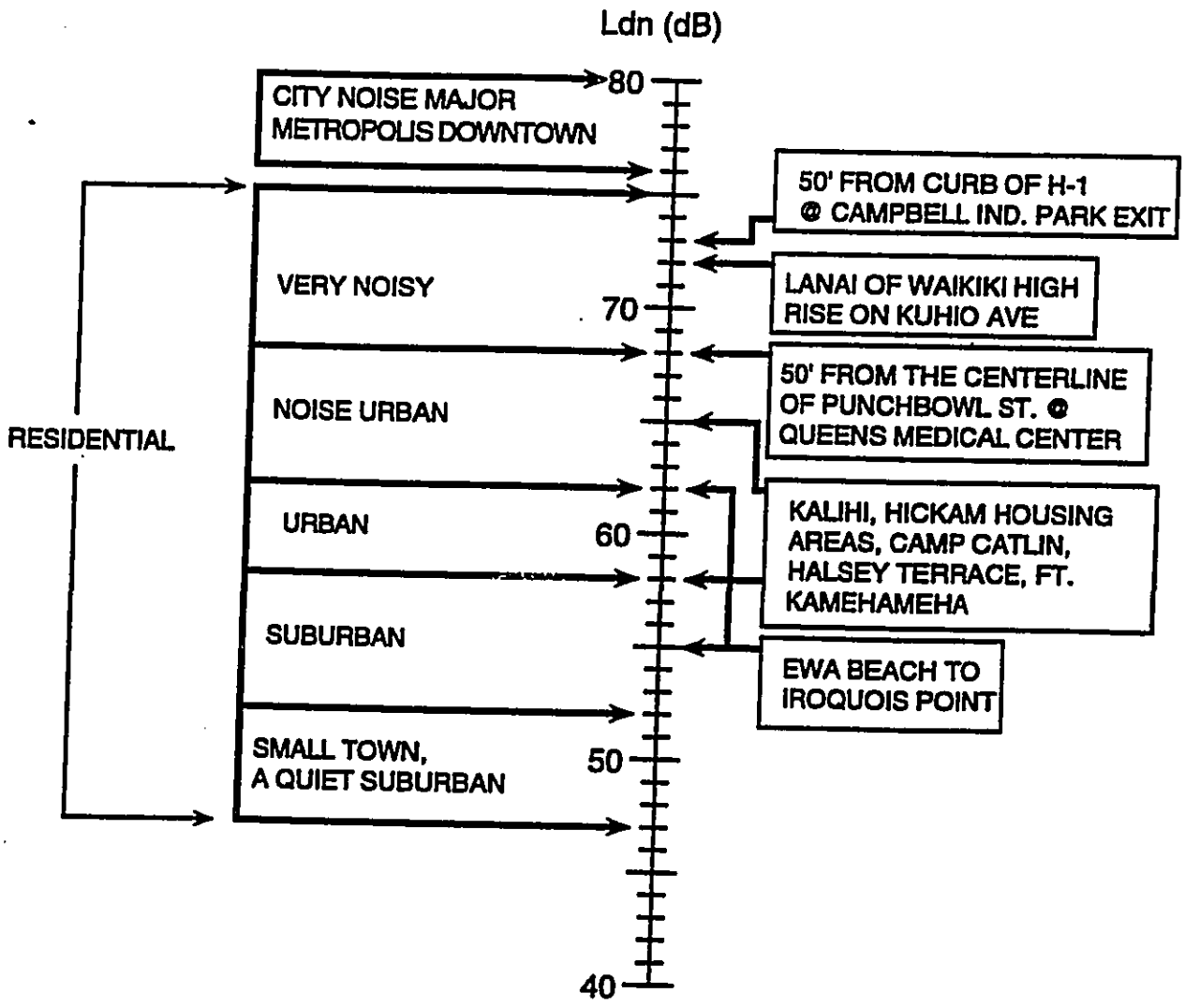

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FIGURE A-3 - QUALITATIVE DESCRIPTION OF THE DAY-NIGHT EQUIVALENT SOUND LEVELS (Ldn) AND EXAMPLE Ldn's AT SELECTED LOCATIONS ON OAHU

Appendix D:

Air Quality Impact Report, Iwilei Center Project Site (October 2001)
J. W. Morrow

AIR QUALITY IMPACT REPORT (AQIR)

IWILEI CENTER PROJECT SITE
TMK: 1-5-07: 1, 2, 14, 15, 18, 66-69, 71,74, 75, 78-84
HONOLULU, OAHU

3 October 2001

PREPARED FOR:

Kimura International, Inc.

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1. INTRODUCTION

The Housing and Community Development Corporation of Hawaii. is proposing to redevelop an existing site at the corner of North King Street and Iwilei Road on the ewa (western) end of downtown Honolulu (TMK: 1-5-7: 1, 2, 14, 15, 18, 66-69, 71, 74, 75, 78-84 (see Figures 1, 2 and 3)[1]. The existing buildings on the site are currently occupied by government offices, non-profit organizations, and to a lesser extent private companies on month-to-month leases. With the possible exception of some government offices, none of the existing occupants will remain on the redeveloped property.

The proposed redeveloped site will consist of the following major components:

- residential tower with parking structure
- mixed-use/office tower with parking structure
- OR&L Terminal Building (renovated for office use)
- access roads that trisect the property

The purpose of this report is to assess the short and long-term impacts of the proposed development on air quality. The overall project can be considered an "indirect source" of air pollution as defined in the federal Clean Air Act since its primary association with air quality is its inherent attraction for mobile sources, i.e., motor vehicles. Much of the focus of this analysis, therefore, is on the project's ability to generate traffic and the resultant impact on air quality. Air quality impact was evaluated for existing (2001) and future (2003) conditions with the proposed development.

