Mr. Tyson FILE

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4432

FRANK F. FASI
MAYOR

DONALD A. CLEGG
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

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OFC. OF ENVIRONMENTAL
QUALITY CONTROL

90/SMA-119(AC)

October 2, 1991

Mr. Brian J.J. Choy, Director
Office of Environmental Quality Control
State of Hawaii
Central Pacific Plaza, Fourth Floor
220 South King Street
Honolulu, Hawaii 96813

Dear Mr. Choy:

FINAL ENVIRONMENTAL IMPACT STATEMENT (EIS)
KALIA TOWER, HILTON HAWAIIAN VILLAGE
HILTON HAWAIIAN JOINT VENTURE
TAX MAP KEYS: 2-6-9: POR 9 AND 13

We are notifying you that the above Final EIS document is **ACCEPTED** pursuant to Chapter 343, HRS, and Title 11, Administrative Rules, Department of Health, Chapter 200, Environmental Impact Statement Rules.

A copy of our Acceptance Report is attached. If you have any questions, please contact Art Challacombe of our staff at 523-4107.

Very truly yours,

Donald Clegg

DONALD A. CLEGG
Director of Land Utilization

DAC:ea

Attachment: Acceptance Report
cc w/attach.: Mark Willey
Belt Collins & Associates

1991- Oahu - FEIS - Kalia Tower

Hilton
Hawaiian
Village

Kalia Tower
Final
Environmental Impact Statement

Prepared for
Hilton Hawaiian Village
Joint Venture

Prepared by
Belt Collins & Associates

September 1991

Hilton
Hawaiian
Village

Kalia Tower

Final
Environmental Impact Statement

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September 1991

HILTON HAWAIIAN VILLAGE
KALIA TOWER
FINAL
ENVIRONMENTAL IMPACT STATEMENT

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Chapter I
Introduction and Summary

Chapter I
Introduction and Summary

1.0 PURPOSE OF THIS DOCUMENT

This environmental impact statement (EIS) has been prepared in conjunction with a City and County of Honolulu application for Shoreline Management and Waikiki Special Design District permits submitted by the Hilton Hawaiian Village Joint Venture to the Department of Land Utilization. The purpose of this document is to identify and assess environmental and social impacts that could result from the proposed project. This document has been prepared and processed in accordance with the requirements of Chapter 343, Hawaii Revised Statutes, and the regulations adopted pursuant thereto. This process requires a detailed analysis of the subject property and the proposed action.

2.0 PROPOSED GOVERNMENT ACTION

The Hilton Hawaiian Village Joint Venture is requesting that the City and County of Honolulu grant a Shoreline Management Permit and a Waikiki Special Design District Permit to allow the construction of a 400-room hotel tower and recreational facilities on a portion of the existing Hilton Hawaiian Village Resort. The affected acreage is designated by tax map as 2-6-09:13 and portions of 2-6-09:9.

3.0 PROJECT DESCRIPTION

Occupying approximately 20 acres, the Hilton Hawaiian Village is the single largest resort complex in Waikiki. It contains a total of 2,523 guest rooms, 279 apartment units, and 2,398,568 square feet of built area. The Hilton Hawaiian Village Joint Venture proposes the construction of a building on the northeastern corner of the Hilton Hawaiian Village property where the Hilton Dome presently stands. Called the "Kalia Tower," it would be approximately 270 feet tall and would contain 400 guest rooms with a health-sports clinic/spa. A portion of the project would provide a recreation deck with tennis courts, landscaping, and a sports clinic for guests, local area residents and local school children atop the rooftop of the adjacent Coral Ballroom/parking structure. Approximately 5,000 square feet of retail and restaurant space would also be provided. To make room for the project, the existing Dome would be removed and relocated if feasible. Approximately 5,000 square feet of additional landscaped open space would be created at the site which would include a lagoon and an approximately 25-foot high waterfall feature flowing out from the lobby of the Kalia Tower into the surrounding lagoons. This would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well. In addition, the improvements would compliment elements of the Waikiki Master Plan currently underway, specifically those calling for improving the pedestrian environment and those requiring more open space.

The proposed projects are part of the Hilton Hawaiian Village Joint Venture's ongoing redevelopment program designed to upgrade the hotel's guest rooms, public spaces, and support facilities, thereby maintaining the quality and profitability of the resort. Among the actions already undertaken as part of this program are: constructing a new port cochere, reception facilities, and additional retail shops; completely refurbishing the Ocean Tower (now the Ali'i Tower); upgrading major portions of the Diamond Head and Rainbow Towers; adding and upgrading pedestrian walkways; and expanding and improving the amount of landscaping. The $100+ million

architectural renewal has resulted in improved view planes to the ocean, a decrease in hotel rooms, and a net increase in open space, giving the hotel the feeling of an oasis in the midst of densely built Waikiki. In addition, the increased open space at the Hilton Hawaiian Village serves as a model reflective of the recent planning goals for Waikiki and places it in the forefront of efforts to form a new image for Waikiki. The hotel has been awarded numerous design awards for its efforts, and its continuing high occupancy rates reflect the hotel guests' appreciation of the changes as well.

4.0 NEED FOR THE PROJECT

The need for the overall project can be seen in five areas:

- The Need for Additional Recreational Facilities in the Waikiki Area - The area residents and guests of the Hilton Hawaiian Village have long desired to see more facilities offered for tennis, exercise, and other health-related activities.

- The Need to Better Utilize Existing Portions of the Hilton Hawaiian Village - The inability of the Dome facilities to be used during the day, due to structural deficiencies, limits the amount of revenue generation needed from the parcel.

- The Need for Additional Revenues to Cover Rising Land Values - The 1.77-acre project parcel has seen its total assessment rise 800 percent since 1987 to over $52 million, with an accompanying tax of over $500,000 in Fiscal Year (FY) 1991.

- The Need to Upgrade Existing Facilities within Mature Resort Destination Areas - Rising competition from resort areas in Waikiki, on the neighbor islands, and around the world forces existing mature destination areas such as Waikiki to constantly upgrade facilities in order to attract additional customers. One method is by providing services to previously under-serviced market segments. The proposed Kalia Tower will be geared to the mid-scale and business traveller, market segments the Hilton Hawaiian Village believes to be under-serviced today.

- The Need for Additional Visitor Accommodations on Oahu - In spite of the recent downturn in tourism due to exogenous factors, trends in the visitor industry are anticipated to create a shortfall of over 10,000 visitor accommodations on Oahu by the year 2010. The Kalia Tower would make up only 4 percent of the additional units anticipated.

5.0 SUMMARY OF THE ALTERNATIVES CONSIDERED

Several alternative development options, building designs, and site configurations have been considered for the project. Almost all involved removal of the existing Dome, construction of a recreation deck atop the parking garage, and the addition of approximately 400 guest rooms to the property. However, with building heights ranging from 8 to 26 stories and a variety of landscaping concepts, the hotel alternatives differed significantly from one another with respect to their potential visual impacts, their appearance from ground level, and the amount of available open space they would have provided. The 26-story hotel alternative was judged the best alternative in meeting the maximum number of objectives of the Hilton Hawaiian Village while minimizing the number of environmental impacts. A list of the alternatives considered included:

- The No Action Alternative
- Location at the Southern Portion of the Rainbow Bazaar
- Location Above the Southern Portion of the Mid-Pacific Convention Center
- Location at the Garden Area South of the Mid-Pacific Convention Center
- Location at the Hilton Dome
- The Convention Center Option
- The Condominium Option
- The Office Tower Option
- The Retail Option
- The Hotel Option
- An 8-Story Hotel Design
- A 16-Story Hotel Design Perpendicular to Kalia Road
- A 17-Story Hotel Design Perpendicular to Kalia Road
- An 18-Story Hotel Design Parallel to Kalia Road
- A 26-Story Hotel Design Parallel to Kalia Road

6.0 SUMMARY OF THE IMPACTS

6.1 Short-Term Construction Impacts

- Increases in air-borne particulate matter (fugitive dust) and exhaust emissions from on-site construction equipment.
- Increased construction vehicle traffic, vehicle emissions, and traffic noise.
- Increase in construction noise from pile-driving and equipment use.

6.2 Long-Term Impacts

- Decreases in the storm runoff due to the increase in landscaped area.
- Improved visual character of the site.
- Possible loss of some mature trees due to grading.
- Slight increase in vehicular traffic levels.
- Slight addition to ambient exhaust levels due to increases in vehicular traffic.
- Increase in employment opportunities.
- Increase in public revenues from the General Excise Tax, Income Tax, and Transient Accommodation Tax.

- Increase in demand for public utilities, including water, wastewater treatment, solid waste disposal, and electrical energy.

- Increase in supply and demand for recreational opportunities.

- Partial disruption of the private ocean view planes held by some of the residents in the surrounding condominium units.

- Enhanced pedestrian safety and enjoyment due to greater sidewalk setbacks and removal of existing landscape barriers.

7.0 SUMMARY OF PROPOSED MITIGATION MEASURES

Mitigation measures to reduce adverse environmental and social impacts address both short-term and long-term impacts. Short-term mitigation measures include performing construction activities (clearing, grading, and pile-driving) in compliance with applicable air and noise quality regulations in order to minimize potential fugitive dust and noise impacts on adjacent developed areas. To ensure compliance with state regulations, a dust control plan will be implemented. Watering will be used to control construction-generated dust and open-bodied trucks will be covered when transporting dirt or dust producing material. In addition, construction will be subject to all relevant county and state permit procedures and reviews.

Major mitigation measures to address long-term impacts include:

- Adherence to appropriate building codes and standards.

- Replacement of mature trees on alternative locations within the Hilton Hawaiian Village whenever feasible.

- Compliance with applicable federal, state, and county archaeological, historical and cultural features preservation laws, rules, and regulations, and the recommendations of consulting archaeologists.

- Development, in negotiation with the applicable state and county agencies, the necessary infrastructure to serve the project whenever deemed necessary.

8.0 SUMMARY OF UNRESOLVED ISSUES

Much discussion has occurred recently about the future of the Waikiki area. The Hilton Hawaiian Village Joint Venture has, and will continue to, work with the various state and county agencies, residents, and business persons of the area, as well as elected officials, to assure that the final development plans for the proposed Kalia Tower meet the Venture's objectives as well as satisfactorily address the unresolved issues remaining. Those issues include assessing the need for upgrading infrastructure and, in light of any future Waikiki Master Plan, the appropriateness of the Primary Urban Center Development Plan special provision establishing a transient vacation unit destination area of about 30,000 units within Waikiki.

9.0 SUMMARY OF COMPATIBILITY WITH LAND USE PLANS AND POLICIES

The proposed project is generally consistent with the applicable Hawaii State Plan and Various Functional Plans, the County General Plan and Development Plan, and the County Land Use Ordinance goals, policies, provisions, and standards relating to the future growth and development of the Waikiki area and of the tourism industry.

10.0 NECESSARY APPROVALS AND PERMITS

A Special Management Permit (SMP), Major, will be required because the project site is located entirely within the Special Management Area.

A Waikiki Special Design District Permit, Major, will also be required.

Building Permits, Grading Permits, and other construction-related permits will be required after the above noted discretionary permits are obtained.

A Demolition Permit will be necessary for the demolition of the Dome, or for its relocation should it be judged technically feasible to disassemble and move safely.

Chapter II
Project Description

Chapter II
Project Description

1.0 PROJECT SETTING

Waikiki is best characterized as a mature urban resort area. It contains over 90% of all the transient vacation units on the Island of Oahu and remains the locus of tourist activities on the island. With its high level of economic activity, Waikiki is one of the largest generators of tax revenues for the State of Hawaii and the City and County of Honolulu. Although Waikiki is still the visitor hub of Hawaii, it is not the same visitor product that existed over 25 years ago, having evolved from a mystical, exclusive resort area into a tourist metropolis. Today, the lodging, eating, drinking, shopping, and entertainment facilities concentrated in Waikiki serve the needs of those visitors who prefer an active urban vacation experience. The variety of visitor facilities in this two-square-mile area can be found nowhere else in Hawaii. Waikiki has grown to become a household name, attracting a large share of first-time visitors who are curious to experience the activities and nightlife of this renowned area.

As a developed urban area, Waikiki has undergone a transformation from a low-rise to a high-rise environment over a short period of time, complete with the problems that accompany any urban development. Several master planning projects have addressed the needs and concerns of the Waikiki area over the years, and several more are underway to assess the current needs and concerns of residents and businesses. As a recognized mature resort area, it is widely believed that the Waikiki tourist industry must move to renovate and upgrade its facilities and offerings in order to remain in a competitive position vis-a-vis competition from newer international resort areas. The City and County of Honolulu has recently completed a $10.5 million beautification of Kalakaua Avenue, which has been completely resurfaced and landscaped. In addition, Waikiki hotel owners have spent over $500 million over the past three years, and will spend hundreds of millions more over the next three years renovating their properties. Some of the hotels that have been, or are now, involved in major renovation programs include the Sheraton Waikiki, Sheraton Moana/Surfrider Hotel, Reef Hotel, Royal Hawaiian Hotel, The Outrigger Hotel, The Ilikai, and the Hyatt Regency Waikiki, as well as the Hilton Hawaiian Village.

2.0 BACKGROUND OF THE HILTON HAWAIIAN VILLAGE

Occupying approximately 20 acres, the Hilton Hawaiian Village is the single largest resort complex in Waikiki and the largest meeting and convention resort in the Pacific. It contains a total of 2,523 guest rooms, 279 apartment units, and 2,398,568 square feet of built area. The Hawaiian Village is located along Kalia Road adjacent to the park-like Fort DeRussy and contains approximately 200,000 square feet of beach area.

In 1954 developers Henry J. Kaiser and Fritz Burns consolidated ocean front property in Waikiki belonging to the John Ena Estate, the Niumalu Hotel, and various individual owners. The first increment of the Hawaiian Village consisted of hand-built thatched guest cottages erected in mid-1955. Six months later the resort included over 250 guest rooms, the Tapa Room, gardens, a convention auditorium, and three swimming pools. In 1957, the Hilton Geodesic Dome was developed to provide a stage with an unobstructed view from anywhere in the room. By 1958, the first multi-story towers had been erected on the site following the Kaiser-Burns master plan for the property. The 14-story Ocean Tower (1957) and the 13-story Village Tower (1958) were later followed in 1960 by the 17-story Diamond Head Tower and in 1968, by the 30-story Rainbow Tower. In 1982, the 35-story Tapa Tower became the last tower to be constructed on the Hilton

site, replacing the Village Tower, bringing the overall hotel room count to 2,615. In 1986, the Hilton Hawaiian Village implemented a series of renovations through their master planning process which served to increase the overall open space on the property and decreased the number of overall units in the Hilton Hawaiian Village to its current level of 2,523 guest rooms and 279 apartment units.

A major change in ownership of the property occurred in 1961, when hotelier Conrad Hilton purchased Kaiser's interest in the hotel. In 1977, the remaining original partner, Fritz Burns, together with his associates, sold their interests to the Prudential Insurance Company of America, creating the Hilton Hawaiian Village Joint Venture. Hilton Hotels Corporation retains the remaining 50 percent equity interest in the property, and manages the hotel on behalf of the joint ownership.

Over the past five years, the owners of the Hilton Hawaiian Village have implemented an ambitious redevelopment program. The objectives of that on-going program are to:

- Reorganize public spaces and amenities in a manner that would improve hotel management and operations;
- Redesign the physical layout in a way that would open up the vista of the ocean and provide more landscaped open space adjacent to the beachfront and additional green space within the complex;
- Upgrade facilities to meet or exceed the current building code and requirements for safety and energy efficiency;
- Create a design concept that would maintain the existing low building density to the extent possible and would continue the ground level, architectural, and landscape styles established by the new Tapa Tower;
- Phase reconstruction in order to keep the resort operational and to minimize adverse effects; and,
- Contribute to the improvement of visitor facilities in Waikiki as a whole.
- Provide a handicapped-accessible environment.

Demonstrating the commitment of the owners to achieve these objectives, the following changes have already been made to the property at a cost of well over $100 million:

- Port Cochere and Reception Facilities. Entirely new entrance and reception facilities have been constructed makai of the old ones, which have since been removed.
- Free-Standing Retail Shops. A cluster of free-standing shops has been constructed adjacent to the lobby.
- Diamond Head Tower Improvements. The ground floor lobby and shops in the Diamond Head Tower have been refurbished, most of the guest rooms on its second and third floors have been replaced by administrative offices, and cosmetic changes have been made to the exterior of the top floors. In addition, a centralized air conditioning system, fire sprinklers and smoke detectors have been added.
- Ali'i Tower. The Ali'i Tower (formerly the Ocean Tower) has been completely reconstructed. A ground floor food outlet and retail shops have been added, and new

guest rooms, with the latest energy-saving and life-safety devices, have been constructed on the upper floors.

- Rainbow Tower. Extensive improvements have been made to the basement and ground floor shops in the Rainbow Tower, and the retail, restaurant, kitchen, and lounge spaces in it have been completely refurbished. In addition, space was added on the makai side of the tower to house two premier and award-winning restaurants.

- Circulation. Pedestrian circulation has been substantially improved by the addition of more open space, covered walkways, landscaping, and other amenities. Other minor changes in the circulation pattern have been made to accommodate the improvements listed above.

- Landscaping. The amount of landscaping has been increased by nearly 20 percent and has been used to integrate the separated facilities in a way that the former random plantings did not. In addition, the view through the property to the beach has been greatly enhanced.

Implementation of the Hilton Hawaiian Village's Master Plan, with its net decrease in hotel rooms and increase in open space, has significantly upgraded the resort's physical plant, reinforced the garden-like atmosphere for which it has long been famous, and has made it the favorite Waikiki hotel of local residents and visitors alike. The value of the changes is demonstrated by the hotel's continuing high occupancy rates and in the awards for excellence in hospitality, cuisine, architectural design, and engineering that it has received over the past few years, including:

Four Diamond Award - 1988, 1989, 1990
American Automobile Association

Best Hotel in Hawaii - 1988, 1989, 1990
Aloha Magazine

Beautification Award - 1988, 1990
Hawaii Outdoor Circle

Hawaii's Best Restaurant - 1989, 1990
Honolulu Magazine

10 Best Resorts - 1989
Corporate Meetings & Incentives Magazine

Award of Excellence - 1988, 1989
Corporate & Incentive Travel Magazine

Design Award of Excellence - 1988
Hawaii Society of American Institute of Architecture

Exemplary Architectural Design - 1989
State of Hawaii Commission on the Handicapped

Honor Award for Engineering Excellence - 1988
Consulting Engineers Council of Hawaii

Hawaii Renaissance Award - 1988
Honolulu Magazine

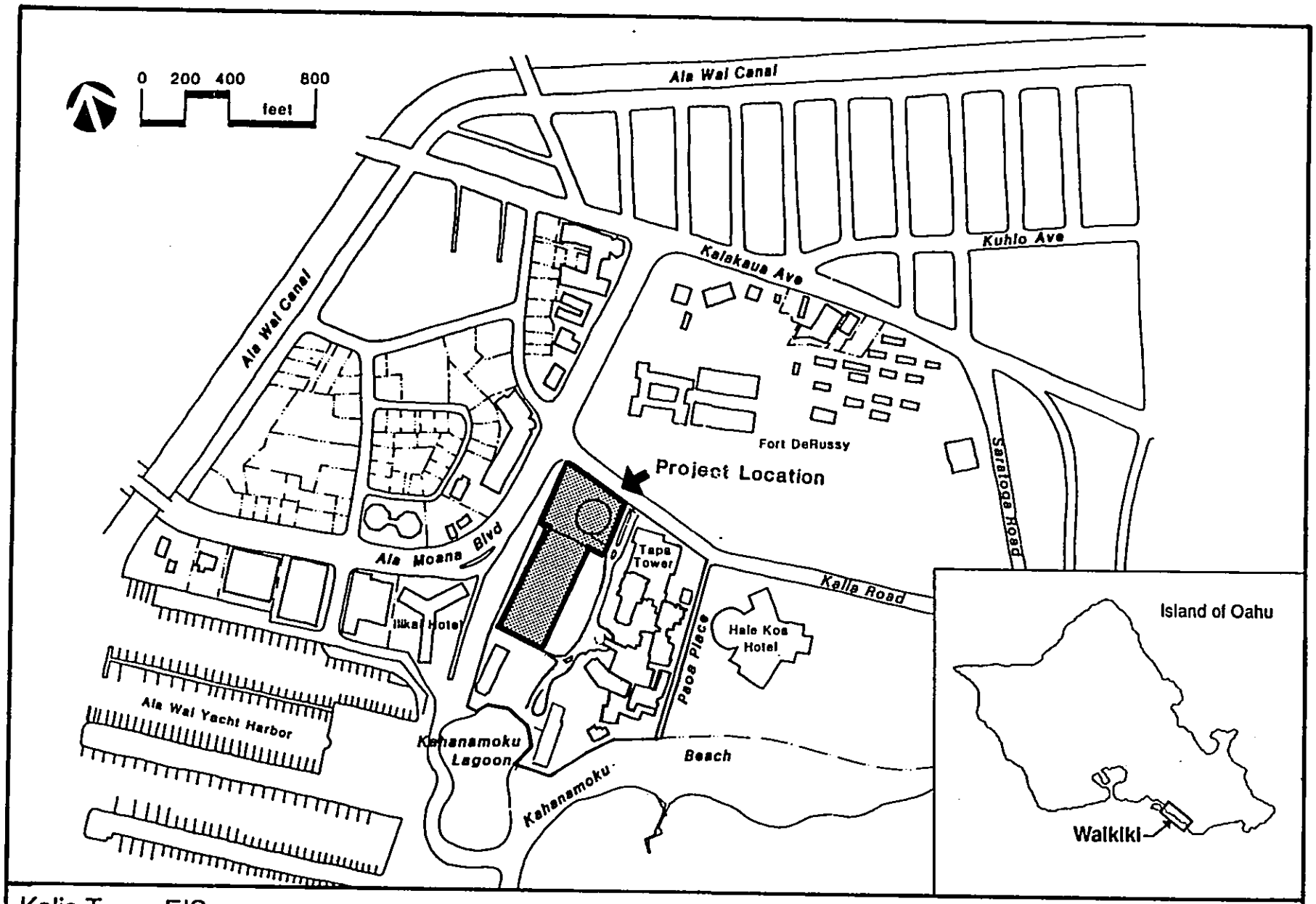
Gold Key Award - 1988, 1989
Meetings and Convention Magazine

World's Top 100 Restaurants - 1989, 1990
Conde Nast Traveler Magazine

3.0 DESCRIPTION OF THE PROJECT

The proposed project is located on the northeastern corner of the Hilton Hawaiian Village site on 1.7 acres identified as TMK 2-6-09:13 and portions of TMK 2-6-09:09 containing the parking structure (see Figures 2.1 and 2.2). It involves:

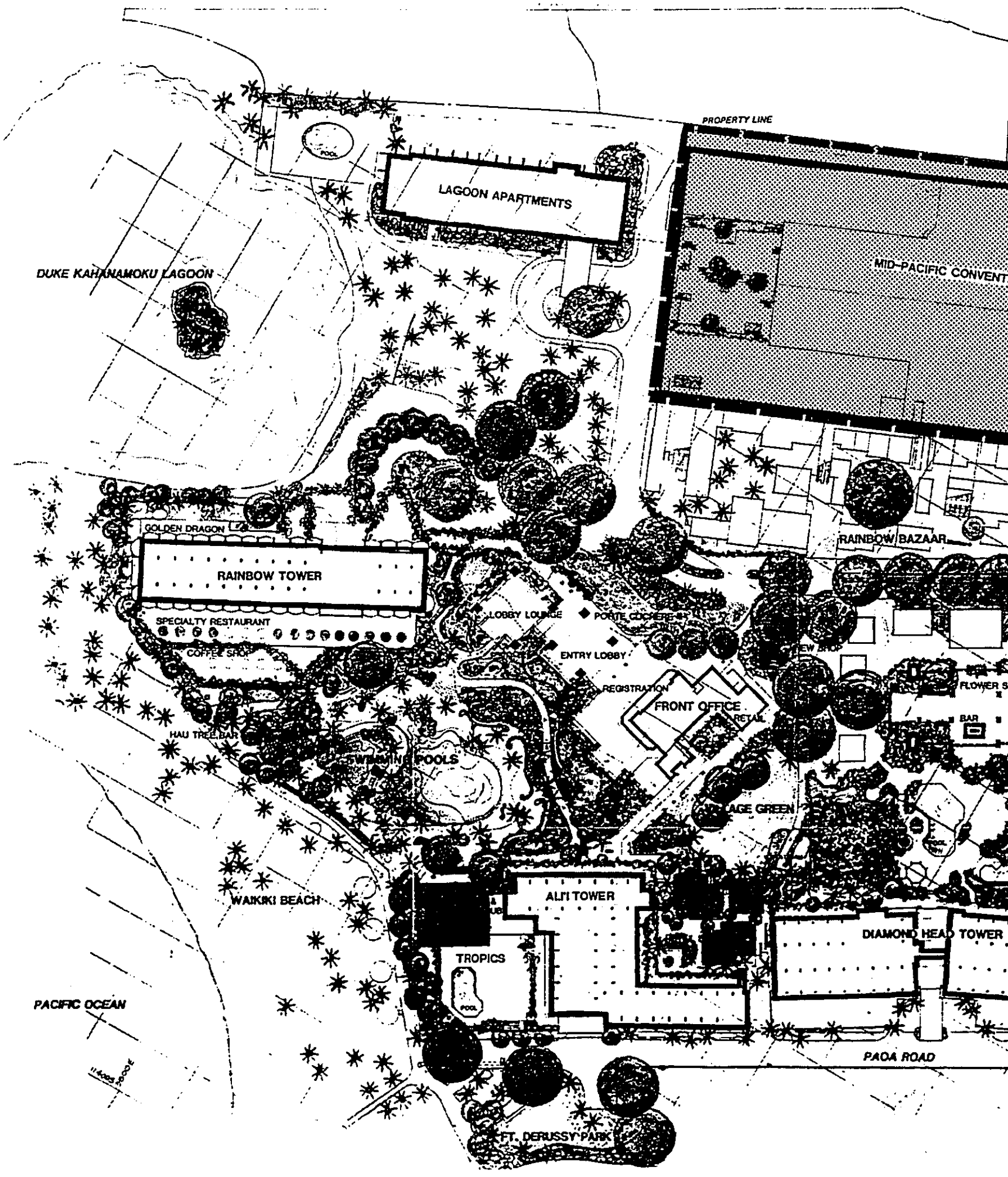
- Removal of the existing Hawaiian Village Dome and ancillary facilities;
- Construction of a new, larger building in the same area, named the Kalia Tower;
- Construction of tennis courts and recreation facilities atop the parking garage; and,
- Formation of extensive water features and landscaping on the Kalia Rd./Ala Moana Boulevard corner.



Kalia Tower EIS .

Figure 2.1
Project Location
Hilton Hawaiian Village

Prepared by: Belt Collins & Associates


PROPERTY LINE
LAGOON APARTMENTS
DUKE KAHANAMOKU LAGOON
MID-PACIFIC CONVENT
GOLDEN DRAGON
RAINBOW TOWER
SPECIALTY RESTAURANT
COFFEE SHOP
LOBBY LOUNGE
PORTE COCHERE
ENTRY LOBBY
REGISTRATION
FRONT OFFICE
RETAIL
RAINBOW BAZAAR
FLOWER S
BAR
HAU TREE BAR
VILLAGE GREEN
WAIKIKI BEACH
ALI'I TOWER
DIAMOND HEAD TOWER
TROPICS
POOL
PACIFIC OCEAN
PAOA ROAD
FT. DERUSSY PARK

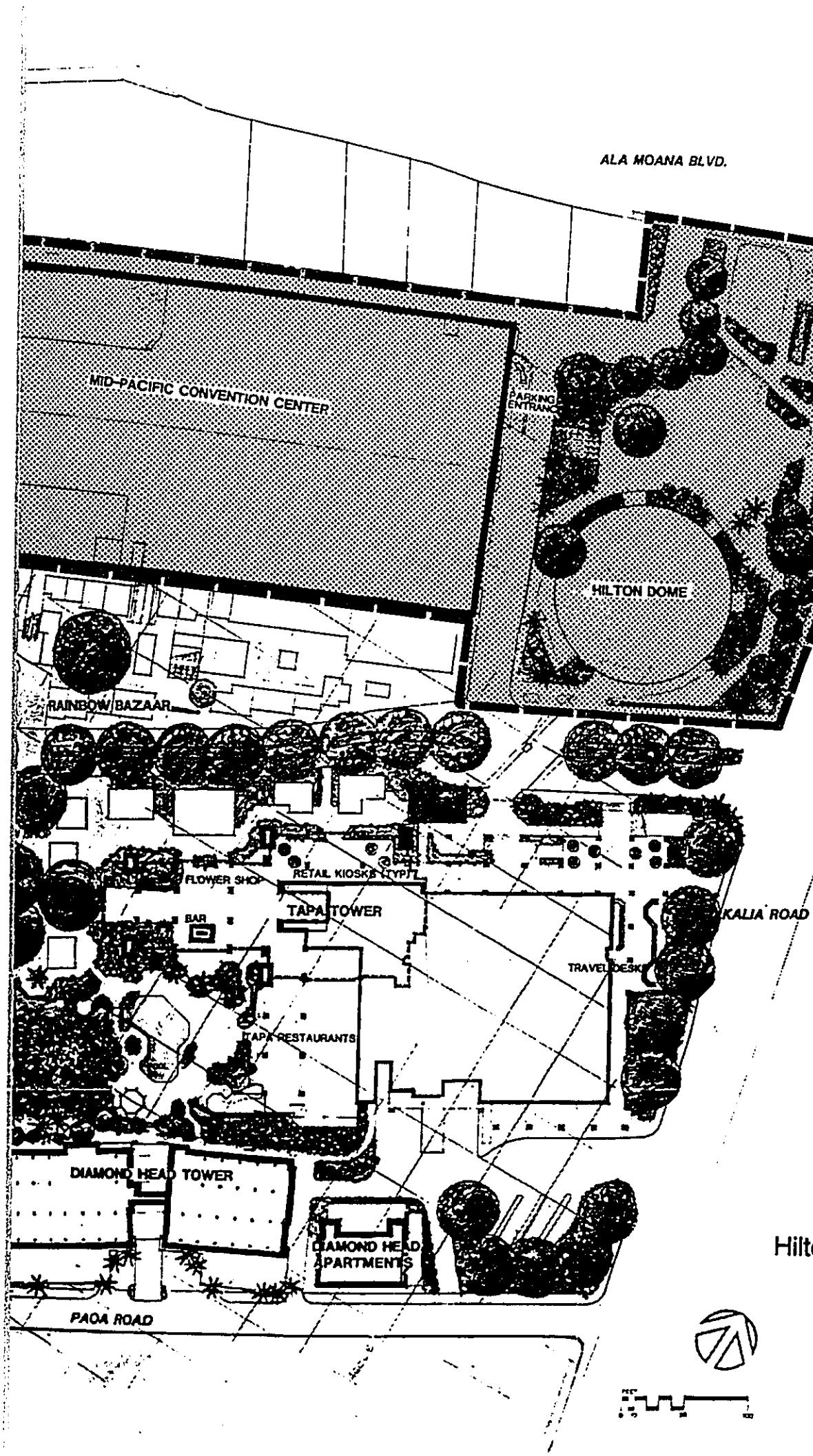
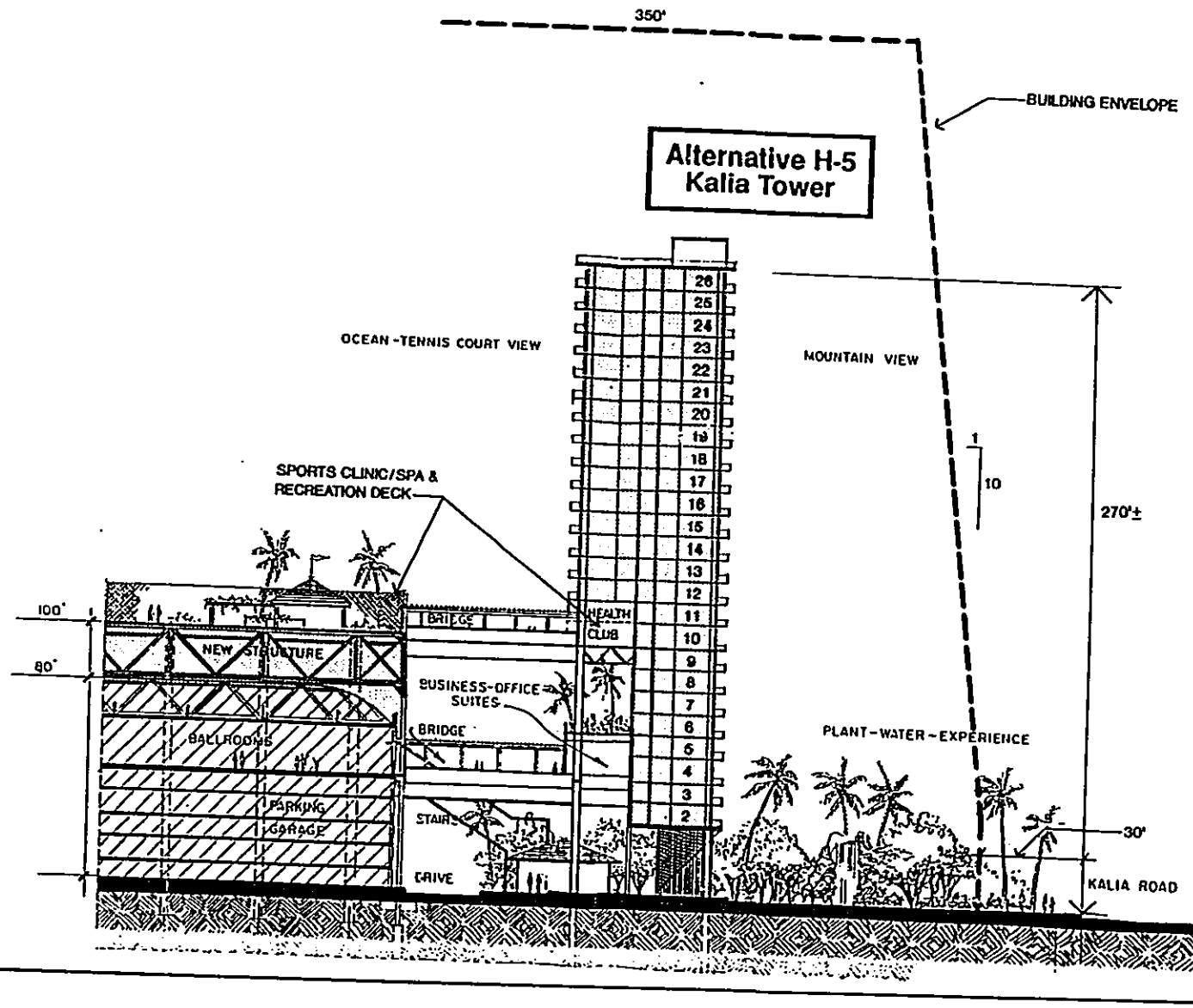


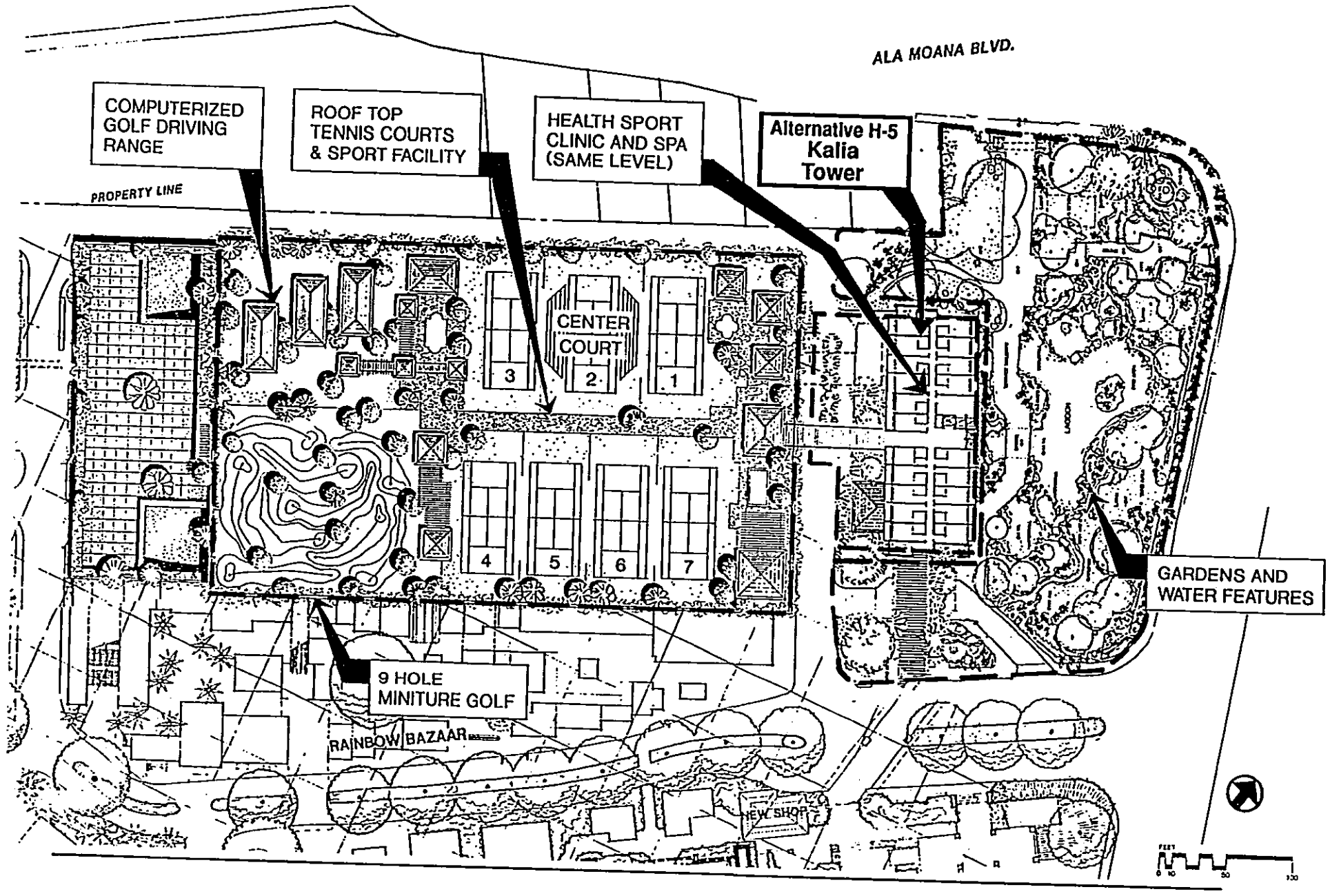
Figure 2.2
Hilton Hawaiian Village
Project Site
Kalia Tower EIS

Project Site



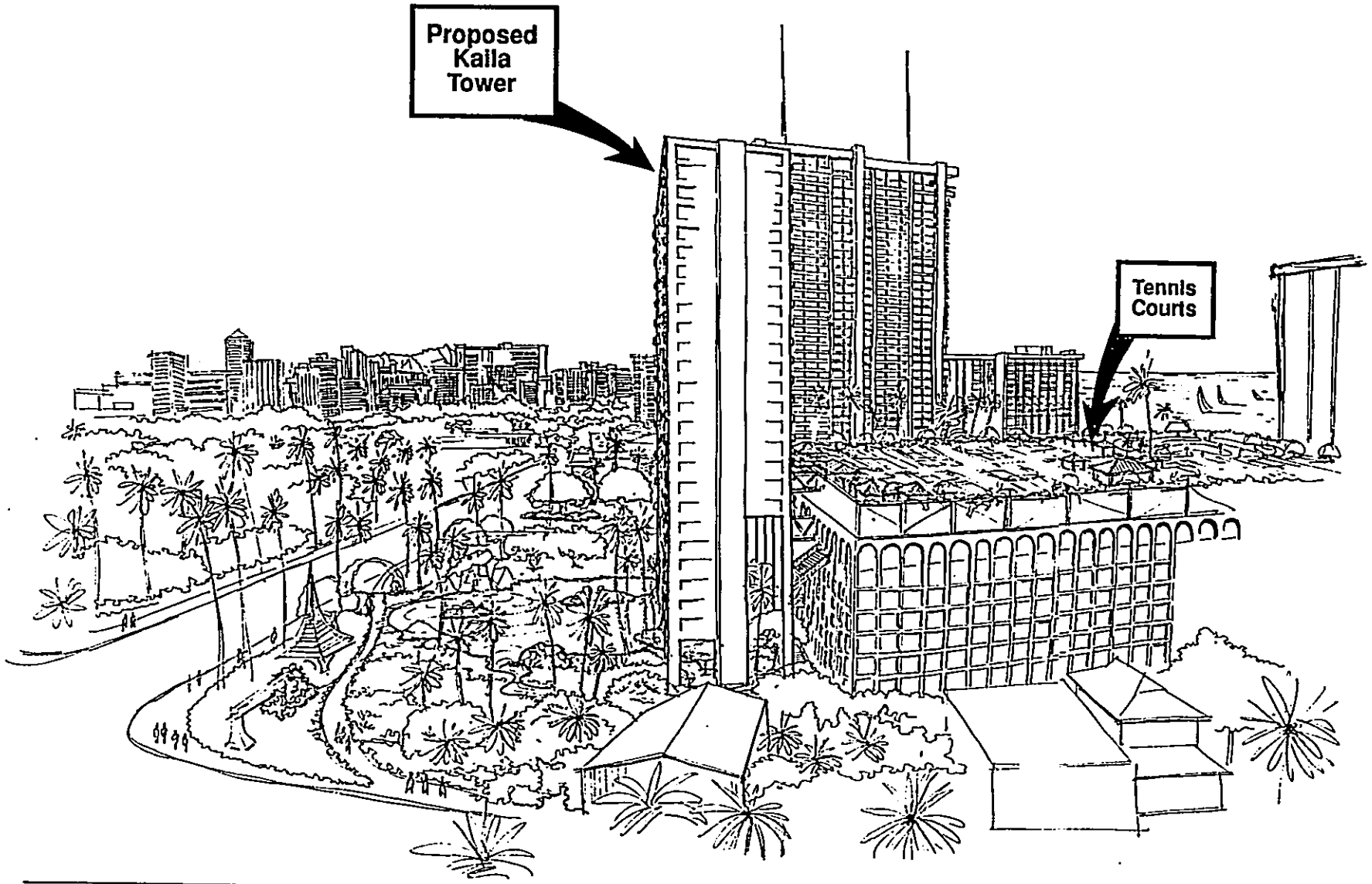
HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

Figure 2.3
H-5 Proposed Kalia Tower
Thru-Building Section (showing tennis deck)



HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

Figure 2.4
H-5 Proposed Kalia Tower
Bird's Eye View



HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

Figure 2.5
Proposed Kalia Tower Parallel to Kalia Road
Ala Moana/ Kalia Road Corner View

The Kalia Tower would be a 26-story, approximately 270-foot-tall structure, containing 400 guest units and a health-sports clinic/spa. Approximately 5,000 square feet of retail and restaurant space would be included. The Tower would be open up to 25 feet, allowing landscaping over a large area both around and under the building. In addition to gardens, an approximately 10,000-square-foot lagoon with a 25-foot-high waterfall would be constructed. The recreation deck would be constructed on a trussed floor platform raised approximately 20 feet above the parking garage (see Figures 2.3 through 2.6). Additional floor area to the Hilton Hawaiian Village would be approximately 230,000 square feet.