FIGURE 1

PROJECT LOCATION

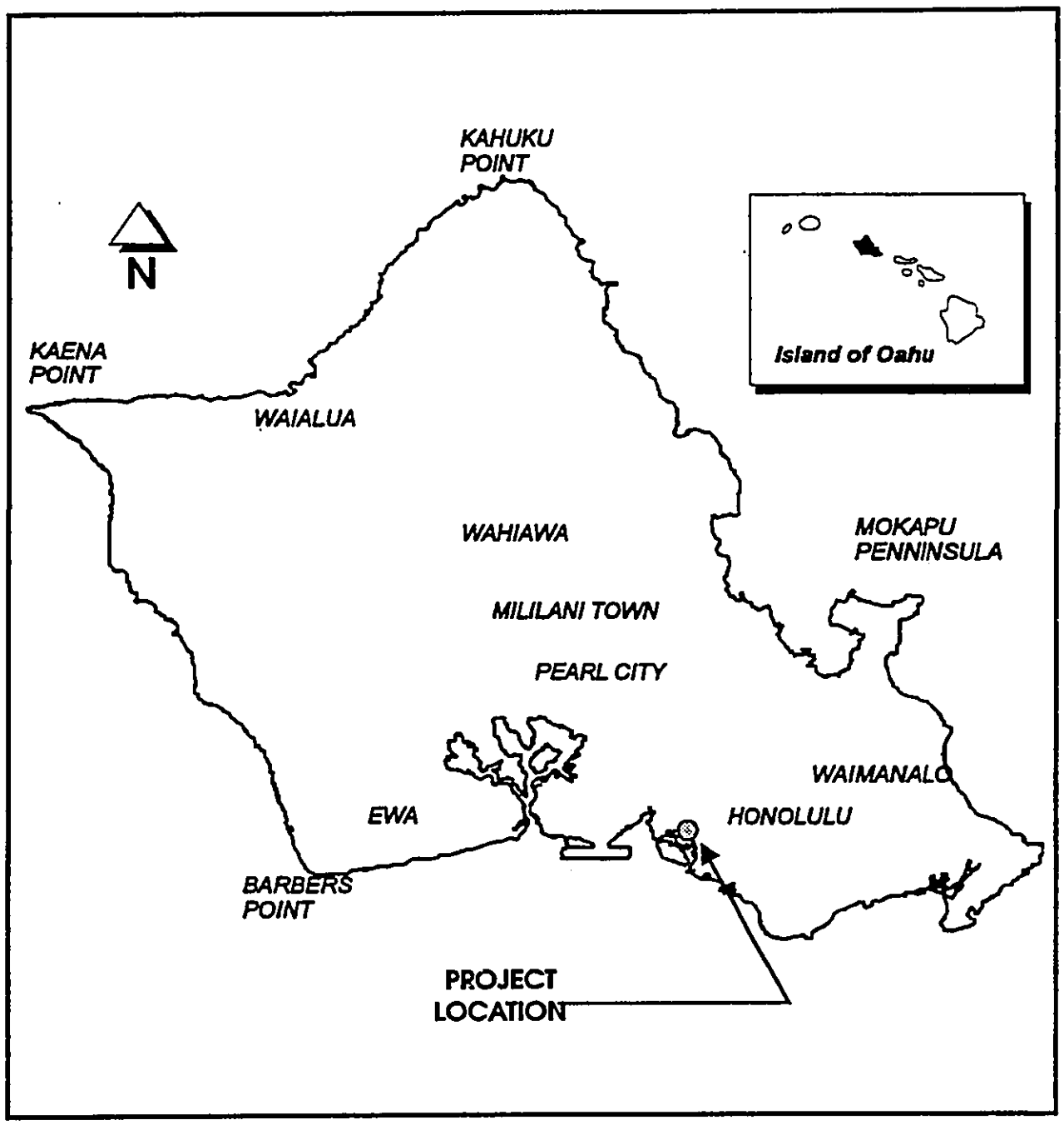


FIGURE 2

EXISTING ONSITE STRUCTURES AND USES

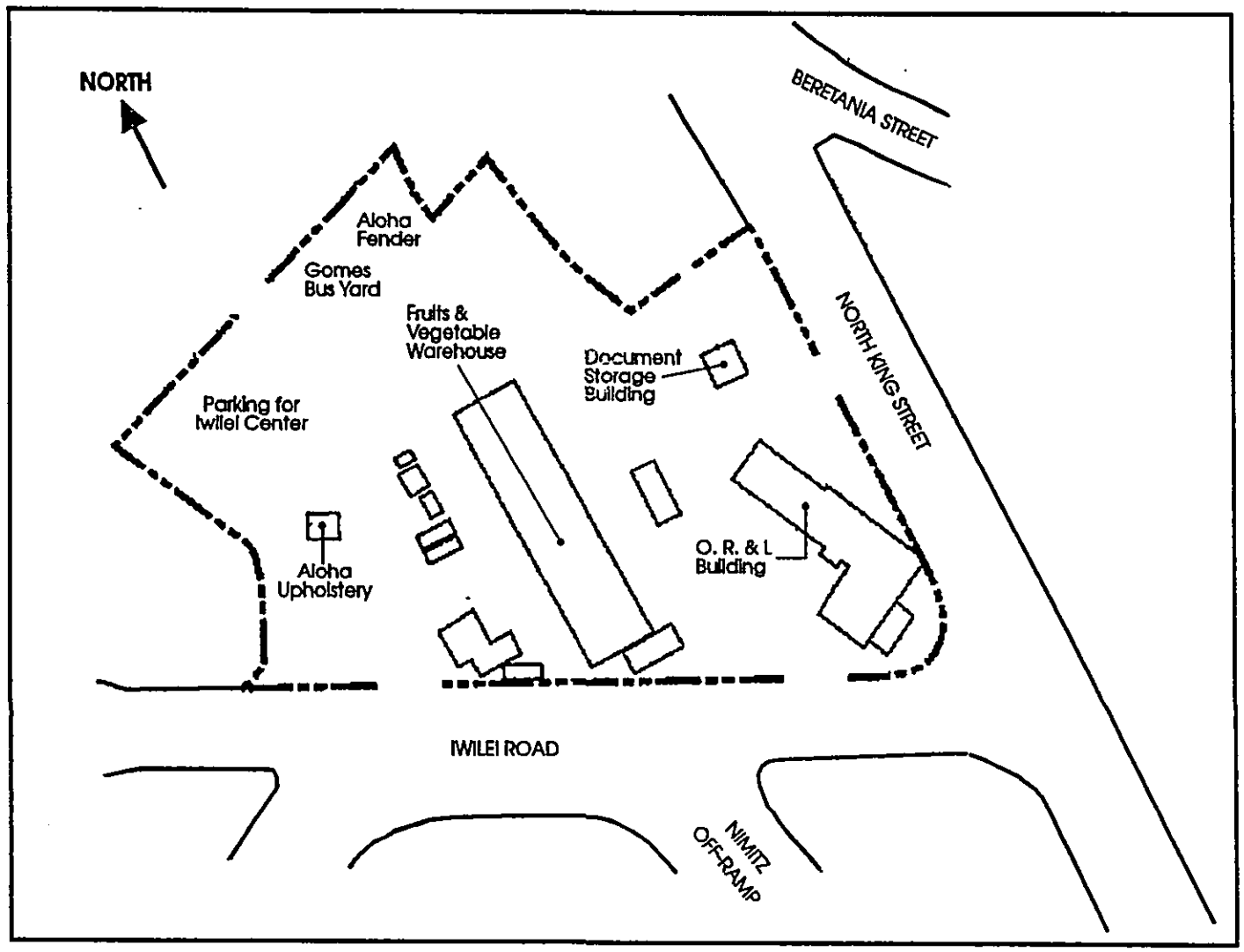
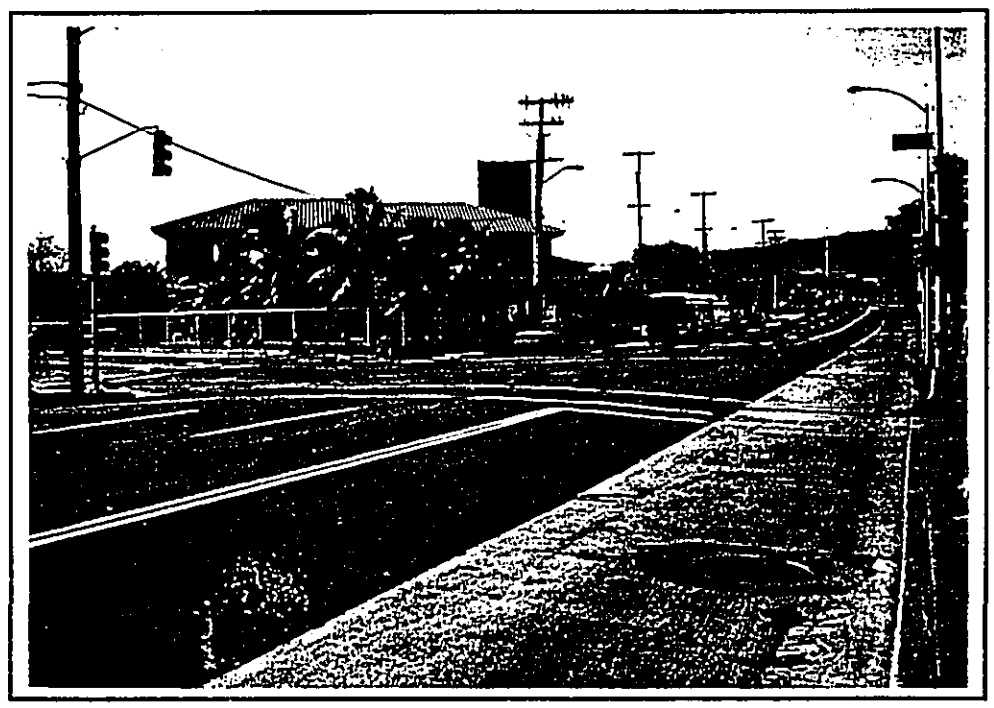


FIGURE 3

EXISTING SITE CONDITIONS



North King Street
fronting project site
(facing northwest)

Iwilei Road at North King Street
(facing west)

A project such as this also has offsite impacts due to increased demand for electrical energy which must be met by the combustion of some type of fuel and the incineration of solid waste generated by project residents. Both these processes result in pollutant emissions to the air which have been addressed in this report.

Finally, during construction of the various buildings and facilities air pollutant emissions will be generated onsite and offsite due to vehicular movement, grading, concrete and asphalt batching, and general dust-generating construction activities. These impacts have also been addressed.

2. AIR QUALITY STANDARDS

A summary of State of Hawaii and national ambient air quality standards (NAAQS) is presented in Table 1.[2,3,4] Note that Hawaii's standards are not divided into primary and secondary standards as are the federal standards.

Primary standards are intended to protect public health with an adequate margin of safety while secondary standards are intended to protect public welfare through the prevention of damage to soils, water, vegetation, man-made materials, animals, wildlife, visibility, climate, and economic values [5]. Note that in the case of the principal automotive pollutants [CO, NO_2, and O_3], the primary and secondary standards are identical.

TABLE 1

SUMMARY OF STATE OF HAWAII AND FEDERAL AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGING PERIOD	NAAQS PRIMARY	NAAQS SECONDARY	STATE STANDARDS
PM_{10}	Annual 24-hr	50 150	50 150	50 150
$PM_{2.5}$	Annual 24-hr	15 65	15 65	— —
SO_2	Annual 24-hr 3-hr	80 365 —	— — 1,300	80 365 1,300
NO_2	Annual	100	100	70
CO	8-hr 1-hr	10 40	— —	5 10
O_3	1-hr 8-hr	235 156	235 156	100 —
H_2S	1-hr	—	—	35
Pb	Calendar Quarter	1.5	1.5	1.5

KEY: PM_{10} - particulate matter ≤ 10 microns
$PM_{2.5}$ - particulate matter ≤ 2.5 microns
SO_2 - sulfur dioxide
NO_2 - nitrogen dioxide
CO - carbon monoxide
O_3 - ozone
H_2S - hydrogen sulfide
Pb - lead

All concentrations in micrograms per cubic meter ($\mu g/m^3$) except CO which is in milligrams per cubic meter.

Some of Hawaii's standards (CO, NO_2, and O_3) are clearly more stringent than their federal counterparts and like their federal counterparts in the case of short-term standards, they may be exceeded once per year. Note also that the federal $PM_{2.5}$ and 8-hour O_3 standards, while promulgated in 1997, [6,7] were remanded to EPA by a federal court in 1999 and are currently under appeal.[8]

Finally, the State of Hawaii also has fugitive dust regulations for particulate matter (PM) emanating from construction activities [9]. There simply can be no visible emissions from fugitive dust sources.

3. EXISTING AIR QUALITY

3.1 General. The state Department of Health (DOH) maintains a network of air monitoring stations around the state to gather data on the following regulated pollutants:

- particulate matter ≤ 10 microns (PM_{10})
- sulfur dioxide (SO_2)
- . nitrogen dioxide (NO_2)
- carbon monoxide (CO)
- ozone (O_3)

In the case of PM_{10} , measurements are made on a 24-hour basis to correspond with the averaging period specified in state and federal standards. Depending on the sampling equipment and site, samples

are collected either continuously or once every six days in accordance with U. S. Environmental Protection Agency (EPA) guidelines. Carbon monoxide, sulfur dioxide, and ozone, however, are measured on a continuous basis due to their short-term (1- and 3-, and 8-hour) standards. Nitrogen dioxide is also measured with continuous instruments and averaged over a full year to correspond to its annual standards. Lead sampling was discontinued in October 1997 with EPA approval. This was largely due to the elimination of lead in gasoline and the resulting reduction of ambient lead levels in Hawaii to essentially zero.

3.2 Department of Health Monitoring. There are no DOH monitoring stations in the vicinity of the project site. A summary of the most recent published air quality data [10] from the nearest sites at the DOH building in downtown Honolulu, Sand Island, the only ozone monitoring site, and Kapolei, one of two NO_2 monitoring sites, is presented in Table 2. These data are indicative of the generally good air quality in Honolulu County and may be considered reasonably representative of existing air quality in the project area.

3.3 Onsite Carbon Monoxide Sampling. In conjunction with this project, air sampling was conducted in August 2001 on the King Street side of the project site. A continuous carbon monoxide (CO) instrument was set up and operated during the a.m. and p.m. peak traffic hours. An anemometer and vane were also installed to record onsite surface winds during the sampling period.

TABLE 2

AIR QUALITY DATA
DEPARTMENT OF HEALTH MONITORING SITES
1999

Pollutant		Concentration ($\mu g/m^3$)
Particulate matter ≤ 10 microns (PM_{10})	24-hr (second highest)	43
	Annual	14
Sulfur dioxide (SO_2)	3-hr (max)	46
	24-hr (max)	8
	Annual	2
Carbon monoxide (CO)	1-hr (max)	4.8
	8-hr (max)	1.9
	Annual	0.71
Ozone (O_3)	1-hr (max)	110
	Annual	40
Nitrogen Dioxide (NO_2)	Annual	7

Notes:
1. SO_2 ,CO and PM_{10} data are from DOH Building site.
2. O_3 data are from the Sand Island site.
3. NO_2 data are from the Kapolei site.
4. CO data are milligrams per cubic meter (mg/m^3)

Source: Hawaii Department of Health (Reference 10)

winds during the air sampling. A simultaneous manual count of traffic was performed. The variability of each of the parameters measured during the peak hours is clearly seen in Figures 4 and 5.

On Monday, 6 August 2001, sampling equipment was set up on the northwest side of the project site approximately 10 meters from North King Street . Weather conditions during the afternoon peak hour were characterized by partly cloudy skies (30%) and steady northeasterly trade winds averaging 8.9 mph. Carbon monoxide concentrations measured were low, averaging only 1.9 mg/m^3. Traffic on North King Street totaled 2,250 vehicles between 16:00 and 17:00 Hawaiian Standard Time (HST).