4.0 NEED FOR THE PROJECT

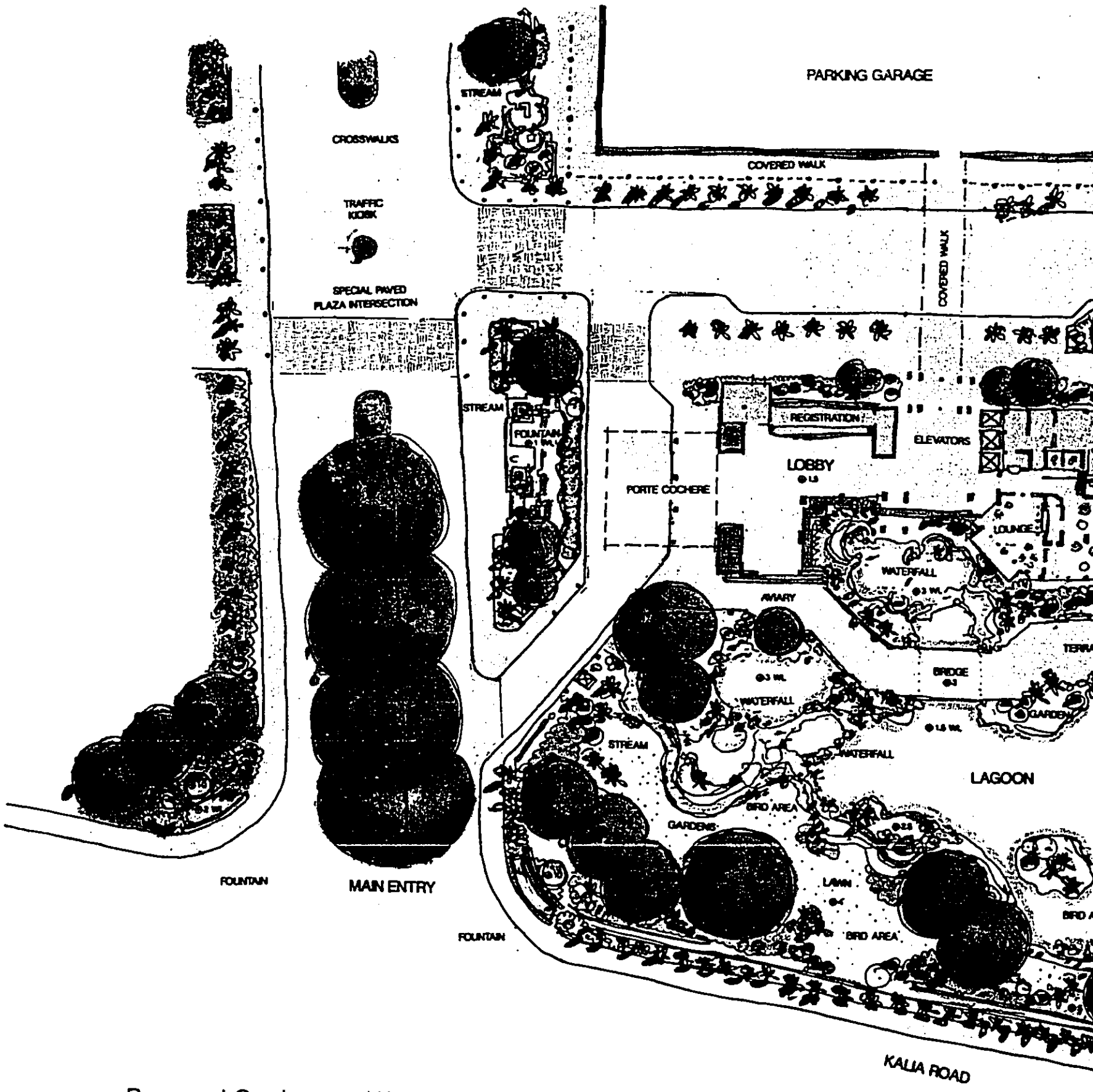
4.1 Land Cost/Property Tax

As stated previously, the Hilton Hawaiian Village is the single largest resort complex in Waikiki and the largest meeting and convention resort in the Pacific (see Figure 2.1 and Figure 2.2). Occupying approximately 20 acres (see Table 2.1), and currently containing 2,523 hotel units and 279 apartment units (Table 2.2), there is an average of 140 units per acre, quite low for major hotel

Table 2.1
Property Data

TAX MAP KEY	LAND TENURE	LAND AREA	
		Sq. Feet	Acres
2-6-08:01	Fee Simple	16,653	0.38
:02	Leasehold	5,900	0.14
:03	Fee Simple	4,865	0.11
:05	Fee Simple	8121	0.19
:07	Fee Simple	2,618	0.06
:12	Fee Simple	3,126	0.07
:19	Fee Simple	4,940	0.11
:20	Leasehold	14,360	0.33
:21	Leasehold	18,215	0.42
:23	Fee Simple	4,340	0.10
:24	Fee Simple	2,157	0.05
:27	Fee Simple	6,584	0.15
:31	Fee Simple	1,992	0.05
:34	Fee Simple	394,518	9.06
:37	Fee Simple	1,317	0.03
:38	Fee Simple	3,751	0.09
2-6-09:01	Fee Simple	70,000	1.61
:07	Fee Simple	13,281	0.30
:09	Fee Simple	131,645	3.02
:11	Fee Simple	37,984	0.87
:12	Fee Simple	56,428	1.30
:13	Fee Simple	77,249	1.77
TOTAL LAND AREA		**880,044**	**20.21**

Source: Hilton Hawaiian Village



Proposed Gardens and Water Features
HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

; GARAGE

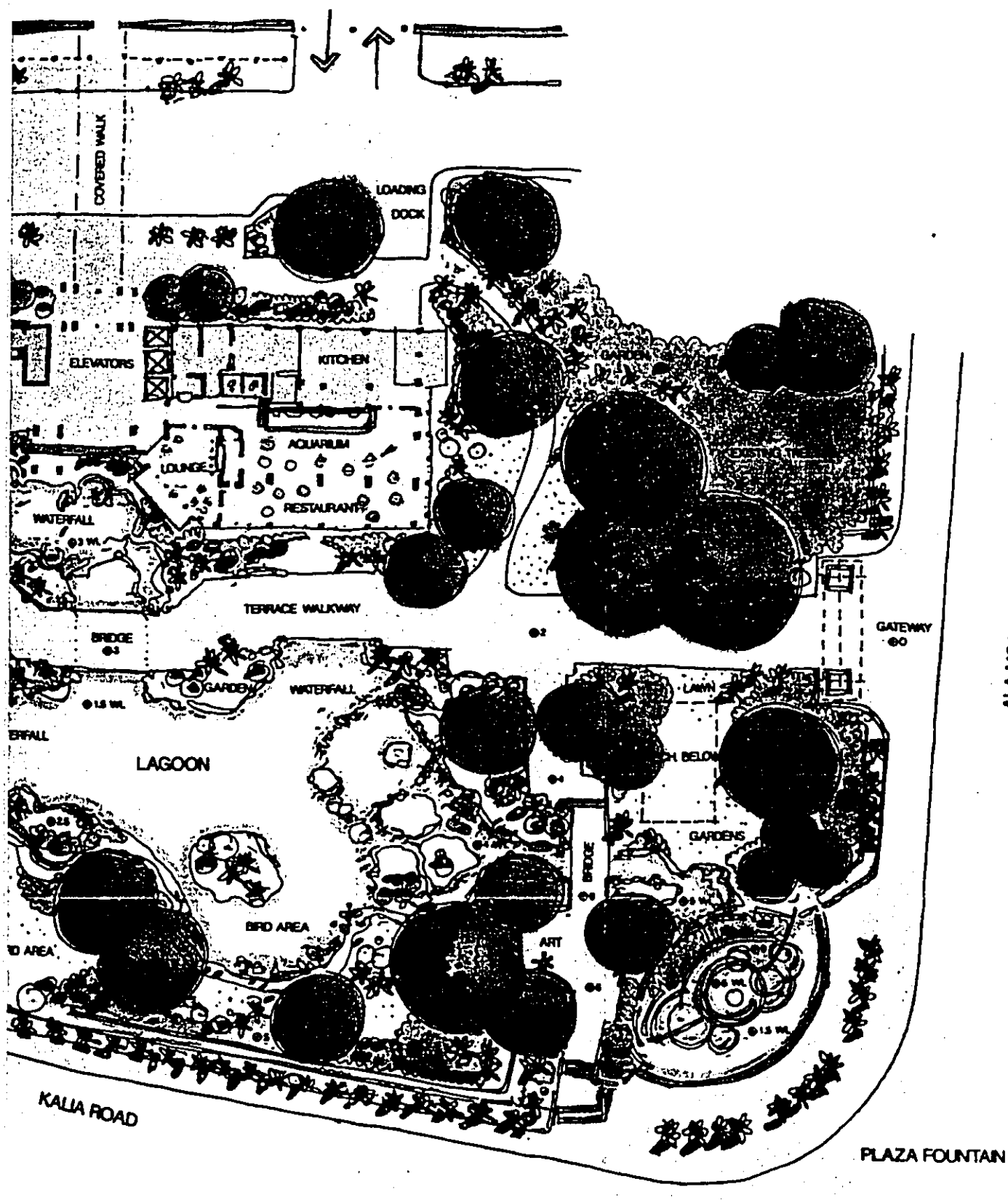


Figure 2.6
Proposed Kalia Tower
Site Concept Plan

Table 2.2
LUO Floor Area of Existing Uses at the Hilton Hawaiian Village

STRUCTURE	NO. OF UNITS	LUO DESIGNATED FLOOR AREA BY USE IN SQUARE FEET: ACTUAL FLOOR AREA	UNITS	RETAIL SHOPS	FOOD SERVICE	MEETING ROOMS	BACK OF HOUSE, PUBLIC CIRCULATION, AND MISC.	POOL DECK	LANAI CREDIT	LUO TOTAL AREA
HOTEL ROOMS										
Tapa Tower	1,013	1,107,870	507,172	7,870	15,300	26,263	550,765	0	500	1,107,370
Rainbow Tower	782	379,261	330,000	3,180	13,245	2,355	30,481	0	8,960	370,301
Ali'i Tower	348	254,488	155,244	6,675	12,760	675	69,500	9,634	4,855	249,633
Diamond Head Tower	380	230,088	178,040	7,780	0	0	44,268	0	11,350	218,738
Sub-Total	2,523	1,971,707								1,946,042
APARTMENTS										
Lagoon Tower	235	286,110	255,112	1,830	0	0	0	0	29,168	256,942
Diamond Head Apts.	44	33,580	29,530	0	0	0	0	0	4,050	29,530
Sub-Total	279	319,690								286,472
OTHER USES										
Coral Ballroom	0	74,936	0	0	0	32,924	42,012	0		74,936
Rainbow Bazaar	0	42,300	0	31,920	6,980	0	3,400	0		42,300
Entry Building	0	26,000	0	1,000	3,120	0	21,880	0		26,000
Dome	0	19,410	0	0	0	16,890	2,520	0		19,410
Retail Shops	0	3,408	0	3,408	0	0	0	0		3,408
Sub-Total	0	166,054								166,054
Totals	**2,802**	**2,457,451**	**1,429,933**	**63,663**	**51,405**	**79,107**	**764,826**	**9,634**	**58,883**	**2,398,568**

Source: Wimberly, Allison, Tong and Goo

Permissible Area Under LUO (sq. ft.)	2,622,603
Existing Built Area Under LUO (sq. ft.)	2,398,568
Current Allowable Building Space (squ. ft.)	224,035
Additional Area from Dome Removal (sq. ft.)	+19,410
Total Allowable Area for Proposed Project (sq. ft.)	243,445

properties in Waikiki. In comparison, the Hyatt Regency's 1,250 rooms are situated on a 2.75-acre site, giving it an average of 450 rooms per acre, and the Sheraton Royal Hawaiian/Sheraton Waikiki complex, which has traditionally been thought of as having very spacious grounds, averages 162 units per acre.

While the Village's abundant open space imparts a feeling of old Hawaii unique among Waikiki hotels, sustaining this appearance is costly. The FY 1989 assessed valuation of the land underlying the resort was $200 per square foot, or $176 million. At the then tax rate of $10.71 per thousand dollars of assessed valuation, this amounted to a property tax bill of approximately $1.9 million per year on the land alone. The assessed land evaluation for FY 1990 more than doubled to $420 million for the 20-acre resort, creating a tax bill of $7.1 million including buildings. Under the current tax rate of $9.64 per thousand this tax burden will further increase to over $8.3 million in FY 1991. Increases for the 77,000 square feet of property on which the Hilton Dome rests have been even more dramatic and are shown in Table 2.3. This rapidly growing property tax burden, combined with the State hotel room tax and the cost of recent renovations, has made it essential that the Hilton Hawaiian Village develop additional sources of income.

Table 2.3
Hilton Dome Site Real Estate Assessments (TMK 2-6-09:13)

FY YEAR	BUILDING	LAND	TOTAL	INCREASE	TOTAL TAX
1987-88	$445,000	$6,180,000	$6,625,000	n/a	$71.000
1988-89	446,000	7,415,000	7,863,000	18.9%	84,000
1989-90	449,000	15,450,000	15,898,000	102.2%	170,000
1990-91	437,000	37,080,000	37,517,000	136.0%	402,000
1991-92	451,600	52,529,300	52,980,900	27.0%	511,000

4.2 Under-Use of Existing Portions of the Resort

At present, the Hilton Hawaiian Village Dome is used only for an early evening magic show and for the Don Ho Show at a later hour. A recent in-house review of its operations showed that these produce relatively little net income. Attendance at the Don Ho Show, for example, presently runs approximately 350 people per show in the 1,100-person capacity theater. The entertainment and storage functions of the Dome area could be accommodated more economically and efficiently in other facilities at the Hilton Hawaiian Village. The Dome is unusable during the day because it is difficult to air condition adequately. This is due to the aluminum composition of the roof and the inability to vent the heat build-up to the outside. Also, the structural nature of the Dome makes it a non-conforming building by today's standards. That is to say, if the Dome were to be built today, it could not be used as an auditorium, a meeting place, or other functions involving occupancy by large numbers of people.

4.3 Need for Additional Recreational Facilities

Although the Hilton Hawaiian Village currently accommodates about 4,500 to 5,000 guests daily, the only exercise facility on the grounds is a small Massage and Fitness Center located in (and exclusive to) the 348-room Ali'i Tower. The management of the hotel consistently receives many inquiries from guests regarding exercise facilities, health clubs and tennis. Due to insufficient facilities on the premises, Hilton guests are presently referred to public facilities or nearby hotels.

(The Ilikai and the Hawaiian Regent are the only Waikiki hotels which have tennis facilities, and even those are quite limited.)

The addition of the health sports clinic/spa and tennis courts would enhance the recreational opportunities available to guests at the Hilton Hawaiian Village. They would also benefit local residents in the surrounding area by contributing more recreational opportunities through annual Kama'aina membership and by easing the demand on public facilities. Sports clinics are planned which would include after-school recreation programs. The impact the proposed project would have upon recreational opportunities in the area is more fully discussed in Chapter IV.

4.4 The Need For Additional Visitor Accommodations on Oahu

4.4.1 Historical Trends

The emergence of tourism as the State's single most important industry has been by far the most significant economic development in Hawaii over the past forty years. During that period, the number of visitors rose from a modest 46,583 in 1950 to a whopping 6.6 million in 1989.

Over the past 10 years, the average annual increase in visitors to the State (exclusive of military personnel and their families on rest and recreation leaves) was 5 percent (see Table 2.4). The growth rate has not been uniform, however, and periods of lower than average growth are evident in the figures, mainly due to drops in mainland (westbound) tourists. Plateaus in the visitor growth rate occurred in 1980-81 and again in 1985, when recessions reduced individuals' real disposable income and, therefore, their propensity to travel. The most recent, and perhaps most dramatic, period of depressed growth rates, occurred in early 1991 and has generally been attributed to the effects of the Persian Gulf War and to the effects of inflation on real disposable incomes in both the United States and Japan.

Table 2.4
State of Hawaii Visitor Arrivals: 1980 to 1990

YEAR	WESTBOUND	% CHANGE	EASTBOUND	% CHANGE	TOTAL	% CHANGE
1980	3,046,132	-3	888,372	+8	3,964,504	+0
1981	2,974,791	-2	959,832	+7	3,934,623	-1
1982	3,278,525	+9	964,400	+0	4,242,925	+7
1983	3,396,115	+3	971,990	+1	4,368,105	+3
1984	3,721,380	+9	1,134,200	+14	4,855,580	10
1985	3,708,610	0	1,175,500	+4	4,884,110	+1
1986	4,256,390	13	1,350,590	+13	5,606,980	+13
1987	4,204,010	-1	1,595,820	+15	5,799,860	+3
1988	4,264,730	+1	1,877,690	+15	6,142,420	+6
1989	4,705,320	+9	1,936,500	+3	6,641,820	+8
1990	4,719,730	+0.3	2,251,450	+16.3	6,971,180	+5
Average Change		**+3.5**		**+8.8**		**+5.0**

Source: Hawaii Data Book, 1990, Hawaii Visitors Bureau

4.4.2 Projected Visitor Arrivals

Projecting visitor arrivals to Hawaii has long been a favorite pasttime for Hawaii's market analysts, planners, and statisticians. If one were to review forecasts published since 1947, it could be seen that, almost without exception, the forecasts were lower than the rates actually experienced. Table 2.5 summarizes a number of visitor projections that have been made as part of the State of Hawaii's Department of Business and Economic Development's (DBED) economic projections. Comparing these with the historical growth rates shown in Table 2.4 above shows that while projections were slightly above actual counts for 1980 and 1985, the 1990 forecasts were lower than the actual counts. In the latest round of projections forecasters are predicting that there will be an average annual increase of between 2.5 to 3 percent over the next 20 years. This increase reflects a different set of assumptions than did the previous projections (1978, 1984), which forecast decreasing annual increases in tourism from 2 percent down to 1 percent by calendar year 2005.

Table 2.5
State of Hawaii Visitor Projections
Department of Business and Economic Development

PROJECTED YEAR	1978 DPED	1984 DPED	1988 DBED
1980	4,142,000		
1985	5,286,000	5,000,000	
1990	6,432,000	6,083,300	6,521,000
1995	7,456,000	7,052,200	7,746,000
2000	7,836,000	7,786,200	8,979,000
2005		8,183,400	10,159,000
2010			11,494,000

Source: Hawaii Data Book, 1978-1990 Editions

It is important to note that the emphasis here is on the word "assumption." The level of visitor activity in Hawaii is a function of a large number of social, economic, and technological factors, many of them highly volatile, and accurate long-range predictions are extremely difficult to make. Forecasts have reflected several different scenarios, with the task then to choose the scenario trend believed most likely to occur.

Historically, market research has tended to underestimate the actual growth rate. This is an understandable bias when it is remembered that the projections are intended to serve as the basis of decisions regarding the long-term commitments of large amounts of capital, and that the penalty for being too optimistic far outweighs the price of over-cautiousness. Nevertheless, it is a bias which should be taken into account in assessing their accuracy.

Also, it must be remembered that long-term projections cannot account for major changes in policy or extraordinary world events. Certainly, the long-range forecasts that predicted ever-decreasing annual increases in tourism to Hawaii could not factor in the global policy decision in the 1980's to devalue the dollar against other major currencies, thus sparking a boom in eastbound tourism and investment to the Islands. At the same time, the most recent 1988 projections could not foresee the major drops in visitors due to the Gulf War conflict. Thus, projections cannot be seen as static numbers, and must be constantly updated to reflect the ever-changing, volatile nature of the global social, economic, and technological factors involved.

The most recent and comprehensive effort to project potential future increases in the number of visitors was made as part of DBED's 1988 Population and Economic Projections (Series M-K).[1] Since these estimates are the basis of official government policy, it is worth examining them and the methodology that was used in their development in some detail.

The M-K projections were produced through the Hawaii Population and Economic Projection and Simulation Model, a system of mathematical equations designed to give a consistent set of State and County projections. At the center of the system is the State model, which forecasts expenditures, production, employment, income, and population. The State model uses projections of U.S. productivity and wage rates and other variables produced by additional economic models. The County model, in turn, allocates the State forecasts of population, employment, and income among the four counties.

The State model contains two major component submodels. An economic submodel produces projections of economic activity ranging from jobs in individual industries, wages, and personal income to Gross State Product. A demographic submodel generates the natural increase in population based on demographic factors. The interaction between the two submodels determines the expected level of net migration.

The entire model is relatively large with roughly 200 economic and demographic relationships depicted in the equations. The equations are largely based on the straightforward concept of regional growth. Central to this concept is the view that a region's exports (purchases of locally produced goods and services by outsiders) are the driving force of regional economic activity. In Hawaii, the principle exports are tourism, national defense, and agriculture.

When supplied with assumptions about the level of these exports in the future, the economic submodel can trace and predict the economic growth impact which these exports will likely have within the local economy. This includes the impacts on industries doing the exporting, the impacts on other industries which supply services and materials to the primary export industries, and what all this activity will probably generate in terms of overall employment and income for all industries and the State as a whole.

The key export industry for all counties in Hawaii is tourism. Tourism projections are determined outside of the model and are referred to as exogenous variables, which are derived from other special models and mathematical estimating techniques. Inputs into these models would include population, real income, inflation, relative living costs, and national and international economic growth trends. The model was designed to project visitor arrivals on a statewide basis. Each county is then independently allocated a share of the statewide projection based on analyses of past, current, and expected future trends in resort development and occupancy rates. These visitor accommodations projections can then be translated into levels of hotel and eating and drinking establishment employment.

Much of the rapid increase in westbound visitors to Hawaii that has occurred over the past 10 years has generally been attributed to the deregulation of the airline industry and the institution of cut-rate fares and package arrangements for both air travel and accommodations. The greater flexibility in organizing individual trips has increased the number of westbound visitors travelling outside of tour groups from 54 percent in 1976 to 85 percent in 1989 (see Table 2.6). However, according to the Hawaii Visitors' Bureau, the proportion of Japanese visitors who travel as part of an organized tour group has increased from about 70 percent in 1987 to 90 percent in 1989.

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[1] Department of Business and Economic Development: 1988. Population and Economic Projections for the State of Hawaii to 2010 (Series M-K). Research and Economic Analysis Division, State of Hawaii.

Table 2.6
Distribution of Westbound Visitors by Type of Travel: 1985 to 1989
(Percent of Total Visitors)

YEAR	TOUR GROUP	INDIVIDUAL	OTHER
1985	17.9	75.6	6.5
1986	14.7	76.8	8.5
1987	13.2	79.5	7.3
1988	13.9	83.4	2.7
1989	14.5	84.6	0.9

Source: Hawaii Data Book, 1986-1990 Editions

Another important aspect of the travel business in Hawaii is the rather large fluctuations in the volume of convention business (see Table 2.7). It accounts for roughly 6 percent of the westbound visitor total, and most officials believe that it could play an even greater role in the future when adequate facilities are available. Construction of one, and possibly two, convention center complexes would place additional demand upon the hotel industry to provide additional rooms.

Table 2.7
Growth in Convention Business to Hawaii: 1980 to 1989

YEAR	CONVENTIONS	PERSONS	% CHANGE
1980	546	230,273	
1981	503	181,662	-21
1982	439	167,558	-8
1983	420	211,764	+26
1984	623	255,152	+20
1985	740	247,166	-3
1986	810	250,703	+1
1987	903	317,101	26
1988	886	301,654	-5
1989	754	259,399	-14

Source: Hawaii Data Book, 1981-1990 Editions

4.4.3 Potential Demand for Hotel Accommodations on Oahu

The preceding section estimated the probable increase in potential visitors to Hawaii between now and 2010 (a "potential market" estimate which does not adequately consider State and City policies or limits on the number of hotel rooms available). However, in order to adequately assess the need for the Kalia Tower, it is necessary to determine what this level of visitor arrivals means in terms of a need for additional visitor accommodations.

Demand for hotel rooms can be derived from projected daily visitor census numbers and the number of persons in an average tourist party using the following generally accepted demand equation:

$$D_{ro} = \frac{[V_o]\,[H]}{[O_a]\,[P_r]}$$

where:

D_{ro}	=	the number of hotel rooms on Oahu needed to satisfy demand
V_o	=	the number of visitors to Oahu on a given day
H	=	the percentage of total visitors who stay in hotels
O_a	=	the average annual hotel occupancy rate on Oahu
P_r	=	the average number of persons per room

The projected potential average daily visitor census totals for Oahu from the DBED projections can be seen in Table 2.8. These numbers reflect the number of visitors who would be present on the island on any given day in the year. Not all of these visitors will stay in hotel rooms, however, and it is necessary to take this into account. In 1989, the Hawaii Visitors' Bureau reported that approximately 90 percent of the visitors to Oahu stayed in hotels or visitor units in condominiums, with the remainder utilizing private accommodations. As the number.of visitors to the State increases, it is expected that the percentage utilizing hotels will increase as the ratio of visitors to residents increases. This can be seen for westbound visitors especially (Table 2.9), where the percentage of those staying in hotels (condos excluded) has increased from 55 percent in 1985 to 72 percent in 1989. The percentage of Japanese visitors utilizing hotel rooms has been generally much higher, averaging around 90 percent.

Table 2.8
Visitor Industry Projections for Oahu: 1985 to 2010

YEAR	DAILY VISITORS	PERCENT IN VISITOR UNITS	OCCUPIED UNITS	TOTAL UNITS	PERCENT OCCUPIED	NUMBER PER ROOM
1985	65,300	88%	31,600	38,600	82%	1.82
1990	82,100	90%	35,300	41,500	85%	2.09
1995	89,300	90%	38,600	45,400	85%	2.09
2000	96,800	91%	42,000	49,400	85%	2.10
2005	104,900	92%	44,800	52,700	85%	2.15
2010	113,400	93%	47,500	55,800	85%	2.22

Source: DBED Series M-K Projections

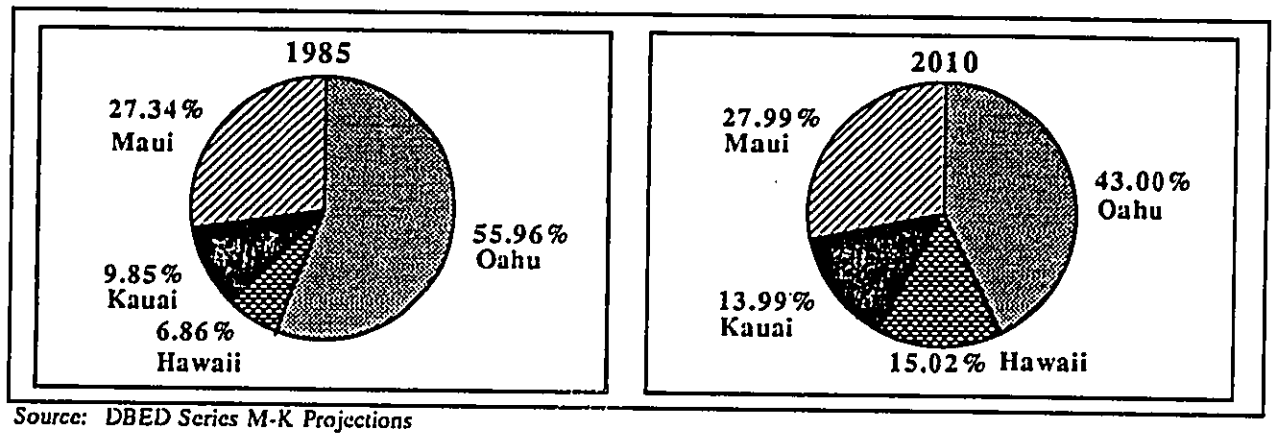
Table 2.9
Percent of Oahu Westbound Visitors Utilizing Visitor Accommodations: 1985-1989

YEAR	IN HOTELS	IN CONDOMINIUMS	TOTAL IN VISITOR UNITS
1985	55	23	78
1986	64	25	89
1987	67	23	90
1988	67	20	87
1989	72	18	90

Source: Hawaii Visitors Bureau

As the supply of accommodations becomes tight, and with the emphasis to diversify tourism destinations within Hawaii, visitors to Hawaii will probably spend a greater proportion of their time on the Neighbor Islands than would otherwise be the case, especially if the large hotel chains continue to develop extensive facilities there and use their market leverage to encourage that pattern. This scenario was built into the 1988 DBED tourism projections, and the projected drop in Oahu's share of the tourism pie by the year 2010 can be seen in Figure 2.7.

Figure 2.7
Current and Projected Proportion of Visitors to Oahu: 1985, 2010



Source: DBED Series M-K Projections

The projected values used by DBED for the average number of persons per room are shown in Table 2.8. They are higher than the figure of 1.8 persons per room that has been seen most frequently on Oahu (see Table 2.10), and reflect the ever increasing demand from tourism growth on a room supply growing at a slower pace. The average size of the visitor party to Hawaii and to Oahu has remained very constant over the years at approximately 1.8 persons. This figure reflects closely the double occupancy rate of 90-96 percent reported by the Hilton Hawaiian Village. However, the use of the occupancy rates provided in the DBED projections would result in more conservative estimates with less overall room demand. Therefore, the higher DBED figures were included in the demand equation.

Table 2.10
Average Number in Tourist Party for Oahu: 1985 to 1989

YEAR	NUMBER IN PARTY
1985	1.82
1986	1.80
1987	1.77
1988	1.78
1989	1.80

Source: Hawaii Visitors Bureau

The final variable in the hotel room demand equation is the attainable occupancy rate. Because of seasonal variations in demand and the need to protect against overbooking, it is impossible for hotels to achieve occupancy rates of 100 percent. A visitor plant sized to accommodate most of the demand during peak months is necessarily underutilized during the slack period. Most studies of demand for visitor accommodations have assumed that an average annual occupancy rate of 80 percent is about the highest that could be achieved on Oahu under existing conditions. A review of occupancy rates recorded over the past few years for Waikiki Hotels[2] (see Table 2.11) suggests that this rate appears low, and that a more reasonable rate would be 85 percent. This figure was used by DBED in making their projections (see Table 2.8).

Table 2.11
Average Occupancy and Nightly Rates for Waikiki Beach Front Hotels: 1986 to 1990

YEAR	OCCUPANCY	AVG. NIGHTLY RATE
1986	85.2%	$94.29
1987	86.5%	$106.94
1988	85.7%	$121.68
1989	86.2%	$121.49
1990	84.9%	$134.97

Source: Pannel Kerr and Forster, 1990

In recent years, average monthly occupancy rates as high as 93.9 percent have been recorded at the Hilton Hawaiian Village, and the average annual occupancy rate has been approximately 85 percent, reflecting general Waikiki beach front hotel occupancy rates Because of this, the occupancy rate of 85 percent, in line with both the DBED and recent Waikiki rates, was used for the final calculations of potential demand for hotel rooms.

Inserting the values of each of the variables derived above into the hotel room demand equation produces the projected potential demand shown in Table 2.12. In order to determine what these values might mean in terms of the need for new construction, it is necessary to pause for a moment and look at the inventory of existing and planned hotel rooms.

Table 2.12
Demand for Visitor Units on Oahu

YEAR	DAILY VISITORS	PERCENT IN VISITOR UNITS	OCCUPANCY RATE (%)	AVG. NO. IN PARTY	ROOM DEMAND
1990	82,100	90.0	85	2.09	41,529
1995	89,300	90.4	85	2.09	45,412
2000	96,800	91.0	85	2.10	49,412
2005	104,900	92.0	85	2.15	52,706
2010	113,400	93.0	85	2.22	55,882

[2] Pannel Kerr and Forster. 1990. Trends in the Hotel Industry. Honolulu, Hawaii.

4.4.4 Existing Visitor Unit Inventory

Tables 2.13 and 2.14 summarize the status of the State's and Waikiki's visitor unit inventory over the past decade. A careful review of the data they contain reveals several significant characteristics in the pattern of tourist accommodation development in Hawaii.

- Between 1985 and 1990, the rate of increase in the number of visitor units on the Neighbor Islands was extremely high (28 percent).
- Since 1985, the rate of increase in the number of visitor units for the State as a whole has slowed, averaging only a 1.6 percent increase per year as compared to an average 4.2 percent increase for the six years prior.
- Since 1985, the number of available visitor units on Oahu has actually decreased by 3.5 percent, while tourism to Oahu has increased in the same time period by approximately 36 percent.
- Oahu's share of the total State visitor units has decreased from 60 percent in 1979 to 52 percent in 1990.
- Between 1986 and 1989, the total number of visitor units in Waikiki (including Kahala) actually decreased by over 1,800 units, a 5 percent decline. The number of hotel units in the same area increased by only slightly over 1 percent per annum during that period.

Table 2.13
Hawaii's Visitor Unit Inventory: 1979 to 1990
(Includes both Hotel Units and Condominiums)

YEAR	STATE	PERCENT CHANGE	OAHU	PERCENT CHANGE	NEIGHBOR ISLANDS	PERCENT CHANGE
1979	49,832	—	30,065	—	19,767	—
1980	54,246	8.86%	34,334	14.20%	19,912	0.73%
1981	56,769	4.65%	33,967	-1.07%	22,802	14.51%
1982	57,968	2.11%	33,492	-1.40%	24,476	7.34%
1983	58,765	1.37%	34,354	2.57%	24,411	-0.27%
1984	62,448	6.27%	36,848	7.26%	25,600	4.87%
1985	65,919	5.56%	38,600	4.75%	27,319	6.71%
1986	66,308	0.59%	39,010	1.06%	27,298	-0.08%
1987	65,318	-1.49%	38,185	-2.11%	27,133	-0.60%
1988	69,012	5.66%	37,841	-0.90%	31,171	14.88%
1989	68,034	-1.42%	36,467	-3.63%	31,567	1.27%
1990	72,237	6.18%	37,270	2.20%	34,967	10.77%
Average Annual Change:						
1979-1990		3.48%		2.09%		5.47%
1985-1990		2.51%		-0.13%		5.49%

Source: Hawaii Data Books, 1980-1991 Editions

Table 2.14
Waikiki* Visitor Unit Inventory: 1979 to 1990

YEAR	HOTEL†	CONDOMINIUM	TOTAL
1979	23,397	2,949	26,346
1980	25,833	4,681	30,514
1981	25,035	4,438	29,473
1982	24,434	4,613	29,047
1983	26,151	3,957	30,108
1984	26,602	6,590	33,192
1985	26,259	7,620	33,879
1986	25,920	8,730	34,650
1987	25,722	8,292	34,014
1988	26,911	6,750	33,661
1989	27,604	5,204	32,808
1990#	28,120	4,443	32,563

Source: Hawaii Data Books, 1979 to 1990 and Hawaii Visitors Bureau Data
* Includes units from Waikiki to Kahala, but not North or West of the Ala Wai
† Includes Hotels, Apartment Hotels, and Cottages
\# Excludes units outside of the Waikiki Special Design District

4.4.5 Need for Additional Visitor Units

What explains the decline in the Oahu visitor unit inventory since 1985? Of the two possibilities— lack of growth in demand and limitations on new constructions— the first has clearly not been an important factor. Occupancies at Waikiki hotels have been over 85 percent during that time, a rate which is considered above the achievable maximum. And although the rate has dropped recently due to the Gulf War, its lowest point was still between 65 to 70 percent, and industry experts are now seeing a rebound. Unlike some Neighbor Island resort areas that have reduced prices as a means of stimulating business, room rates in Waikiki have increased steadily. Based on the evidence, then, it appears unlikely that the comparatively slow growth in the number of hotel rooms in Waikiki is attributable to an absence of demand.

On the other hand, a brief review of the history of hotel development in Waikiki over the past 30 years makes it quite evident that a combination of factors have limited expansion of the visitor unit inventory. First of all, while visitor totals have grown steadily, hotel construction has been in fits and starts. A large number of hotel construction projects were initiated in the late 1960's just prior to the effective date of the City and County's Comprehensive Zoning Ordinance. When these projects went into operation in 1970 and 1971, occupancy rates plummeted. This temporarily discouraged additional hotel construction. Occupancy rates had recovered by 1974, but the increasing rarity of property suitable for hotel use made it more difficult to expand the room inventory than had previously been the case. Just as development was beginning to get underway once again, the City Council placed a moratorium on the issuance of building permits for hotels. The moratorium remained in effect until the adoption of the Waikiki Special Design District Ordinance in mid-1976 and effectively blocked a number of developments which might otherwise have been undertaken. Many of the existing hotels in Waikiki took advantage of the situation to

increase their room rates an average of 10 to 15 percent during this time while still keeping their occupancy rates in the 80 to 90 percent range.