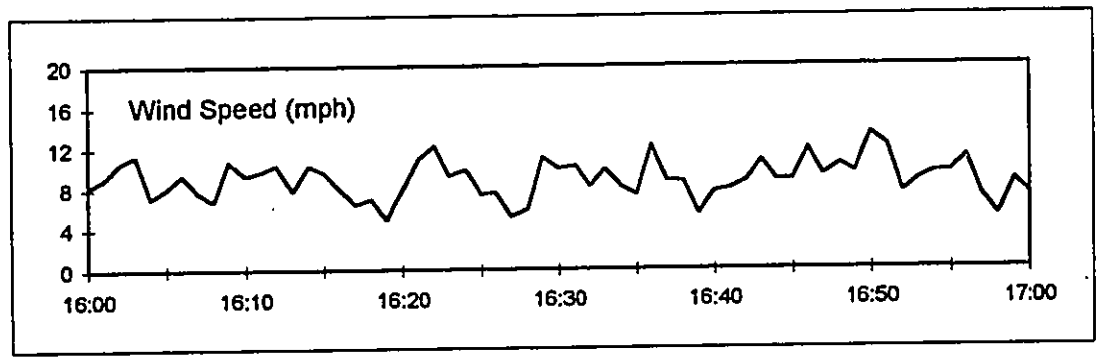
On Wednesday morning, 8 August 2001, at the same location, sky conditions were somewhat cloudier (40%) and the northeasterly trade winds continued but with a much lighter mean speed of 3.1 mph. Despite the slightly higher hourly traffic volume of 2,566 vehicles, the mean CO level of 1.7 mg/m^3 was similar to the afternoon measurement. The difference is not significant and is partly due to the greater variability in wind direction associated with such low wind speeds.

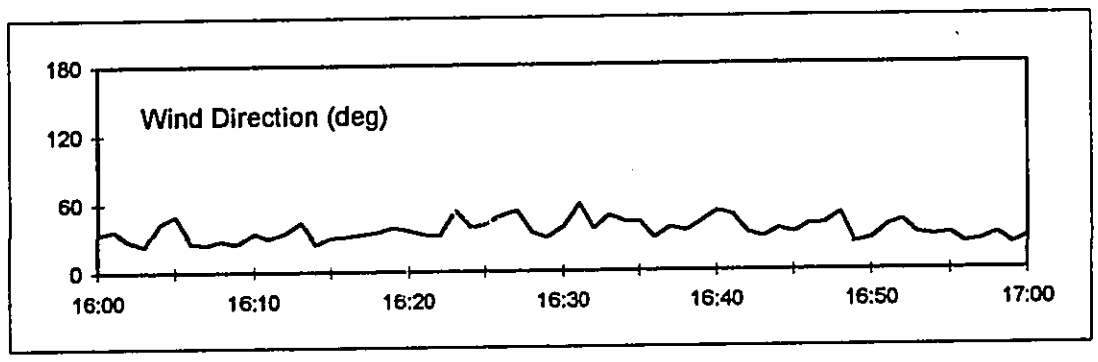
4. CLIMATE AND METEOROLOGY

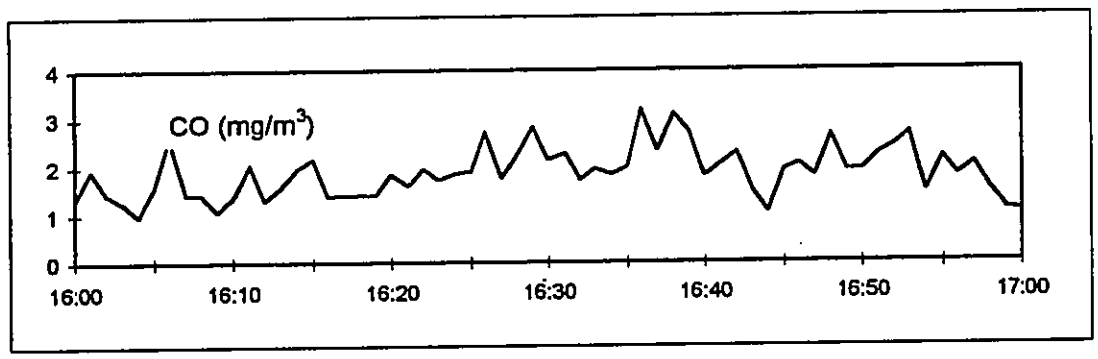
4.1 Climate. Climatic norms, means and extremes for Honolulu [11] are presented in Table 3. Analysis of the monthly temperature and rainfall data in accordance with Thornwaite's scheme for climatic classification, yields a precipitation/evaporation (P/E) index of 26.6 which classifies the area as "semi-arid". [12]

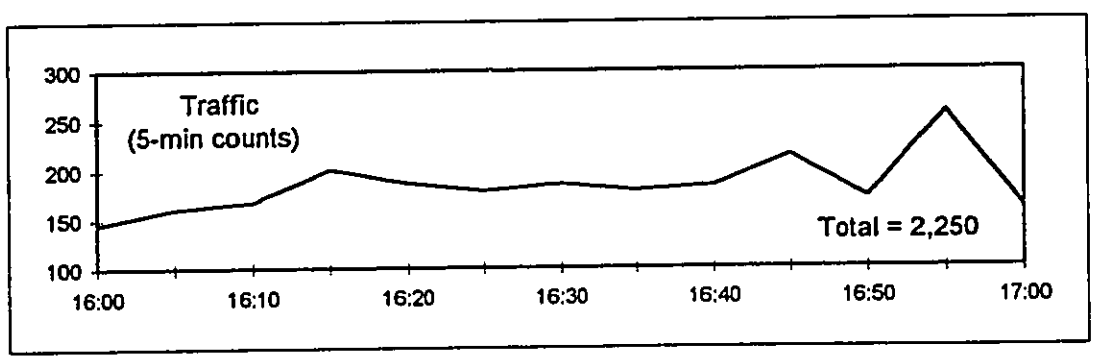
FIGURE 4

P.M. PEAK-HOUR CONDITIONS
IWILEI CENTER SITE
6 AUGUST 2001





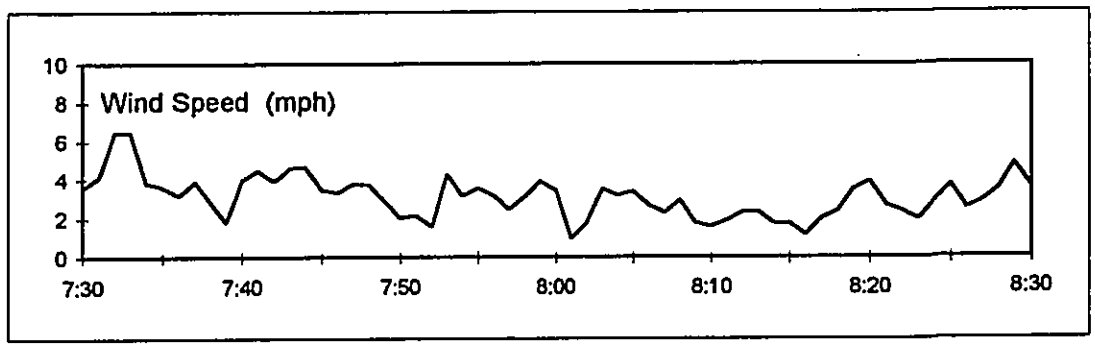


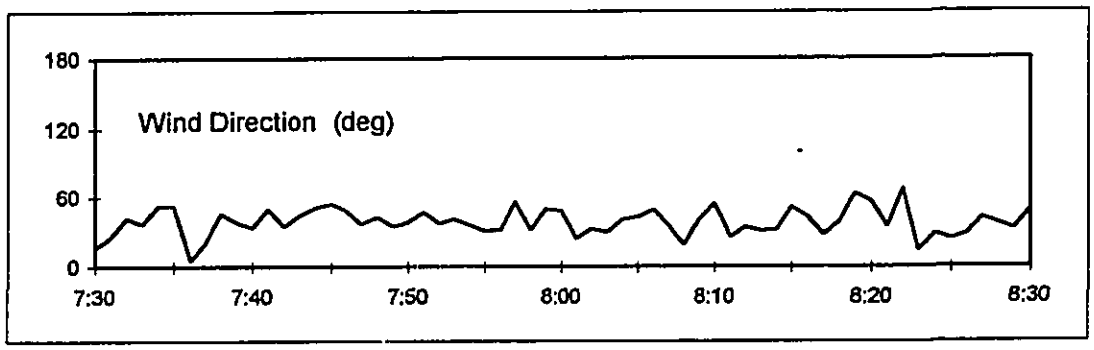


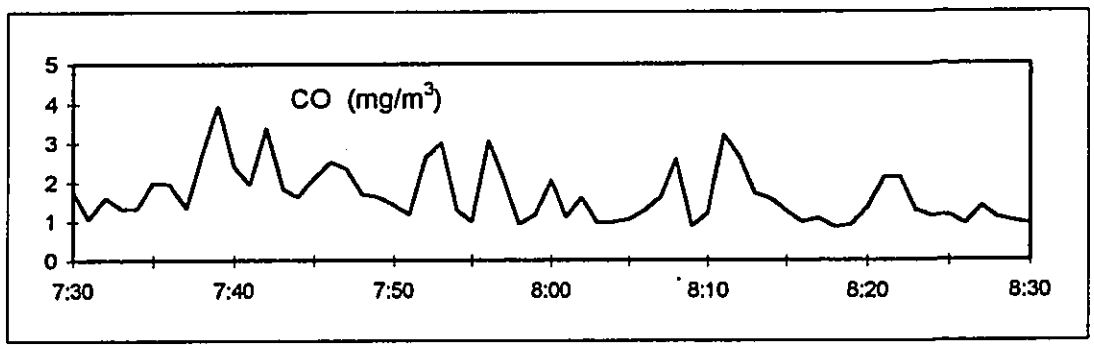
Time of Day

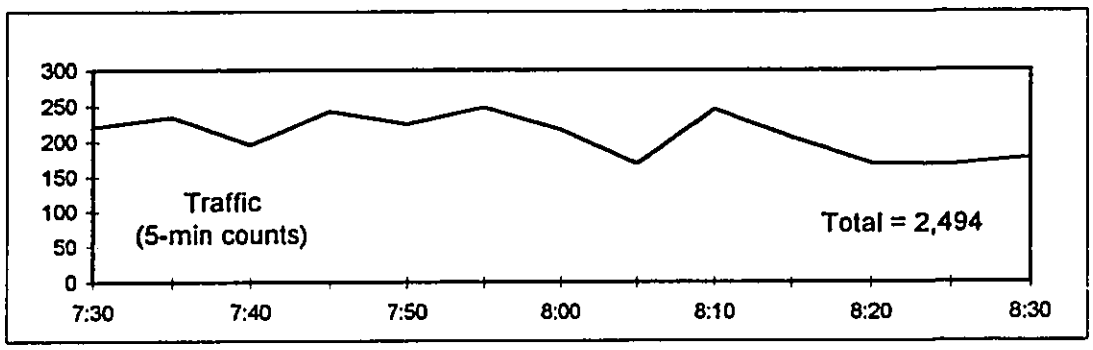
FIGURE 5

A.M. PEAK-HOUR CONDITIONS
IWILEI CENTER SITE
8 AUGUST 2001









Time of Day

TABLE 3

CLIMATIC NORMS, MEANS AND EXTREMES
HONOLULU INTERNATIONAL AIRPORT

Parameter	Descriptor	Value
Temperature (deg F)	Daily maximum	84.4
	Daily minimum	70.0
	Annual mean	77.2
Precipitation (inches)	Maximum monthly	20.91
	Minimum monthly	. trace
	Annual mean	22.02
Humidity (%)	Normal	68
Wind Speed (mph)	Mean	11.4
Sunshine	Percent of possible	71
Sky cover (mean # days)	Clear	90.0
	Partly cloudy	179.8
	Cloudy	92.0

Source: National Climatic Data Center (Reference 11)

4.2 Surface Winds. Meteorological data records were reviewed from the Honolulu International Airport and Hickam Air Force Base. The annual prevalence of northeast trade winds is clearly shown in Table 4. A closer examination of the data, however, indicates that low velocities (less than 10 mph) occur frequently and that the normal northeasterly trade winds tend to break down in the Fall giving way to more light, variable wind conditions through the Winter and on into early Spring. It is during these times that Honolulu generally experiences elevated pollutant levels. This seasonal difference in wind conditions can be easily contrasted by comparing August and January wind roses (Figures 6 and 7). Of particular interest from an air pollution standpoint were the stability wind roses prepared for Hickam Air Force Base [13]. These data indicated that stable conditions, i.e., Pasquill-Gifford stability categories E and F [14], occur about 28% of the time on an annual basis and 36% of the time during the peak winter month (January). It is under such conditions that the greatest potential for air pollutant buildup from groundlevel sources, e.g., motor vehicles, exists.

5. SHORT-TERM IMPACTS

5.1 Onsite Impacts. The principal source of short-term air quality impact will be construction activity. Construction vehicle activity can at times increase automotive pollutant concentrations along adjoining existing streets as well as on the project site itself. Construction activity itself as well as additional construction vehicle traffic may at times cause a temporary reduction in average travel speeds with a concomitant increase in vehicle emissions due to the "stop and go" traffic conditions.

TABLE 4

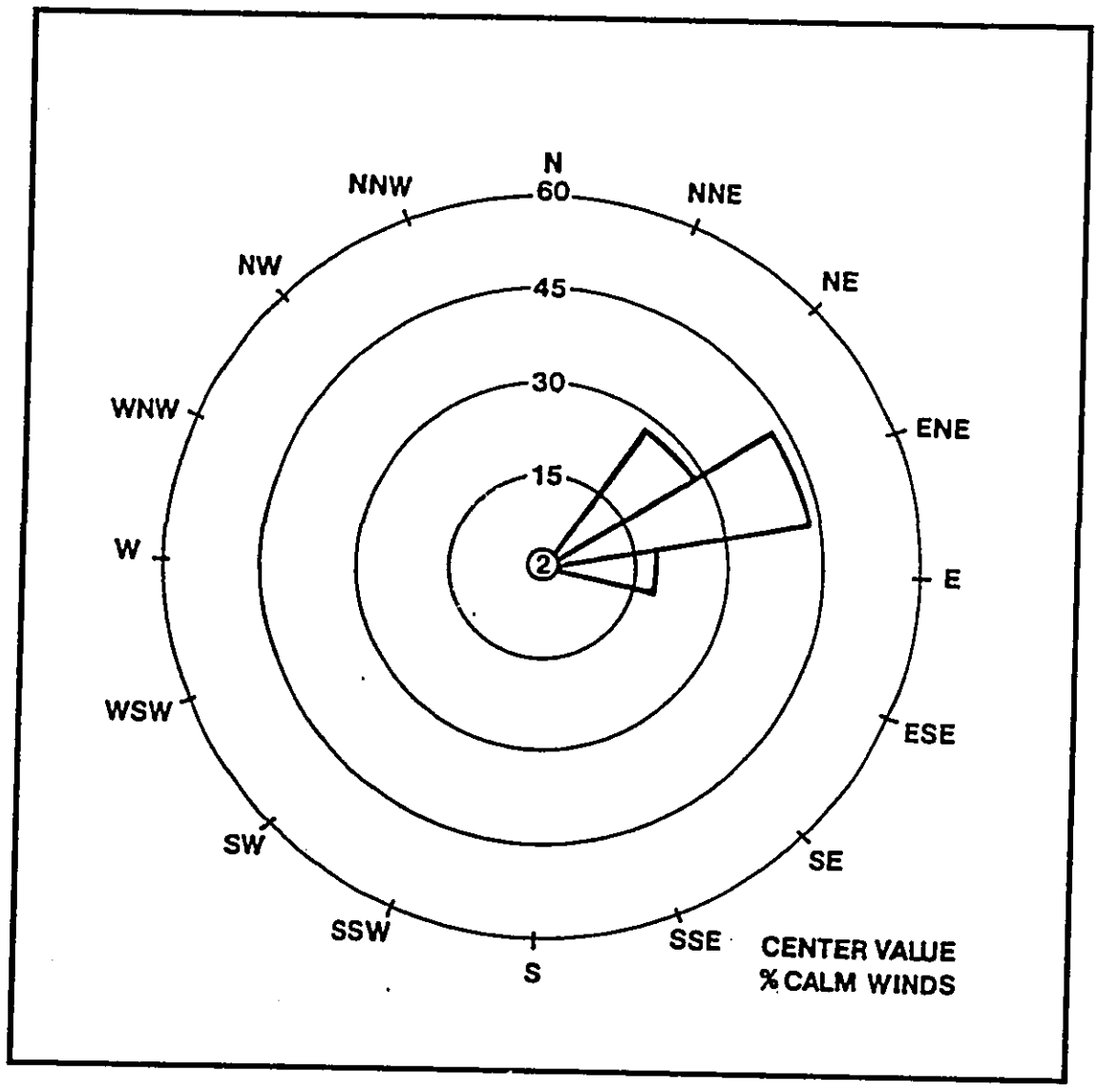
ANNUAL JOINT FREQUENCY DISTRIBUTION OF WIND SPEED AND DIRECTION HONOLULU INTERNATIONAL AIRPORT