Recessions governed the course of the tourist industry from 1976 to 1985. This period was marked by increases and decreases in the supply of visitor units, as well as variability in the arrival of westbound tourists. As the recession in the early part of the decade made its impact felt on the economy of Hawaii, real estate prices dropped and new construction slowed. As the recession ended in the mid-1980's, and as efforts in the world market were made to decrease the value of the U.S. dollar, tourism rebounded, catching the visitor industry with shortages of rooms. The real estate market, not yet fully recovered, became a prime investment target for condominium conversion to tourist units, as purchase prices for the units were still fairly low and tourism demand was high. As property assessments rose between 1986 to 1990, along with property taxes, condominiums slowly began to be taken out of the visitor unit inventory and converted to short-term lease rentals. The number of hotel rooms, however, increased only slightly, creating a net decrease in the available visitor units in Waikiki and on Oahu over the latter half of the 1980's. During the same period, visitor arrivals to Oahu increased approximately 36 percent, creating even more demand on the available units.

In addition to the economic factors limiting construction of new visitor units, political and land supply issues became limiting factors during the latter half of the 1980's. With the adoption of the Land Use Ordinance in 1985 to replace the Comprehensive Zoning Code, and the revision of the Development Plans for the the Primary Urban Center in 1981, a target area for visitor units in Waikiki was established, encouraging support facilities for "about" 30,000 units. Although this concept has been viewed by City officials as a guiding policy, rather than a regulatory mandate, it has served to create apprehension on the part of developers. This, coupled with the high land prices in Waikiki, has caused resort development pressure into areas outside of Waikiki, where it must compete for land directly with the single-family housing market. *In the meantime, the off-*Waikiki resort areas on Oahu (Makaha, Turtle Bay, Ko Olina) have been slow to develop.

According to representatives of the Hilton Hawaiian Village, in addition to fully utilizing its existing capacity, the Hilton Hawaiian Village had to refuse requests for 183,457 room nights in 1989— an average of 505 rooms per day, or approximately 1,000 persons (see Table 2.15). Of course, this is not to say that the Hawaiian Village would have been able to keep an additional 500 rooms occupied if they had been available. The top four months accounted for over 55 percent of the year's refusals, and one month, August, accounted for over 20 percent of the total. Because of the variable nature of the demand, and the fact that regrets reflect not only room availability, but also room rates, the Hilton Hawaiian Village would have to refuse a number of requests even if it had an additional 500 rooms in its inventory, much less the net increase of 400 proposed in the current project. It is important to note here, however, that the proposed rooms in the Kalia Tower are envisioned for the mid- to lower-range of the Hilton price scale and for the business traveller. Thus, they would not only address the large number of regrets due to availability of rooms and services, but also the 20 percent of total regrets due to the perception of high rates. And in a testament to the strength of the demand for rooms at the Hilton Hawaiian Village, if even 50 percent of the persons now refused reservations could be accommodated in the Kalia Tower, those persons alone would fill it to close to 65 percent of capacity.

Not only does there appear to be a strong demand for additional hotel rooms in Waikiki, but there are presently relatively few projects in the works that would significantly change this situation. As of April 1991, only eight projects could be counted as proposed for Oahu, and only the Japan Airlines portion of the Ko Olina Resort (380 rooms) had an active building permit and was under construction. Of the remaining projects listed in Table 2.16, the Aloha Tower Redevelopment is under a State authority, and the Waikikian is currently under review for a Shoreline Management Permit. The others are not known to have solid financial commitments.

Even in the unlikely event that all of these proposed projects were completed, they would provide at most an additional 7,900 rooms by 2010. Since the existing visitor unit inventory on Oahu is 37,320 and projected potential demand for visitor unit accommodations for 2010 is 55,882, it appears that potential demand for visitor units in that year will exceed the available supply by at least 10,600 units unless additional construction occurs. The net increase of 400 rooms that would result from development of the Kalia Tower as planned would amount to only 4 percent of the additional rooms needed to meet the projected potential demand (see Table 2.17).

Table 2.15
Room Nights Regretted by the Hilton Hawaiian Village in 1989

MONTH	TOTAL	NO ROOMS	RATE TOO HIGH	PACKAGE NOT AVAILABLE
Jan	11,435	8,076	1,938	1,421
Feb	25,566	21,784	2,048	1,734
Mar	7,727	4,159	2,053	1,515
Apr	10,438	8,461	1,420	557
May	9,127	7,366	1,276	485
Jun	18,562	15,660	1,774	1,128
Jul	6,690	3,013	2,727	950
Aug	40,954	37,309	2,290	1,355
Sep	5,033	2,571	1,769	693
Oct	11,835	9,594	1,506	735
Nov	14,590	11,661	1,792	1,137
Dec	21,500	18,180	2,293	1,027
Totals	**183,457**	**147,834**	**22,886**	**12,737**

Source: Hilton Hawaiian Village

Table 2.16
Oahu Proposed Hotel Projects

PROJECT	ROOMS	ESTIMATED FINISH
Aloha Tower	+109	1995
Sheraton Makaha Expansion	+350	1996
Honolulu Convention Center	+800	1996
Kawele Bay Hotel No. 2	+383	1997
Kawele Bay Beach Club and Hotel	+650	1997
Waikikian	+132	1997
Ewa Marina	+1,500	1998
Ko Olina	+4,000	Phased, 1994-2006
Total	**7,924**	**By 2010**

Source: Hawaii Visitors Bureau and the Department of Land Utilization

Table 2.17
Relationship of Kalia Tower to Total Demand for New Visitor Units: 1990 to 2010

Projected Potential Demand for Visitor Units in 2010	Existing Oahu Visitor Unit Inventory	No. of Units Proposed by 2010	Additional Visitor Units Required	Net Increase in Visitor Units as a Result of the Kalia Tower	Kalia Tower Units as Percent of Total Oahu Need
55,882	37,320	7,900	10,600	400	4

Not only is there more than enough potential demand to make development of the Kalia Tower an attractive investment from the point of view of the landowner, but the Hilton Hawaiian Village appears to be ideally suited from a public viewpoint as well. At 125 rooms per acre, it has the lowest density of any of the major resort complexes in Waikiki (see Table 2.18). It is adjacent to Fort DeRussy, the largest area of open space in Waikiki outside of Kapiolani Park. It has a large on-site parking facility and extensive meeting and entertainment areas. Finally, it is adjacent to Ala Moana Boulevard, the primary road link between Waikiki and the Honolulu International Airport. With the addition of the Kalia Tower, the Hilton Hawaiian Village would still maintain its position as Waikiki's "most spacious" resort.

Table 2.18
Existing Densities at Selected Waikiki Resort Complexes

RESORT	NO. OF UNITS	NO. OF ACRES	UNITS/ACRE
Hyatt Regency	1,230	2.75	447
Princess Kaiulani	1,150	4.15	277
Royal Hawaiian/Sheraton Waikiki	2,435	15.00	162
Hawaiian Regent	1,346	4.13	326
Hilton Hawaiian Village:			
Existing (2,523 Hotel, 279 Apartment)	2,802	20.21	139
Proposed (+400 Hotel)	3,202	20.21	158

5.0 OBJECTIVES OF THE PROPOSED ACTION

After evaluating the challenges and opportunities facing the Hilton Hawaiian Village, the management and owners of the resort have established the following objectives for future use of the Dome site and the Coral Ballroom/Parking Structure rooftop:

- Take advantage of the 243,000 square feet of additional building floor area (see Table 2.2) that the Land Use Ordinance permits at the Hilton Hawaiian Village by redeveloping the Dome site, with income from the new facilities being used to offset rising taxes and other operating costs.

- Replace existing facilities with ones that enhance the overall resort image by establishing a garden-water theme at the Hilton Hawaiian Village entrance.
- Increase the amount and quality of open space on the critical corner of Ala Moana Boulevard and Kalia Road, thus providing visitors and residents with a beautiful western gateway into Waikiki.
- Improve the pedestrian environment and the ambience of the resort's entrance by enhancing the landscaping and providing points of interest to hotel guests and passers-by.
- Meet or exceed all open space, setback, parking, and other requirements of the Waikiki Special Design District and other applicable ordinances and regulations.
- Minimize the visual impacts of new structures on pedestrians and nearby residents to the greatest extent possible consistent with economic use of the property.
- Retain the essentially Hawaiian character of the resort by ensuring that landscape remains dominant in the overall design for the area.
- Provide additional recreational facilities on the Dome site and atop the parking garage that meet the recreational needs of hotel guests and area residents.
- Maintain the same high quality in the new facility that the recent renovations have provided elsewhere on the site.

6.0 PROJECT SCHEDULE AND COST

The entire project is expected to be completed and in operation by April 1994. The schedule for a 400-room Kalia Tower project involves several key elements: preparation of this Environmental Impact Statement, permitting requirements, design development, and construction. It is anticipated that the Special Management Area and Waikiki Special Design District applications for the project could begin the review process in the last part of 1991 with Council approval in early 1992. The design development and specifications could be complete by mid-1992. Early 1994 is the target date to complete construction.

The overall estimated cost of the project will be in excess of $75 million.

Chapter III
Alternatives to the Proposed Action

Chapter III
Alternatives to the Proposed Action

1.0 INTRODUCTION

The management and owners of the Hilton Hawaiian Village looked at and evaluated several alternative means of achieving the objectives outlined in Chapter II. Some of the various non-hotel alternatives examined included:

- Using the entire area for meeting and convention space;
- Building a condominium apartment tower;
- Building a commercial tower; or,
- Building a large retail complex.

For a variety of reasons these options were eliminated. They are summarized below.

In addition to the different use options, various locations on the Hilton Hawaiian Village property were identified as potential development areas. These included:

- The southern portion of the Rainbow Bazaar;
- The area above the southern portion of the Mid-Pacific Convention Center;
- The garden area south of the Mid-Pacific Conference Center; and,
- The Hilton Dome site.

All of these sites benefit from the favorable access, visibility, and proximity to the beach that the Hilton Hawaiian Village enjoys. And in actuality, the closer the proposed development would be to the beach and center of activities, the higher the value in average daily room rates that could be justified. However, it was decided that the first three sites suffer from existing land usage patterns, and are too close to existing hotel or residential towers on the property. It was also felt that by placing another tower on the makai portion of the Village property, the Village would become too crowded, too unbalanced between the mauka and makai areas, and lose its sense of open-space. Thus the owners concluded that the Hilton Dome site (seen as underutilized as discussed in Chapter II) offers the best opportunity to optimize the land area and facilities of the Village.

2.0 ALTERNATIVE USE OPTIONS

2.1 The Convention Center Option

This first option seemed particularly attractive in light of the controversy surrounding the two proposed convention centers. Yet, expanding the Mid-Pacific Conference Center into a full-fledged convention center was not considered economically or environmentally viable. With only 243,000 square feet of allowable floor area (following removal of the Dome), and the demands convention centers have for large exhibition areas, the resulting building would have been a large, squat structure extending to the minimum set-back requirements along Kalia Road. Also, due to the rather confined property area, the center would have suffered from having multiple levels. Large increases in traffic congestion and parking would have occurred, and the allowable square footage necessary to provide the required parking would not have been available without receiving

density variances. Moreover, with two convention centers already proposed for the Waikiki area, it was concluded that the market for this use was not viable.

2.2 The Condominium Option

A condominium or apartment building is not a permitted use on the site under the existing zoning and would require a variance. In addition, apartments generate more traffic, and place greater demands upon other infrastructure services, such as water and electrical demand, and solid waste and wastewater generation, than guest rooms. Because such a development was seen as less complimentary to the existing Hilton Hawaiian Village operation, was seen as contributing less to the welfare of the community, and was not in compliance with the Land Use Ordinance, the owners have elected to.defer further consideration of this option at this time.

2.3 The Office Tower Option

An office tower could be placed on the site under existing zoning. However, office buildings generate what is considered by Hilton officials to be an unacceptably high amount of traffic and parking demand. According to the Land Use Ordnance (LUO) of the City and County of Honolulu, an office building in an area designated Resort-Hotel would be limited to containing financial institutions, retail establishments, restaurants, theaters, indoor amusement and recreation facilities, and offices only for visitor industry-oriented activities. Overall market demand for office space from such a limited number of activities is too small to occupy the available space. Furthermore, the activities themselves were judged by the owners to be less compatible with the current uses in the Village than other options.

2.4 The Retail Option

Limiting the project to just a retail establishment, like the previous options, would generate more vehicular traffic and parking requirements. Given the proximity of the Village to both Ala Moana Center and the Royal Hawaiian Shopping Center, a large retail center at the Hilton Hawaiian Village would face heavy competition. It is not clear if the area can support three large shopping complexes. Also, the building would spread out over the site, utilizing all available ground space in order to maximize the walk-in potential. The result would be a two or three story building up to the minimum set-back requirements along Kalia Road. The owners found that this was inconsistent with their overall goals for the Hilton Hawaiian Village and with the goals of the Waikiki master planning efforts to date.

2.5 The Hotel Option

Based on the objectives stated in Chapter II, the Hilton Hawaiian Village examined the options available to them with respect to economic , ecological, and social factors. As regards economics, a hotel/resort has four sources of revenue: 1) rooms; 2) food and beverage; 3) retail; and 4) other sources, generally entertainment, conventions, etc. By far, the most revenue is generated through the use of rooms, and the other three sources are largely dependent upon the captured market represented by the room-using visitor. In as much as the Hilton Hawaiian Village is zoned as Hotel-Resort, and taxed as such, several of the above options, such as the office building option, become unworkable. Other options did not allow the desired open space, or they created an unacceptable increase in traffic and parking requirements.

After examining the possible development options described above, the Hilton Hawaiian Village returned to the Hotel option. Using a target usage of approximately 230,000 square feet, various different design, height, and orientation alternatives were examined. Given the desired floor area, along with certain market considerations, a target of approximately 400 hotel rooms was determined as the most appropriate for all alternatives. Due to different configurations, this would

allow a varying amount of retail space between the alternatives. The elements that are common to all of the hotel alternatives are described in Section 3.0, while those that are unique to each are discussed in Sections 4.0 through 8.0.

2.6 Conclusion

For the purpose of comparison, Table 3.1 shows the amount of retail space, number of stories, height, and orientation of each of the alternatives. Sections 4.0 through 8.0 supply a description of each hotel alternative, along with figures showing the building footprint, elevation, number of stories, open space, retail space and view plane impact. Based on its evaluation, the applicant has determined that alternative H-5, a 26-story tower with extensive ground level open space and water features as described in Section 8.0, is preferred.

TABLE 3.1
STRUCTURAL COMPARISON OF HOTEL ALTERNATIVES

Alternative	Height	Stories	Retail Space	Orientation
H-1	70'	7	25,000 sf.	Square
H-2	140'	16	25,000 sf.	Perpendicular to Kalia Road
H-3	150'	17	25,000 sf.	Perpendicular to Kalia Road
H-4	175'	18	25,000 sf.	Parallel to Kalia Road
H-5	270'	26	5,000 sf.	Parallel to Kalia Road

3.0 FEATURES COMMON TO ALL HOTEL OPTIONS

All of the action alternatives provide for the removal of the existing Dome and replacing it with a new structure containing approximately 400 rooms and 230,000 square feet of floor area. All alternatives also include the construction of a recreational deck, which would allow approximately a dozen tennis courts atop the existing parking structure/Coral Ballroom, a health-sports clinic/spa in the main structure, some retail space, and varying amounts of landscaped area along Kalia Road and Ala Moana Boulevard. As shown in the illustrations of each alternative, the tennis courts would be built on a platform raised approximately 20 feet, and would be surrounded by a fence and protective screen for retention of tennis balls. A shaded snack bar area, office, golfing activities, and landscaping would also be provided on the recreation deck.

4.0 ALTERNATIVE H-1: 8-STORY HOTEL, UNDERLYING RETAIL.

Alternative H-1 would consist of a mid-rise structure arranged around a courtyard (see Figure 3.1 and Figure 3.2). Approximately 25,000 square feet of retail space and public area would be located on the ground floor. Floors 2 through 7 would contain approximately 400 guest rooms. The side of the structure closest to the parking garage would contain an eighth floor housing a health-sports clinic/spa. A ramp and elevator would link the clinic/spa area to the tennis courts that are proposed for the top of the parking garage. This design calls for limited setback areas along Kalia Road and Ala Moana Boulevard, as well as an inner courtyard, which would be landscaped with tropical plantings similar to those found elsewhere at the Hilton Hawaiian Village.

This alternative would minimize the height of the proposed structure at the expense of having the highest ground coverage of the alternatives considered. It would actually be lower than the adjacent parking garage and its effects on views from nearby apartment buildings would, therefore, be limited to those from the lower floors of these buildings. The inner courtyard would provide a garden-like setting for guests occupying interior rooms and an attractive location for the retail shops that would occupy much of the ground floor.

Conversely, by crowding the property lines and minimizing the amount of contiguous open space, this alternative would substantially alter the pedestrian environment. The relatively modest building setback from Kalia Road would result in an abrupt sidewall for pedestrians on the sidewalk. Therefore, it would not meet the stated objectives of improving the pedestrian environment or increasing open space.

5.0 ALTERNATIVE H-2: 16-STORY HOTEL PERPENDICULAR TO KALIA ROAD, CONNECTED RETAIL

As shown in Table 3.1, alternative H-2 would contain approximately 25,000 square feet of retail space, the same amount as in Alternative H-1. However, instead of being limited to the area beneath the guest rooms, the retail space would occupy a much broader footprint (see Figure 3.3 and Figure 3.4). The retail portion of the structure would be topped by a 16-story (140-foot) tower containing approximately 400 guest rooms and a health-sports clinic/spa. The spa would be situated on the 11th floor of the structure and would be connected by a walkway to the proposed tennis courts above the parking garage/Coral Ballroom. Ground level landscaping would be similar to that near the existing Rainbow Bazaar.

The orientation of the high-rise portion of the building would minimize its effect on general mauka-makai views. However, with the broad side of the building turned towards the neighboring condominium apartments along Ala Moana Boulevard, the adverse effect on Diamond Head views from nearby apartments would be greater than for alternatives positioned parallel to Kalia Road. Because of this alternative's greater height and different orientation, views from the average guest room in this configuration would be superior to those from Alternative H-1. From a commercial viewpoint, the shops would be well located to capture the heavy foot-traffic that passes the Ala Moana Boulevard/Kalia Road corner of the property. However, the extensive ground level shops would limit pedestrian views through the area and the amount of landscaping that could be provided relative to other alternatives.

6.0 ALTERNATIVE H-3: 17-STORY HOTEL PERPENDICULAR TO KALIA ROAD, DISPERSED RETAIL

Alternative H-3 would increase the overall building height to 17 stories (150 feet), reduce the building footprint, and allow for additional ground level open space (see Figure 3.5 and Figure 3.6). The design would use smaller dispersed retail areas similar to the Rainbow Bazaar area, yet retain 25,000 square feet of retail space overall. The health-sports clinic/spa would be located on the tenth floor, the same level as the tennis deck. Landscaping would tie in with present Village plantings. The Rainbow Bazaar theme would be continued with open space divided into smaller, discrete parcels connected by walkways.

In this alternative, the orientation of the high-rise portion of the structure would remain perpendicular to Kalia Road. The building footprint would be slightly smaller than that of Alternative H-2, but the increase in height would affect views from one additional floor of neighboring condominiums.

7.0 ALTERNATIVE H-4: 18-STORY HOTEL PARALLEL TO KALIA ROAD

Alternative H-4 would be nearly the same height as Alternative H-3 (18 floors instead of 17), but the long axis of the tower would be rotated 90 degrees so that it would parallel Kalia Road (see Figure 3.7 and Figure 3.8). This would accomplish several things. First, it would provide a greater setback from Kalia Road, reducing the building's visual impact on passers-by. Second, it would increase the number of guest rooms that would have good ocean views and unobstructed Koolau Mountain views across Fort DeRussy. Finally, it would turn the narrower side of the building towards the high-rise apartments along Ala Moana Boulevard, minimizing the visual impacts on them.

Retail space would be provided on the first two floors of the high-rise structure, as well as in free standing, one-story structures located between it and Kalia Road. The health-sports clinic/spa would be located on the 10th floor of the tower near the tennis deck, as in the previous alternative. This arrangement would provide a greater concentration of open space along the Kalia Road/Ala Moana Boulevard portion of the property and would keep the high-rise from intruding on pedestrians using the adjacent sidewalks. The single-story retail space and interspersed landscaping would be consistent with the character of the rest of the resort. While this alternative would meet many of the design objectives stated earlier, it would not provide a great deal of contiguous open space and would not create a distinctive entry to the hotel.

8.0 ALTERNATIVE H-5: 26-STORY HOTEL PARALLEL TO KALIA ROAD, REDUCED RETAIL

As previously stated, alternative H-5 is the building configuration preferred by the management and owners of the Hilton Hawaiian Village (see Figures 2.3 thru 2.6). It is the outgrowth of various design studies and internal reviews, and it comes closest to meeting the design objectives stated in Chapter II.

This alternative would consist of a 26-story, approximately 270-foot-high tower with 5,000 square feet of retail and restaurant space. This alternative would have the same parallel orientation to Kalia Road as the previous alternative. However, by increasing its height to 26 stories, the footprint would be reduced to about 10,000 square feet. This, and the elimination of 80 percent of the retail space contained in the previous alternatives, would allow a dramatic increase in the amount of landscaped open space. The effect would be further enhanced by keeping the tower free of walls (other than the elevator shafts) to a height of approximately 25 feet, thereby allowing the surrounding gardens to flow beneath, and become part of, the hotel tower. This change would allow the transformation of the Ala Moana Boulevard/Kalia Road corner into an inviting, park-like setting with water features and walkways. Water features are envisioned to include a 10,000 square-foot lagoon with a waterfall approximately 25 feet high. The lagoon would not exceed three feet in depth. A garden complex at the corner of Kalia Road and Ala Moana Boulevard would have the potential to become a significant signature feature of the Hilton Hawaiian Village and, indeed, of Waikiki as a whole.

This alternative building configuration is superior to the others that were considered in meeting the objectives listed in Chapter II. Specifically, the additional 5,000 square feet of open space would allow greater landscaping opportunities, thus enhancing the pedestrian environment and creating a significant gateway feature to the resort. In addition, the siting of the tower would minimize, to the greatest extent possible, the impacts on views from the surrounding buildings. Incorporation of the health-sports clinic/spa and tennis facilities would increase the recreational opportunities available both to the guests of the Hilton Hawaiian Village and to the residents of Waikiki.

9.0 NO ACTION ALTERNATIVE

The no action alternative would keep the current uses of the proposed project site. The Dome would remain in its currently underutilized and non-conforming state and the lack of quality recreational facilities for guests and area residents would continue. None of the objectives listed in Chapter II would be met, especially as regards improving open space or enhancing the pedestrian environment. In order to provide revenues for escalating property taxes, room rates at the Hilton would increase without enhancements for guests or Waikiki.

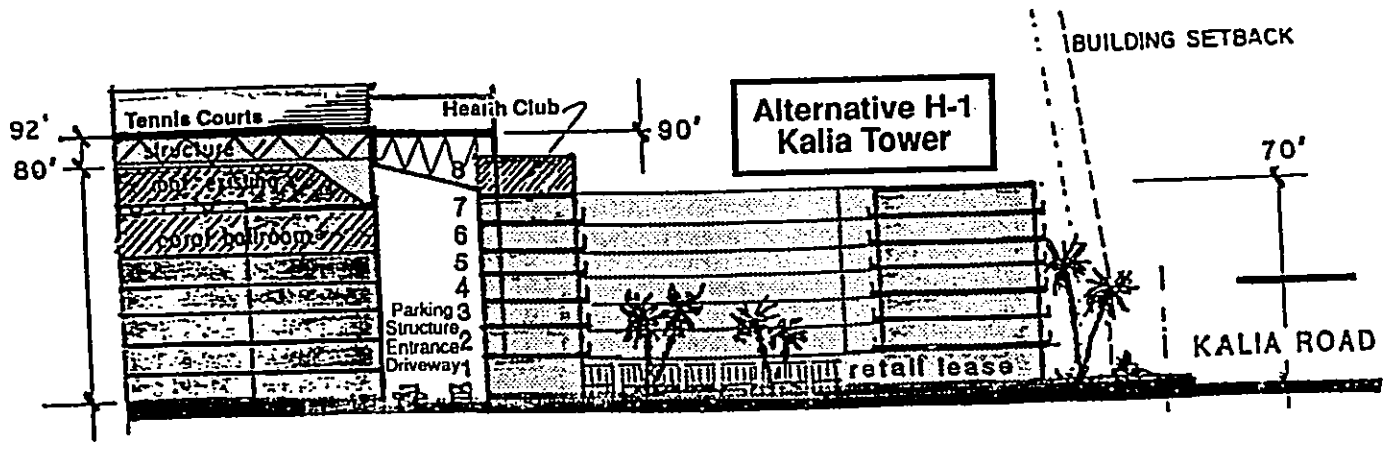
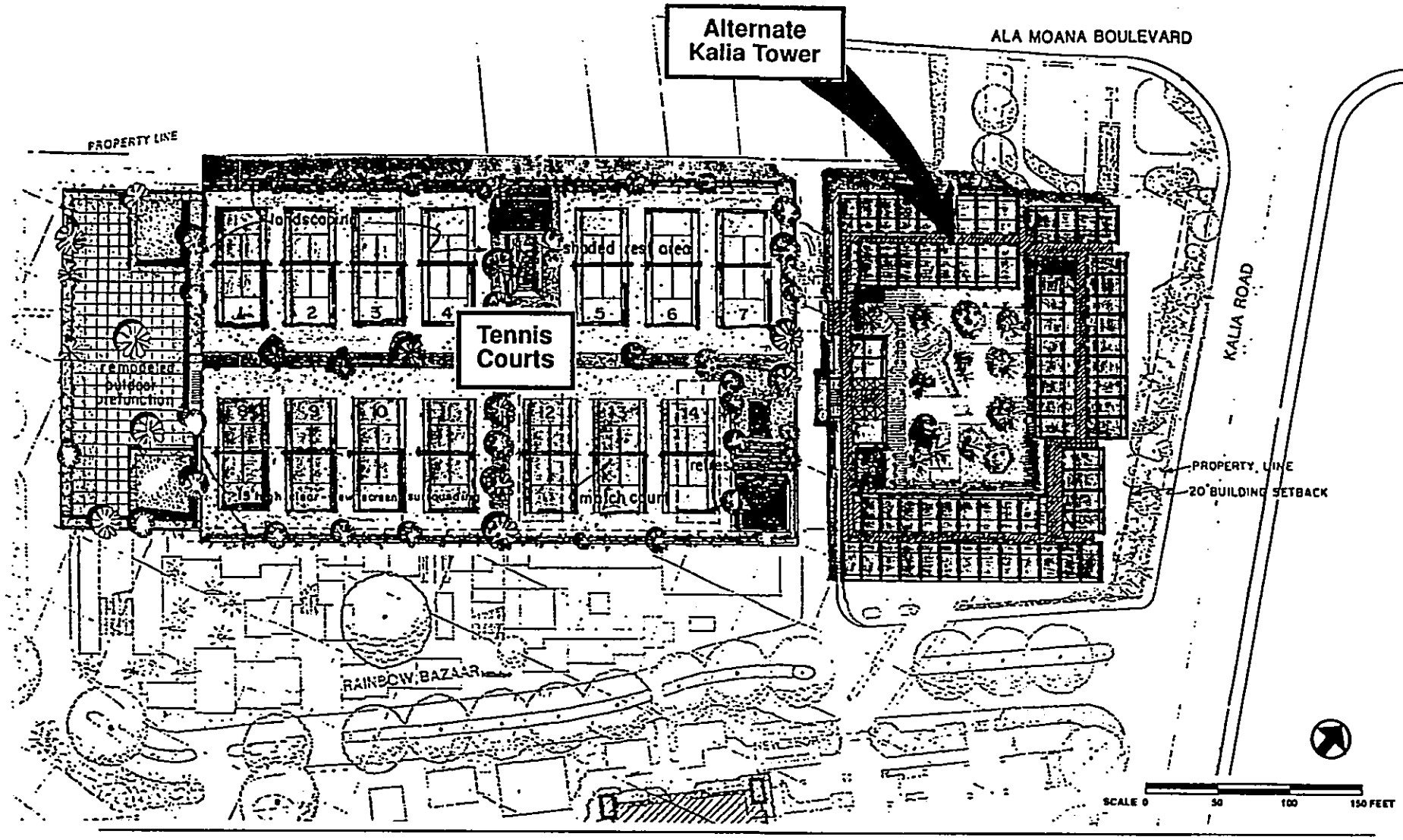
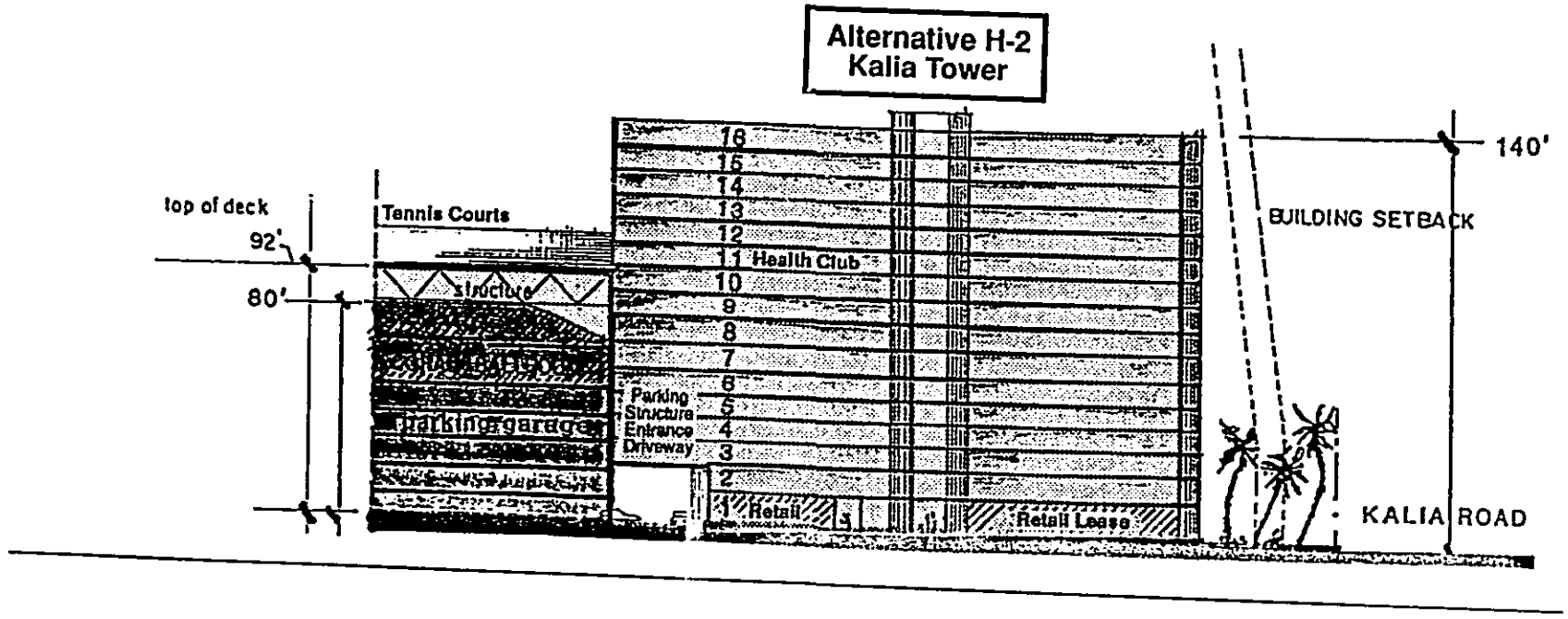


Figure 3.1
H-1 8-Story Hotel with Underlying Retail
Thru-Building Section (showing tennis deck)



HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

Figure 3.2
H-1 8-Story Hotel with Underlying Retail
Bird's Eye View



HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

Figure 3.3
H-2 16-Story Hotel Perpendicular to Kalia Road
with Connected Retail
Thru-Building Section (showing tennis deck)

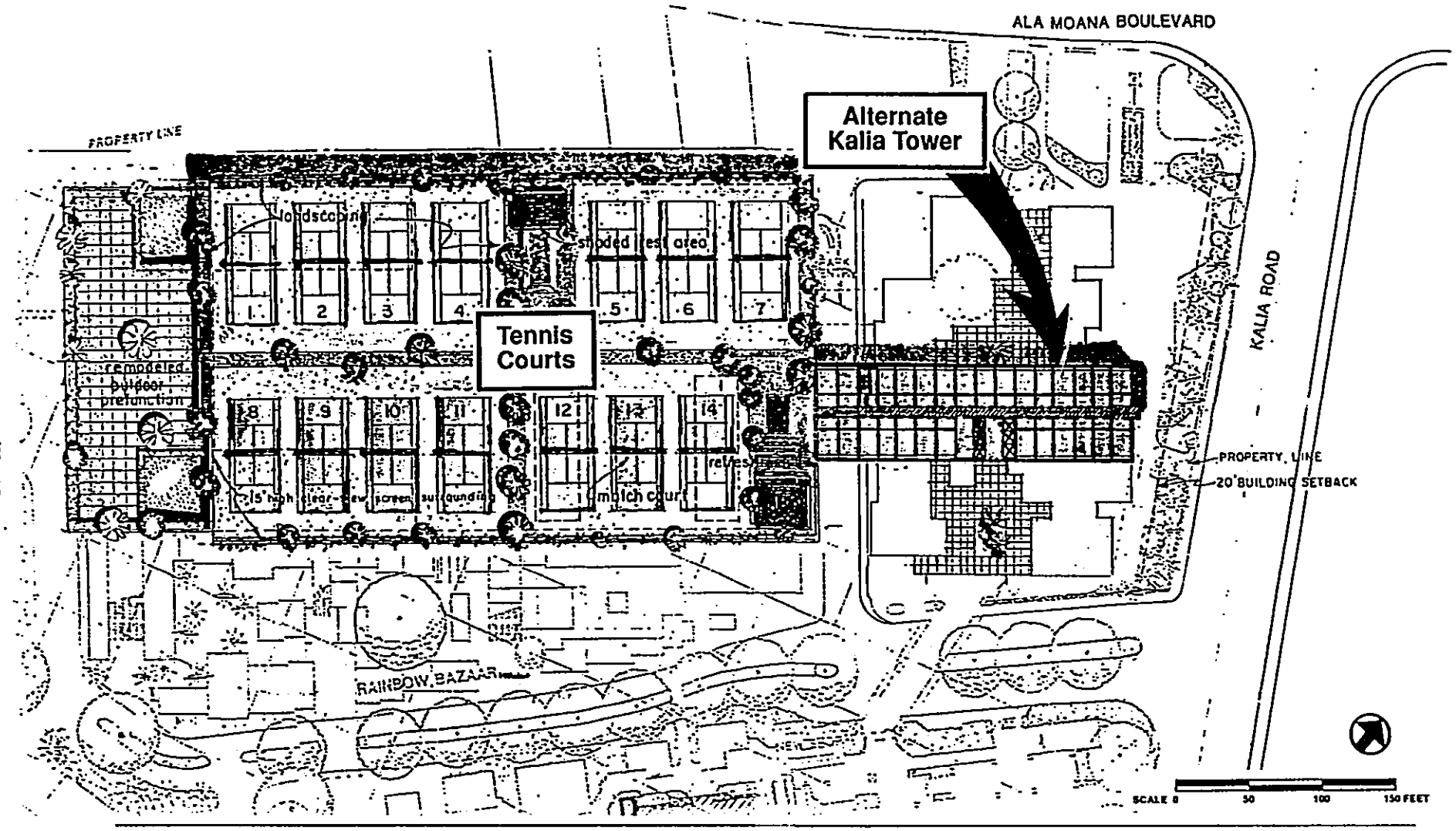
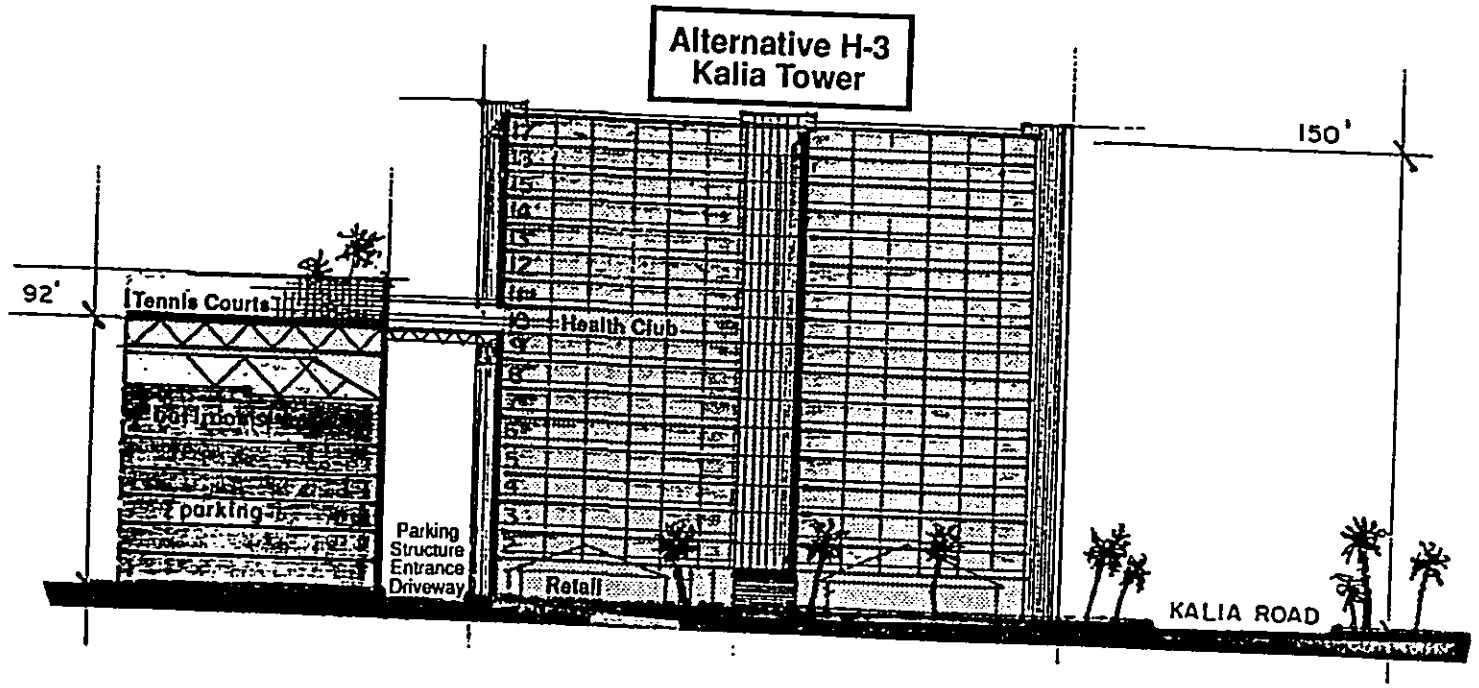


Figure 3.4
H-2 16-Story Hotel Perpendicular to Kalia Road with Connected Retail Bird's Eye View



HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

Figure 3.5
H-3 17-Story Hotel Perpendicular to Kalia Road with Dispersed Retail
Thru-Building Section (showing tennis deck)