Dir (deg)	Wind Speed (mph)						
	< 7	< 10	< 13	< 16	< 19	>/= 19	All
10	0.0065	0.0038	0.0023	0.0016	0.0009	0.0001	0.0151
20	0.0082	0.0041	0.0025	0.0023	0.0011	0.0001	**0.0183**
30	0.0100	0.0061	0.0051	0.0038	0.0028	0.0007	**0.0286**
40	0.0188	0.0157	0.0258	0.0222	0.0174	0.0040	**0.1039**
50	0.0268	0.0290	0.0449	0.0385	0.0307	0.0054	**0.1752**
60	0.0344	0.0289	0.0436	0.0273	0.0238	0.0041	**0.1621**
70	0.0250	0.0181	0.0197	0.0122	0.0096	0.0009	**0.0855**
80	0.0113	0.0081	0.0065	0.0039	0.0009	0.0003	0.0310
90	0.0073	0.0049	0.0040	0.0009	0.0008	0.0000	0.0179
100	0.0031	0.0016	0.0014	0.0006	0.0002	0.0000	0.0068
110	0.0027	0.0019	0.0010	0.0007	0.0005	0.0001	0.0069
120	0.0027	0.0013	0.0019	0.0009	0.0003	0.0003	0.0075
130	0.0022	0.0032	0.0018	0.0015	0.0007	0.0002	0.0096
140	0.0034	0.0033	0.0039	0.0018	0.0011	0.0006	0.0141
150	0.0022	0.0030	0.0019	0.0003	0.0002	0.0005	0.0081
160	0.0024	0.0033	0.0023	0.0010	0.0005	0.0000	0.0094
170	0.0031	0.0046	0.0023	0.0007	0.0003	0.0000	0.0109
180	0.0055	0.0042	0.0018	0.0008	0.0005	0.0000	0.0128
190	0.0065	0.0038	0.0013	0.0002	0.0000	0.0000	0.0117
200	0.0057	0.0032	0.0011	0.0001	0.0000	0.0000	0.0101
210	0.0076	0.0038	0.0016	0.0001	0.0000	0.0000	0.0131
220	0.0083	0.0077	0.0016	0.0001	0.0001	0.0000	0.0179
230	0.0076	0.0049	0.0014	0.0001	0.0001	0.0000	0.0141
240	0.0042	0.0016	0.0013	0.0000	0.0000	0.0000	0.0071
250	0.0040	0.0010	0.0003	0.0000	0.0000	0.0000	0.0054
260	0.0064	0.0023	0.0005	0.0000	0.0000	0.0000	0.0091
270	0.0065	0.0010	0.0005	0.0002	0.0000	0.0000	0.0082
280	0.0099	0.0005	0.0002	0.0000	0.0000	0.0000	0.0106
290	0.0123	0.0003	0.0002	0.0001	0.0000	0.0000	0.0130
300	0.0167	0.0018	0.0011	0.0000	0.0000	0.0000	0.0197
310	0.0235	0.0022	0.0015	0.0001	0.0000	0.0000	0.0272
320	0.0200	0.0022	0.0013	0.0006	0.0001	0.0000	0.0241
330	0.0121	0.0023	0.0011	0.0005	0.0000	0.0000	0.0159
340	0.0094	0.0010	0.0003	0.0001	0.0000	0.0000	0.0109
350	0.0082	0.0025	0.0016	0.0002	0.0000	0.0000	0.0125
360	0.0093	0.0027	0.0022	0.0006	0.0005	0.0001	0.0154
All	**0.3537**	**0.1898**	0.1917	0.1240	0.0932	0.0174	0.9698
						Calms:	0.0302

SOURCE: National Weather Service, 1992

FIGURE 6

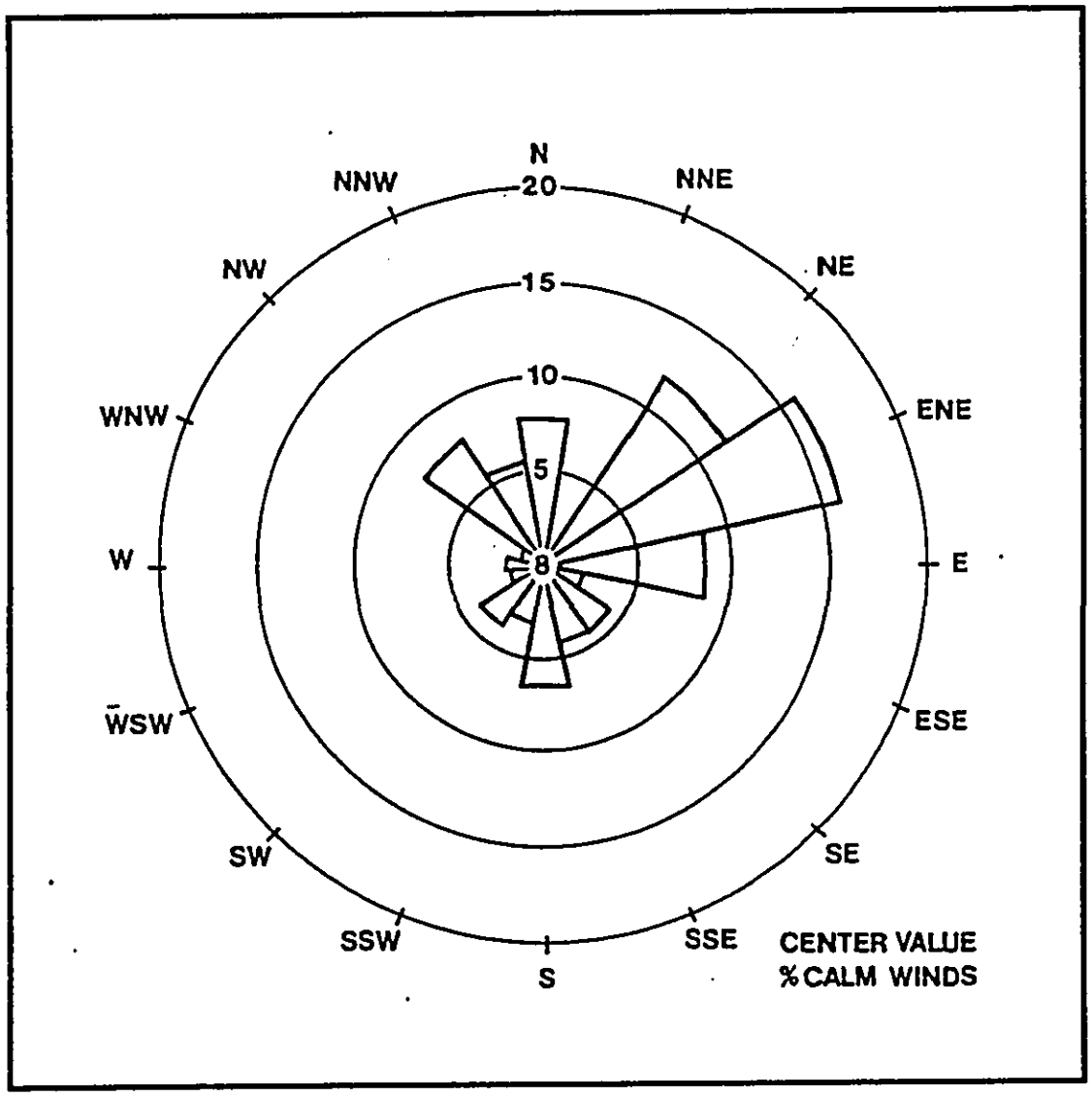
AUGUST WIND ROSE
HONOLULU INTENATIONAL AIRPORT



SOURCE: National Weather Service
Historical Records, 1940-57

FIGURE 7

JANUARY WIND ROSE
HONOLULU INTERNATIONAL AIRPORT



SOURCE: National Weather Service
Historical Records, 1940-57

The site preparation and earth moving will create particulate matter (PM) emissions as will construction of the new roadways themselves. Construction vehicle movement on unpaved on-site areas will also generate PM emissions. EPA studies on fugitive dust emissions from construction sites indicate that about 1.2 tons/acre per month of activity may be expected under conditions of medium activity, moderate soil silt content (30%), and a precipitation/ evaporation (P/E) index of 50 [12, 15].

5.2 Offsite Impacts. In addition to the onsite impacts attributable to construction activity, there will also be offsite impacts due to the operation of concrete and asphalt batching plants needed for construction of buildings, sidewalks and roadways. Such plants routinely emit particulate matter and other gaseous pollutants; however. it is too early to identify the specific facilities that will be providing these materials and thus the discussion of air quality impacts is necessarily generic. The batch plants which will be producing this concrete and asphalt must be permitted by the Department of Health Clean Air Branch pursuant to state regulations [9]. In order to obtain these permits they must demonstrate their ability to continuously comply with both emission [9] and ambient air quality [4] standards. Under the federal Title V operating permit requirements [16], now incorporated in Hawaii's rules [9], air pollution sources must regularly attest to their compliance with all applicable requirements. A typical concrete batch plant in Hawaii is equipped with fabric filters, i.e., "baghouses" for particulate matter (PM) control. Similarly, a typical asphalt plant is equipped with either a wet venturi scrubber or fabric filters. The efficiency of such controls is normally 95 - 99%.

6. MOBILE SOURCE IMPACTS

6.1 Mobile Source Activity. The traffic analysis report [17] prepared for the proposed project served as the basis for this mobile source impact analysis. Existing and projected future peak-hour traffic volumes for the principal streets serving the project site were obtained from that report. Initial and full development scenarios were evaluated with the initial phase not including the mixed use office tower.

6.2 Emission Factors. Automotive emission factors for carbon monoxide (CO) were generated for calendar years 2001 and 2003 using EPA's Mobile Source Emissions Model (MOBILE-5B)[18]. To localize the emission factors as much as possible, an age distribution for registered vehicles in the City & County of Honolulu [19] was used in lieu of national statistics. That same age distribution was the basis for the distribution of vehicle miles traveled as well.

6.3 Modeling Methodology. Mobile source air quality modeling has historically focused on estimating concentrations of non-reactive pollutants, primarily carbon monoxide (CO). This has been the case because CO is relatively stable in the atmosphere having a half-life on the order of about one (1) month,[20] and it comprises the largest fraction of automotive emissions. [18]

Using the traffic data provided, modeling was performed for the aforementioned intersections for 2001 and 2003 (with initial and full project development). The EPA guideline model CAL3QHC [21, 22] as revised to allow for use of hourly meteorological data files [23] was employed to estimate near-intersection carbon monoxide concentrations. CO concentrations were estimated at an array of 113

receptor sites, spaced at a distance of 10 meters, placed around the perimeter of the project site and along Iwilei and North King Streets (see Figure 8). A background concentration of 1.5 mg/m^3 from the Department of Health's 1999 monitoring data was also used as the background concentration in the modeling. Hourly meteorological data for a.m. and p.m. peak traffic hours used in the model were extracted from National Weather service data collected at the Honolulu International Airport [24] and preprocessed with EPA's PCRAMMET program. [25]

6.4 Parking Structure Analysis. The potential impact of the two proposed parking structures was evaluated in accordance with an EPA procedure [26] and based on traffic generation figures from the previously cited traffic study.[17] This procedure resulted in emissions estimates which were then used as input to EPA's Industrial Source Complex - Version 3 (ISC3) [27] model to estimate ambient impacts based on a series of groundlevel to elevated area sources.

6.5 Results: 1-Hour Concentrations. The results of this modeling are presented in Table 5. Maximum estimated 1-hour CO concentrations in milligrams per cubic meter (mg/m^3) for each of the evaluated scenarios are presented along with the particular receptor location at which they were predicted. The results suggest that, under *worst case* conditions of meteorology and traffic, both the federal and state 1-hour CO standards would be met at receptor locations 10 meters and beyond the edge of streets expected to be affected by project-related traffic. The maximum a.m. peak hour CO level rose by 1.7% for the initial development scenario and 15% with full development. For the p.m. peak hour the increases in maximum CO level were 6.4% and 14.1%, respectively, for initial and full development.