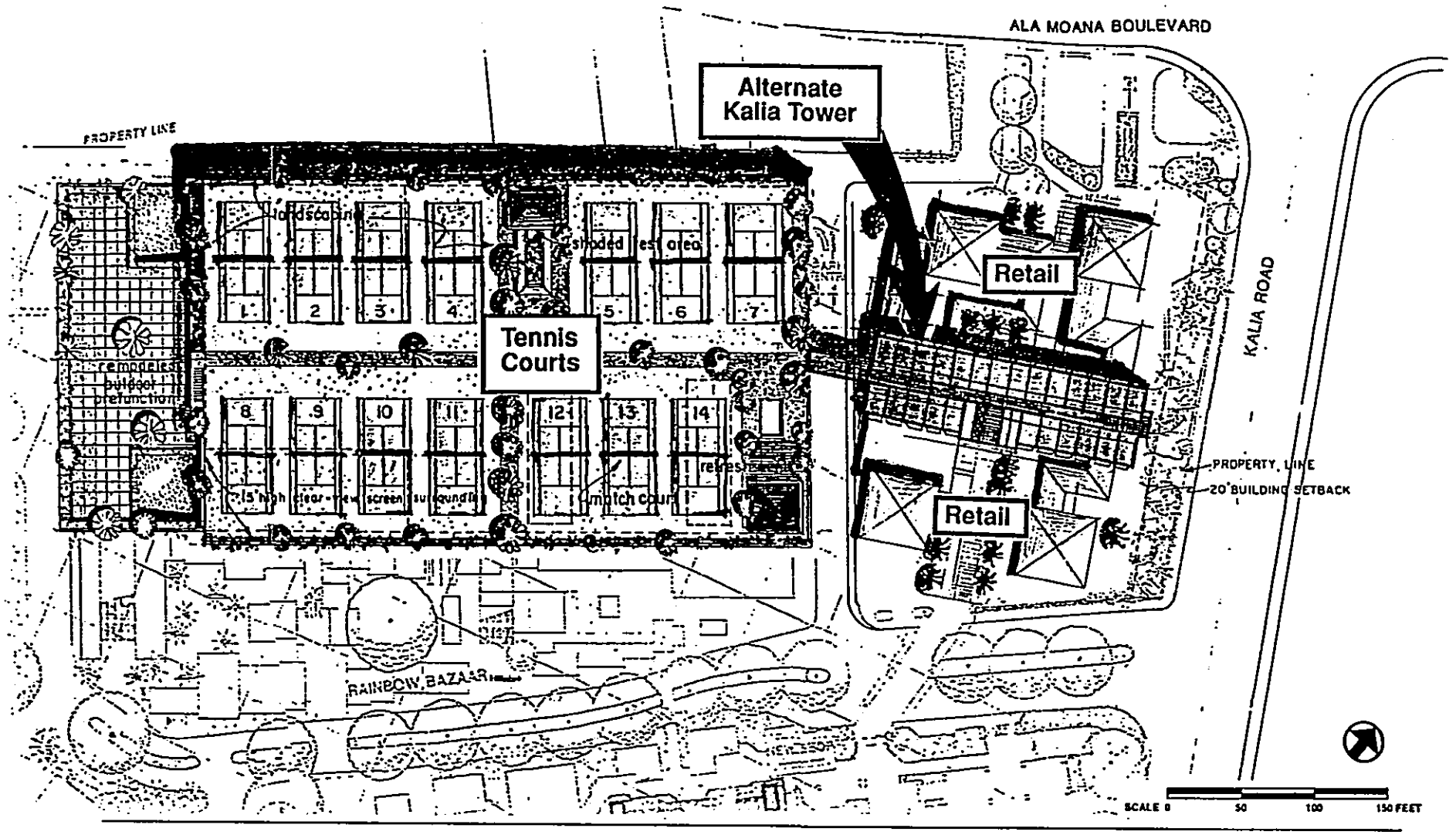
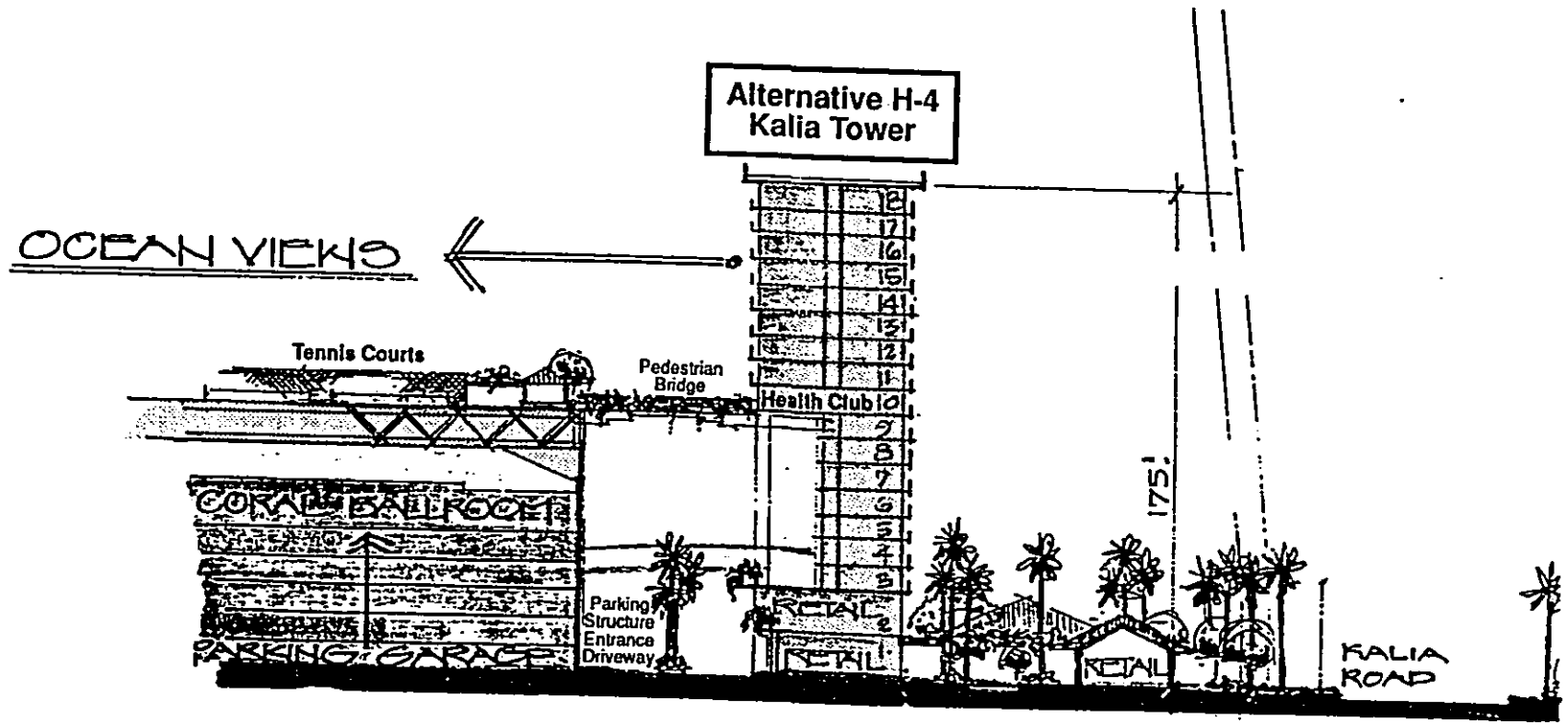
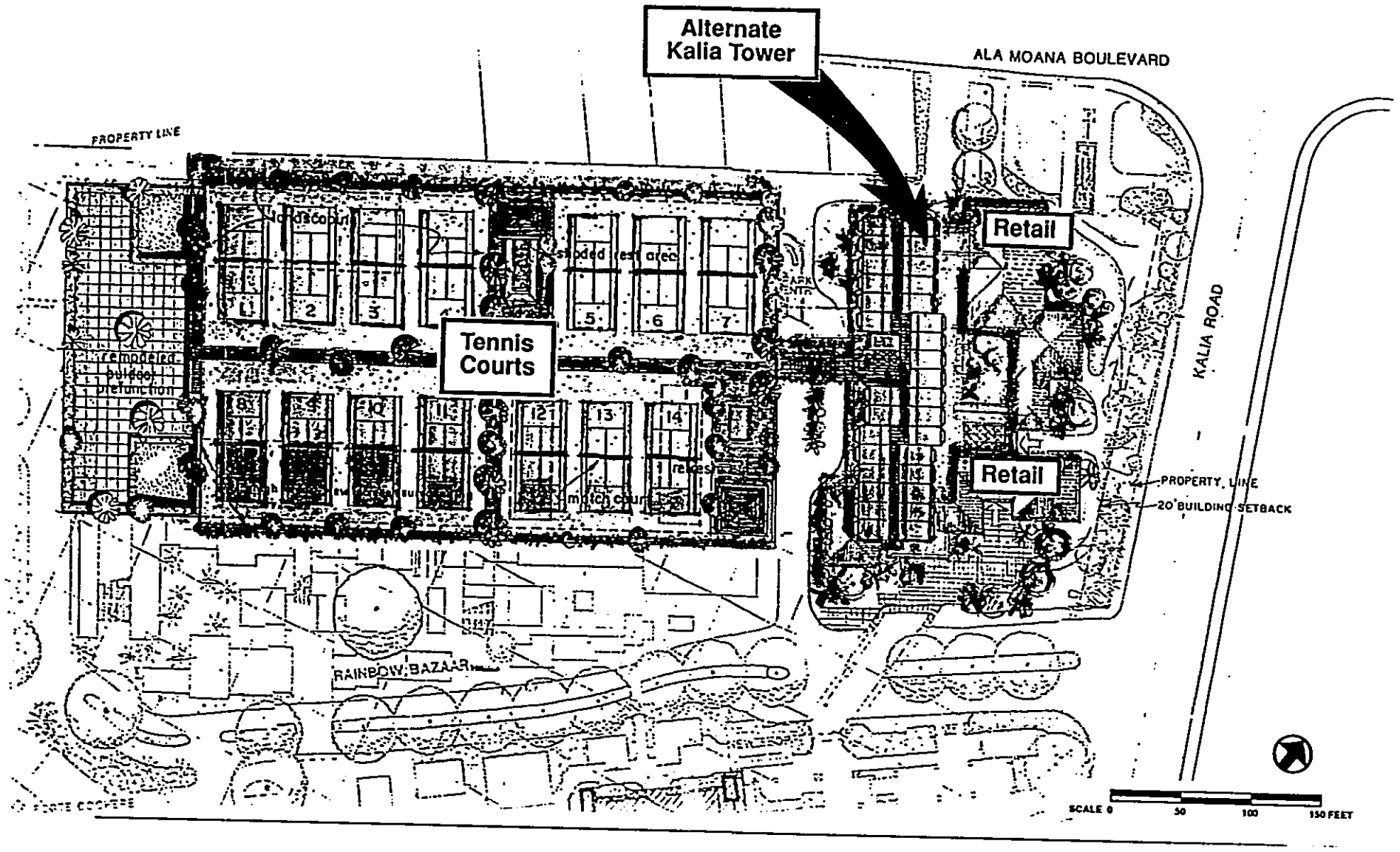


Figure 3.6
H-3 17-Story Hotel Perpendicular to Kalia Road with Dispersed Retail Bird's Eye View



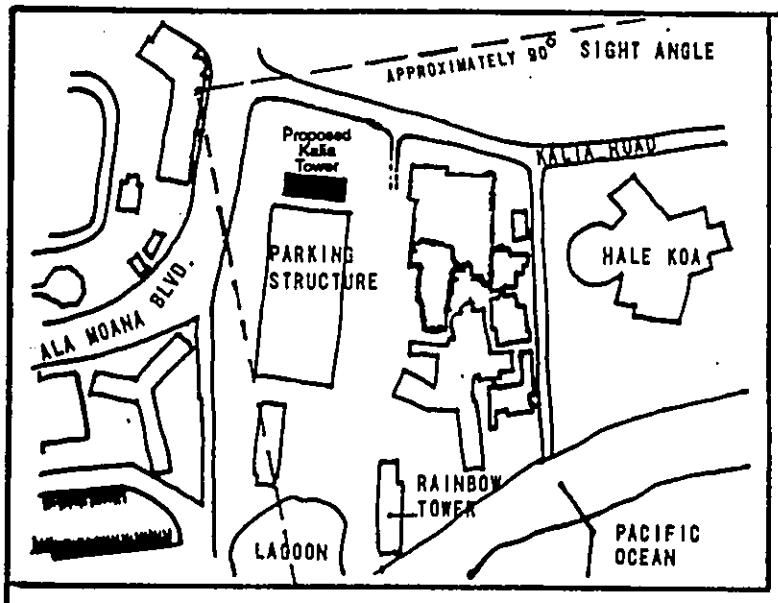
HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

Figure 3.7
H-4 18-Story Hotel Parallel to Kalia Road
Thru-Building Section (showing tennis deck)



HILTON HAWAIIAN VILLAGE
Kalia Tower EIS

Figure 3.8
H-4 18-Story Hotel Parallel to Kalia Road
Bird's Eye View



Kalia Tower EIS

Prepared by: Belt Collins & Associates

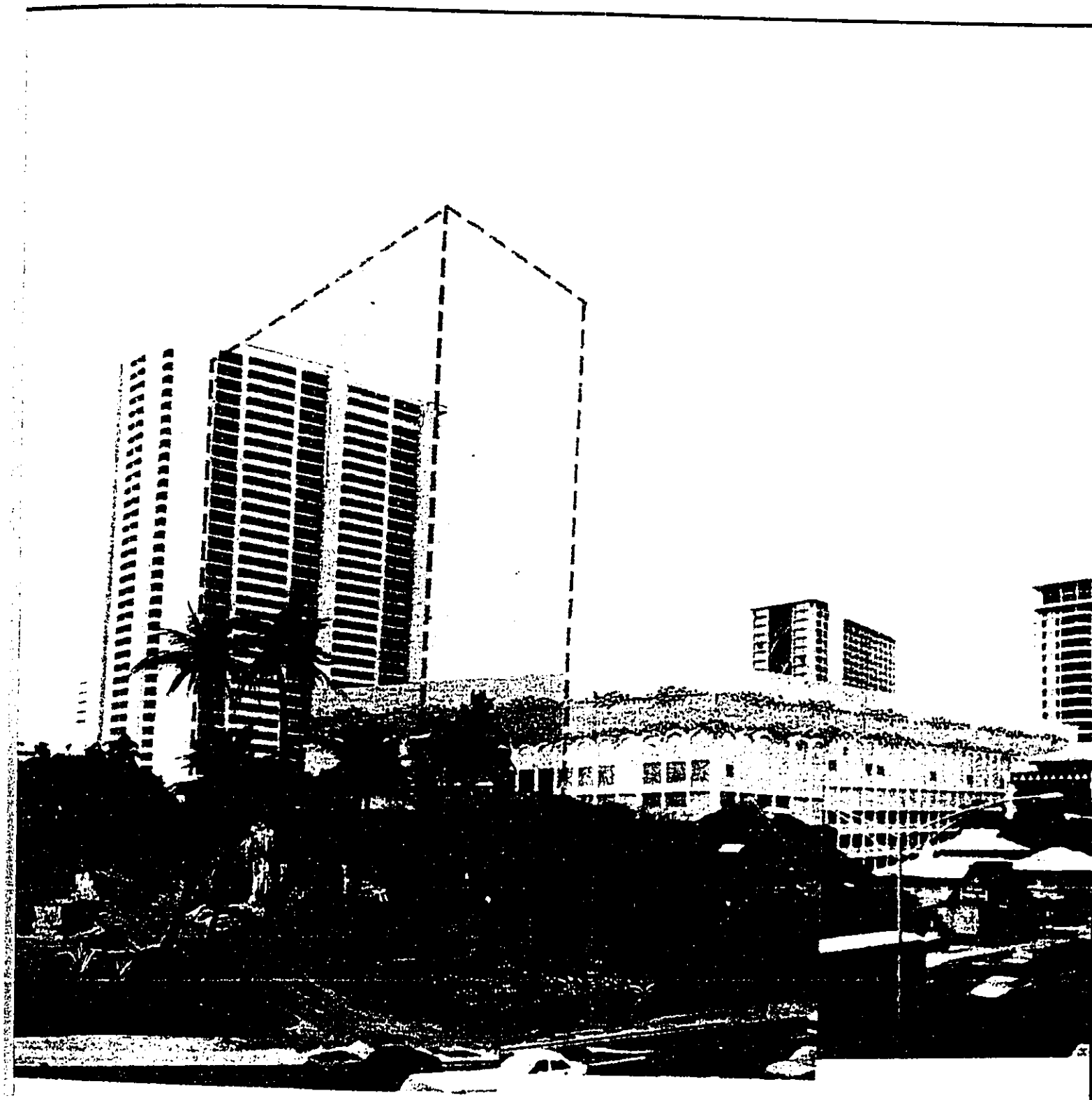


Figure 4.12
View from Wailana, 4th Floor, Mauka End
(without Waikikian Hotel)
Hilton Hawaiian Village

Chapter IV

Description of Affected Environment and Probable Environmental Consequences

Chapter IV
Description of Affected Environment and Probable Environmental Consequences

1.0 INTRODUCTION

The Hilton Hawaiian Village is located at the corner of Ala Moana Boulevard and Kalia Road in the Urban Honolulu area. The resort encompasses portions of several tax map key sites, identified in Table 2.1. The Kalia Tower site is located on the northeastern portion of the resort site. Currently existing on the site is the 15,000-square-foot Hilton Dome, built in the 1950s. Capacity of the Dome under its current dining use is 1,100 people. South and west of the project site lies the remainder of the Hilton Resort, consisting of the hotel towers, conference and banquet rooms, offices, parking structure, and apartments. Between the resort site and Ala Moana Boulevard to the north are several small lots containing two restaurants, a small rental car office, and the Waikikian Hotel site. Kalia Road borders the site to the east. The site lies within the Waikiki Special Design District and the Special Management Area.

Analyses of the changes associated with the proposed project have been carried out during the preparation of this environmental impact statement. No significant adverse environmental impacts are anticipated from the proposed project. Impacts for the various alternative configurations and layouts were also assessed. Given the similarity of the various alternatives, each with 400 rooms of hotel space, differences in their effects on the environment were found to be modest. Differences did occur due to the variable amounts of commercial space utilized in each alternative. Larger amounts of retail space required slightly more electricity, water, sewage, and solid waste removal support. As customers were considered to be captured from within the Hilton resort, additional traffic was not produced. Alternatives with more commercial space did generate more public revenues in the form of general excise taxes and revenue to the Hilton group, but the lower, more spread out alternatives also had a more negative effect upon the view planes from public access points. Except where specifically noted, impacts were considered to be the same from all alternatives.

In the case of impacts to infrastructure, the existing Hilton Dome was removed from consideration. Activities currently taking place within the Dome will be placed in other areas of the Hilton Hawaiian Village. It should be noted that this would result in a net decrease of demand upon infrastructure overall, as the placement of the shows and activities into other areas on the property would ultimately mean the displacement of outside banquets or activities which currently utilize the available space and infrastructure. The Dome is currently utilized only for a few hours in the evenings for dinner and a cocktail shows. As no meals are prepared in the Dome, the length of the shows causes the Dome to be used more as a large cocktail lounge with approximately 700 patrons over two seatings. Water and wastewater figures for the Dome are derived, then, from Department of Health Administrative Rules, Chapter 62 standards for the equivilent lounge use.

2.0 TOPOGRAPHY, GEOLOGY, AND SOILS

The project site is located atop corraline limestone typical of Oahu's southern coastal plain. The topography is flat, with elevation changes amounting to no more than a few feet across the area. The thin soil layer present on the Hilton Hawaiian Village Dome site before the resort was developed was largely removed when the foundations of the Dome were constructed in the mid-1950s. The soil beneath the area currently landscaped originally consisted of sandy material (Jaucus), but this has been augmented and modified with topsoil and soil conditioners for

landscaping. No special geologic or soil conditions (e.g., soil stability problems, erodibility, etc.) are present which would constrain development of the area.

3.0 CLIMATE

Waikiki has a mild, relatively dry climate. Average monthly temperatures range from the low-70s in March to nearly 80° F in September. The mean high temperature ranges from the high 70s in mid-winter to the mid-80s in the summer, and the mean low temperature ranges from the mid-60s in the winter to the mid-80s in the summer. Typically, the temperature varies by only 15 degrees or less over the course of a 24-hour period.

The average annual rainfall of about 20 inches falls unevenly over the year. The bulk of the rainfall occurs during the winter, with January's average of over 3 inches making it the wettest month. Average rainfall during June and July, the driest months, is only 0.5 inches. Despite the low averages, Waikiki occasionally experiences periods of very heavy rainfall. During March 1951, for example, nearly 21 inches were recorded. Relative humidity shows only slight seasonal and daily variation, typically being between 55 and 75 percent.

The prevailing winds are the northeast tradewinds. Wind speed averages 10 to 13 miles per hour, with the higher averages being characteristic of the summer months, when the tradewinds are most persistent. A detailed analysis of the impacts upon the atmospheric environment is contained in Section 4.13.

4.0 NATURAL HAZARDS

4.1 Flooding

Historical evidence shows that the South shore of Oahu, and particularly Waikiki, has been minimally affected by tsunamis. Maximum run-up in the vicinity of the Ala Wai Boat Harbor has been approximately five feet above mean sea level (MSL), while the maximum recorded in Waikiki was nine feet above MSL near Kuhio Beach.

The site lies within the 100-year flood zone designated A0 on the National Flood Insurance Rate Map (#150001 0120C), with base flood average elevations of one to three feet. There is no record of any harm or damage incurred by people or property due to floods in this area.

The average ground elevation of the project site is +5.5 feet and the lowest habitable floor of the hotel tower is planned to be at 25 feet. The ground floor will be elevated on piles a minimum of six inches. The Kalia Tower will incorporate flood-proofing measures in accordance with current State of Hawaii and City and County of Honolulu standards. Together, these indicate that there will be no significant flood hazard as a result of the project's development. This is true for all the alternatives that were evaluated.

4.2 Seismic Activity

Oahu lies in Earthquake Zone 1. This means that the most severe earthquakes are expected to cause only minor damage (Zone 0 means no damage, and Zone 4 means major damage). A few minor earthquakes occurring on Oahu have caused cracked walls in older buildings; however, this damage has been slight in comparison to that experienced on the Island of Hawaii. The Kalia Tower will be in conformance with the Uniform Building Code, with respect to earthquake design

of buildings. Hence, no significant increase in exposure to natural hazards is anticipated as part of this project or any of the alternatives that were considered.

5.0 DRAINAGE

5.1 Existing Conditions

No system for collecting storm runoff from the Dome is currently in place. Water coming off the Dome roof usually percolates into the ground and recharges the island's basal lens, which is brackish in this area. During periods of heavy rains, when the soil may become too saturated to absorb the runoff, water drains into gutters along the entrance road (Rainbow Drive), the main conduit for surface water drainage on the Hilton property. A slight rise in the roadway near the Dome divides the drainage flow. On the mauka side, the water enters catch basins in Kalia Road that are part of the City's storm drainage system. This water eventually discharges into the Ala Wai Yacht Harbor. Makai of this point, the water flows into a catch basin at the foot of the driveway. A swale running across the lawn between the Rainbow Tower and the Lagoon Apartments directs this remaining surface runoff into the Kahanamoku Lagoon.

The Hilton Hawaiian Village staff reports that there are some drainage problems during heavy rains, when storm drains may back-up along Kalia Road and Paoa Place. The current flow rate for runoff on the site, using Honolulu Department of Public Works storm drainage standards (Hotel area/10-year interval), is 5.45 cubic feet per second (cfs).

Observations taken March 19-20, 1991, a period of very heavy rains, determined that the major cause for the water backup problem along Kalia Road is the large amount of sheet flow running off the Fort DeRussy parking lot mauka of the Hilton Property. Due to the amount of landscaped area, and to the existing wall separating the Hilton Hawaiian Village and Kalia Road, little runoff from the project site reaches the Kalia road storm drains.

5.2 Probable Impacts

5.2.1 Preferred Alternative

The proposed project is expected to have a positive effect upon drainage flows. The increase in open space and the extensive landscape changes proposed would decrease storm runoff by approximately 30 percent to 3.90 cfs on site. This is due to a decrease in impermeable surfaces. This decrease in runoff should alleviate some problems currently experienced by the storm drainage systems servicing the site. However, until such time as the sheet flow problems caused by the large paved parking area at Fort DeRussy are addressed, drainage will continue to be a problem along Kalia Road. This problem should be kept in mind when designing the pedestrian level environment.

The effects of nutrients percolating to the ground water due to irrigation and rainfall in this area are not considered to be significant. The groundwater in the caprock sediment underlying the site is brackish, and is not used for either irrigation or domestic purposes. However, the diversion of approximately 10,000 square feet of landscaped area to a water feature should result in an overall decrease in the amount of dissolved fertilizer nutrients reaching the local ground water body. Also, current problems with the lagoon waters due to the infiltration of nutrient-laden fresh water should improve due to the decrease in the amount of nutrients reaching the lagoon in runoff.

Groundwater under the site is believed to occur at an elevation of about two feet above mean sea level (+2' MSL). Excavation for the Kalia Tower would be limited to the area necessary for the elevator pit (approximately 85 square feet), and would extend about 6 feet below ground level (or

about 2 feet below the water table). If left uncontrolled, groundwater seepage would fill the excavation pit long before it could be completed. Hence, some type of dewatering system will be required during the excavation phase of the project.

Because no detailed engineering studies have been completed as yet, it is impossible to say with complete certainty exactly what dewatering system will be used. However, given the samll excavation area, the modest water depth, and the localized nature of the dewatering, it is anticipated that it would be accomplished by conventional construction techniques utilizing on-site settling tanks. No disposal of on-site water into storm drainage systems is planned according to Hilton officials. The disposal of dewater would comply with all applicable Federal, State, and City regulations.

No detailed grading plan has been prepared as yet. However, the control of silt laden run-off towards the lagoon during the construction phase is an area of possible concern. It is anticipated that localized degradation in water quality resulting from earth-moving activities associated with construction would be minimal, and that these impacts could be avoided through the use of berms and other techniques to retain runoff generated during periods of heavy rain. The exact techniques to be utilized, as well as the amount of grading and excavation necessary, will be addressed in the application for a grading permit submitted to the City and County of Honolulu Department of Public Works.

5.2.2 Other Alternatives

The other alternatives that were evaluated involved greater amounts of impermeable surfaces, therefore, greater amounts of surface runoff. The alternatives that involve the greatest ground coverage (H-1, H-3, and H-4) would increase runoff relative to existing levels and would, *therefore, slightly exacerbate conditions along Kalia Road and in the Lagoon during periods of* heavy rainfall.

6.0 FLORA

6.1 Existing Conditions

The project area is a developed hotel/resort site, with flora consisting of introduced vegetation. Approximately 30 percent of the project site consists of landscaping. Numerous ornamental shrubs, grasses, and mature trees, including three large banyan trees, are present. None of these are rare or endangered.

6.2 Probable Impacts

6.2.1 Preferred Alternative

Mature trees which cannot be incorporated into the proposed landscape scheme will be transplanted to other areas within the Hilton Hawaiian Village property. The remaining existing landscaping will be removed during construction and replaced with similar plants following the completion of the project. The overall effect of the proposed project will be to increase the amount of landscaped area by about 5,000 square feet. As no rare or endangered species are present on the site, and as the project will actually increase the amount of landscaping in the area, no special mitigation measures are necessary.

6.2.2 Other Alternatives

All of the alternatives will involve complete re-landscaping of the project area. Alternative H-2 involves fairly extensive landscaping without water features. Hence, it would probably allow the retention of about as much vegetation as presently exists. The other alternatives have greater land coverage with less vegetation than the preferred alternative.

7.0 FAUNA

7.1 Existing Conditions

The bird and animal populations on the project site are representative of those in built up areas. Many common birds and rodents are reported in Waikiki. Some of the species identified on the site include the barred dove (*Geopelia striata*), spotted dove (*Streptopelia chinensis*), house sparrow (*Passer domesticus*), house finch (*Carpodacus mexicanus*), and the cardinal (*cardinalis cardinalis*). None are indigenous or endemic to the Hawaiian Islands and none are rare or endangered.

7.2 Probable Impacts

7.2.1 Preferred Alternative

Construction activities on the site will no doubt cause the various species of small animals found on site to migrate to other landscaped areas on the Hilton Hawaiian Village property. After completion of the project, the increased amount of landscaped area should provide additional habitat for the transient bird population. As there are no rare or endangered species present on the site, and the project will have a beneficial impact upon the amount of available habitat for the local bird population, no adverse impacts to avifauna are identified. However, the betterment of the area for the transient bird population could produce related problems stemming from the increased congregation of feral pigeons. Although not perceived as a problem within other open space areas on the Hilton Hawaiian Village at the present time, the management will continue their strict policy against feeding of birds, and their strict monitoring of possible roosting areas to discourage their use.

At the present time, plans for the water feature do not specify the introduction of aquafauna.

7.2.2 Other Alternatives

The effects of other alternatives would be similar to those of the proposed project. Differences would relate principally to differences in vegetative cover and the fact that the alternatives do not include a large water feature.

8.0 ARCHAEOLOGICAL RESOURCES

8.1 Existing Conditions

During pre- and post-contact times Waikiki was marshy wetlands and sand dunes. The area was sparsely populated and supported marine farming and growing of taro. The sand dunes were used in burial practices. A 1977 archaeological survey of the Hilton Hawaiian area by the Bishop Museum encountered no surface features or remains. It was noted that urban development had probably displaced or destroyed any archaeological sites on the Hilton Hawaiian Village property

and that any remains would be limited to sub-surface material, accessible only through excavation. Construction of the Dome upon the site did not require extensive excavation.

During the construction of the Tapa Tower several bones were discovered, indicating possible Hawaiian burial sites. In addition, remains of glass bottles and porcelain dishes were uncovered, indicating the area had been used by more wealthy inhabitants during the 1800's, most notably Herman Widemann, Minister of the Interior to King Kalakaua in 1874. The Department of Land and Natural Resources (DLNR) provided archaeological recovery methods following the finds and determined that the burials probably dated back to the smallpox epidemic of 1853, when the Kalia beaches might have been a good place to unceremoniously dispose of the dead. It is almost certain that there are no prehistoric sites in the Hilton Hawaiian Village area of Waikiki. This is because the beach in this area is not very old, and given the rate of beach accretion the project site probably would not have been shoreline before 1835.[1]

From 1985 to 1987, Paul H. Rosendahl, Inc. (PHRI) conducted a program of archaeological surveying and monitoring at the Hilton Hawaiian Village. The goal of the work was to fulfill permit conditions imposed by the City and County of Honolulu Department of Land Utilization in connection with the Hilton Master Plan improvements. The specific objectives of the work were to monitor excavations of various areas and trenches, and to identify and record cultural resources that might be encountered. In connection with this work, survey trenches were dug encompassing a large area of the proposed project site. Their location and extent can be seen in Figure 4.1.

Over 4,000 historic artifacts were identified during the monitoring. The artifacts included ceramics, glass, metal fragments, and miscellaneous building materials and hardware. In general, the excavations showed that the subsurface of the project area had been extensively modified and consists of disturbed fill, primarily concrete, asphalt, sand, and soil, overlying sterile sand. Within this fill are occasional horizontal features. Most of the features are trashpits from the 19th and 20th Centuries, and contain numerous modern historic debris, mostly fragmented ceramics, glass, and miscellaneous building material. No evidence of prehistoric occupation was encountered in the project area. Correspondence from PHRI concerning their findings and conclusions can be seen in Appendix A. A final report by PHRI of their monitoring and data recovery work has been requested and will be forwarded to the DLNR upon completion.

8.2 Probable Impacts

Construction of any of the alternatives will require extensive excavation of the project site. Given the evidence found in previous excavation work, as well as the opinion of PHRI, Inc., it is unlikely that the area contains any prehistoric archaeological remains. However, given the status of Secretary Widemann and other past residents of the property, there is the chance of finding historically significant artifacts associated with 19th Century trashpits and remnants from the Widemann household, similar in nature to those unearthed during the Tapa Tower excavation and during testing by PHRI. Because the unearthing of any archaeological remains is never a certainty, earthmoving in conjunction with future development of the area will be monitored by a qualified archaeologist. This archaeologist will have the authority to halt construction in the immediate area should any archaeological remains be discovered during the construction process. The archaeologist will immediately undertake an assessment and salvage work. The appropriate State authorities will be contacted in accordance with State law before continuing with construction.

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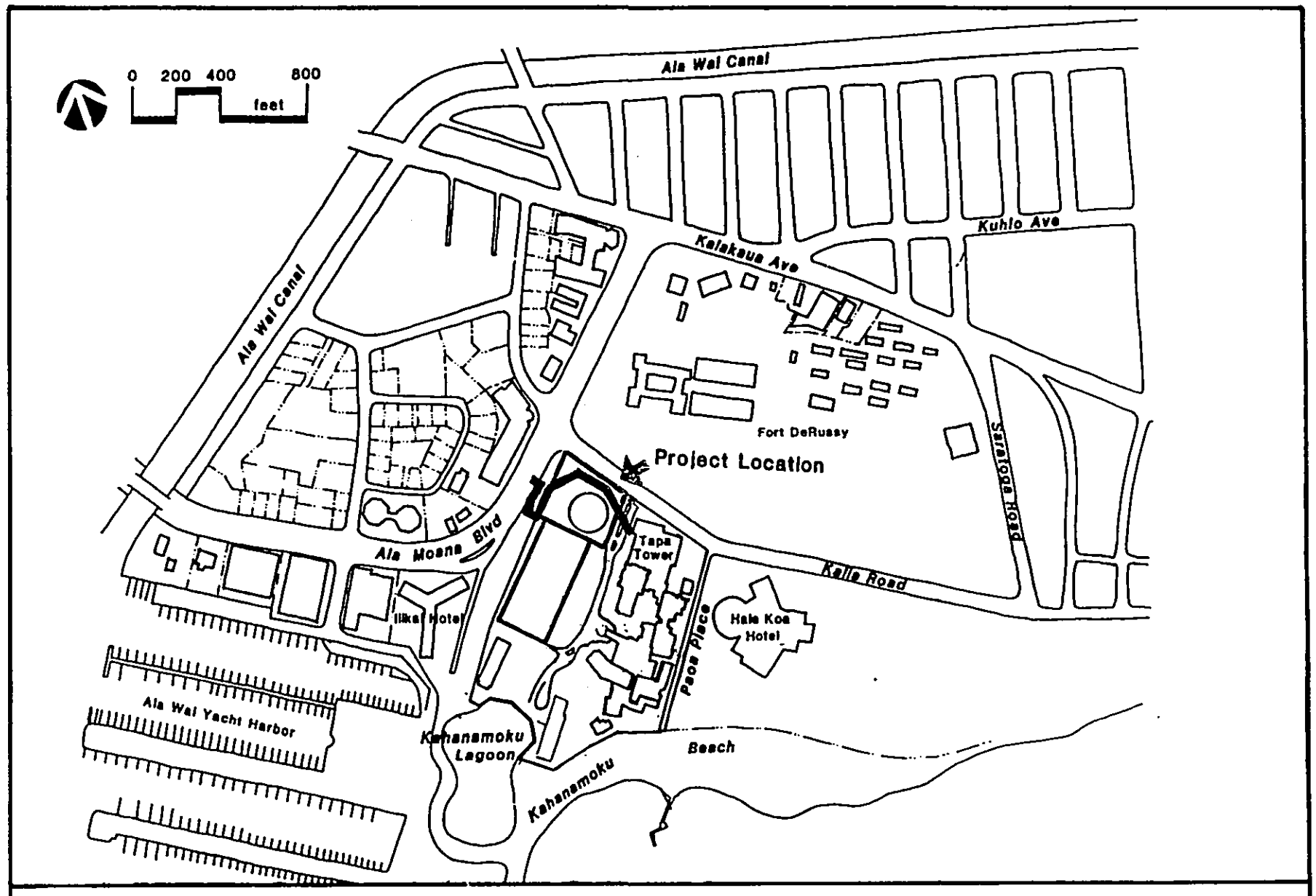
1 Neller, E., The Kalia Burial Site: Rescure Archaeology in Waikiki, Hawaii, Department of Land and Natural Resources, State of Hawaii, Honolulu, 1980, addendum 1982, p.12.



Kalia Tower EIS

Figure 4.1
Archaeological Excavation Trenches
Hilton Hawaiian Village

Prepared by: Belt Collins & Associates

9.0 TRAFFIC

9.1 Existing Conditions

The Hilton Hawaiian Village is serviced by two urban streets, Ala Moana Boulevard and Kalia Road. Ala Moana Boulevard is a six-lane divided urban arterial which borders the project site on the north side (see Figure 4.2). Kalia Road runs adjacent to the project site in a north-south direction and is classified as a two-way secondary roadway, with two lanes south of Maluhia Street and five lanes between Maluhia Street and Ala Moana Boulevard, immediately adjacent to the project site. Ena Road, which is aligned opposite Kalia Road at Ala Moana Boulevard, is a two-lane, two-way street. The signalized intersection of Ala Moana Boulevard and Kalia Road serves the majority of traffic accessing the Hilton Hawaiian Village. Ingress and egress to and from the property is through Rainbow Drive, facilitated by a separate signalized intersection on Kalia Road. Tour bus and van pick-ups and drop-offs of visitors are handled through a separate service area behind the Tapa Tower which is accessed through Paoa Place. An additional service entrance connects the parking garage driveway to Ala Moana Boulevard.

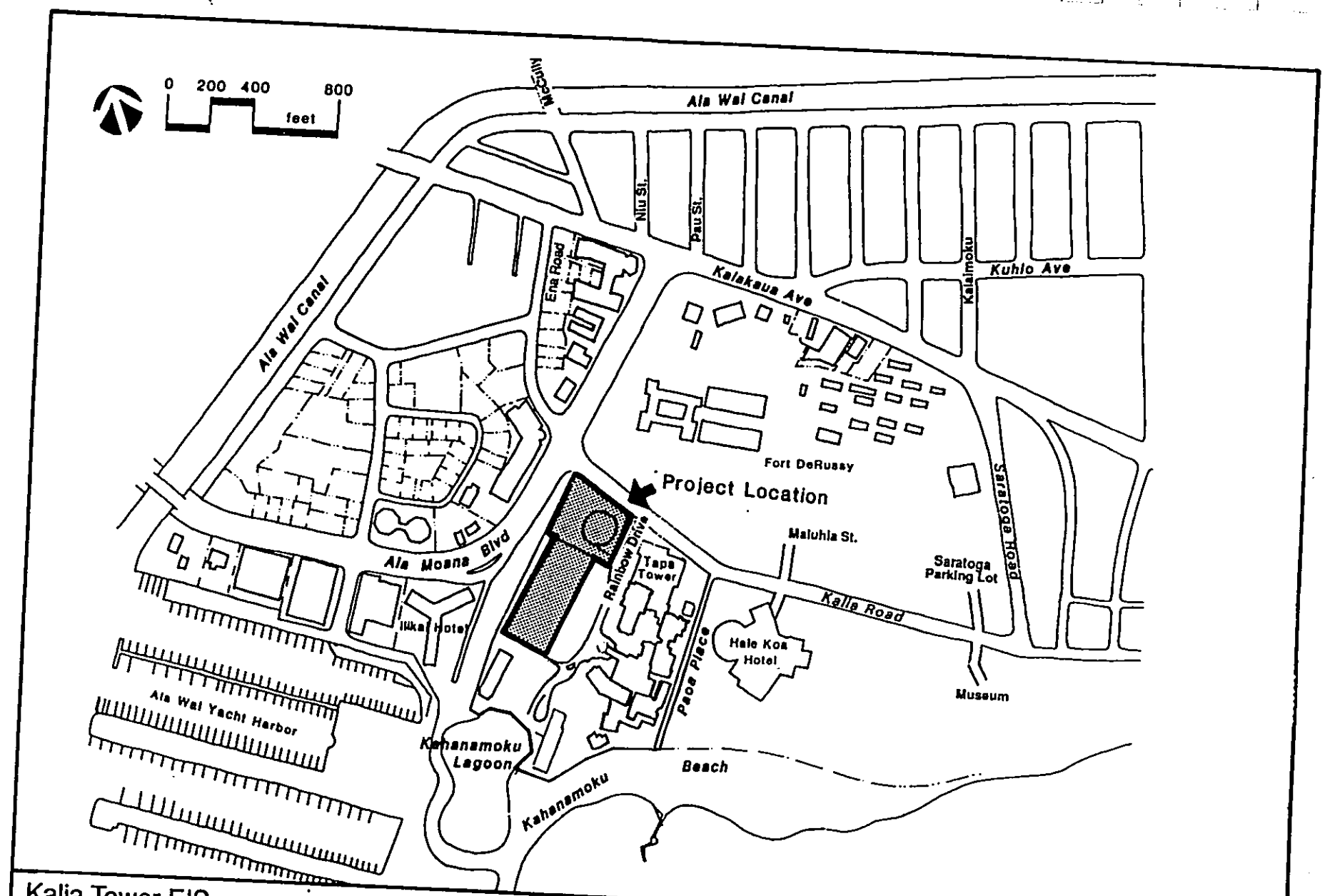
Using procedures as outlined in the most recent Highway Capacity Manual,[2] an analysis of the Ala Moana Blvd/Kalia-Ena Road intersection shows weekday PM peak-hour traffic flows are currently approaching capacity, with an average volume to capacity (v/c) ratio of 0.85 and average peak-hour delays of over 74 seconds per vehicle (Level-of-Service F). Traffic generated by the Hilton Hawaiian Village during the PM peak hour currently consists of approximately 260 trips entering and 340 trips exiting the property.[3] The signalized intersection servicing the entrance of the Hilton property at Rainbow Drive along Kalia Road is experiencing average v/c ratios of 0.40 to 0.50 with average delays approaching 6 seconds per vehicle, equating to a Level-of Service (LOS) of B. Approximately 1,800 cars travel through the intersection during the PM peak with Hilton traffic constituting only 33 percent of this traffic volume. Current traffic volumes for the relevant intersections are shown in Figure 4.3. Vehicle to capacity (v/c) ratios, average delay and the current LOS for the appropriate intersection lane groups of the Ala Moana Boulevard/Kalia-Ena Road intersection and for the intersection of Kalia Road/Rainbow Drive are contained in Table 4.1 Table 4.2.