FIGURE 8

RECEPTOR LOCATIONS FOR AIR QUALITY MODELING

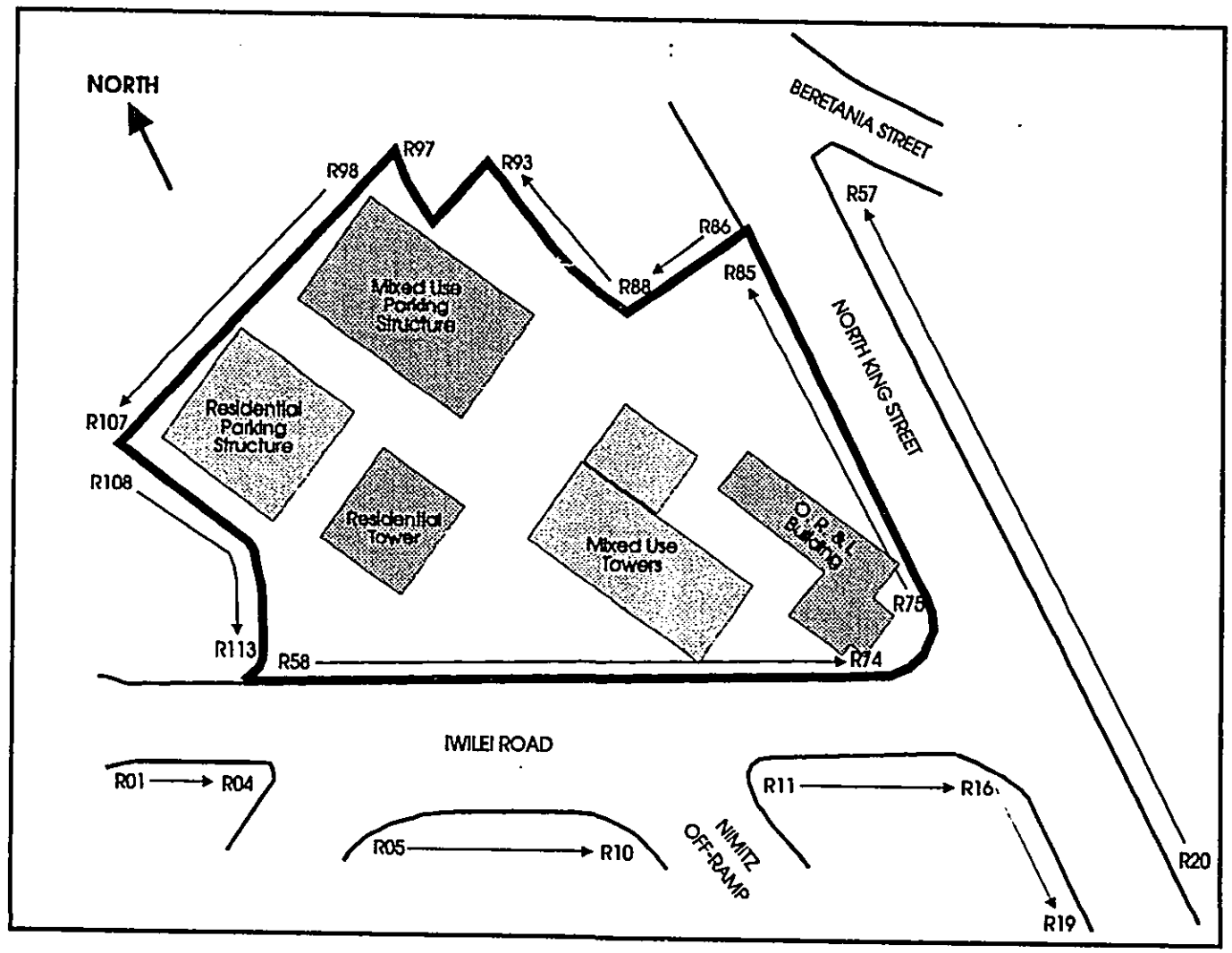


TABLE 5

RESULTS OF MODELING ANALYSIS
MAXIMUM 1-HOUR CO CONCENTRATIONS

		CO Concentration (mg/m^3)			
Scenario	Receptor No.*	Street Traffic	Parking Structures	Background	Total
Existing					
CY01/AM	R15	6.18	n/a	1.5	7.68
CY01/PM	R74	5.73	n/a	1.5	7.23
Initial Development					
CY03/AM	R15	5.84	0.47	1.5	7.81
CY03/PM	R37	5.96	0.23	1.5	7.69
Full Development					
CY03/AM	R15	5.96	1.37	1.5	8.83
CY03/PM	R13	6.53	0.22	1.5	8.25

* See Figure 8 for receptor locations

6.6 Results: 8-Hour Concentrations. The 8-hour values presented in Table 6 are very conservative estimates because they are based on averages of the worst case a.m. and p.m. peak hour traffic and meteorology. Nevertheless, the results are similar to the 1-hour findings in that compliance with state

and federal standards is indicated. They suggest maximum changes of 0.5% and 9.5%, respectively, under the initial and full development scenarios as compared to existing conditions.

TABLE 6

RESULTS OF MODELING ANALYSIS
MAXIMUM 8-HOUR CO CONCENTRATIONS

		CO Concentration (mg/m^3)			
Scenario	Receptor No.*	Street Traffic	Parking Structures	Background	Total
Existing					
CY01	R16	3.72	n/a	0.6	4.32
Initial Development					
CY03	R16	3.61	0.13	0.6	4.34
Full Development					
CY03	R16	3.76	0.37	0.6	4.73

* See Figure 8 for receptor locations.

7. OFFSITE STATIONARY SOURCE IMPACTS

7.1 Electrical Generation. The estimated 10.4 million kilowatt hours (kWhrs) of annual electrical demand by the project will necessitate the generation of electricity by power plants. Currently, most of Oahu's electrical energy is generated by Hawaiian Electric Company's oil-fired plants at Kahe Point and Waiau. These units fire low sulfur (0.5%) fuel oil. The estimated emissions resulting from fuel burned to provide the power needed by the project are presented in Table 7.

7.2 Solid Waste Disposal. The refuse generated by the residents of the proposed residential units will also require disposal. Historically, about 80% of Oahu's refuse was being landfilled with the remaining 20% being burned at the former Waipahu Incinerator. With the opening of the City's resource recovery facility (HPOWER) at Campbell Industrial Park some years ago, most refuse is now being pre-processed and burned leaving less mass to be landfilled. Estimates of annual emissions attributable to the combustion of refuse from the proposed development are included in Table 7.

8. CONCLUSIONS AND MITIGATION

8.1 Short-Term Impacts. Since, as noted in Section 4, the project area is considered semi-arid by Thornwaite's climatic classification system with a P/E index lower than that associated with the EPA fugitive dust emission factor, there appears to be a somewhat greater potential for fugitive dust. It will therefore be very important to employ adequate dust control measures during the construction period,

TABLE 7

ESTIMATES OF ANNUAL EMISSIONS
FROM OFFSITE STATIONARY SOURCES

Pollutant	Emissions (T/yr)	
	Electrical Generation	Solid Waste Disposal
Sulfur dioxide (SO_2)	2.8	0.25
Nitrogen oxides (NOx)	17.0	1.21
Particulate matter (PM)	2.0	0.10
Carbon monoxide (CO)	1.8	1.07
Volatile organic compounds (VOC)	0.27	0.063

particularly during the drier summer months. Dust control could be accomplished through frequent watering of unpaved roadways and areas of exposed soil. The EPA estimates that twice daily watering can reduce fugitive dust emissions by as much as 50% [15]. The soonest possible paving of roadways and landscaping of adjacent areas will also help.

Short-term air quality impacts due to offsite activities supporting the proposed development, i.e., concrete and asphalt production, appear to be *de minimus* due in large part to the high removal of control devices typically found on such production facilities. Furthermore, any emissions will be strictly regulated by the Department of Health permit which each batch plant must have in order to operate.

8.2 Mobile Source Impacts. As reported in Section 6, compliance with federal and state carbon monoxide standards is demonstrated under *worst case* conditions of meteorology and peak hour traffic; thus, no special mitigative measures are required.

8.3 Offsite Stationary Source Impacts. The increased offsite emissions associated with the proposed development represent small additional increments relative to island-wide emissions. Assuming that the residential units and office space are necessary to accommodate a growing population, those emissions would occur regardless of where the new facilities were built on Oahu.

Besides the federal and state air pollution control requirements which will mitigate emissions at the offsite sources themselves, additional mitigation can be incorporated into the design of the facilities. Installation and use of energy efficient appliances can sharply reduce electrical demand and its associated emissions. Use of recyclable materials and composting of organic wastes can reduce the quantities of solid waste going to the HPOWER facility and thus its emissions.

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