Table 4.1
Level-of-Service for Ala Moana Boulevard/Kalia-Ena Road Intersection
1991, PM Peak Hour

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Ala Moana (Northbound)	Left/Thru	1.164	117.9	F	94.2	F
	Right	0.365	4.2	A		
Ala Moana (Southbound)	L/T/R	0.830	38.9	D	38.9	D
Kalia (Westbound)	Left	1.109	129.7	F	92.7	F
	Left/Thru	1.068	94.7	F		
	Right	0.190	3.4	A		
Ena (Eastbound)	L/T/R	0.709	53.0	E	53.0	E
INTERSECTION		**0.851**	**74.3**	F		

2 Transportation Research Board, Highway Capacity Manual, Special Report 209, Washington, D.C., 1985.

3 Traffic counts conducted by BCA on May 1, 1991.



Kalia Tower EIS

Prepared by: Belt Collins & Associates

Figure 4.2
Existing Area Roadway
Hilton Hawaiian Village

Table 4.2
Level-of-Service for Kalia Road/Rainbow Drive Intersection
1991, PM Peak Hour

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Kalia - Eastbound	Thru/Right	0.491	4.4	A	4.4	A
Kalia - Westbound	Left/Thru	0.312	3.6	A	3.6	A
Rainbow Dr. - North	Left	0.386	15.9	C	13.5	B
Rainbow Dr. - North	Right	0.050	0.2	A		
INTERSECTION		**0.460**	**5.7**	**B**		

9.2 Future Conditions

The proposed project is expected to be completed in the early part of 1994, which was used as the target year for traffic projections. By that year, traffic in the immediate vicinity may be influenced by several factors, some of which are:

1. General background traffic will increase slightly. Historic traffic counts in the area show little change in traffic volumes over time, but a 1 percent per year increase, a growth rate typical for older, built up areas of Honolulu, has been assumed.

2. Traffic to and from Fort DeRussy is expected to increase due to the construction of a 400-room addition to the Hale Koa Hotel. As part of this project, Kalia Road is to be widened to four lanes, and reconfigured through the Fort DeRussy property.

3. The Aloha Motors (under site preparation), Landmark (under construction), and Waikikian (awaiting permits) sites are anticipated to be completed as per current zoning, development plans, and unilateral agreements.

4. State proposals currently in the preliminary planning and engineering stage to upgrade the Ala Moana Boulevard/Kalia-Ena Roads intersection will be completed.

Several traffic studies for the project vicinity have been done by Wilbur Smith Associates (WSA) in connection with both the Waikikian and Fort DeRussy-Hale Koa projects. Their studies show that during the Weekday PM peak hour, the intersection at Ala Moana Boulevard/Kalia-Ena Roads would continue to operate at a level of service F, that is, experiencing extreme delays and severe congestion.[4] Separate analyses performed for this study using both Highway Capacity Manual and network simulation techniques confirm these earlier studies.

Demand upon the intersection under the above assumptions is anticipated to be approximately 1,833 autos travelling eastbound along Ala Moana, 1,207 cars travelling westbound along Ala Moana, and 1,115 cars travelling northbound along Kalia Road. The eastbound approach and the left-turn movement from Ala Moana Boulevard onto Kalia Road are recognized as the critical movements. Volumes along Kalia Road at the entrance to the Hilton Hawaiian Village are expected to increase due to additional traffic from the Fort DeRussy-Hale Koa project; however, the LOS for the intersection at Rainbow Drive is anticipated to remain at B, with average delays of approximately 6 seconds per vehicle.

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4 Wilbur Smith Associates, Traffic Impact Study Fort DeRussy Armed Forces Recreation Center, Dept. of the Army, Corps of Engineers, Pacific Ocean Division, October, 1989.

Figure 4.3
Current Weekday PM Peak Traffic Volumes

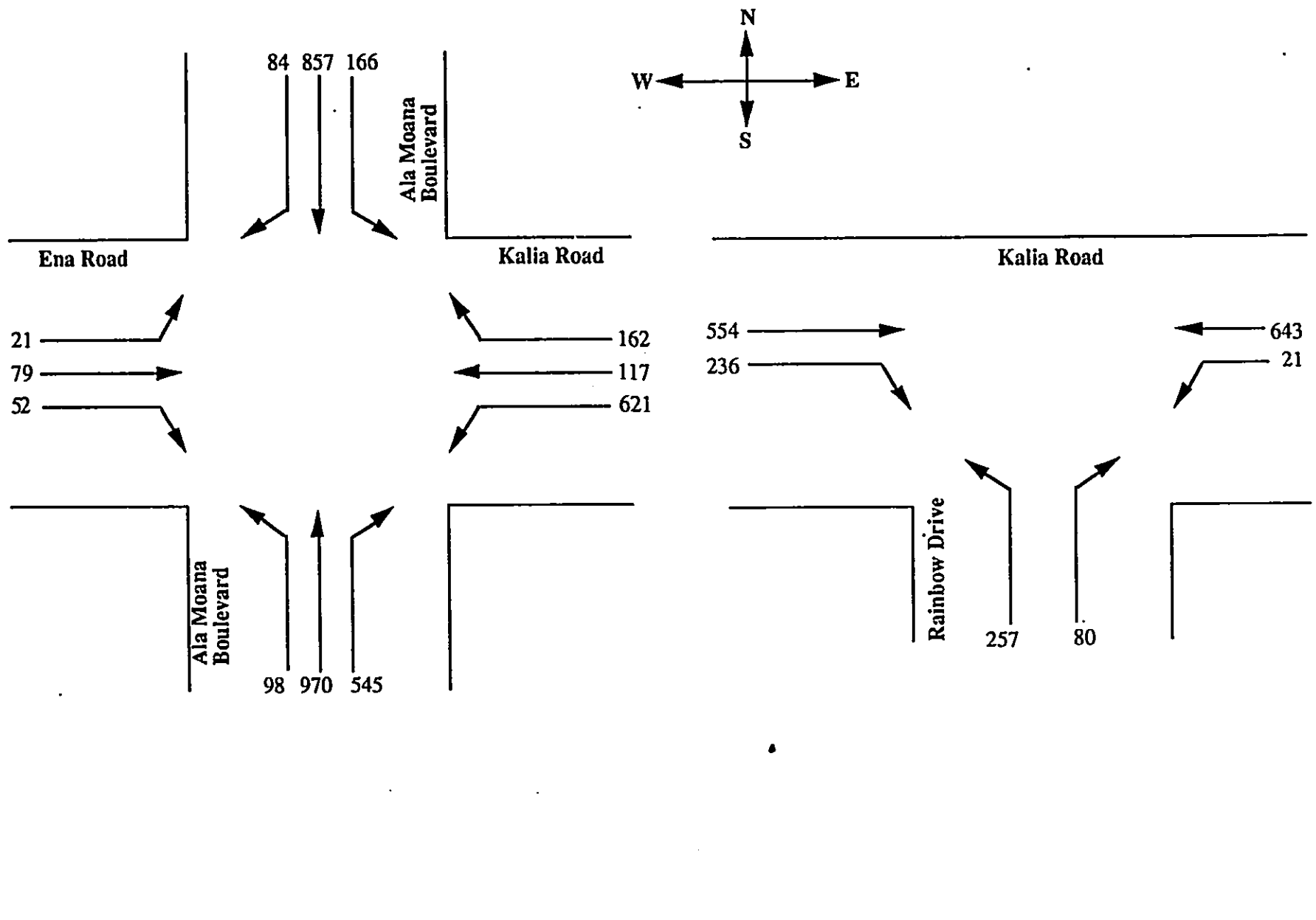
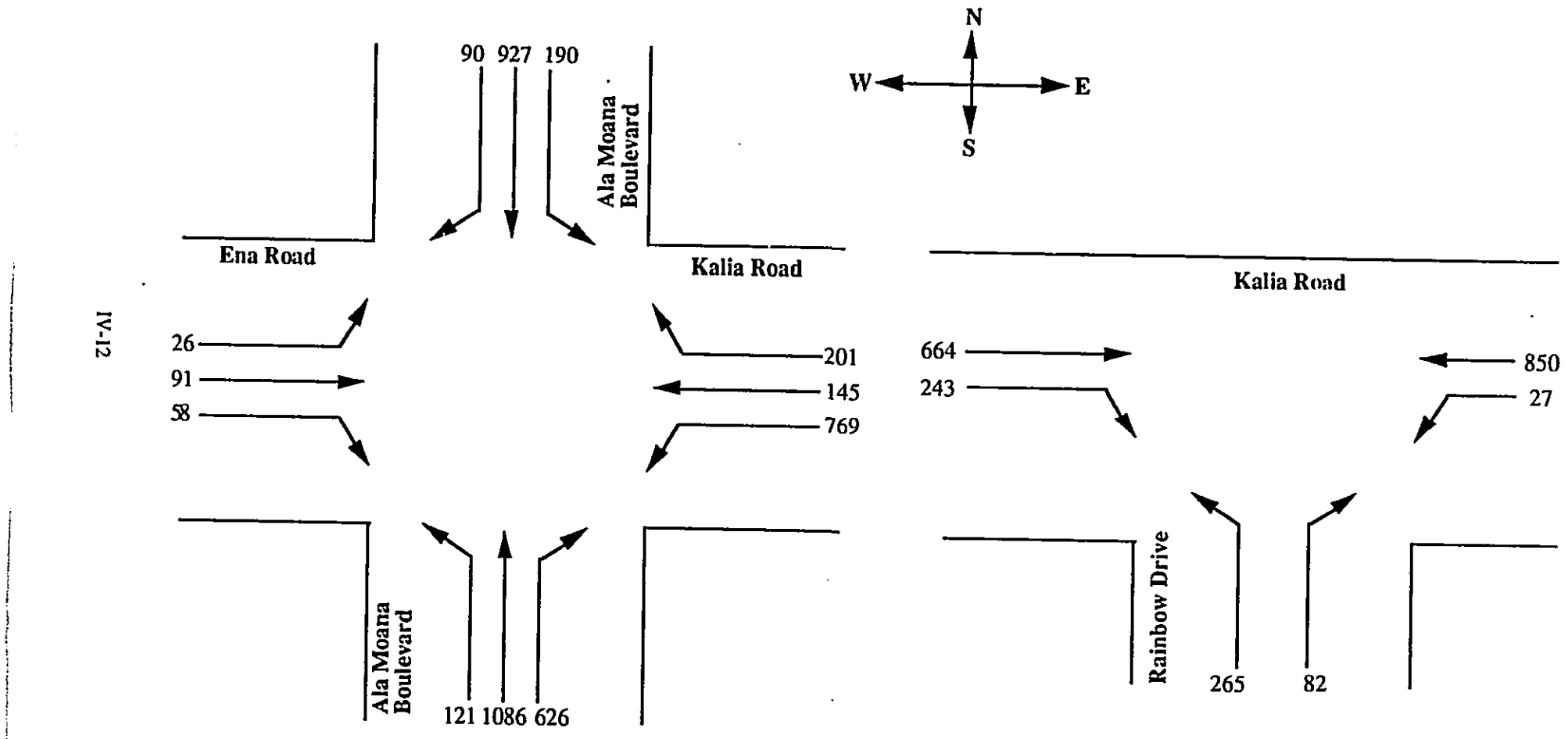


Figure 4.4
1994 Weekday PM Peak Traffic Projections without Project



Mitigation measures were recommended by WSA during the formulation of the Waikiki Gateway Improvements Master Plan[5] to ease congestion at this intersection. Among some of the measures were moving the current eastbound dedicated right lane over and creating an additional third through lane extending along Ala Moana Boulevard from Kalia Road to Kalakaua Avenue. As funding for the planning and engineering of these mitigation measures was provided by the State Legislature in 1991, they were included within the analysis of the Ala Moana Boulevard/Kalia-Ena Roads intersection. Should these mitigation measures not be undertaken to relieve the current traffic congestion in the area, the level-of-service for all intersections in the area will be even worse than shown in the results of this study. Future traffic volumes for 1994 without the Kalia Tower project are shown in Figure 4.4. Results of intersection analyses using current Highway Capacity Manual Procedures for both subject intersections can be seen in Table 4.3 and Table 4.4. As can be seen, the level-of-service of the Ala Moana Boulevard intersection will still be poor, even with the proposed changes.

Table 4.3
Level-of-Service for Ala Moana Boulevard/Kalia-Ena Road Intersection
1994, No Project Scenario, PM Peak Hour

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Ala Moana (Northbound)	Left	0.518	54.7	E	94.5	F
	Thru	1.178	125.4	F		
	Right	0.465	4.8	A		
Ala Moana (Southbound)	L/T/R	0.934	45.1	E	43.2	E
Kalia (Westbound)	Left	1.332	*	*	*	*
	Left/Thru	1.283	*	*		
	Right	0.253	3.7	A		
Ena (Eastbound)	L/T/R	0.829	61.6	F	60.7	F
INTERSECTION		**1.034**	*	*		

* Delay and LOS not meaningful when V/C ratio is greater than 1.2

Table 4.4
Level-of-Service for Kalia Road/Rainbow Drive Intersection
1994, No Project Scenario, PM Peak Hour

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Kalia - Eastbound	Thru/Right	0.568	10.4	B	4.8	A
Kalia - Westbound	Left/Thru	0.427	8.5	B	4.0	A
Rainbow Dr. - North	Left	0.398	21.4	C	13.5	B
Rainbow Dr. - North	Right	0.052	0.2	A		
INTERSECTION		**0.518**	**5.8**	**B**		

5 Helber, Hastert & Kimura, Waikiki Gateway Improvements, Ala Moana Gateway Project, Prepared for the Waikiki Improvement Association for submittal to the 1991 Legislative Session, January 1991.

9.3 Probable Impacts on the Road Network

9.3.1 Preferred Alternative

The alignment of existing access to the Hilton Hawaiian Village remains unchanged in the proposed project. Individual automobiles and taxis would use the existing Rainbow Drive entrance for the Kalia Tower. Bus access would also remain unchanged from the current ingress/egress through Paoa Drive. No buses would utilize the Rainbow Drive entrance.

Traffic generation for the proposed Kalia Tower project is anticipated to follow the existing patterns experienced at the Hilton Hawaiian Village. Currently, the number of car trips can be estimated from the number of automobiles in use by hotel guests, in addition to the number of trips made by employees. No conference or banquet facilities are planned for the structure, and the restaurant, retail, and health club components are not seen as large enough to generate off-site traffic other than employees. As seen in Table 4.5, the hotel component of the Hilton Hawaiian Village currently generates additional automobile usage at a rate of approximately one car per 10 rooms for non-Japanese visitors. Japanese visitors to the Hilton Hawaiian Village come mainly in package tours and are generally transported by buses. The target market mix for the proposed Kalia Tower is the business traveler, who would be expected to be characteristic of mainland travellers. Thus, the use of a 10 percent generation rate for the Kalia Tower should be viewed as a conservative figure, well in line with generation rates used by comparable hotel projects in the Waikiki area.

Table 4.5
Car to Room Generation Percents
Hilton Hawaiian Village

GUEST PARKING CATEGORY	PERCENT OF ROOMS WITH CARS*			
	1990	1989	1988	AVERAGE
Revenue Room Nights	5.0	6.1	6.5	5.9
Total Occupied Room Nights	4.8	5.9	6.3	5.7
Non-Japanese Room Nights	9.5	10.2	9.3	9.7

Source: Hilton Hawaiian Village
* Based on parking revenues and revenue room nights.

Approximately 75 percent of guests are anticipated to be on the road during the Weekday PM peak hour, and based on observations at the Hilton Hawaiian Village, it is expected that these tourist-related trips would follow a directional ingress/egress distribution of 64 percent in and 36 percent out. Approximately one-half of the Hilton employees use cars to commute according to Hilton officials. The PM peak hour coincides with the end of the work day, which would place the additional employee egress during the target hour. Additional employee ingress would arise from the few shift workers working the swing shift. Additional traffic going on and off the Hilton Hawaiian Village property during the Weekday PM peak hour can be seen in Table 4.6. An occupancy rate of 85 percent was used for deriving room-generated traffic.

Table 4.6
Traffic Generation Rates
Kalia Tower - Weekday PM Peak Hour

Generator	Unit	Additional Autos	In	Out
Occupied Rooms	340	25	16	9
Employees				
Maids	25	12	2	10
Front Desk	5	2	1	1
Maintenance	5	3	1	2
Retail/Spa/Tennis	35	16	8	8
Totals		**58**	**28**	**30**

Total additional Weekday PM peak hour traffic would increase by only 58 autos, with 28 entering the property and 30 leaving. In terms of impact upon the Ala Moana/Kalia-Ena Roads intersection, the addition of 23 autos northbound along Kalia Road represents only a two percent increase. The additional 27 autos entering the property via Ala Moana Boulevard would represent only a three percent increase along the eastbound right-turn and the westbound left-turn approaches to the Ala Moana Boulevard/Kalia-Ena Roads intersection. Such small increases in traffic volumes would have no noticeable impact upon the service level of that major intersection. Future traffic volumes for 1994 with the proposed Kalia Tower are shown in Figure 4.5. Anticipated delays and the LOS for the various lane groups of the intersection, derived using current HCM procedures, can be seen in Table 4.7.

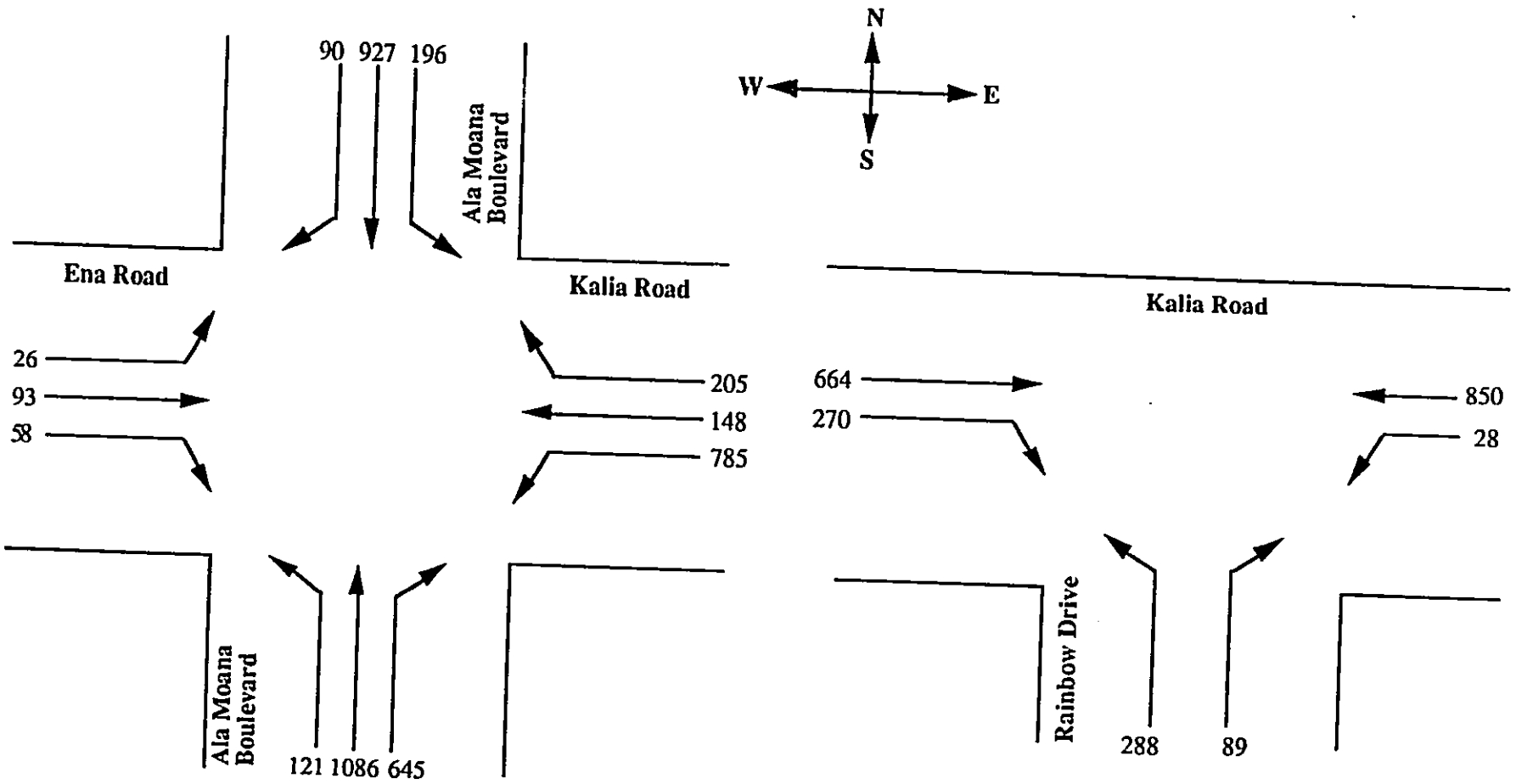
Table 4.7
Level-of-Service for Ala Moana Boulevard/Kalia-Ena Road Intersection
1994, With Kalia Tower, PM Peak Hour

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Ala Moana (Northbound)	Left	0.518	54.7	E	93.5	F
	Thru	1.178	125.4	F		
	Right	0.491	5.1	B		
Ala Moana (Southbound)	L/T/R	0.939	45.6	E	45.5	E
Kalia (Westbound)	Left	1.359	*	*	*	*
	Left/Thru	1.310	*	*		
	Right	0.258	3.7	A		
Ena (Eastbound)	L/T/R	0.838	62.6	F	62.6	F
INTERSECTION		**1.043**	*	*		

* Delay and LOS not meaningful when V/C ratio is greater than 1.2

Impacts upon the intersection on Kalia Road at the entrance to the Hilton Hawaiian Village (Rainbow Drive) would also be minimal. The additional 58 automobiles entering and exiting the property represent an increase of only 3 percent over the projected 1994 traffic volume through that

Figure 4.5
1994 Weekday PM Peak Traffic Projections with Project



intersection. Such small increases would have no noticeable additional impact upon the level-of-service of the intersection, with the LOS remaining at B and average delays approaching 6 seconds per vehicle. Anticipated delays and the LOS for the various lane groups of the intersection, derived using current HCM procedures, can be seen in Table 4.8.

Table 4.8
Level-of-Service for Kalia Road/Rainbow Drive Intersection
1994, With Kalia Tower, PM Peak Hour

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Kalia - Eastbound	Thru/Right	0.596	5.0	B	5.0	B
Kalia - Westbound	Left/Thru	0.432	4.1	A	4.1	A
Rainbow Dr. - North	Left	0.432	16.2	C	13.6	B
Rainbow Dr. - North	Right	0.059	0.2	A		
INTERSECTION		**0.547**	**6.0**	**B**		

Although the proposed project would have no impact upon banquet generated traffic, the Hilton Hawaiian Village recognizes that problems continue to arise from this demand. The management remains committed to the use of internal security and the hiring of additional traffic controllers to better facilitate traffic flows during special events.

Short-term construction related impacts to traffic can be anticipated along Ala Moana Boulevard as trucks and equipment go on and off site through the service entrance connection Ala Moana Boulevard with the driveway to the parking garage. Although aggravating for those delayed, the situation would not be permanent, nor of a long duration, and would not require any special mitigation measures outside of current construction standards and practices for site ingress/egress.

9.3.2 Use of NETSIM Traffic Network Simulation Software to Determine Impacts of Proposed Kalia Tower Project

9.3.2.1 Methodology

In addition to the standard traffic analysis methods represented by the Highway Capacity Manual, several traffic simulations of the network surrounding the Hilton Hawaiian Village were performed utilizing the various programs within the NETSIM software package. Use of this package allows the analyst to recreate observed conditions, make changes to the network, and observe the resulting impacts throughout the entire network; a situation unable to be achieved through the use of the standard Highway Capacity Manual equations. Specifically, the simulated network extended along Ala Moana Boulevard (from its intersection with Hobron Lane to its terminus at Kalakaua Avenue) and along Kalia Road (from its intersection with Ala Moana Boulevard to Saratoga). Several subnetworks were also developed and run in order to gain an insight into the existing interrelationships between the various components of the overall network. A schematic diagram of the NETSIM network for the West Waikiki area is included in Appendix C.

The overall network was examined for three typical weekday evening peak traffic demand conditions (i.e., existing, future without the proposed expansion of the Hilton Hawaiian Village, and future with the proposed Kalia Tower). These three traffic demand conditions were investigated in connection with the existing circulation system, and in connection with a geometrically modified alternative following the proposed changes contained within the Waikiki

Gateway Master Plan. These changes involved the addition of a third through lane along Ala Moana Boulevard from Kalia Road to Kalakaua Avenue and an addition of a fourth lane to direct right turning vehicles from Ala Moana Boulevard onto Kalia Road. However, rather than include two left turning lanes from Ala Moana Boulevard onto Kalia Road, as has been proposed, the left turn bay along the southbound approach of Ala Moana Boulevard was doubled in length.

Proposed changes to Kalia Road contained within the Fort DeRussy area were also considered within the context of this computer simulation. Anticipated traffic volumes and turning movements identified by Wilbur Smith Associates were utilized for both the Hale Koa entrance and the parking lot entrances. Kalia Road was expanded to four lanes in the 1994 "No-Project" and "With-Kalia Tower" scenarios.

The following simulated intersections operate under actuated signal controls with extension-only detectors: Ala Moana and Hobron, Ala Moana and Kalia/Ena, Ala Moana and Kalakaua, Kalia and Rainbow Drive, and Kalia and Maluhia/Hale Koa. NETSIM allows for the explicit consideration of the signal phasing and timings.

Both city buses and tour buses were included in the analyses. City buses were allowed to dwell at bus stations, whereas tour buses were specified to traverse various paths on the network in order to realistically simulate their impact on traffic. The number of tour buses to and from the Hilton Hawaiian Village was increased in the "With-Kalia Tower" scenarios to better simulate the anticipated future situation.

9.3.2.2 Findings

Results of the computer simulation modeling confirmed the major problem areas along the traffic network in the area. High demand in the area from through traffic along Ala Moana Boulevard creates spillbacks for both the southbound and northbound approaches to the Ala Moana/Kalia-Ena Roads intersection. The heavy demand and spillbacks inhibit left turning movements from Kalia Road onto Ala Moana, and from Ala Moana onto Kalia Road. In addition, the large amount of traffic traversing Ala Moana Boulevard is given longer green phases, causing the heavy demand along Kalia Road to back up, sometimes past the Rainbow Drive intersection at the Hilton.

It is important to note that the heavy demand causing problems is, for the most part, totally unrelated to the Hilton Hawaiian Village. Simulations factoring out Hilton traffic from the entire network showed no noticeable differences on measures of effectiveness for the areas hot spots. Simulations transposing the anticipated 1994 traffic (without the Kalia Tower) upon the existing traffic geometrics also showed a complete gridlock situation along Kalia Road, Saratoga Road, and at the Ala Moana/Kalia-Ena Roads intersection. It was quite clear that without the proposed State and Army improvements to Kalia Road and Ala Moana Boulevard, the additional traffic from the Fort DeRussy expansion could not be processed through the network.

With the current heavy demand, any traffic disruptions, such as stalled or stopped vehicles, are likely to cause severe interruptions, spillbacks and delays, depending on the location and duration of such events. This is particularly noticeable when either tour buses or city buses stop along the single lane portion of Kalia Road within Fort DeRussy. This problem should be eliminated when Kalia Road is expanded to four lanes.

The use of NETSIM provides much more detailed and varied measures and results to measure effectiveness than do the standard equations employed within the Highway Capacity Manual. Tables 4.9 through 4.11 show two sets of results related to the intersections at Ala Moana Boulevard/Kalia-Ena Roads and at Kalia Road/Rainbow Drive. A sample of a NETSIM printout for a 1994 "With-Kalia Tower" scenario is contained in Appendix C. As can be seen in the tables, with the inclusion of the proposed State and Army modifications to the road system, the level-of-

service is anticipated to remain similar to current conditions. The addition of the Kalia Tower would have no significant impact upon that level-of-service.

Table 4.9
Average Stopped Time Delay in Seconds for
Ala Moana Boulevard/Kalia-Ena Road Intersection

DIRECTION	LANE GROUP	1991 CURRENT	1994, WITHOUT PROJECT	1994, WITH KALIA TOWER
Ala Moana (Northbound)	All Lanes	70.2	50.6	58.7
	Left	159.9	87.5	116.4
	Thru	126.6	85.5	93.4
	Right	4.8	3.3	4.6
Ala Moana (Southbound)	All Lanes	63.1	70.0	75.6
	Left	144.1	267.0	225.3
	Thru	49.6	46.7	45.5
	Right	22.9	39.9	43.1
Kalia (Westbound)	All Lanes	95.1	90.0	83.5
	Left/Thru	112.2	102.8	98.7
	Right	24.4	22.2	12.6
Ena (Eastbound)	All Lanes	61.5	57.9	65.7
	Left	76.7	60.8	92.7
	Thru	63.3	72.9	73.0
	Right	59.3	42.2	43.9
INTERSECTION		**72.5**	**67.1**	**70.1**

Table 4.10
Average Stopped Time Delay in Seconds for Kalia Road/Rainbow Drive Intersection

DIRECTION	LANE GROUP	1991 CURRENT	1994, WITHOUT PROJECT	1994, WITH KALIA TOWER
Kalia - Eastbound	All Lanes	4.6	5.3	6.2
	Thru	4.9	5.4	6.1
	Right	4.0	4.9	6.6
Kalia - Westbound	All Lanes	27.8	11.3	26.4
	Left	30.2	37.7	14.4
	Thru	27.5	18.5	25.3
Rainbow Dr. - North	All Lanes	33.9	24.3	26.5
	Left	30.2	29.9	33.3
	Right	27.5	6.9	5.9
INTERSECTION		**22.1**	**13.6**	**19.7**

Table 4.11
Maximum and Average Queues in Car Lengths for
Ala Moana Boulevard/Kalia-Ena Road Intersection

DIRECTION	1991 CURRENT		1994, WITHOUT PROJECT		1994, WITH KALIA TOWER	
	Qmax	Qavg	Qmax	Qavg	Qmax	Qavg
Ala Moana (Northbound)	24	14	19	11	20	12
Ala Moana (Southbound)	17	8	17	7	17	8
Kalia (Westbound)	23	15	23	16	24	16
Ena (Eastbound)	7	3	8	4	8	4

9.3.3 Other Alternatives

The expansion of the commercial retail option to its "maximum" of 25,000 square feet, would increase traffic generated by employees by an additional 40 cars, with 20 entering and 20 leaving the property during the PM peak hour. For all practical purposes, their effect upon the level-of service of any of the adjacent intersections would be the same as that of the preferred alternative.

9.4 Probable Impacts on Parking

The existing parking structure, with 1,624 stalls, has an excess of 174 parking spaces above the amount required by the Land Use Ordinance (LUO). Parking required by the LUO for the preferred alternative, with 400 hotel rooms and 12,000 square feet of "other permitted uses," would utilize only 115 stalls, with an excess of 59 spaces still remaining. In addition, proposals to re-stripe the parking garage and remove the existing encumbrances within the parking structure could increase the total number of available stalls in the parking structure to 1,939.

Parking requirements for the other alternatives, with 25,000 square feet of retail in addition to 400 hotel rooms, would utilize 132 of the 174 excess parking spaces.

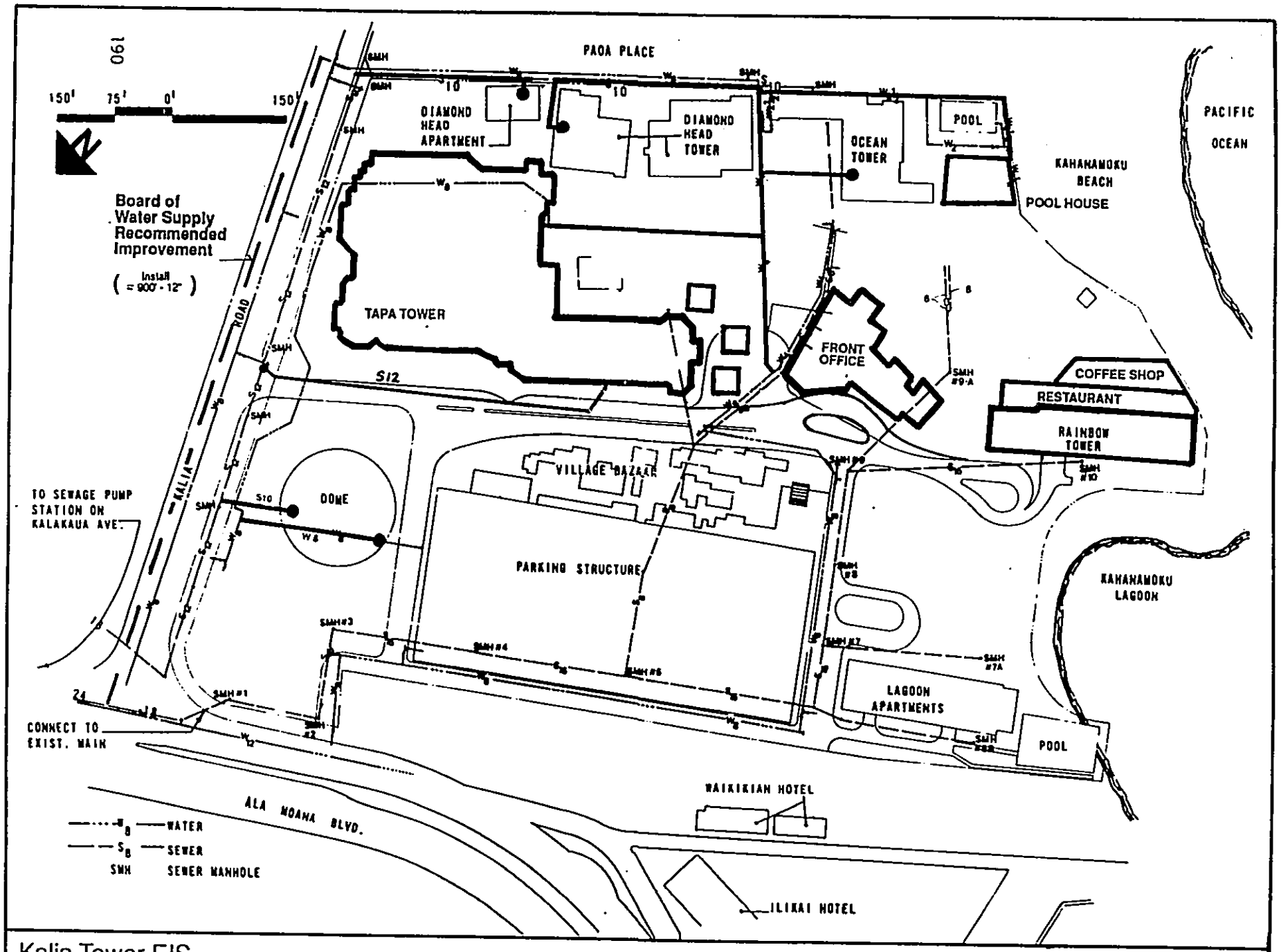
10.0 INFRASTRUCTURE

10.1 Water Supply

10.1.1 Existing Conditions

The Honolulu Board of Water Supply provides potable water for the Hilton Hawaiian Village property. The present Hilton Hawaiian Village water system consists of a loop of 8-inch pipe feeding from the 12-inch water main on Ala Moana Boulevard, running through the Village site, and reconnecting to the 8-inch water main running along Kalia Road. A separate 8-inch line services the Tapa Tower and the Dome, running from a connection with the 8-inch Kalia main adjacent to the project site to the Tapa Tower with a branch under the Dome. The 12-inch main's maximum flow capacity is approximately 3 million gallons per day (mgd), while the smaller 8-inch main's capacity is approximately 1.3 mgd. The water distribution system for the Hilton Hawaiian Village can be seen in Figure 4.6.

Mr. Fred Ing, the Hawaiian Village's Chief Engineer, reported that the average monthly water consumption during 1990 was 24,000,000 gallons, or 0.8 mgd. While no detailed internal records



Kalia Tower EIS

Prepared by: Belt Collins & Associates

Figure 4.6
Utilities Layout
Hilton Hawaiian Village

are kept as to the ultimate use of this water, Mr. Ing estimated that about 0.7 mgd of water is consumed by hotel rooms and 0.1 mgd is utilized by support services.

Current water consumption on a per hotel room basis was estimated to be approximately 210 gallons per day, similar to rates experienced at the neighboring Hale Koa Hotel. As the Dome is currently used only in the evenings, generation rates were considered to be the same as for cocktail lounges.

10.1.2 Probable Impacts

10.1.2.1 Preferred Alternative

The additional guest rooms, health club/recreation deck, landscaping, and proposed water features would lead to slightly over 96,000 gallons per day (gpd) of additional water use. A breakdown of this additional water consumption can be seen in Table 4.12.

Table 4.12
Additional Water Consumption
Kalia Tower

Type of Use	No. of Units	Use Rate	Expected Consumption
Hotel Rooms	400 rms	210 gpd/rm	84,000 gpd
Additional Landscaping	5,000 sf	1.5"/wk	668 gpd
Water Feature Replacement	10,000 sf	0.33"/day	2,050 gpd
Restaurant	60 seats	20 gpd/seat	1,200 gpd
Retail	3,000 sf	0.07 gpd/sf	210 gpd
Health Club	200 pers/day	50 g/pers/day	10,000 gpd
Sub-Total			**98,128 gpd**
Minus DOME	700 persons	2.5 gpd/person	-1,750 gpd
Total			**96,378 gpd**

The Hilton is proposing to connect to the existing 12-inch main at the point closest to the project site. The Honolulu Board of Water Supply (BWS) was sent a copy of water consumption estimates which anticipated a higher water demand than the above refined forecasts. In a letter dated 25 February 1991, Mr. Kazu Hayashida, Manager and Chief Engineer for the Board of Water Supply indicated that the BWS's existing services and distribution system were weak within the vicinity of the project area. To be able to meet the project's proposed water demand, the BWS is asking for the construction of a 900 lineal foot 12-inch water main extending from the existing 12-inch main under Ala Moana Boulevard under Kalia Road adjacent to the Hilton property, as shown in Figure 4.6.

In 1989, the Board of Water Supply indicated that the present water system along Kalia Road was adequate to meet the much larger 130,000 gpd demand produced by the proposed Hale Koa Hotel addition.[6] As a part of that project, the BWS has requested from the Army that a new 12-inch line be installed from Saratoga Road to Paoa Place to replace the existing 8-inch line. Should the Hale

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6 Department of the Army, Draft Environmental Impact Statement - Development of the Armed Forces Recreation Center - Fort DeRussy, Waikiki, Hawaii, January 1990.

Koa addition not be built, then there would appear to be no problems with the current system meeting the lower water demands produced by the Kalia Tower. Also, as the Hilton is not proposing to hook into the current Kalia Road 8-inch distribution line, rather, it is proposing to hook directly into the 12-inch main under Ala Moana Boulevard, which is not recommended by the BWS for upgrade, this matter must be listed as an unresolved issue.

In addition, the Hilton Hawaiian Village Joint Venture remains committed to their on-going program to reduce the amount of overall water consumption through the use of conservation measures and the latest technology in plumbing, such as shower fixtures and toilets, which utilize less water. Already, all shower fixtures are equipped with water conservation devices at the Hawaiian Village.

10.1.2.2 Other Alternatives

Expansion of the commercial retail area would place an additional demand upon water consumption of approximately 1,400 gallons per day, creating an overall project demand under the cases with the highest retail use of approximately 98,000 gallons per day. This is virtually the same as the water use from the preferred system.

10.2 Wastewater Treatment and Disposal

10.2.1 Existing Conditions

Wastewater from the Hilton Hawaiian Village flows into the City and County's collector system at five separate points. Four of these lines connect directly to the 12-inch gravity main that underlies Kalia Road. They are: a 10-inch gravity main that parallels Paoa Road; a 12-inch line servicing the Tapa Tower; and a 10-inch line servicing the Dome and Benihana Restaurant (see Figure 4.6). The line servicing the Dome and the Benihana Restaurant passes under the proposed project site. The Kalia Road main carries effluent to a 24-inch gravity main along Ala Moana Boulevard which begins at Kalia Road. The fifth sewer connection is a 15-inch line that links the Lagoon apartments, Rainbow Tower, and central core area directly with the 24-inch Ala Moana Boulevard sewer main, bypassing the 18-inch sewer main running immediately adjacent to the Hilton property along Ala Moana Boulevard up to Kalia Road. This 15-inch pipe also passes under a corner of the proposed project site.

The 24-inch Ala Moana line carries the sewage by gravity flow to a sewage pump station located on Kalakaua Avenue adjacent to Fort DeRussy. Finally, the pump station pumps the effluent to the Sand Island Sewage Treatment Plant. The treated effluent is discharged through a deep ocean outfall.

Although the Department of Public Works (DPW) reports no sewer backup problems in the vicinity of the proposed Kalia Tower, the municipal sewer system is reported to be inadequate.[7] The 24-inch gravity main along Ala Moana Boulevard is currently deemed by the DPW to need relief, although the City has no plans to relieve the line at this time. Current proposals before the City for construction of the adjacent Waikikian Hotel would provide an additional 18-inch main running parallel to the existing 24-inch line along Ala Moana Boulevard from the Waikikian site to the Fort DeRussy pumping station. If this line is constructed, it will address concerns raised by the DPW.

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7 Correspondence dated Feb. 11, 1991 from C. Michael Street, Deputy Director, for Sam Callejo, Director, Department of Public Works.

10.2.2 Probable Impacts

10.2.2.1 Preferred Alternative

Using State of Hawaii Department of Health standards for hotel room sewage generation as outlined in Title 11, Chapter 62, Wastewater Systems, of the Hawaii Administrative Rules as minimum guidelines, the use rates shown in Table 4.13 were developed. Additional wastewater generation from the proposed Kalia Tower project is estimated to be approximately 76,000 gpd. A breakdown of the additional wastewater generation from the different proposed uses within the Kalia Tower can also be seen in Table 4.13. As the Dome is currently used only in the evenings, generation rates were considered to be the same as for cocktail lounges.

Table 4.13
Additional Wastewater Generation
Kalia Tower

Type of Use	No. of Units	Use Rate	Expected Generation
Hotel Rooms	400 rooms	170 gpd/room	68,000 gpd
Restaurant	60 seats	16 gpd/seat	960 gpd
Retail	3,000 sf	0.056 gpd/sf	168 gpd
Health Club	200 persons/day	40 g/person/day	8,000 gpd
Sub-Total			**77,128 gpd**
Minus DOME	700 persons	2 gpd/person	1,400 gpd
Total			**75,728 gpd**

The existing 10-inch sewer line running under the Dome and connecting with the Kalia Road 12-inch main will be removed and replaced with a 10-inch line connecting the proposed Kalia Tower with the proposed 18-inch line which would run under Ala Moana Boulevard from the Waikikian to the Fort DeRussy pumping station. Connection directly to this 18-inch relief line bypasses the existing 18-inch and 24-inch lines along Ala Moana Boulevard, which are currently experiencing capacity problems.

As stated above, the Department of Public Works has recommended the construction of a new relief line for the 24-inch line running along Ala Moana Boulevard to the Fort DeRussy pumping station in relation to this proposal. However, the construction of an 18-inch line to relieve this line will be included in the construction of the Waikikian Hotel. Should the Waikikian Hotel project not be completed, then Hilton Hawaiian Village would need to consider construction of this line to support development of the Kalia Tower. Further, DPW has indicated that a 36-inch line along Ala Moana Boulevard adjacent to Ward Warehouse, approximately 1.8 miles away from the project site, also is in need of relief. However, this line is within the Hawaii Community Development Association Kakaako Redevelopment District and its replacement has been requested from several different projects in the area. The actual necessity of the Hilton Hawaiian Village to replace this line will need to be resolved during the sewage adequacy determination phase for the Building Permit.

10.2.2.2 Other Alternatives

The additional retail space found in the other alternatives would increase wastewater generation from the project by approximately 1,120 gallons per day, for a total wastewater generation figure

of approximately 77,000 gallons per day. This slight additional increase could be accommodated by the proposed improvements.

10.3 Solid Waste Disposal

10.3.1 Existing Conditions

Solid waste at the Hilton Hawaiian Village is collected by the Oahu Refuse Company, a private contractor, and removed to City and County landfills and the H-power garbage to energy plant. Approximately 300-500 tons of solid waste are collected from the resort each month. Solid waste generated on the Hilton property is compacted at four sites: behind the Dome; at the Lagoon Apartments; and at the Rainbow and Tapa Towers.

According to Fred Ing, chief Engineer for the Hilton Hawaiian Village, with occupancy rates averaging 85% and an average of two persons per room, average daily solid waste generation on the Hilton Hawaiian Village site can be estimated at 3.5 lbs per room, while generation rates for restaurant solid waste can be estimated at 5 lbs per seat per day. As the Dome is currently used only in the evenings, generation rates were considered to be the same as for cocktail lounges.

10.3.2 Probable Impacts

10.3.2.1 Preferred Alternative

Solid waste generation would increase approximately 478 lbs per day due to the proposed Kalia Tower. The additional hotel rooms would generate approximately 1,400 lbs/day (at 3.5 lbs/room,), with an additional 300 lbs/day expected from the restaurant. The health-sports clinic/spa and retail would not contribute significantly to the total solid waste generated from the project. A breakdown of solid waste generated by use can be seen in Table 4.14. The 76 tons per year increase that would be produced by the proposed Kalia Tower represents only a very small percentage of the over 847,000 tons of solid waste produced on Oahu each year.[8] The Department of Public Works has indicated that the additional solid waste generated from the project would pose no problems.[9]

Table 4.14
Additional Solid Waste Generation
Kalia Tower

Type of Use	No. of Units	Use Rate/Day	Expected Generation
Hotel Rooms	400 rooms	3.5 lbs/room	1,400 lbs/day
Retail	3,000 sf	0.026 lbs/sf	78 lbs/day
Restaurant	60 seats	5 lbs/seat	300 lbs/day
Health Club	1	100 lbs	100 lbs/day
Sub-Total			**1,878 lbs/day**
Minus DOME	700 persons	2 lbs/person	-1,400 lbs/day
Total			**478 lbs/day**

8 DBED, Hawaii Data Book, State of Hawaii, Honolulu, 1989

9 Correspondence dated Feb. 11, 1991 from C. Michael Street, Deputy Director, for Sam Callejo, Director, Department of Public Works.

Solid waste from the project would be compacted and stored adjacent to the Kalia Tower until collected by the private contractor. This collection would occur once a day. After collection, 90% of the solid waste would be transported to the H-Power facility for incineration, with the remaining 10% being sent to the City and County Waimanalo Gulch Sanitary Landfill. It should be noted that the Hilton Hawaiian Village Joint Venture has embarked on an ambitious recycling program which has led to a reduction in the amount of solid waste going into the City & County's system. Further refinements and expansion of this initiative are anticipated.

10.3.2.2 Other Alternatives

The maximum 25,000 square feet of commercial space contained within the other alternatives would increase solid waste generation by approximately 520 pounds per day, creating a total demand upon Oahu's solid waste processing facilities of almost 1,000 pounds per day.

10.4 Electrical Power

10.4.1 Existing Conditions

The Hilton Hawaiian Village and the surrounding area is served with electrical energy from Hawaiian Electric company's (HECO) Ena Substation. The substation contains four 10 MVA transformers with two 12.47 KV circuits from each unit. The Village is presently served by three of these 12.47 KV circuits which as a group are capable of handling approximately 9,000 KVA. Present total Hawaiian Village billing demand is 6,816 KVA, which includes power to the existing Dome.[10] Currently, the Dome has a peak load of approximately 500 KVA, including air conditioning. Presently, according to Hawaiian Electric Company officials, "the electrical system in this area is adequate and there are no problems with the system."[11]

10.4.2 Probable Impacts

10.4.2.1 Preferred Alternative

The proposed Kalia Tower will be served with chilled water by Hilton's central chilling plant and by primary power (12.47 KVA from the existing primary switchgear). The Kalia Tower would increase the load on the central chiller plant while removing from service the less efficient, small unitary chillers which presently serve the Dome. The proposed project is anticipated to consume about 480,000 Kilowatt hours per month with an additional demand load over current conditions of approximately 900 KVA. All components of the existing Hilton Hawaiian Village distribution system and the HECO feeder have sufficient capacity to absorb the load increase. A breakdown of estimated additional power consumption by use can be seen in Table 4.15.

This analysis does not attempt to address factors in HECO's system, such as substation or generation capacity, but assumes that HECO's facilities will be capable of handling the load at the property line as it is mandated to do through the Public Utilities Commission. On site generation has not been considered as a viable alternative.

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10 Data provided by Douglas V. McMahon, Ltd., electrical consultants for the Hilton Hawaiian Village.

11 Correspondence from Hawaiian Electric Company, February 21, 1991.

Table 4.15
Additional Electrical Consumption
Kalia Tower

Type of Use	No. of Units	Use Rate	Expected Consumption
Hotel Rooms	400 rooms	3.0 kw/rm/day	1,200 kw/day
Retail	3,000 sf	0.008 kw/sf/day	24 kw/day
Restaurant	2,000 sf	0.010 kw/sf/day	20 kw/day
Health Club	7,000 sf	0.020 kw/sf/day	140 kw/day
Landscaping Features	variable	variable	20 kw/day
Sub-Total			**1,404 kw/day**
Minus DOME			-500 kw/day
Total			**904 kw**

The Hilton Hawaiian Village has made considerable effort to conserve energy over the years. Energy audits have been conducted and a highly efficient central air-conditioning system, using the latest state-of-the-art controls has been implemented. The use of heat recovery chillers and heat pumps have helped to produce more energy efficiency. Further efforts to conserve energy through the Kalia Tower will include extensive use of dimming and the selection of energy efficient light sources. Capacitors will be applied at VAR consuming loads to improve voltage regulation and distribution efficiency. Tower construction will utilize roof insulation with a value of 19 or better, and will incorporate high efficiency glass with good shading coefficients. There will be optimum selection of air conditioning units and fan coil units using high efficiency motors. The existing DDC (direct digital control) energy management system will be extended to service this project.

10.4.2.2 Other Alternatives

Although all alternatives have some component of retail space, the alternatives that contain 25,000 square feet of retail space in addition to the 400 hotel rooms represent a "higher" demand scenario upon Oahu's infrastructure. The additional electrical demand represented by this maximum build-out of commercial space would be approximately 160 kilowatts per day, for a total demand from the project of approximately 1,064 kilowatts per day.

10.5 Existing Facilities

10.5.1 The Hilton Geodesic Dome

Currently, the site of the proposed Kalia Tower houses the 145 foot in diameter Hilton Geodesic Dome. The Dome consists of approximately 16,890 square feet of covered area, with an additional 2,520 square feet associated with maintenance facilities. The building serves as a venue for the long playing Don Ho show, and for a more recent magic show. Both shows take place at night. Due to inefficiencies with the air-conditioning units, attributable in part to the Dome's aluminum construction and the inability to vent it properly, the building is generally unusable during the day. With the allowed occupancy at 1,800 assembly, or 1,100 for dinner, the Dome is considered a non-conforming use under today's health and safety standards.

The Hilton Geodesic Dome represents Henry Kaiser's first venture into aluminum geodesic dome construction. Designed by Buckminster Fuller and Don Richter, the Hilton Dome served as a

CORRECTION

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

Table 4.15
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Health Club	7,000 sf	0.020 kw/sf/day	140 kw/day
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The Hilton Geodesic Dome represents Henry Kaiser's first venture into aluminum geodesic dome construction. Designed by Buckminster Fuller and Don Richter, the Hilton Dome served as a

prototype for a series of aluminum domes which were assembled across the globe. The Hilton Dome was completed in 1957 after only twenty-two hours of assembly.

10.5.2 Probable Impacts

The Hilton Hawaiian Village management recognizes the perceived cultural significance of the Dome. The current plan calls for the removal of the Hilton Geodesic Dome and its reconstruction elsewhere. Several organizations have expressed an interest in the building, from the Mayor's office to a variety of non-profit groups. Should it be technically possible from an engineering and safety point of view, the Hilton Hawaiian Village would work together with the community, as well as with engineers familiar with aluminum dome construction, to see that it is preserved in an appropriate setting and use.

11.0 SOCIOECONOMIC ENVIRONMENT

11.1. Existing Conditions

The Hilton Hawaiian Village presently contains 2,523 hotel units and 279 apartment units on 20.2 acres. In 1989, the City and County of Honolulu hosted over 5 million visitors, and Waikiki's mature hotels and resorts were the destination for a large percentage of them. (The Hawaii Visitors Bureau reports that 2.9 million visited Oahu only.) In 1989, the Hilton Hawaiian Village experienced 110 sellout or near sellout days and an 85% average occupancy rate.

Operation and maintenance activities require approximately 2,100 employees: 1,600 full-time, 400 part-time, and 100 on-call. Retail establishments on the Hilton Hawaiian Village property employ, on average, approximately two outside people per shift for every 1000 square feet of retail space. Approximately 82,648 square feet of retail and restaurant space are currently in operation on the Hilton property. Sales generated from these establishments are approximately $555 per square foot a year, or almost $46 million,[12] from which the Venture receives a minimum of $12 per square foot per month gross revenue as rent, against 12% of gross sales in excess of the minimum rent. Approximately $1.7 million is generated for the State General Fund through the General Excise Tax on retail sales.

In addition to operational expenditures at the Hilton Hawaiian Village, Hilton officials report that property taxes paid to the City and County of Honolulu in fiscal year 1990 amounted to approximately $7.1 million. Approximately $9.3 million were paid into the State General Fund from the combined Hotel Room/Excise Tax. General excise taxes from retail sales were estimated at approximately $1.7 million in 1990. With the general excise taxes, room taxes, and taxes from employees, the Hilton Hawaiian Village represents a significant direct revenue source to the State of Hawaii and to the City and County of Honolulu.

11.2 Probable Impacts

11.2.1 Preferred Alternative

11.2.1.1 Employment

Operation of the Kalia Tower would require the employment of additional staff at the Hilton Hawaiian Village. Hilton officials estimate that Tower-related services would require an additional

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12 From interviews with Dale Carter, HHV Operations Analyst, February 11, 1991, and Angela Murphy, Regional Director of Leasing, February 12, 1991

25 persons in housekeeping, 5 persons in maintenance, and another 5 persons to service the front on any given day. With employees working five-day work weeks and averaging two-week vacation periods, total additional employment necessary to staff the Kalia Tower would be 50 persons.

Operation of the 3,000-square-foot retail space would employ an estimated 12 additional people on any given day and a 2,000 square foot restaurant would be estimated to employ approximately 13 people. Operation of a 7,000-square-foot spa and the recreation deck would be estimated to add approximately 10 people to the work force. Again, with employees working five-day work weeks and averaging two-week vacations, additional employment to be generated by the retail side of the project would be estimated at 50 persons. The proposed project, then, would create full-time jobs for approximately 100 additional people. With the number of available employees in the hotel/tourism industry on the rise on Oahu, these additional 100 persons would be readily available from the existing labor pool.

11.2.1.2 Public Revenues

Operation of an additional 400 visitor units would generate a significant amount of tax revenue for the State of Hawaii and the City and County of Honolulu. With an estimated 85% occupancy rate and an average daily rate of $135, yearly General Excise Tax revenues would be approximately $700,000 a year, while revenues from the Hotel Room Tax would be approximately $838,000 a year.

Estimates of 1994 retail sales on 5,000 square feet of retail are approximately $3.4 million a year, with an additional $1,000,000 anticipated from sales associated directly with the proposed health club. General Excise Tax revenues to the State of Hawaii would then be approximately $183,000 a year, while General Excise Tax revenues from the amount received by the Hilton Hawaiian Village for retail lease rents anticipated in 1994 would be approximately $30,000 a year.

Removal of the Dome and the construction of the new Kalia Tower would have a positive impact upon the assessed value of the site. The 1991-92 assessed value for the Dome itself was $451,600 and generated only $4,353 in property taxes for the City and County of Honolulu. The property taxes anticipated from the Kalia Tower, with its $75 million construction costs (at $9.64 per $1,000 of assessed value), would be approximately $723,000, over a 16,000 percent increase in revenues.

Although salaries for the various employees would differ, using rates given in the recent agreement between the Hilton management and its unions for Hilton employees, and rates derived from current Honolulu conditions for retail employees, anticipated state income tax revenues (using 1991 schedules) would be approximately $130,000 a year from 100 full-time employees. Total additional public revenue benefits derived directly from the operation of the Kalia Tower would then total over $2.6 million a year and are shown in Table 4.16.

11.2.2 Other Alternatives

Construction of the hotel room component of the project would not alter the public benefits derived through taxes or wages across the various options. However, the additional square-footage for retail space would cause an increase in both revenues to the Hilton Hawaiian Village through rental income,and to both the public through increased sales and the general excise tax. Increased employment from the additional retail space is estimated to be approximately 80 more persons, almost doubling the estimated income tax revenue to around $240,000 a year. Retail sales would be anticipated to bring in an additional 13.6 million dollars a year over the preferred alternative, creating additional excise tax revenues of over $567,000 a year.

Table 4.16
Summary of Additional Public Revenues Generated Per Year
Hilton Hawaiian Village Kalia Tower Project

Type	Rate	Unit	Revenue/Yr	Tax
GET-Hotel	.0417	340 rooms/day	$16.75 million	$699,000
Hotel Tax	.05	340 rooms/day	$16.75 million	$838,000
GET-Retail	.0417	gross sales	$4.4 million	$183,000
GET-Leasing	.0417	$144 sf/yr	$720,000	$30,000
Income Tax	variable	100 employees	$1.85 million	$130,000
Property	9.64/mil	$75 million	n/a	$723,000
Total				**$2,603,000**

In addition to public revenues, revenues to the Hilton Hawaiian Village from increased lease rents from the retail space alternatives would result in an additional $2.8 million in annual profits over the preferred alternatives. This additional lease rent, in turn, would generate an additional $117,000 in tax revenues to the State General Fund.

11.3 Construction Related Impacts

The proposed project would be constructed within an existing resort complex in a well-established visitor destination area. Impacts are anticipated to be the same with all alternatives. Increased direct employment during the construction and operational phases of the project would occur, although at this time exact numbers of additional employed can not be forecast. In addition, some induced and indirect employment would be generated through the construction industry. It should be noted that the Oahu construction industry's recent double digit growth is anticipated to slow, and that new construction starts in 1993 could be seen as beneficial to the health of the industry. The approximately $75 million construction expenditure would result in increases in public tax revenues of over $3,000,000 and increase available accommodations for the overall visitor population. Construction of the proposed project would help alleviate the shortage of visitor accommodations experienced on the island of Oahu, while adding to revenues received through the hotel room and general excise taxes. The tennis and health club components would fulfill the current shortage for varied recreational facilities in the area.

12.0 PUBLIC SERVICES

12.1 Police Protection

12.1.1 Existing Conditions

Police protection in the Waikiki area is provided by the Honolulu Police Department's headquarters station on Beretania Street and by the Waikiki substation on Kalakaua Avenue at Kuhio Beach. Following relocation of the headquarters to the new main building on Alapai Street, the nearest police facilities will be located at the Waikiki substation. On site protection is also provided by the Hilton Hawaiian Village's own security force.

12.1.2 Probable Impacts

Although moving the Beretania Street headquarters to Alapai Street will increase the distance from the Hilton Hawaiian Village to the nearest police facilities, this will not decrease the amount of beat coverage in the area. In a letter dated February 7, 1991, Assistant Chief of Police Chester Hughes noted that the proposed development suggested no specific questions that the Honolulu Police Department would like to have addressed at this time. Standard mitigation measures employed during the construction phases will address police concerns for public safety. Concerns with environmental security will be addressed through the planning and design of the project.

As regards the Hilton Hawaiian Village's own security force, the addition of a 400-room tower would necessitate an internal review of security coverage across the entire Hilton property. Such a site-wide evaluation is a standard procedure followed in the hotel industry following a major capital improvement of this nature. Should the evaluation deem it necessary, the Hilton Hawaiian Village security force would be increased to meet any deficiencies.

12.2 Fire Protection

12.2.1 Existing Conditions

Currently, Waikiki receives primary fire protection from three Honolulu Fire Department stations located in Waikiki, McCully, and Pawaa. Two of the stations are approximately one mile from the Hilton Hawaiian Village, and the third is 1.7 miles away. Locations and complements for these stations can be seen in Table 4.17. Normal procedure calls for the dispatch of three engine companies and two ladder companies to any high-rise building fire. Therefore, under normal conditions, a full contingent of fire-fighting companies could arrive at the Hilton Hawaiian Village in 3-5 minutes after the sounding of the first alarm.

Table 4.17
Fire Protection Distribution
Waikiki Area

Station	Location	Complement	Men	Distance to HHV
Waikiki	381 Kapahulu Ave. (Corner of Paki & Kapahulu	Engine Co. 7 Ladder Co. 7	18 21	1.7 miles
McCully	2425 Date St. (Corner of University & Date)	Engine Co. 29 Ladder Co. 29	18 21	1.0 miles
Pawaa	1610 Makaloa St. (Corner of Kaheka & Makaloa)	Engine Co. 2 Ladder Co. 2 Rescue 1	18 21 15	1.0 miles

12.2.2 Probable Impacts

In a letter dated February 22, 1991 responding to a request for comments about the proposed Kalia Tower, Mr. Donald Chang, Acting Fire Chief, noted that the Honolulu Fire Department had no concerns with the project affecting the ability of the HFD to respond to emergencies. Plans

currently call for slightly altering the existing emergency stairway leading from the Coral Ballroom. All aspects of the proposed project, including emergency egress, would conform to the current City, State and Federal fire codes.

12.3 Health Care Services

12.3.1 Existing Conditions

There are five hospitals and one clinic in the Honolulu Metropolitan area that provide emergency health care services (see Table 4.18). All are open 24 hours a day. The nearest full service hospital facility, Straub Hospital, is approximately 1.95 miles from the Hilton Hawaiian Village. Both the City and County of Honolulu and several private companies operate fleets of modern, well-equipped ambulances. Because of a state-sponsored training program, these ambulances are staffed by paramedics who have received intensive instruction in emergency treatment. In addition to the hospitals, Kaiser Permanente has a clinic with emergency room services approximately 1.65 miles from the Hilton Hawaiian Village and the Queen Healthcare Center, on Ena Road, offers emergency medical services from 8 am to 8 pm. Also, Doctors on Call, a private health service specializing in immediate care for visitors, has an office at the Hilton Hawaiian Village. Health professionals are available through this service 24 hours a day.

12.3.2 Probable Impacts

While the project will increase the visitor population in the area, this increase is not expected to adversely add to the number of people requiring emergency health care. The number of facilities available, as well as the type of service, can easily accommodate the minor impacts.

Table 4.18
Proximity of Health Care Facilities
to the Hilton Hawaiian Village

Name	Distance to HHV (Road Mi.)
Kapiolani Medical Center for Women and Children	1.05
Kaiser Permanente Honolulu Clinic	1.65
Straub Hospital	1.95
Queen's Hospital	2.75
Kuakini Hospital	4.25
St. Francis Hospital	4.75

12.4 Recreational Facilities

12.4.1 Existing Conditions

Several recreational facilities exist near the Hilton Hawaiian Village. These facilities provide a wide range of activities for both tourists and residents. The major recreational activities for tourists to Waikiki revolve around the sun, sand and surf. Because of this, Waikiki Beach, which extends from the Ala Wai Yacht Basin to San Souci Beach on the southwest end of Kapiolani Park, remains the main tourist attraction. Along this stretch of beach are many minor beaches; Prince Kuhio Beach Park, and Queen's Surf Beach Park. The Hilton Hawaiian Village has four swimming pools for visitors on property. The Kahanamoku Lagoon and Beach provide visitors to

the Hilton Hawaiian Village with direct access to beach activities on approximately 200,000 square feet of ocean frontage.

There are three major public parks near Waikiki; Kapiolani Park, Ala Moana Park, and Ala Wai Field and Park. Kapiolani Park provides opportunities for tennis, open field recreation, soccer, baseball, and jogging. A bandstand in the park provides a place for local entertainment and concerts. Ala Moana Park provides opportunities for tennis, open field recreation, swimming, jogging, and has a small pavilion hall. The relative safety of the protected swimming area at Magic Island makes Ala Moana Park an especially attractive and popular family beach attraction. The Ala Wai Field and Park provides for open field recreation, and has a boat house for kayaks, canoes, and other small boats that use the Ala Wai Canal. The Ala Wai Golf Course, adjacent to Ala Wai Field, is the only major public golf course in metropolitan Honolulu. Next to Kapiolani Park are the Honolulu Zoo and the Waikiki Shell. The Waikiki-Kapahulu Library is located at the corner of Ala Wai Boulevard and Kapahulu Avenue.

The recent trend in increasing demand for personal-workout exercising opportunities, health club activities, and tennis has not been been fully met in the Waikiki area. Currently the Hilton Hawaiian Village's only exercise facility is a small massage and fitness center located in (and exclusive to) the 348-room Ali'i Tower. The management of the hotel consistently receives many inquiries from guests regarding exercise facilities, health clubs, and tennis opportunities. Due to insufficient facilities on the premises, Hilton guests are presently referred to public facilities or to nearby hotels. Although the Ilikai and the Hawaiian Regent Hotels have tennis facilities, both are severely limited. Some private health clubs exist in the area, such as World Gym on Ala Wai Boulevard, Gold's Gym on Kapiolani Boulevard, and the YMCA on Atkinson Street. Although memberships are required for these clubs, some provisions are available for daily use by visitors.

12.4.2 Probable Impacts

The 1990 State Comprehensive Outdoor Recreation Plan (SCORP) presents a detailed breakdown on how visitors to Hawaii spend their recreational time. Aggregate recreational activity percentages from the study are reproduced in Table 4.19. Using these percentages, current demand for recreational facilities generated by the Hilton Hawaiian Village hotel units and the forecasted demand expected to be generated from the proposed Kalia Tower, using normal occupancy conditions of 85%, can be seen in Table 4.20.

As is shown, 578 additional beach participants could be expected to utilize the Hilton Hawaiian Village's ocean area at least once during their stay as a result of the Kalia Tower. In general, guests to beach facilities stay only two to three hours at a time, staggered throughout the day. In this manner, one beach facility can accommodate up to three times its "peak hour" capacity during the day. Using this turnover rate, and the SCORP standards of 80-square-feet of beach space per Oahu beach user, the present Hilton Hawaiian Beach occupancy caused by the 3,646 guests is only 97,227 square feet. Although not factoring in the use of the beach area by non-Hilton guests, as stated previously, the relatively isolated nature of the Hilton Hawaiian Village from the rest of Waikiki makes impacts from residents and guests of other hotels minimal. If all 578 guests anticipated to participate in beach acitivities were to go on the same day, a rather unlikely event, then the proposed Kalia Tower would require an additional 15,413 square feet under currently recommended SCORP standards, still well within the available 200,000 square feet of beach area.

While the large majority of guests to the Kalia Tower are anticipated to utilize the many recreational offerings of the Hilton Hawaiian Village, it is expected that guests will travel to some of the other visitor and recreational sites on Oahu. Tourist destinations such as the Polynesian Cultural Center, Arizona Memorial, Sea Life Park, and Waimea Falls would experience additional visits as a result of the Kalia Tower. In addition, non-commercial tourist and recreational destinations such as Hanauma Bay and the beaches in Waikiki could also experience slight in increases in visitors.

In addition to beach activities, the construction of additional tennis facilities would help alleviate the demand on public tennis facilities. Approximately 12-14 courts could be built upon the roof of the Coral Ballroom/Parking Structure. Given two people per court and a turnover rate every two hours, these courts could accommodate approximately 168 people over a standard 12-hour day.

Further recreational activities would be provided by the health-sports clinic/spa, which is anticipated to provide exercise opportunities to approximately 200 people a day.

Table 4.19
SCORP Visitor Survey Statewide Results

Activity	Participating at Least Once During Stay
Beach Activities	85%
Snorkeling/Diving	39%
Ocean Boating	26%
Bodysurfing	16%
Hiking	16%
Tennis	10%
Golfing	8%
Surfing	5%
Camping	2%
Jetskiing	2%
Windsurfing	1%

Table 4.20
Number of Hilton Hawaiian Village Guests
Participating in Recreational Activities at Least Once During Their Stay

Activity	Current Participation	Additional Participation	Total Participation
Beach Activities	3,646	578	4,224
Snorkeling/Diving	1,673	265	1,938
Ocean Boating	1,115	177	1,292
Bodysurfing	686	109	795
Hiking	686	109	795
Tennis	429	68	497
Golfing	343	54	397
Surfing	214	34	248
Camping	86	14	100
Jetskiing	86	14	100
Windsurfing	43	7	50

[1] 2,523 Hotel Units on present Hilton property with 2 persons per room at 85% occupancy
[2] 400 Hotel Units in proposed Kalia Tower with 2 persons per room at 85% occupancy

13.0 ATMOSPHERIC ENVIRONMENT

13.1 Changes in Circulation Patterns

13.1.1 Background to Wind Analysis

A city's buildings, although originally conceived to protect people from the natural environment, can sometimes produce an adverse effect instead. One such adverse effect can be the increase in wind speeds at the pedestrian level.

Mean wind speeds vary in strength. Usually the mean wind speeds in the earth's boundary layer normally increase with height above ground. A building that protrudes into this boundary-layer air flow can deflect these faster winds toward the ground. It is this interaction between a building and the high-velocity winds in the earth's boundary layer that is primarily responsible for many of the pedestrian-level wind problems associated with tall buildings.

The winds deflected downward can escape in high-speed streams around the corners of the building, or through an underpass if such happens to be available, at speeds that may be three to four times the wind speeds that would have occurred if there had been no building.

These accelerated winds may cause major changes in the microclimate of the area. Pedestrians may be buffeted by the high-speed, turbulent winds. Occasionally, people may even be blown over. Open plazas designed for passive leisure activities near a new high-rise project may be greatly affected by the accelerated winds or rendered useless or unpleasant by the severe cooling effects of the winds at certain times of the year.

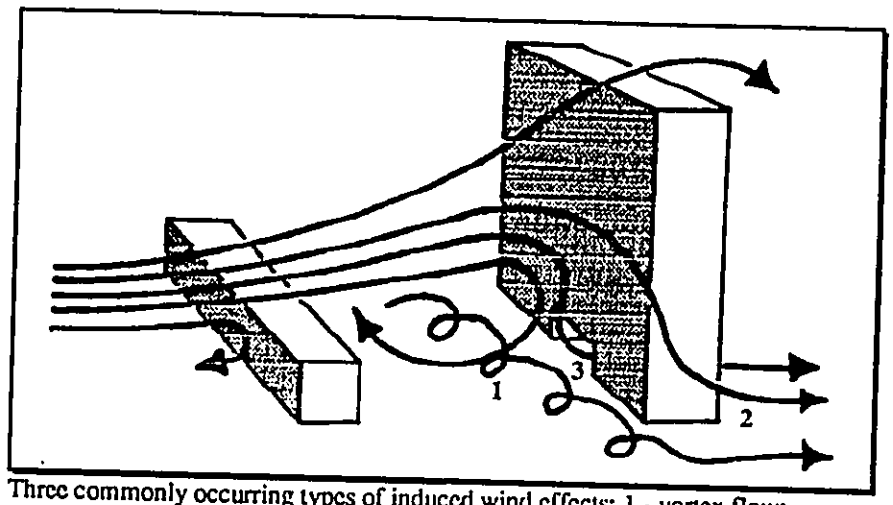
In recent years, extensive research into the question of wind behavior around high-rises has resulted in a somewhat more accurate understanding of the problem. A good deal has been learned from measurements of wind conditions around existing buildings. This procedure, however, is time-consuming and expensive. The greatest contributions to understanding wind problems have come through the use of wind-tunnel tests on models of existing and proposed high-rises.

At least three areas of induced high-speed winds have been identified. These have been labelled vortex flow, through flow, and corner-stream flow (see Figure 4.7). With the standardization of wind test techniques, a concerted effort has been made to quantify the magnitude of induced winds as they are affected by building dimensions, site conditions, and other variables.

A controversy exists concerning the effectiveness of predictive calculations for determining wind impacts. Penwarden and Wise (1975) have been the leaders in attempts to establish parameters for predicting the magnitude of wind effects. On the basis of their results, Penwarden and Wise claim that in most cases "sufficiently accurate predictions can be made of the likely conditions." Their work was further examined by Cohen, McLaren, et al. (1977), who determined that Penwarden and Wise's approach offered "valuable guidance to predict the likely pedestrian-level wind conditions" However, they also found that results using the earlier approach could yield overestimated predictions, a condition they corrected through recalibration of the formulas.

The importance of this controversy to planners and design professionals lies in the potential value of quickly assessing the probable wind problems of a proposed design. By being able to predict the intensity and location of wind problems on the basis of plan drawings, the planner can avoid the cost and delay of wind-tunnel tests and can more successfully integrate wind issues into the total planning and design process.

Figure 4.7
Commonly Induced Wind Effects



Three commonly occurring types of induced wind effects: 1 - vortex flow; 2 - corner-stream flow; and 3 - through flow.

However, the wind environment around a building in an urban area is subject to a wide range of extraneous influences. Several variables could affect the values calculated on the basis of the various formulae. Among these are:

- The presence of another tall building upwind;
- The spacing between buildings upwind;
- The roof pitch of other buildings in the vicinity; and,
- The influence of the upwind area in general.

13.1.2 Planning Standards for Winds

Concerning wind-speed standards, it is important to remember that unlike many design requirements, standards for wind speeds must be somewhat more flexible. In any exposed environment, winds can only be controlled to a limited degree. As a result, any reasonable proposed standard is likely to be exceeded at some time or another. What a planning standard must consider is not just the desirable limits of wind conditions, but also the frequency with which these limits can be exceeded in a given situation. Another factor complicating the process of establishing wind standards is the fact that human comfort has been shown to be dependent on a wide array of climatic variables, each interacting with others to affect our perception of comfort. As a result, efforts to develop comfort standards for any single climatic element are going to be somewhat misleading and inaccurate to the extent that they fail to recognize these interrelationships.

Based on the various work and studies, Table 4.21 presents the presently accepted ranges of tolerance for wind speeds under four categories ranging from Ideal to Dangerous. It should be emphasized that the wind speeds listed here relate to hourly average speeds, and that, clearly, gust speeds are to be anticipated considerably in excess of these mean values. Furthermore, Table 4.21 is meant to indicate a summation of generally accepted safety criteria without specification of occurrence frequency to indicate comfort levels. It should be further noted that wind conditions vary between cities, and even within cities. Wind comfort levels are many times a culturally determined variable with levels of tolerance a function of experience, something absolute standards fail to take into account.

Table 4.21
Ranges of Tolerance for Wind Speeds

COMFORT CRITERIA	AVERAGE HOURLY WIND SPEED	EFFECT
Ideal	0-11 mph	Ease of reading a newspaper, eating lunch outdoors, optimum enjoyment of outdoor space.
Comfortable to Tolerable	12-19 mph	Enjoyment of outdoor space if some protection from wind is available. Blowing dust, clothes, hair might be annoying, particularly on cold days.
Acceptable to Tolerable for Walking	20-28 mph	Umbrellas used with difficulty, hair and clothes blown about. Elderly people may be blown off balance in gusts; difficult to carry on conversation. Cold days can be very uncomfortable.
Unacceptable to Dangerous	29 mph and above	Experience inconvenience when walking. Packages and clothing difficult to manage. Gusty winds could cause people to blow over.

Source: Cohen, McLaren, et. al., p. 16.

13.1.3 Site Analysis

Data on wind conditions in Honolulu are gathered at Honolulu International Airport. According to the Hawaii Data Book, Honolulu experiences an average annual wind speed of approximately 11.4 mph. Trade winds blow approximately 73 percent of the time, with wind speeds over 20 mph occurring approximately 92 days out of the year (25 percent). Location specific readings were done at the corner of Kalia Road and Ala Moana Boulevard and at the makai corner of the project site along Ala Moana Boulevard by Rowan Williams Davies & Irwin, Inc. (RWDI) in 1990 in connection with the Waikikian Environmental Impact Statement. Results of their readings showed that prevailing winds were from the northeast across the site with speeds similar to the Honolulu averages. Summer was generally windier, with speeds of 20 mph or above approximately 27 percent of the time. Wind speeds of 20 mph or above occurred approximately 19 percent of the time in winter. Very little increase in wind speeds was discovered within the "high-rise" environment of Ala Moana Boulevard.

At present, the site is fronted by the large open space of Fort DeRussy on its mauka side and by the parking structure on its makai side. The northeastern face of the property is opposite several taller condominiums. The southern face of the property fronts the Tapa Tower. Wind flows across Fort DeRussy are unobstructed, however, the prevailing northeasterly tradewinds are affected by the present condominiums along Ala Moana Boulevard. The proposed Waikikian Hotel would also

affect pedestrian level wind conditions at the site. Wind Tunnel tests performed by RWDI showed that the Waikikian Hotel would actually decrease the occurrence of wind speeds 20 mph and above at the Hilton site by as much as 8 percent. The most probable reason for this would appear to be the podium base for the Waikikian, which would serve to deflect the downdrafts caused by the tower before they reached the pedestrian street level.

The proposed Kalia Tower will sit on the Hilton site approximately 200 feet from the high-rises along Ala Moana Boulevard and 50 feet in front of the parking structure. The building will be approximately 270 feet tall and encompass a 10,000 square foot footprint, with an approximately 45 degree orientation towards the prevailing northeast tradewinds. Current plans call for the first floor to be elevated 25 feet above ground to allow for extensive landscaping and water features up into the lobby area of the building. The ground floor would be open on three sides, with the back side adjacent to the parking structure closed. Because of this design, probable areas of increased wind velocity would occur from "flow-through" movements on the ground floor, and from "corner-flow" movements around the sides of the building. One area of concern, although localized, would be from induced wind atop the proposed recreation deck that could negatively affect tennis activities.

To determine possible wind conditions near proposed buildings the following formula is used:

$$V = V'(R_H S)$$

where:

V represents the induced meteorological wind speed;

V' represents the current wind speed;

R_H represents values for the type of flow induced; and,

S represents a value determined from the height of the building.

From Penwarden and Wise, the worst case value of $R_H = 0.95$ for corner-stream flow is used, and for through-flow, the worst case value of $R_H = 1.2$ is used. From Cohen and McLaren the value of S for a 270-foot building is 1.01. With these values, we can estimate that average through-flow wind speeds occurring in the lobby area of the building would be approximately 13.8 mph (11.4 *1.2*1.01). Left unchecked, these velocities could be as high as 24 mph during periods of strong tradewinds (20 mph). For induced velocity due to corner-stream flow on an average day, the wind speed would be 10.9 mph (11.4*0.95*1.01), a net reduction in speed. As the wind speed increases, the amount of reduction at the pedestrian level due to corner-stream flow also increases, with as much as a one mph reduction when wind speeds are 20 mph.

13.1.4 Significance of Impacts

Three probable wind conditions could be caused by the construction of the proposed Kalia Tower; through-stream flow in the lobby and ground floor area of the Kalia Tower; corner-stream flow affecting the area between the Tapa Tower and the Kalia Tower, and vortex flow occurring between the Kalia Tower and the Kobe Restaurant. All wind affects would be isolated to the Hilton Hawaiian Village property, with virtually no impacts to neighboring sites. Of the three wind conditions, the possible through-flow impacts seem greatest, with estimated additional wind velocities of 4 mph when wind speeds are 20 mph or above. Percentages of occurrence of strong tradewinds are estimated to be approximately 55 days out of the year at the site. At speeds of 20 mph and above newspapers would be difficult to read and sitting would be uncomfortable, both activities that could be expected at the affected location.

Wind velocities due to the effects of corner-stream flow would actually decrease according to estimations. This would be mainly due to the orientation of the building, with the long axis running in approximately the same direction as the prevailing winds. Activities that would occur in the affected area between the Kalia Tower and the Tapa Tower would be limited to pedestrian movement. With the decrease in velocities, the percentages of occurrence of tolerable conditions would experience a net increase.

The final wind condition that could be expected to occur from the construction of the Kalia Tower is vortex-flow between the Kalia Tower and the Kobe Restaurant. This flow would be caused by downdrafts along the northeast face of the building which are deflected upward at the ground level and again deflected against the restaurant. This energy would be contained in the back access area of the Hilton property between the parking structure and the existing low-rise buildings along Ala Moana Boulevard. It would be expected to dissipate upon encountering the podium of the Waikikian. Thus, it would be quite localized and would have no effect upon pedestrian movements in the area. Another location for possible vortex flows would be across the tennis courts, which could experience wind disturbances caused by downdrafts along the back of the tower deflecting off the roof of the parking structure when wind directions become more easterly.

Given the size and design of the structure, the relative distance between it and other high-rises in the area, and the orientation of the building, there does not appear to be any evidence that the Kalia Tower would increase wind speeds along the Ala Moana Boulevard corridor. However, thought should be given to the ultimate design of the ground floor as regards the effects of through-flow wind currents. Trees, walls, and screens can help mitigate this effect. It is also recommended to protect the vertical movement of the water feature as much as possible to ensure that the waterfall is not disrupted by induced winds.

13.1.5 *Wind Impacts from the Other Alternatives*

Corner-flow velocities from the various other alternatives would be slightly less than for the preferred Kalia Tower alternative. Calculated wind speeds range from approximately 8.1 mph for the 70 foot tall building to 10.3 mph for the 175 foot building. Although the plans for the various alternatives may not include areas that would be susceptible to through-flow induced winds, such areas in the lowest building could expect wind speeds on an average day to be approximately 10.3 mph and approximately 13 mph with the 175 foot building.

13.2 Air Quality

13.2.1 Existing Conditions

The State Department of Health operates a network of air quality monitoring stations located at various sites around Oahu and elsewhere in the state. Based on data from these stations, it appears likely that both state and national ambient air quality standards are currently being met in the project area except possibly for occasional exceedances of the more stringent state regulations pertaining to ambient ozone and carbon monoxide concentrations.

13.2.2 Short-Term Impacts

Short-term direct and indirect impacts on air quality could potentially occur due to project construction. For a project of this nature, there are two potential types of air pollution emissions that could directly result in short-term air quality impacts during project construction: (1) fugitive dust from demolition work and from vehicle movement and soil excavation; and (2) exhaust emissions from on-site construction equipment. Indirectly, there also could be short-term impacts from slow-moving construction equipment traveling to and from the project site and from a temporary increase in local traffic caused by commuting construction workers.

Fugitive dust emissions may arise from the demolition and removal of existing structures on the site and from the grading and dirt-moving activities associated with site preparation once the area is cleared. The emission rate for fugitive dust emissions from construction activities is difficult to estimate accurately because of its elusive nature of emission and because the potential for its generation varies greatly depending upon the type of soil at the construction site, the amount and type of dirt-disturbing activity taking place, the moisture content of exposed soil in work areas, and the wind speed. The U.S. EPA has provided a rough estimate for uncontrolled fugitive dust emissions from construction activity of 1.2 tons per acre per month under conditions of "medium" activity, moderate soil silt content (30%), and precipitation/evaporation (P/E) index of 50. Uncontrolled fugitive dust emissions in the project area would likely be somewhere near this level. In any case, State of Hawaii Air Pollution Control Regulations prohibit visible emissions of fugitive dust from construction activities at the property line. Thus, an effective dust control plan for the project construction phase is essential.

Adequate fugitive dust control of active construction areas can usually be accomplished by the establishment of a frequent watering program. In sensitive or dust-prone areas, limiting the area that can be disturbed at any given time and/or using wind screens may also be required. Wind erosion of inactive areas can be controlled by mulching or the use of chemical soil stabilizers. Haul trucks tracking dirt onto paved streets from unpaved areas is oftentimes a significant source of dust in construction areas. Some means to alleviate this problem, such as tire washing or road cleaning, may be appropriate during the site preparation and construction phases. Control regulations further stipulate that open-bodied trucks be covered at all times when in motion if they are transporting materials likely to give rise to airborne dust. Paving of parking areas and/or establishment of landscaping as early in the construction process as possible can also lower the potential for fugitive dust emissions.

On-site mobile and stationary construction equipment also will emit air pollutants from engine exhausts. The largest of this equipment is usually diesel-powered. Nitrogen oxides emissions from diesel engines can be relatively high compared to gasolinepowered equipment, but the standard for nitrogen dioxide is set on an annual basis and is not likely to be violated by short-term construction equipment emissions. Carbon monoxide emissions from diesel engines, on the other hand, are low and should be relatively insignificant compared to vehicular emissions on nearby roadways.

Indirectly, slow-moving construction vehicles on roadways leading to and from the project site could obstruct the normal flow of traffic to such an extent that overall vehicular emissions are increased, but this impact can be mitigated by moving heavy construction equipment during periods of low traffic volume. Likewise, the schedules of commuting construction workers can be adjusted to avoid peak hours in the project vicinity. Thus, most potential short-term air quality impacts from project construction can be mitigated.

13.2.3 Long-Term Impacts

After construction, long-term impacts on air quality from automotive exhausts can potentially occur at or near any facility that attracts large volumes of vehicular traffic as a result of day-to-day operations and use. Traffic projections indicate that this project will generate a net increase of 58 vehicles at the Ala Moana/Kalia-Ena Roads intersection (the intersection most impacted by the project) during the peak traffic hour for the area. This represents only a 0.5 to 1 percent increase in the major approach peakhour volumes at this intersection compared to the existing case or the forecasted scenario without the project. Past experience in assessing traffic-related air quality impacts has shown that traffic volume increases less than about 5 percent or about 100 vehicles per hour generally do not cause any significant increases in air pollution concentrations. Thus, based

on the small predicted net change in peak-hour traffic volumes, the proposed project would have no significant long-term impact on maximum air pollution levels in the area.

Air quality studies done in relation to neighboring developments have determined that, due to the increased use of more fuel efficient cars and gasoline, that overall carbon monoxide levels would likely decrease by 1993 over existing levels, in spite of normal traffic growth.[13] Results of that modeling suggest that the cumulative impacts of the proposed adjacent projects would not cause any degradation of air quality over today's levels.

In the case of air quality impacts related to the parking garage structure, it is important to note that the most severe periods of air degradation occur during times when banquets or other special events cause queues of cars waiting for stalls. As there would be no meeting, convention, or banquet facilities associated with the proposed Kalia Tower project, it would not impact the current situation. Also, with the minimal amount of traffic generated from the project, and with this traffic spread throughout the day, the small amount of additional traffic related to the project would have no adverse impact upon the air quality of the parking garage.

14.0 NOISE

14.1 Introduction

Development of the Kalia Tower will generate significant amounts of short-term construction noise. For the purposes of this analysis, the noise may be thought of as stemming from a number of related, but identifiably separate, sources:

- Relocation of the Hilton Dome;
- Operation of on-site construction equipment (pile drivers, graders, bulldozer, compressors, etc.); and,
- Operation of vehicles needed to bring workers and material to the project site during the construction phase

Noise generation will show many variations over time, even within each of these categories. It is also important to distinguish between noise generated as a result of the project, and ambient sound levels that are already present and would continue to occur even in the absence of any new development activity. The following discussion is divided into three major parts. The first contains an estimate of the amount and distribution of sound, both spatial and temporal, that will be generated by project related activities. The second deals with the effects that this noise will have on people. The third section provides a brief review of additional noise attenuation techniques that could be applied to the project beyond those required by law.

14.2 Existing Noise Regulations

Chapter 43 of Title 11, Administrative Rules for the State Department of Health, sets standards for certain types of noise emissions, including those produced by construction activity and other fixed sources. It specifies maximum allowable levels of noise for each use zone contained in the City and County of Honolulu's zoning districts. Limits relevant to the proposed Kalia Tower project site are reproduced in Table 4.22.

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13 JAMI Corporation, Final Environmental Impact Statement, Waikikian Hotel, Honolulu, November 1990.

Noise levels above those shown are not allowed without a permit granted by the director of the State Health Department, who must determine that the proposed activity is in the public interest, is of a temporary nature, and cannot be rescheduled at a time when such noise might be allowable. The applicant must also notify surrounding residents of nighttime activity.

Table 4.22
Allowable Noise Levels in dBA[14]
Measured from the Property Line[15]

ZONING DISTRICT	7 AM - 10 PM	10 PM - 7 AM
Apartment (A-1 to A-3)	60	50
Hotel (Resort)	60	50
Business (B-1 and B-2)	60	50

Source: State of Hawaii Department of Health Administrative Rules, Chapter 43, Title 11

With specific reference to construction, the regulations provide that no permit be granted for construction activities that would create excessive noise (noise greater than the levels shown in Table 4.22) on Sundays or State holidays, or during the hours from 6 PM to 7 AM the next morning. Noise in excess of 95 dBA at or beyond the property line cannot be emitted except for the hours between 9 AM and 5:30 PM, Monday through Saturday. In addition to a general prohibition against excessive noise, there is an absolute prohibition against the operation of gas- or air-exhaust construction equipment without a muffler.

Chapter 200 of the State's Occupational Safety and Health Standards contains standards for occupational exposure to noise (Table 4.23). When sound levels exceed these standards, the law requires that employers initiate administrative or engineering controls to lower noise to acceptable levels or to supply employees with protective hearing devices.

Chapters 42, title 11, Administrative Rules for the State Department of Health, sets standards for the emission of noise by vehicles (Table 4.24) The standards apply to all vehicles except those normally used for emergency work. Variances to operate vehicles which emit noise levels greater than the specified limits may be granted, modified, revoked, or denied by the State Health Director.

14.3 Existing Ambient Sound Levels

In 1977, prior to development of the Tapa Tower, existing ambient sound levels on and around the project site were measured. At that time ambient levels on Ala Moana Boulevard adjacent to the Hilton property ranged from 64 to 66 dBA, measured 50 feet from the centerline of the roadway. Loud vehicles, primarily buses, periodically raised instantaneous values into the 70s and, at some points, as high as 81 dBA. More recent studies completed by Ebisu & Associates for the Waikikian Environmental Impact Statement (1990) have shown that sound levels along Ala Moana

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14 The ear does not respond equally to all frequencies. Rather, it is less efficient at low and high frequencies than it is at medium or speech range frequencies. The A-weighting reduces the effects of the low and high frequencies with respect to the medium frequencies. The decibel unit of measure is based on a logarithmic scale such than an increase of 10 dBA represents a doubling of sound pressure.

15 Noise levels must exceed these limits for at least 10 percent of the time within any 20-minute period to be considered in violation of the regulations.

Table 4.23
Hawaii State Standards for Permissible Occupational Noise Exposures

DURATION PER DAY (HOURS)	SOUND LEVEL (DBA, SLOW RESPONSE)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

Source: State of Hawaii Department of Labor and Industrial Relations, Chapter 200, Title 12

Table 4.24
Noise Level Limits (in dBA) for Vehicles

LIGHT VEHICLES (GROSS WEIGHT ≤ 6,000 LBS.)			
POSTED SPEED LIMIT (mph)	MEASUREMENT DISTANCE		
	20 FT.	25 FT.	50 FT.
25 or less	77 dBA	75 dBA	69 dBA
30	79	77	71
35	81	79	73
40	83	81	75

HEAVY VEHICLES (Gross weight ≥ 6,000 lbs., Posted Speed Limit = 35 mph or less)			
APPLICABLE TIME PERIODS	MEASUREMENT DISTANCE		
	20 FT.	25 FT.	50 FT.
Daytime (6 AM - 6 PM)	92 dBA	90 dBA	84 dBA
Evening (6 PM - 10 PM)	92	90	84
Night (10 PM - 6 AM)	81	79	73
Holiday	81	79	73
Sunday	81	79	73

Source: State of Hawaii Department of Health Administrative Rules Chapter 42, Title 11

Boulevard have remained relatively constant over the last 14 years, with current levels ranging from 65 to 70 dBA and calculated PM peak hour traffic noise approximately 67.7 to 73.7 dBA.

A particular concern has been noise from buses picking up or dropping off passengers at the Tapa Tower bus bay. The noise is prolonged when bus drivers leave their engines running to power the air conditioning units. However, this type of noise can be mitigated since idling of buses is

prohibited by law. Hilton management is working with tour operators to better enforce existing public regulations, as well as hotel policies designating passenger pick-up and drop-off, thereby reducing noise nuisances for hotel guests, apartment tenants, and pedestrians.

14.4 Construction-Related Noise

Construction, particularly of large buildings, is a noisy activity. Bulldozers (76-96 dBA), pile-drivers (95-110 dBA), concrete pumps (81-83 dBA), and diesel-powered trucks are the loudest pieces of noise-generating equipment that will be used in the Kalia Tower project.

The noise range (in dBA) for the types of construction equipment likely to be used are shown in Table 4.25. The most prevalent source of noise will be the internal combustion engines that power the equipment. Lesser amounts will come from such things as the transmissions and cooling fans. As the Table indicates, there is a tremendous variation in sound levels produced by different pieces of equipment in the same category.

Table 4.26 indicates ranges of sound levels normally encountered at construction sites for office buildings and hotels. Column two refers to all pertinent equipment at the site, whereas column three refers to the minimum equipment at the site. It must be remembered that most of the on-site machinery would operate within a relatively small area between the Coral Ballroom/Parking Structure and Kalia Road.

Table 4.25
Construction Equipment Noise Ranges (in dBA)

SOURCE	PEAK NOISE LEVEL	DISTANCE FROM SOURCE			
		50 FT.	100 FT.	200 FT.	400 FT.
Heavy Trucks	96	84-89	78-83	72-77	66-71
Pickup Trucks	92	72	66	60	54
Dump trucks	108	88	82	76	70
Concrete Mixer	105	85	79	73	67
Jackhammer	93	88	82	76	70
Scraper	93	80-90	74-82	68-77	60-71
Bulldozer	107	87-102	81-96	75-90	69-84
Generator	96	76	70	64	58
Shovel	111	91	85	79	73
Crane	104	75-88	69-82	63-76	55-70
Loader	104	73-86	67-80	61-74	55-68
Grader	108	88-91	82-85	76-79	70-73
Fork Lift	100	95	89	83	77

Source: Environmental Impact Assessment, Hilton Hawaiian Village Master Plan, 1984 p. 74

Table 4.26
Typical Noise Levels During Hotel Construction

CONSTRUCTION PHASE	EQUIPMENT PRESENT	
	ALL	MINIMUM
Excavation	89	79
Foundation	78	78
Erection	87	75
Finishing	89	75

Source: HHV Master Plan EIA, p. 76

Pile drivers will be the most disturbing piece of construction equipment used in the proposed project. Peak sound pressure levels from pile drivers are 94-110 dBA at 50 feet and average 100 dBA.[16] This figure was used to construct the noise contour map shown in Figure 4.8. It must be emphasized that these projected noise level contours are extremely tentative and should be used accordingly. In drawing them it was assumed that in the absence of barriers, point-source construction sound would attenuate according to the following inverse square equation:[17]

$$L_2 = L_1 - 10 \log \left\{ \frac{r_1}{r_2} \right\}$$

Once generated at a source, unshielded noise spreads out spherically as it travels through the air away from the source. Consequently, the intensity of the sound diminishes approximately 6 dBA with each doubling of the distance from the reference point. When the sound waves encounter natural and manufactured solid objects, they undergo bending or diffraction and reflection, the degree of which depends on the characteristics of the object. Trees and other vegetation, for example, tend to reflect the sound waves in a diffused pattern and are considered to be good interceptors of noise. When sound encounters a solid physical barrier, the "excess attenuation" can be estimated empirically and represented as factors (in dBA) to be subtracted from the sound pressure levels given by the above equation. In this manner, it is assumed that the noise levels are reduced by about 3 dBA per row of 1-2 story building, by 5 dBA by a 3 to 6 story building, and by 9 dBA by a building higher than 6 stories. The effects of wind, atmospheric pressure, and reflection off of other structures are generally not considered.

Figure 4.8 shows that residents in the neighboring Wailana apartments would experience outside noise levels in excess of 80 dBA during pile driving operations. Due to noise reduction factors associated with the exterior of the Wailana, interior noise levels could range from 64 dBA (windows closed) to 74 dBA (windows open).[18] Outside noise levels on the Hilton property would range from 87 dBA at the Tapa Tower to approximately 70 dBA at the Lagoon Apartments. Most of the Hawaiian Village's commercial areas would be in areas with outside noise levels of 78 dBA or higher, i.e., loud enough to interfere significantly with speech, cause a measurable threshold shift in hearing sensitivity, and result in considerable irritation and physiological stress should a person suffer continuous and prolonged exposure. An equivalent noise source would be

16 Environmental Protection Agency, Noise and its Measurement, Office of Public Affairs, February, 1977, as cited in C.S. Papacostas, Fundamentals of Transportation Engineering, Prentice Hall, 1987.

17 Ortolano, L., Environmental Planning and Decision Making, Wiley, 1984.

18 C.S. Papacostas, Fundamentals of Transportation Engineering, Prentice Hall, 1987.

a ringing alarm clock two feet away or the operation of a hand-held hair dryer.[19] Preliminary estimates are that pile-driving would last approximately two months.

While pile-driving will no doubt be the loudest of the construction activities that will take place on the site, it will not be the only one that will produce intrusive noises. As shown in Table 4.26 the average noise from hotel construction sites can range from 75-89 dBA. Based on those figures, it appears that average outside sound levels 50 feet from the construction site would be about 84 dBA for the rather small Kalia Tower project site. Average sound pressure contours for the entire construction phase of the project, exclusive of pile-driving, are shown in Figure 4.9.

It is anticipated that outside sound levels at the nearest residential units at the Wailana would be approximately 68 dBA, intrusive to conversation, but equivalent to an air conditioning unit 20 feet away. Again, interior noise levels would be 10-20 dBA lower. The 68 dBA from the construction noise is approximately equal to the current ambient noise levels of 65-70 dBA measured along Ala Moana Boulevard at the site. Open-air commercial operations on the Hilton property would experience noise levels around 68-71 dBA. Enclosed retail operations would experience a structural attenuation of 10-20 dBA.

14.5 Traffic-Related Noise

Project-related transportation noise will be caused by vehicles bringing workers and materials to the site during construction. It will also be generated by those few additional buses and automobiles carrying hotel guests and employees to and from the Kalia Tower once it is in operation.

Construction traffic entering the site will result in a significant increase in heavy traffic along Ala Moana Boulevard. In terms of noise, the area immediately around the Coral Ballroom/Parking Structure will be the most heavily affected, since it will be close to portions of the roadway used by accelerating and decelerating trucks. The overall effects of construction vehicles were included in the noise contours represented in Figure 4.9.

It should be noted that sound levels shown are the anticipated maximums that would be achieved only intermittently during the daytime hours. In terms of frequency, peak construction traffic noise would occur during excavation and for brief periods during each of the many concrete pours. Following completion of the Kalia Tower, this type of noise generation would cease. Also, heavy vehicles and buses generate noise at equivalent levels. Thus, construction of the Kalia Tower would merely increase the frequency with which the adjacent area is affected. It would not introduce higher traffic noise generators.

Following completion of the project, additional noise generation would occur from project-related traffic. Future conditions along Ala Moana Boulevard following the completion of the Fort DeRussy, Waikikian, Landmark, and Honolulu Convention Center projects are anticipated to increase by less than 0.5 dBA. Traffic related to the Kalia Tower is anticipated to increase PM peak hour traffic flows at the Ala Moana Boulevard/Kalia-Ena Roads intersection by only one percent. Because of the relatively low amount of additional traffic (+1-3 percent), it is not possible to discern a meaningful increase to the ambient noise levels using available noise prediction techniques.

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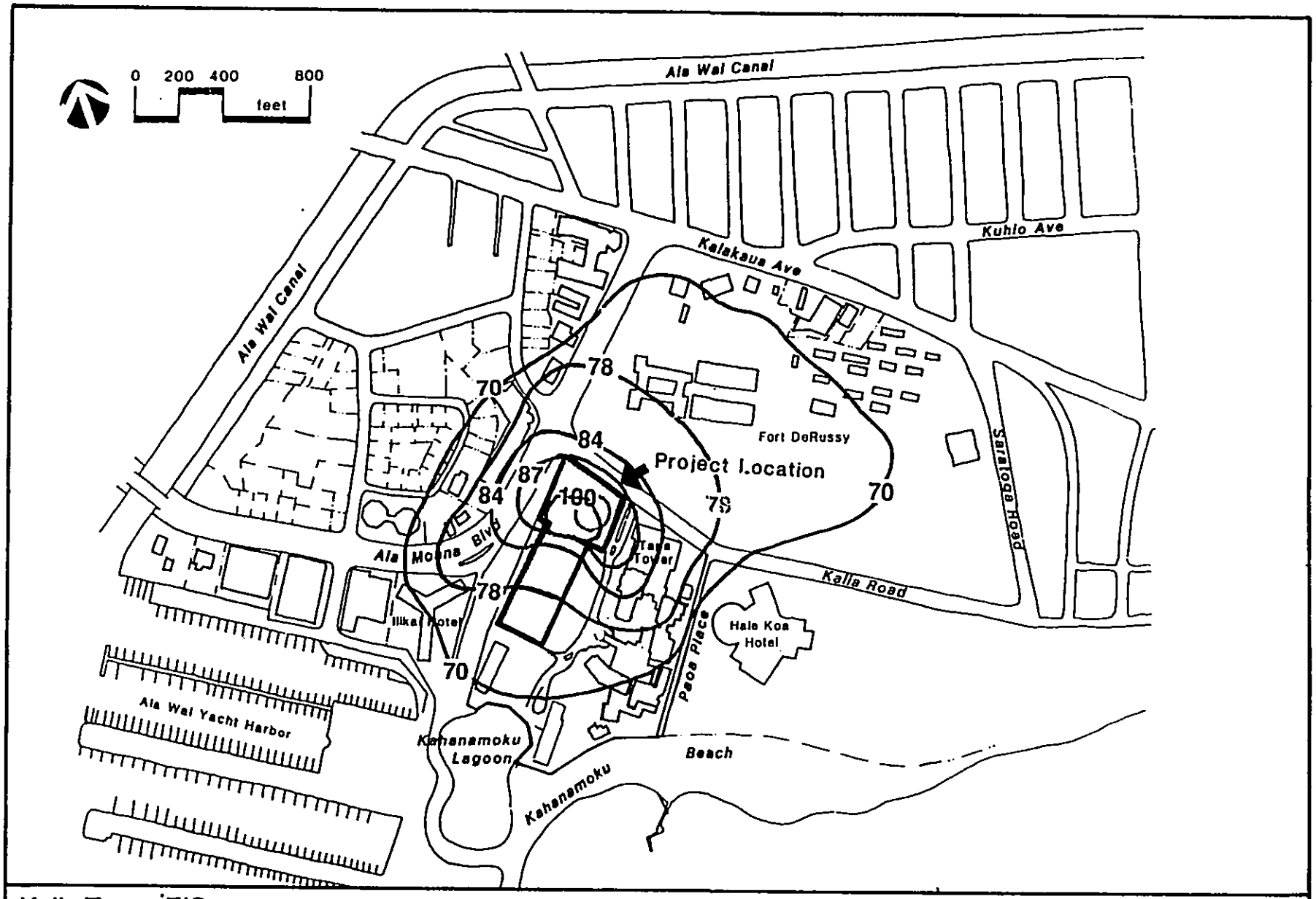
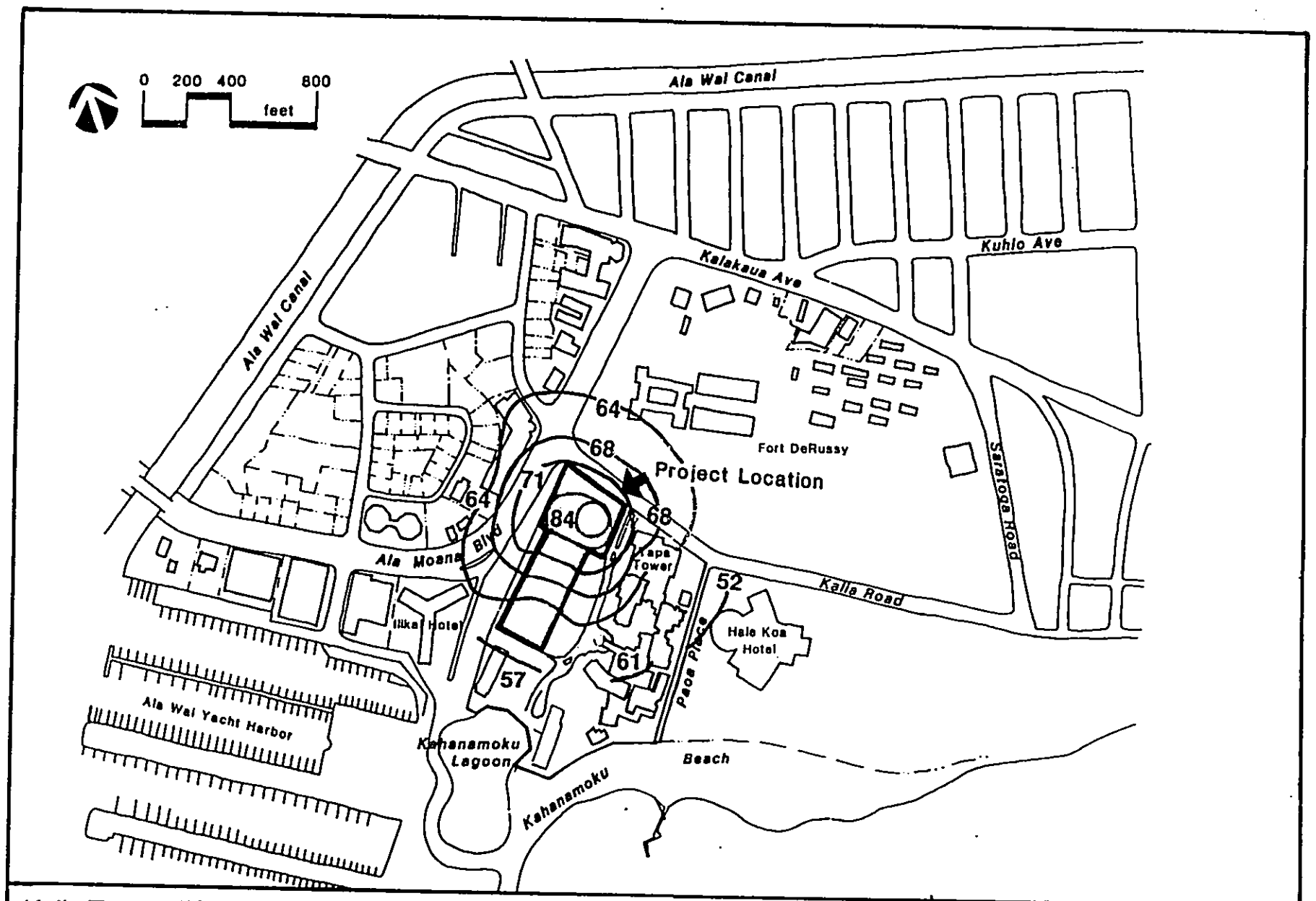
19 Ibid.



Kalia Tower EIS

Figure 4.8
Anticipated Noise Levels
During Pile-Driving Operations
Hilton Hawaiian Village

Prepared by: Belt Collins & Associates



Kalia Tower EIS

Figure 4.9
Anticipated Noise Levels
from General Construction Activities
Hilton Hawaiian Village

Prepared by: Belt Collins & Associates

14.6 Significance of Project-Related Noise

For the purposes of this assessment, the impact of noise on people may have three direct consequences and several indirect ones. The direct effects are temporary or permanent hearing loss and/or damage to auditory organs, speech interference, and sleep interference. Indirect consequences are quite numerous and include physiological stress, annoyance, and task interference (see Table 4.27).

Table 4.27
Effects of Noise on People

DBA LEVEL	POTENTIAL EFFECT
20	No sound perceived
25	Hearing threshold
35	Slight sleep interference
50	Moderate sleep interference
55	Annoyance (mild)
60	Normal speech level
65	Communication interference
70	Smooth muscles/glands react
75	Changed motor coordination over prolonged period
80	Moderate hearing damage over prolonged period
85	Very annoying
90	Affect mental and motor behavior over prolonged period
95	Severe hearing damage over prolonged period
100	Awaken everyone
115	Maximum vocal effort

Source: HHV Master Plan EA, p. 81

Using the predicted sound pressure levels shown in Figure 4.9, it is readily apparent that the construction phase of the project has the potential of generating sounds that may cause moderate hearing damage if exposure were over a prolonged period of time. The open nature and proximity of many public and commercial areas in the Hawaiian Village complex to the construction site could make employees working in these areas susceptible to hearing damage.

Loud construction noise is a condition faced on every building site, but is most noticeable, perhaps, when other public activities are taking place simultaneously. Protection against hearing loss will require a conscious effort on the part of everyone concerned; contractors, construction worker, hotel management, and the Hawaiian Village staff. Available noise reducing techniques and equipment will be used to abide by OSHA health standards (Table 4.23) and to reduce sound levels to the point where they would not constitute a serious risk of permanent hearing impairment.

When the background noise levels become too high, they can interfere with the perception of speech patterns and, therefore, with communication. During the construction phase of the project, work day sound levels will make normal conversation difficult in certain open areas on the Hilton Hawaiian Village site. Conversations will be possible in most areas, but will require individuals to stand closer together and/or speak in louder voices than normally. As is true of potential noise-

induced hearing damage, employees in the hotels and the shops of the Rainbow Bazaar have the potential to be most affected due to their long exposure times. However, shop buildings in the area are enclosed, which should serve to reduce noise levels to acceptable standards.

Under normal circumstances, the highest sound pressure levels generated by construction activity on the Kalia Tower will be limited to daylight hours (9 AM - 5:30 PM). Therefore, construction will not interfere with nighttime sleep. Visitors staying in rooms near the construction site, however, may find it difficult to rest in the afternoon while pile-driving occurs. There should be little disturbance during normal construction activities with the windows closed.

Construction noise will cause annoyance, and, because of its effects on communication and concentration, could interfere with task performance on the hotel grounds. Recreationists would also be affected by construction noise, especially those utilizing pool and bar areas around the Tapa Tower. Sound levels there would cause some interference with normal conversation, and would certainly create a non-relaxing atmosphere. Although construction of the Tapa Tower involved much more structural work, this experience suggests that the noise will arouse public reaction and strain relations with guests and tenants in the Hawaiian Village.

14.7 Mitigation of Noise Impacts

The above discussion has assumed that construction of the project will proceed in a manner similar to that of previous high-rise projects in Waikiki. Additional mitigation of adverse effects, over and above those mandated by current standards, may be possible if the contractor erects special barriers to absorb the sound that is generated or if he provides persons subjected to the noise with protective devices. Also, the long, uninterrupted use of pile-drivers should be avoided during that phase of the project.

The quieting of noise producing equipment offers some limited possibilities, but nothing that would radically alter the situation. There have been several advances in the stringency of noise control regulation, and the general public's awareness of noise pollution has, in many instances, resulted in additional noise reduction.

Some noise reduction is possible by erecting sound absorbing devices around affected buildings, but the process is unsightly and expensive. As indicated earlier, use of protective ear plugs or mufflers might be used to provide some protection for hotel employees, but the effectiveness of this approach is limited by the fact that it cannot be used easily be persons who must communicate verbally with others.

Most important, the Hilton Hawaiian Village management is committed to working within current standards and recommended procedures of the State of Hawaii and City and County of Honolulu, and will work closely with the Department of Health and other agencies to develop appropriate methods of additional noise mitigation.

15.0 VISUAL

15.1 Visual Character of the Project Site

The environment within the Hilton Hawaiian Village is dominated by the landscaping, which to a great extent, masks the taller buildings on the property. The feeling of open space experienced on the Hilton site has been enhanced by recent renovations. These renovations removed several structures at the Village, established consistent building themes, and increased the amount of landscaped area.

Work under the 1984 Master Plan progressed from the beach area towards the Tapa Tower. As a result, more beachfront vistas were opened up, look-down views from the higher units were improved, and ground level view planes through the Village were enhanced.

Left out of the recent renovations was the 1.7 acre site of the proposed Kalia Tower project. Currently, this area houses the Hilton Geodesic Dome. The remainder of the area is surrounded by hedges and barriers, which close off much of the open space. The result of these visual obtrusions is to create a physical and mental separation of the area from the remainder of the Hilton Hawaiian Village. The landscape themes and objectives for the Village are not carried through to the entrance. The lack of continuity, along with the physical barriers presented by the present landscaping at the site, do not, in the opinion of Hilton officials, create an atmosphere which encourages pedestrians to enter the property. Neither do they conform to the pedestrian environment goals currently being discussed in the Waikiki Master Plan process.

Ground-level views of the Hilton Hawaiian Village from off the property are dominated by different structures, depending on the angle of view and the reference point. Views from Ala Moana Boulevard adjacent to the property are dominated by the low-rise structures on adjoining parcels (restaurant, rent-a-car, etc.) which separate the Village from the sidewalk. Behind these buildings rises the 80-foot high parking structure. Views from Fort DeRussy looking makai towards the property are dominated by the 350-foot Tapa Tower and the parking garage.

The view perspective along Ala Moana Boulevard for those travelling to Waikiki is dominated by a street canyon effect until the Hilton site. Immediately upon crossing the Ala Wai Bridge, the traveller is confronted by the Hawaii Prince, Ilikai, and Waikikian Hotels on the makai side, and the Tradewinds, Discovery Bay, Dynasty, and Wailana on the mauka side. Current proposals to rebuild the Waikikian will add to this visual effect. Only the end of this canyon is relatively open at the Hilton site and at Fort DeRussy. However, as stated above, the structures fronting Ala Moana Boulevard, located between the sidewalk and the Hilton property, as well as the Coral Ballroom/Parking Structure, help add to the overall enclosed feeling when travelling through this corridor. This sensation stops as soon as cars have rounded the sweeping bend in front of the parking structure and the openness of Fort DeRussy is encountered. This visual odification may be striking, but its impact is partially offset by the fact that, for any one person, it is an ephemeral one.

Currently, no ground-level mauka-makai view planes exist from any public space through the Hilton Hawaiian Village site. Conversely, ground-level makai-mauka views from the beach area also do not exist due to the off-sets of the buildings, the elevation of the beach vis-a-vis the remainder of the Hilton property, and the beachfront landscaping.

Even though public views of the ocean or Koolaus do not exist through the Hilton Hawaiian Village property, private views of the ocean do exist for those individuals living in condominiums along Ala Moana Boulevard which are higher than the Parking Structure/Coral Ballroom (80 feet). These buildings include the Wailana, Cantebury Place, Inn on the Park, and the Pavilion. Ocean views from these buildings exist either between the Tapa Tower (365 feet) and the Rainbow Tower (312 feet), between the Ali'i Tower (174 feet) and the Rainbow Tower, or between the Hlae Koa and Reef Hotels. The degree of view that exists for these individuals depends upon the location of the various apartments within their respective buildings.

15.2 Probable Impacts

15.2.1 Preferred Alternative

An observer's perception of the visual environment is influenced by so many factors that evaluating the effects of a proposed change necessarily involves subjective judgements. From each

possible viewpoint, one must consider such things as who the observers are, what activity they are engaged in, and what expectations they have about the area (e.g., do they expect to see palm trees and open space or a densely-developed urban scene). It is also necessary to take into account exactly what the content of the view is (e.g., Diamond Head, the mountains, the ocean, or a sea of other high-rises), what portion of the total view plane is to be affected, what views the observer would retain if the proposed structure were erected, and whether or not the views affected are from public or private areas. These, and other factors, interact to produce the visual scene to which we react.

The Kalia Tower would be overshadowed by the existing Tapa Tower and the proposed Waikikian Hotel. The orientation of the proposed Tower, with its narrow side facing Ala Moana Boulevard, keeps the building in front of the much larger Tapa Tower. As the creation of the high-rise canyon down Ala Moana Boulevard is, to some extent, continued by the parking garage and the Tapa Tower, the placement of the Kalia Tower, with its narrow footprint and less bulky design, in front of the Tapa tower would not add to the enclosed view perception.

The 270-foot high Kalia Tower, as well as the addition of the recreation deck, would impact some private views of the ocean currently held by condominium residents along Ala Moana Boulevard. As the ability to see the ocean has a positive effect upon property values, any reduction in these views is particularly important to neighboring owners.

The degree to which private ocean view planes are impacted depends, as stated previously, on the location of the specific apartment within a building, the distance between the building and the proposed project, the angle existing between the project and the building, and the elevation of the view plane. Because of the height of the existing structures in the Hilton Hawaiian Village, and the height of the proposed Kalia Tower, discussion of the view impacts from the project have been divided into three areas, those views up to 100 feet, which encompass ground-level views currently impacted by the Parking Structure, views between 100 to 270 feet, which would represent those views newly impacted by the proposed tower, and views existing above 270 feet, which would not be affected.

15.2.1.1 Views Below 100 Feet Elevation

The current height of the parking structure at the Hilton Hawaiian Village is 80 feet. Up to that height, this structure serves to completely block views across the Kalia Tower site from the buildings along Ala Moana Boulevard. The addition of the Kalia Tower, with its orientation in front of the parking structure and its width smaller than the parking structure, would have virtually no negative impact upon views form these lower floors. In fact, the proposed water feature and landscaped open space would actually improve conditions.

As part of the overall project, it is proposed to add a recreation deck to the top of the Coral Ballroom/Parking Structure. This recreation deck would include several tennis courts. Surrounding the deck would be netting to contain tennis balls and to act as a wind screen. The additional height of the recreation deck and fencing is anticipated to be approximately 20 feet. This would obstruct ocean views for those floors of the Wailana currently between elevation 80 to 100 feet.

In the case of the Kalia Tower project, the primary visual impacts are going to fall on the ground-level area visible from Ala Moana Boulevard and Kalia Road. At this level, the existing landscape barriers would be removed and an additional 5,000 square-feet of open space would be introduced. The addition of lagoons and walkways would create a much more attractive pedestrian environment for the entrance of the Hilton Hawaiian Village. The relocation of the Hilton Dome would create more building set-back, thus allowing more physical distance between sidewalk, pedestrians, and structures. This would enhance public views.

As can be seen in the drawing in Figure 4.10, representing a vantage point from the corner of Kalakaua Avenue and Ala Moana Boulevard, the Kalia Tower is dominated by the neighboring Tapa Tower and creates no additional visual obstruction from this perspective.

15.2.1.2 Views Between 100-270 Feet Elevation

At elevations above the Coral Ballroom/Parking Structure, views exist across the Hilton Hawaiian Village at a point between the Ali'i Tower and the Rainbow Tower and between the Lagoon Apartments and the Rainbow Tower. Construction of the Kalia Tower would have a varying degree of impact upon these.

It is not anticipated that any ocean views would be completely eliminated at the Wailana, and by positioning the Kalia Tower in front of the Tapa Tower, the Wailana's present Diamond Head views would be maintained. However, for units near the corner of Ena Road and Ala Moana Boulevard, a 5 degree reduction in the present available ocean view plane may occur. Figure 4.11 and Figure 4.12 illustrate the extent to which the proposed project would affect views from the apartments that line Ala Moana Boulevard. As can be seen from these figures, the Kalia Tower would have only a marginal effect upon the majority of views from the Wailana.

It is anticipated, on the other hand, that those units in Cantebury Place, located diagonally from the project on the corner of Ena Road and Ala Moana Boulevard, which are between 100 and 270 feet, could experience a 25 to 30 percent reduction in ocean views, losing the limited existing ocean view occurring between the Ali'i Tower and the Rainbow Tower, yet maintaining their ocean view between the Hale Koa and Reef Hotels. Further up Ala Moana Boulevard, buildings near the intersection of Kalakaua Avenue and Ala Moana Boulevard could experience a 10 to 15 percent partial reduction of ocean views occurring between the Lagoon Apartments and the Rainbow Tower.

The visual impact of the Kalia Tower on the more distant high-rises along Kalakaua Avenue is shown in the drawing in Figure 4.13, with the perspective from an upper floor of a high-rise mauka from Fort DeRussy. As can be seen from the drawing, the modest height of the proposed structure is apparent, but because of its location in the midst of existing high-rise development, especially the Waikikian, its overall impact on views from this direction is minimal, and it would not impact any ocean views.

Look-down views from the surrounding residential properties upon the Hilton property would be enhanced with the additional open space, water features, and the covering of the currently bare concrete roof of the parking structure with tennis courts and landscaping. For some apartments, this could at least partially offset the reduction in ocean views.

15.2.1.3 Views Above 270 Feet Elevation

Mauka-makai view planes that currently exist above 270 feet occur between the Tapa Tower and the Rainbow Tower, and between the Rainbow Tower and the Ilikai. As the building proposed would be only 270 feet tall, these view planes would not be impacted. Look-down views upon the Hilton property would be enhanced with the additional open space, water features, and the covering of the currently bare concrete roof of the parking structure with tennis courts and landscaping.

15.2.2 Other Alternatives

The visual impacts of the various alternatives vary due to their different heights and orientations to the surrounding properties. Alternatives oriented the same as the preferred alternative, that is,

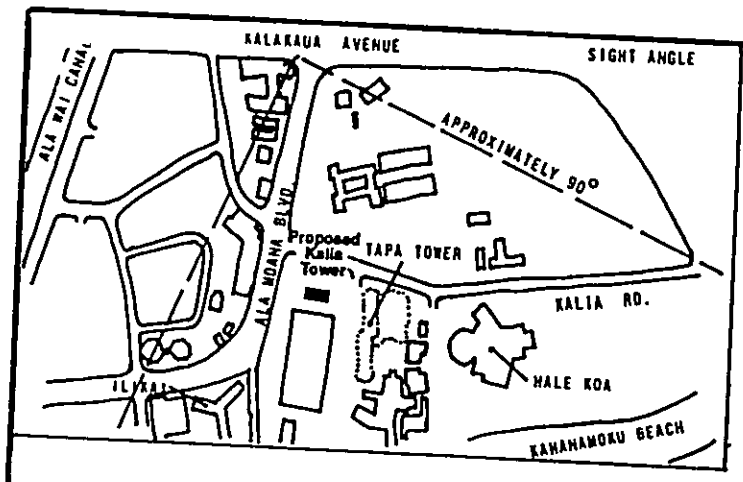
parallel to Kalia Road, would have similar impacts as noted above, depending upon their height. Differences would occur as the orientation of the building shifts to become perpendicular to Kalia Road. Although this would maximize the number of hotel units with ocean views, and thus allow the Hilton Hawaiian Village to maximize their room rates, this orientation would place the long axis of the building directly across the Diamond Head view plane enjoyed by the residents of the condominiums across Ala Moana Boulevard from the site. Placing the long axis parallel to Ala Moana Boulevard would also further increase the canyon like atmosphere along the corridor.

By keeping the height of the new structure below that of the existing parking structure, the alternative of a 70-foot-high building reduces the impact upon views from the private condominiums surrounding the property. However, it is judged to have the most adverse impact upon pedestrian level views from the surrounding public access points. Reducing the height of the building causes the allowable floor area to be spread outward across the site, eliminating the amount of landscaping visible to the general public to the minimum required in the setback areas. Such an alternative would not have the pleasant visual attributes associated with those that allow for more landscaping visible from the public areas. In addition, the building's proximity to the property lines would create a visual atmosphere similar to that experienced in areas of Downtown Honolulu, with large buildings crowding the sidewalk areas.

15.3 Significance of Visual Impacts

With its additional open space, landscaping, and redesign of the Hilton Hawaiian Village entrance, the preferred alternative for the Kalia Tower project would have a generally positive impact upon the views from public vantage points around the proposed site. Negative impacts in the form of partial ocean view reductions would occur to a few private individuals living around the project site at elevations between 80 and 270 feet. However, the orientation of the building and its less bulky design have mitigated the potential impacts.

Finally, in any final determination of the overall impacts of the Kalia Tower upon view planes, it is important to keep two items in mind. First, the visual impact of the proposed structure is largely a function of its size — a size that is permitted, even encouraged, by the zoning of the site. To develop the site at a lower density than that for which it is zoned is economically unattractive, in part because it is public policy to tax property according to its "highest and best" use (i.e., most financially profitable). Thus, good design which does not take advantage of all allowable density is penalized by the tax system. A lower structure than the Kalia Tower would lessen its impact on nearby private high-rise dwellers, but it would necessitate an increase in ground coverage and a decrease in open space, thus penalizing the visual benefits gained from the public viewpoint at the ground-level. Second, it must be remembered that the condominium units that would suffer some loss of view as a result of the project, are the same ones that obstructed the views of other parcels when they themselves were built.



Kalia Tower EIS

Prepared by: Belt Collins & Associates

Figure 4.10
View Makai from Corner of Kalakaua Avenue and Ala Moana Boulevard Hilton Hawaiian Village

Chapter V

Relationship of the Proposed Project to Land Use Plans, Policies, and Controls for the Affected Area

Chapter V
Relationship of the Proposed Action to Land Use Plans, Policies, and Controls for the Affected Area

1.0 HAWAII STATE PLAN

The Hawaii State Plan as set forth in Chapter 226, Hawaii Revised Statutes consists of a series of broad goals, objectives, policies, and priority guidelines which are to act as guidelines for the growth and development of the State. The goals and their relationship to the proposed action are as follows:

1. Goal: *A strong, viable economy characterized by stability, diversity, and growth that enables the fulfillment of the needs and expectations of Hawaii's present and future generations.*

Discussion: The present economy of the Waikiki area, and of Oahu in general, is dominated by the tourism industry and tourism-related support industries. In recent years, the attractiveness of Waikiki, Oahu, and Hawaii, as quality tourist destination spots has declined in the face of ever-stiffer competition from foreign vacation areas. In order to achieve this goal of stable and viable growth in this segment of our economy, popular resort locations in current destination areas must be allowed to adapt to the ever-changing demands placed upon them from both private and public sectors. The proposed Kalia Tower would allow the Hilton Hawaiian Village Joint Venture to remain economically viable by allowing it to generate the necessary revenues to meet the current public demands in the forms of taxes and fees. In addition, the target group of business and mid-scale travellers helps fill a niche in a market segment currently under-served. By ensuring the viability of Hawaii's older and popular resorts, the continued growth and stability of the local and state economies are also assured.

2. Goal: *A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.*

Discussion: Tourism is a relatively clean, non-polluting industry that is not only compatible with, but also dependent upon, an attractive environment. In addition, the expansion of the current landscaped area surrounding the site would add to the open space features of this goal. The recreation deck and health sports clinic would address people's physical needs and create more opportunity for recreational activities.

3. Goal: *Physical, social, and economic well-being, for individuals and families in Hawaii, that nourishes a sense of community responsibility, of caring, and of participation in community life.*

Discussion: The increased primary and secondary job opportunities provided by the proposed project would lessen the need for the migration of residents in search of employment. The development would produce direct growth in tourist-related industries and provide future employment expansion opportunities. Thus the project would increase the economic well-being of Oahu, and the State of Hawaii, as a whole.

The proposed Kalia Tower project would also promote the following State Plan objectives, policies, and priority guidelines:

Sec. 226-8 Objective and policies for the economy - visitor industry

Objective (a) *Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawaii's economy.*

Policy (b)(2) *Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawaii's people.*

Policy (b)(3) *Improve the quality of existing visitor destination areas.*

Policy (b)(4) *Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.*

Policy (b)(5) *Develop the industry in a manner that will continue to provide new job opportunities and steady employment for Hawaii's people.*

Policy (b)(6) *Provide opportunities for Hawaii's people to obtain job training and education that will allow for upward mobility within the visitor industry.*

Discussion: Waikiki is best described as a mature tourist destination area. The growth potential for attracting tourists is becoming ever more difficult. Therefore, the established resort and hotel ventures within the Waikiki area must continue to adapt and change to meet the rising competition not only from amongst themselves, but from resort destinations in other parts of the world. At the same time, these resort and hotel establishments are facing ever increasing property taxes and greater demands upon their services that threaten their economic viability. It is the purpose of the above stated objectives and policies to ensure that Hawaii's visitor industry can grow and expand to meet the future anticipated rise in tourism demand with the appropriate high-quality accommodations and services expected by the visitors. The proposed Kalia Tower meets these policies and objectives by allowing the Hilton Hawaiian Village to develop new employment opportunities. The additional rooms provided by the Tower will also help meet the room shortfall anticipated for Oahu by the year 2005, thus helping provide employment for Oahu's growing population. Planning and development of the project has been undertaken with the concerns and activities of neighboring residents in mind, with the proposed design emphasizing additional open space and pedestrian safety.

Sec. 226-103 Economic priority guidelines

Priority Guideline (b)(1) *Promote visitor satisfaction by fostering an environment which enhances the Aloha Spirit and minimizes inconveniences to Hawaii's residents and visitors.*

Priority Guideline (b)(2) *Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provide for adequate shoreline setbacks and beach access.*

Priority Guideline (b)(3) *Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.*

Priority Guideline (b)(4) *Encourage visitor industry practices and activities which respect, preserve, and enhance Hawaii's significant natural, scenic, historic, and cultural resources.*

Priority Guideline (b)(5) *Develop and maintain career opportunities in the visitor industry for Hawaii's people, with emphasis on managerial positions.*

Discussion: The proposed Kalia Tower is an example of a specific action to comply with the above stated priority guidelines. The continued development, upgrading, maintenance and repair of mature resort areas must be recognized as a necessity to ensure the continued viability of Hawaii's overall tourism industry. In return, healthy resorts can ensure adequate long-term employment opportunities for all levels, from entry to managerial. As a full resort area within the Waikiki area which enjoys a full range of open space and ocean recreation opportunities, the Hilton Hawaiian Village creates an atmosphere that encourages and enhances the tourist experience. The Village offers a full range of activities that further greater appreciation and understanding of the Hawaiian culture. The project would encompass the current philosophy of the Hilton Hawaiian Village in their commitment towards obtaining these economic priority guidelines.

2.0 STATE FUNCTIONAL PLANS

Chapter 226, Hawaii Revised Statutes, The Hawaii State Plan, provides a long-range guide for Hawaii's future and establishes a Statewide Planning System. The system includes the formulation of fourteen State Functional Plans to manage and coordinate functional area activities and to guide resource allocation decision-making. Each plan addresses statewide needs, problems and issues, and recommends policies and priority actions to mitigate those problems and bring about desirable conditions.

2.1 State Agriculture Plan

The State Agriculture Plan identifies the major issues of statewide concern affecting Hawaiian agriculture and the underlying needs and requirements of the commodity industries for resources such as land, water, capital, human resources, and transportation; and for government support to agriculture in the areas of farm management, cultural practices, livestock production, waste management, government regulation, pest and disease control, handling and processing, marketing, and research and development. As the proposed project would be located on land currently designated and utilized for urban use, this plan would not be applicable.

2.2 State Conservation Lands Plan

The Conservation Lands Functional Plan defines and attempts to address areas of statewide concerns including watersheds, terrestrial habitat, ocean space, natural areas, air and water quality, sensitive areas, and scenic, historic, and cultural sites. Specifically the plan deals with the protection of rare and endangered species and habitats. No rare and endangered species or habitats are present on the project location. In addition, there is no anticipated impact to the marine environment due to construction-related activities.

2.3 State Education Plan

The State Education Functional Plan was produced by school professionals in the Department of Education to articulate a collective vision for public education and the procedures needed to achieve a desired future. The Plan outlines actions to be taken by the Department of Education to improve current conditions and to attend to various societal issues and trends. Therefore, they are not applicable to the Kalia Tower project.

2.4 State Higher Education Plan

The State Higher Education Functional Plan specifies the objectives, policies, and high priority implementing actions that the State's post-secondary education community will follow. There are no policies or implementing actions in this functional plan, prepared by the University of Hawaii in 1984, of direct relevance to the Hilton Hawaiian Village Joint Venture Kalia Tower project.

2.5 State Energy Plan

The purpose of the State Energy Functional Plan is to define and implement objectives which include the provisions of dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people; and of increased energy self-sufficiency.

The Hilton Hawaiian Village has made considerable effort to conserve energy consumption by their resort. Highly-efficient cooling systems have been installed with state-of-the-art sensing and control devices. Energy audits have been conducted and several systems upgraded. Although it is difficult to predict which specific technologies will be available in the future, the proposed Kalia Tower will utilize the most modern and efficient technology for conserving energy. Tower construction will utilize roof insulation with a value of 19 or better, and will incorporate high efficiency glass with good shading coefficients. The energy management system currently in place at the Hilton Hawaiian Village will be extended to include the proposed project. The most effective and energy efficient lighting technology available will be utilized.

2.6 State Employment Plan

The Employment Functional Plan is intended to guide employment, training, and human resources services in Hawaii. The Plan's objectives are to improve the qualifications of entry-level workers and their transition to employment; to develop and deliver education, training and related services to ensure and maintain a quality and competitive work force; to improve labor exchange; to improve the quality of life for workers and families; and to improve planning of economic development, employment and training activities.

The proposed project is consistent with the Employment Functional Plan in that it provides employment in the visitor industry and related activities. In addition, the Hilton Hawaiian Village maintains an active training and skill-upgradng program for new hires and long-term employees.

2.7 State Health Plan

The State Health Functional Plan focuses on changing the State's role in public health from that of individual health care provider to one of advocacy and a catalyst for public and private sector efforts. The Plan's attention to health promotion and disease prevention, communicable disease prevention and control, health care access to special populations, health care service to rural communities, and Department of Health leadership are the responsibility of the State. In as much as the recreation facilities would provide exercise opportunities and better health promotion, the project meets the tenets of this functional plan.

2.8 State Historic Preservation Plan

The State Historic Preservation Plan sets forth guidelines for the delivery of services and the allocation of resources by State agencies with regard to the preservation of history and the heritage of Hawaii. Essentially all of the policies and implementing actions in the Plan are directed at State agencies, especially the Hawaii State Department of Land and Natural Resources. The Kalia Tower site, and the entire Hilton Hawaiian Village area, has been the subject of several archaeological surveys, covered elsewhere in this report. From 1985 to 1987, Paul H Rosendahl, Inc. conducted extensive trench excavations on the proposed project sites. Although bones were discovered during the construction of the nearby Tapa Tower, no bones were discovered on the proposed project site, and the artifacts uncovered were not noted as worthy for preservation. The area consists of fill dirt and old trash dumps over sterile sand with urban objects dating back to 1870 among the artifacts. It is the opinion of the surveying archaeological consultant that the area was not inhabited, nor used, by prehistoric humans. However, given the impossibility to excavate 100 percent of a site, construction will occur according to State law and policy in this area.

2.9 State Housing Plan

The Housing Functional Plan addresses Hawaii's housing problems through a plan of action based on State housing development and joint public and private efforts to finance, build, and maintain an adequate supply of affordable housing, The Plan focuses on a renewed State commitment to housing initiatives in six priority areas, including increased home ownership, rental availability, attention to special needs groups, and preserving housing stock. Most of its policies and implementing actions are directed towards State agencies. No housing development is planned in conjunction with the proposed Kalia Tower project.

2.10 State Human Services Plan

The State Human Services Plan reflects an overall theme of support for families and an investment in human resources, through better access, coordination, and increased public and private sector partnerships. Priorities include initiatives for the elderly, children, and individual and family efforts to become independent from the welfare system.

Loss of job and employment potential can only be seen as negative factors on family stability. Inability to be able to afford to move an entire family to a new job site can increase the separation of families. Lack of adequate employment opportunities increases the population share on support services. Although the objectives and policies of the Human Services Functional Plan are directed towards State agencies, the extent to which the proposed project will provide adequate employment opportunities can help to prevent future problems in the human services area.

2.11 State Recreation Plan

The State Recreation Plan (1984) is oriented toward improving public recreation opportunities in Hawaii. Its objectives center around areas of land use planning, recreation facilities and programs, conservation and resource management, public access, and coordination. A component of the overall design and plan of the proposed project is the addition of a recreation deck to the roof of the Coral Ballroom/Parking Garage and the establishment of a health spa. The recreation deck would provide additional tennis and other recreational opportunities and use would be available to local residents and hotel guests. Plans currently include developing instructional clinics and tennis clubs for local school children.

2.12 State Tourism Plan

The purpose of the State Tourism Functional Plan is to set forth objectives, policies, programs and projects to guide State and County governments and the private sector in implementing the visitor industry objectives, policies and priority guidelines contained in The Hawaii State Plan. The major objectives of the Tourism Functional Plan reflect the need to find a balance among the economic, social, and environmental issues facing Hawaii today. The various objectives and policies of the plan which are appropriately addressed by the proposed Kalia Tower and recreational facilities are:

Objective I.A *Development, implementation, and maintenance of policies and actions which support the steady and balanced growth of the visitor industry.*

Policy I.A.1 *Identify and ensure a rate of industry growth that is consistent with the social, physical and economic needs of the residents and the preservation of Hawaii's natural environment.*

Policy I.A.2. *Ensure that visitor industry growth maximizes benefits to the residents of the State in general and revenues to State and County governments specifically.*

Policy I.A.3. *Provide opportunities for the visitor industry to grow keeping in mind the effects of the importation of labor.*

Policy I.A.4. *Ensure that the growth of the visitor industry assists in the overall State goal of expansion and diversification of the economy.*

Objective II.A *Development and maintenance of well-designed visitor facilities and related developments which are sensitive to neighboring communities and activities, and which are adequately serviced by infrastructure and support services.*

Policy II.A.1 *Maintain high standards of overall quality of existing visitor destination and attraction areas.*

Policy II.A.2. *Enhance tourism product and encourage continued development of a diverse range of tourism products.*

Policy II.A.8. *Encourage the development of hotels and related facilities within designated visitor destination areas with adequate infrastructure and support services before development of other possible visitor destinations.*

Objective III.A *Respect for, and preservation and maintenance of the fragile resources which comprise Hawaii's natural environment and cultural heritage.*

Objective IV.A *Support of Hawaii's diverse range of lifestyles.*

Objective IV.B *Achievement of mutual appreciation among residents, visitors, and the visitor industry.*

Objective V.A *Development and maintenance of a productive work force to maintain a high quality visitor industry.*

Objective V.B *Enhancement of career and employment opportunities in the visitor industry.*

Objective VI.A *Maintenance of a high customer awareness of Hawaii as a visitor destination in specific desired market segments.*

Discussion: The addition of the Kalia Tower to the Hilton Hawaiian Village property represents an opportunity to direct a portion of the necessary visitor accommodations forecast for Oahu away from the open space and agricultural areas and back towards the urban resort areas most capable of handling them, thus helping to preserve the natural environment of Oahu. The proposed project is anticipated to generate direct public revenues in excess of $2 million a year. The need for the growth of the visitor industry and how this project addresses those concerns are covered in the discussion of the relationship to the Hawaii State Plan.

The Hilton Hawaiian Village continually works with local residents to ensure that the resort is sensitive to area concerns. During the environmental impact assessment scoping process for the proposed project, members of the Hilton management and their consultants met with residents of neighboring condominium units, as well as with other Waikiki organizations. Inasmuch as the Kalia Tower project and the Hilton Hawaiian Village visitor destination area are products of the City and County approval process, they have received extensive government agency and citizen review. Active citizen participation and government comment have ensured that the well-designed developments are reflective of community concerns. Finally, improvements to infrastructure (water, sewer, etc.) needed to accommodate the proposed project are modest when compared to those needed to develop comparable projects outside the existing urban area.

2.13 State Transportation Plan

The State Transportation Functional Plan includes separate programs for each mode of transportation: land, air and water. The overall objective of the plan is to provide for the efficient, safe, and convenient movement of people and goods. As the amount of traffic generated by the proposed project would have no significant impact upon the level-of-service of Oahu's roadways, or upon the number of persons expected to use island airports and harbors, the project would be in compliance with the goals and objectives of this Plan.

2.14 State Water Resources Development Plan

The State Water Resources Development Functional Plan formulates a comprehensive plan for the development, utilization, and conservation of the water resources of Hawaii. The proposed project will be consistent with the following policies and implementing actions of the Plan:

3.0 HAWAII COASTAL ZONE MANAGEMENT PROGRAM

Federal Coastal Zone Management (CZM) enforcement authority (Public Law 92-583, as amended) has been delegated to the state (Chapter 205A, HRS). Other than the review of federal applicants, federal permits, or federal activities, state CZM review authority has been delegated to the county level through the Special Management Area controls.

4.0 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The General Plan of the City and County of Honolulu, adopted in 1977, is a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of the people of Oahu. These objectives contain both statements of desirable conditions to be sought over the long run, and statements of desirable conditions which can be achieved within an approximate 20-year time horizon. The General Plan is also a statement of broad policies which facilitate the attainment of the objectives of the Plan. The General plan serves to guide government, private enterprise, neighborhood and citizen groups, organizations, and individual citizens in eleven areas of concern:

1. Population
2. Economic activity
3. The natural environment
4. Housing
5. Transportation and utilities
6. Energy
7. Physical development and urban design
8. Public safety
9. Health and education
10. Culture and recreation
11. Government operations and fiscal management

Among the objectives and policies of the city and County of Honolulu's General Plan specifically pertaining to the proposed action are:

Population:

Objective A. *To control the growth of Oahu's resident and visitor populations in order to avoid social, economic, and environmental disruptions.*

Objective B. *To plan for future population growth.*

Policy 2. *Provide adequate support facilities to accommodate future growth in the number of visitors to Oahu.*

Economic Activity:

Objective A. *To promote employment opportunities that will enable all the people of Oahu to attain a decent standard of living.*

Objective B. *To maintain the viability of Oahu's visitor industry.*

Policy 1. *Provide for the long-term viability of Waikiki as Oahu's primary resort area by giving the area priority in visitor industry related public expenditures.*

Policy 2. *Provide for a high quality and safe environment for visitors and residents in Waikiki.*

Policy 3. *Encourage private participation in improvements to facilities in Waikiki.*

Policy 4. *Prohibit major increases in permitted development densities in Waikiki.*

Policy 5. *Prohibit further growth in the permitted number of hotel and resort condominium units in Waikiki.*

Policy 8 *Preserve the well-known and widely publicized beauty of Oahu for visitors as well as residents.*

Discussion: In many regards, the objectives and policies of the General Plan for the City and County of Honolulu are more restrictive than, and in some cases, contradictory to, the objectives and policies of the Hawaii State Plan and the State Functional Plans. And as can be seen from the goals and objectives of the General Plan relating to economic activity, the policies set forth exhibit some internal contradictions. The proposed Kalia Tower would help to provide part of the necessary facilities to meet the anticipated growth in tourism projected for the year 2010. And as a large segment of Oahu's economy, growth and maintenance of a viable tourism industry ensures growth and vitality in employment, which helps the people of Oahu to attain a decent standard of living.

Expansion and redevelopment of existing resort areas in Waikiki help to meet Policies 1 and 2 under Objective B above, as without the ability to increase the revenue base of the mature resorts, ever increasing costs in the form of property taxes and other expenses would result in higher room rates that could make Waikiki uncompetitive. As rates increased, one could expect a decrease in the number of visitors to Waikiki. Yet Policies 1, 2, and 3 above appear to be contradicted by Policy 5. Under the scenario discussed, it is difficult to see how the long term viability of the existing resorts, or of Waikiki as a primary resort destination, can be maintained if present resorts are not allowed the flexibility to meet shifting market demands. If no additional visitor units are allowed in the Waikiki area, the demand for additional accommodations will have to be met through development in rural areas, which are agricultural and open. Thus, in order to meet the tenets of Population Objective B and Economic Objectives A and B stated above, one would have to compromise the General Plan Objectives related to the Natural Environment, which call for preserving and enhancing the natural environment and the island's well-known resources, such as mountains, forests, watershed areas, shoreline, bays, etc., as well as those objectives and policies relating to the preservation and provision of lands for agricultural use.

In the case of the Kalia Tower, zoning within the Waikiki area for the site allows for resort-hotel use. The densities proposed for the project are below those allowed for the site, thus complying with economic Activity Objective B, Policy 4. In Chapter III relating the alternatives considered for the site, various non-hotel options were considered and found to be incompatible with surrounding land uses or insensitive to the surrounding neighborhood concerns, both of which contravene important aspects of the Hawaii State Plan and the State Functional Plan. Therefore, even though the proposed project appears to be in non-compliance with one policy statement of the General Plan, that Policy appears to set up a contradiction with remaining objectives and policies of the General Plan and the Hawaii State Plan. The Hilton Hawaiian Village Joint Venture recognizes the sometimes contradictory goals, objectives, and policies of these plans, and will continue to work together with all parties to help maximize the net public benefits of the proposed project.

5.0 PRIMARY URBAN CENTER DEVELOPMENT PLAN

The County General Plan is designed to spell out the broad policy directions that long range development will take on Oahu. One part of the General Plan is to set forth the desired future distribution of population among designated areas of the island. This is usually accomplished through the Development Plans for the various target areas as set out in the Revised Ordinance of the City and County of Honolulu, Chapter 32. The Development Plans are relatively detailed policies covering the physical development in each of the eight identified sub-areas of Oahu. They act as schemes for implementing the General Plan within particular areas of the County. As such, their purposes are:

- To coordinate both public and private development;
- To guide and phase changes in the physical development within communities and areas; and,
- To coordinate the implementation of the General Plan.

To accomplish their purposes, the Development Plans spell out:

- The timing and phasing of future development;
- Where the development is to occur;
- What kind of development is desired; and,
- The identification of areas to remain undeveloped or have special protection.

Development Plans consist of general policies and provisions common to all areas, plus additional "special" provisions unique to each specific Development Plan area. The proposed Kalia Tower project is located within the Primary Urban Center Development Plan.

Two areas of the Common Provisions pertain to the proposed Kalia Tower and recreation deck projects, those under Section 32-1.4 "General Urban Design Principles and Controls," and those under 32-1.10 "Social Impact of the Development." The first section sets forth general principles for:

1. Maintaining public views;
2. Maintaining open space and recreational resources and adequate access to them;
3. Providing for safe and attractive pedestrian corridors, and for attractive streetscapes;
4. Providing for height controls; and,
5. Providing for energy efficiency in developments.

Discussion: The proposed Kalia Tower and recreation facilities projects have been shown in previous discussions above to comply with the above common provisions. The projects have no adverse impact on public views; create additional open space at the pedestrian level, thus enhancing that environment; fit within the existing height limits for the area; and will utilize the most energy efficient technology available at the time of construction.

Common provisions set forth under 32-1.10 pertain to social impact factors, such as:

1. The increase or decrease of resident and/or visitor populations;

2. The rate and pattern of economic growth, availability of jobs. and principal economic activities of Oahu;

3. The availability of affordable housing, speculation in land and housing markets, and overall property values of existing homes;

4. The effect upon medical, educational, recreational, and transportation facilities, on police and fire protection, and on public utilities; and,

5. The effect on the natural environment.

Discussion: Again, previous discussion has shown that the proposed project is in compliance with these common provisions. A slight increase in the average daily visitor census would occur, however, no additional persons would reside at the Hilton Hawaiian Village, and no significant increase in the resident population for the Primary Urban Area is anticipated. Increased employment and economic activity are expected through the project, and although affordable housing is not a part of this proposal, the housing markets would not be impacted by this project. Nor would there be any adverse impacts upon facilities or the natural environment.

Special provisions for the Primary Urban Center that pertain to these projects include:

32-2.1(5) *Waikiki shall continue to be maintained as Hawaii's primary visitor destination area, with emphasis on improving the quality of the environment and discouraging further high density development in the area.*

32-2.2(2)(A) *In general, resort and related commercial activities shall be concentrated in the areas makai of Kuhio Avenue and Ala Moana Boulevard.*

32-2.2(2)(B) *Resort facilities shall be developed to support a destination area of about 30,000 visitor units.*

32-2.2(2)(C) *Any additional high-density development shall be discouraged.*

32-2.2(2)(D) *The general height limits for the area shall be as provided in the Waikiki Special Design District.*

32-2.2(2)(K) *The pedestrian traffic network within the area shall be substantially improved to recognize the unique visitor destination area requirements. Special consideration shall be given to pedestrian safety, comfort, and enjoyment since walking constitutes a major activity for the visitor, within this area.*

Discussion: The proposed projects for the Hilton Hawaiian Village will occur on a site within the primary visitor destination area. The purpose of the project is to maintain and improve the viability of the Hilton Hawaiian Village and of Waikiki as a primary visitor destination area in accordance with the policies of the General Plan. The project is in compliance with existing zoning densities for the area, and the Hilton Hawaiian Village will continue to be one of the least densely developed resorts in Waikiki . Improvements to the pedestrian level, by creating additional landscaping and

placing the pedestrian corridor further from the street behind landscaped barriers, will create a more improved, comfortable, and safe pedestrian environment.

The last issue to be addressed concerns compliance with the Primary Urban Center Development Plan urban design principle that recommends that resort facilities shall be developed to support a destination area of about 30,000 visitor units [§32-2.2(2)(B)]. To many people, especially those in the Waikiki area, this policy provision represents a hard and fast "moratorium" against further transient vacation unit construction in the Waikiki Special Design District. However, in September 1985, the City Council, in granting a Shoreline Management Permit for what is now the Hawaii Prince Hotel, accepted the opinion of the Corporation Counsel which stated that:

> "...the General Plan and Development Plans are guides to zoning, and it is zoning to which a property looks to ascertain whether the law will allow a particular project....The site has been zoned Resort Hotel since 1976. As a result, there has been 9 years of reliance and expectation on the existing zoning....If the Resort Hotel zoning were not consistent with the PUC Development Plan, the opportunity has existed since its adoption in 1981 to rezone this property. This has not been done."

Furthermore, the recommendation of the Committee on Land Use and Controls at that time was for the downzoning of existing sites to reflect the accommodation of 30,000 units if that were the City Council's true objective. This recommendation was not acted on by the full Council, nor has it been in the six years since.

The site of the Hilton Hawaiian Village has been utilized and zoned for Resort-Hotel use since both the inception of the Resort and the adoption of the various County *Zoning Codes, General Plans*, Development Plans, and the Land Use Ordinances. Again, as was the case earlier with the Hawaii Prince Hotel, the owners of the Hilton Hawaiian Village Joint Venture have made decisions based upon the zoning status of the property when determining the appropriate type of development for the property. The commercial and residential options were found to be either incompatible with other policies outlined in the Development Plan and in the Land Use Ordinances, or they placed so great a burden on the surrounding infrastructure as to make them incompatible with the existing and surrounding land uses.

The Department of General Planning (DGP), as the official City agency charged with executing policy and advising policy-makers on matters pertaining in these matters, is responsible for keeping the official data to be utilized when assessing compliance with the Development Plan provisions. They have developed an exhaustive database containing inputs from the Hawaii Visitor's Bureau and their own sources specifically to keep track of the number of transient vacation units in all Development Plan areas.

In correspondence dated February 14, 1991, the Director of the Department of General Planning reported that as of 1989, the official transient vacation unit count for the Waikiki area stood at 31,800 units. Since that time, no additional hotel construction has occurred. Therefore, any additional increase in this count would be due to condominium conversion to transient vacation unit use. However, also since the time of the last count, an event has occurred which could have a great impact upon the number of transient vacation units available in the Waikiki area.

In 1989, the City Council passed Ordinance 89-154, amending Chapter 21A of the Land Use Ordinance (see Appendix B). The effect of the law was to make it illegal to operate transient vacation units in areas outside of Resort Districts as defined in the Honolulu Revised Ordinances Section 21A-7.80-5.A, whose use as such units was not in lawful existence prior to October 22, 1986. Units whose use as transient vacation units can be shown to have been in existence prior to

October 22, 1986 must obtain a nonconforming use certificate. The deadline for application for such a certificate was September 1990.

The purpose of the Ordinance was to address the demand for, and lack of, long-term rental housing on Oahu, and, to some extent, the shortfall of more affordable housing. The effect of this Ordinance, were it to be enforced, would be to remove many condominium units located makai of Kuhio Avenue from the pool of transient vacation units, and to revert them to residential use. According to the Hawaii Visitor Bureau Visitor Plant Inventory, over 8,500 transient vacation units are currently located in the Apartment Precinct of Waikiki. Some are in hotels, such as the Outrigger West and the Ambassador Hotels, while others are in condominiums, such as the Chateau Waikiki, 2121 Ala Wai, or Waikiki Banyan. The Department of Land Utilization, responsible for processing the nonconforming use permits associated with the Ordinance, has estimated that approximately 1,000 permit requests for the Waikiki area were received. In that case, a great many illegal transient vacation units will be included in any further counts until such time as a plan on how to deal with this issue is developed. Until then, those projects in properly designated and zoned areas could continue to be penalized.

As a Development Plan provision, a specific limit on the number of visitor units appears to contradict several policies of the General Plan it was designed to support, especially those calling for:

- The provision of adequate support facilities to accommodate future growth in the number of visitors to Oahu;
- The maintenance of a viable visitor industry on Oahu;
- The provision of the long-term viability of Waikiki as Oahu's primary resort area; and,
- The encouragement of private participation in improvements to facilities in Waikiki.

In addition, the provision appears to contradict several policies and guidelines of the Hawaii State Plan and the State Tourism Functional Plan. Among them are those calling for:

- Improving the quality of existing visitor destination areas;
- Supporting appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities;
- Maintaining high standards of overall quality of existing visitor destination and attraction areas; and,
- Encouraging the development of hotels and related facilities within designated visitor destination areas with adequate infrastructure and support services before development of other possible visitor destinations.

Again, as discussed previously, it may be unreasonable to expect the continued viability of mature resort areas over time without allowing for expansion of a resort's revenue base. For without the ability to increase the revenue base of the mature resorts, ever increasing costs in the form of property taxes and other expenses would result in higher room rates, thus causing a decline in the number of visitors to these destinations and a resulting loss in jobs, income, and public revenues. Furthermore, the inability to meet at least a part of the anticipated transient vacation unit demand of the next 10 years through the redevelopment or expansion in Waikiki will place even more development pressure on agriculture and conservation areas in rural Oahu. Further discussion on how the proposed Kalia Tower and recreation facilities comply with the above policies can be

found under sections on the Hawaii State Plan, State Tourism Functional Plan, and the City and County of Honolulu General Plan.

The overall intent of limiting Waikiki visitor units is to ensure design sensitivity and growth control in accordance with infrastructure needs and to minimize the impact of the transient daily visitor census on the urban environment. As shown in following sections, the proposed project covered by this Environmental Impact Statement will comply with the stringent development controls contained within the Waikiki Special Design District. Also, when considering the alternatives, commercial uses in compliance with the Development Plan Special Provision were dismissed specifically because they created a significantly greater impact upon infrastructure then did the hotel option. As agencies have already expressed concerns about the adequacy of the infrastructure in the area, the Hilton Hawaiian Village Joint Venture will remain committed to working together to see that the infrastructure needs for the project do not compromise area services.

The proposed 400-room Kalia Tower covered in this document can be seen as complying with Development Plan Special Provision §32-2.2(2)(B) for the following four reasons:

1. The overall transient vacation unit counts, in light of Ordinance 89-154, must still be considered either under, or about 30,000 units.

2. The construction of the Kalia Tower would represent only a 1.2 percent increase in the number of transient vacation units from the last official DGP count (the additional 132 units proposed for the Waikikian were also included).

3. The proposal is consistent with the site's long standing zoning for Resort-Hotel use.

4. The other alternatives were found to be inappropriate with surrounding land uses or found to have placed too great a burden on the area's infrastructure.

6.0 WAIKIKI SPECIAL DESIGN DISTRICT

The proposed Kalia Tower and recreation deck projects would be within the Waikiki Special Design District, established by the City and County of Honolulu to control the development of Waikiki relative to apartment and hotel density, public shoreline access, and other criteria. A permit to show compliance with the tenets of the Waikiki Special Design District will need to be obtained from the City and County of Honolulu. The Hilton Hawaiian Village is in the "Resort-Hotel" designation, which allows for the construction of hotels and other transient vacation units.

Some of the purposes of the Waikiki Special Design District which are supported by the proposed project are:

- To guide the development of Waikiki with due consideration to optimum community benefits;

- To promote health, safety, social and economic well-being for the community as a whole;

- To protect, by means of proper planning and control, the value of private and public investment within the District and its surrounding communities;

- To encourage developments that would improve and complement the public facilities and utilities in Waikiki and the physical and visual aspects of the urban environment in the area;

- To bring about a desirable level of urban design compatible with the climate and the character of Hawaii within the District; and,

- To encourage the development of a variety of land uses which are compatible with and will enhance the unique character of the District.

Discussion: In addition to the purposes of the Waikiki Special Design District, various density regulations, height limitations, open space requirements, and setback requirements are listed for the various precincts. The proposed Kalia Tower and recreation deck projects will comply with all zoning rules and regulations as set forth in the Land Use Ordinance and the Waikiki Special Design District section. Specifically, the project will comply with:

- The current height limitations of 350 feet for the area (Kalia Tower would be 270 feet);

- The 50 percent open space requirement (Approximately 87 percent provided on project parcel, creating 53 percent for the entire Hilton Hawaiian Village);

- The front, side, and rear setback requirements of one foot for every 10 feet of a building over 40 foot in height (setbacks of 22 feet required, side setbacks of approximately 75 feet and a front setback of approximately 130 feet planned);

- The maximum density requirements (over 243,000 square feet allowed, only 230,000 square feet proposed).

7.0 COUNTY SPECIAL MANAGEMENT AREA

The proposed Kalia Tower site falls within the "Special Management Area" and is therefore subject to the Special Management Area (SMA) rules and Regulations of the City and County of Honolulu. Hence, a Special Management Area Permit from the City and County of Honolulu will be necessary. Following is a discussion of the proposed project's relationship to the objectives and policies of Chapter 205A, HRS, and to the SMA guidelines in the Revised Ordinances of the City and County of Honolulu Code, Chapter 33.

7.1 Objectives and Policies

7.1.1 Relating to Recreational Resources

Construction of the tower and recreation deck is not expected to have an adverse effect on coastal recreational resources. Recreational values of the coastal waters would be preserved. Recreational use of the site's shoreline is expected to remain unchanged. The addition of a health sports clinic/spa and a recreation deck would increase the recreational opportunities in the area for both

7.1.2 Relating to Historic Resources

The project site has been the subject of several archaeological surveys. No significant artifacts were discovered during trenchwork on the site. The conclusion is that the area is fill dirt over sterile sand, and was no doubt used from time to time for trash pits. If finds are uncovered during construction, the Applicant intends to cease work in that area and not resume until the significance of the newly discovered sites is evaluated in accordance with applicable State laws.

7.1.3 Relating to Scenic and Open Space Resources

The construction of the proposed tower and recreation deck would result in a change in the visual environment from the creation of more open space at the pedestrian level. Public views to the shoreline do not currently exist. Abundant landscaping would enhance the open space area along the streets.

7.1.4 Relating to Coastal Ecosystems

Impacts to the offshore ecosystems due to storm water runoff, erosion, fertilizers, pesticides, herbicides, or irrigation would not be significant. Proper construction techniques will be employed to ensure minimal runoff during construction of the tower.

7.1.5 Relating to Economic Uses

The policies under this heading state that reasonable growth in areas designated for visitor industry facilities (which are recognized as coastal dependent developments) is to be permitted, assuring that adverse impacts be minimized. The proposed Kalia Tower and recreation deck will assure the continued success of the Hilton Hawaiian Village and other uses permitted in the resort. As demonstrated elsewhere in this environmental report, the proposed project is not expected to cause any major adverse impacts. In areas of potential adverse impacts, mitigating measures will be taken to minimize them.

7.1.6 Relating to Coastal Hazards

The proposed project site is within a coastal area which is subject to potential hazards from storm waves and tsunamis. Design of structures will incorporate elements aimed at reducing impacts from these hazards. The project will comply with the requirements of the Federal Flood Insurance program.

7.1.7 Relating to Management of Development

This environmental impact statement is a tool for communicating the impacts of the proposed project at an early stage of planning. It is intended to facilitate participation in the planning and review process.

7.2 Evaluation Guidelines

The law establishing the SMA also contains guidelines to be used by the City and County of Honolulu when reviewing proposed developments. These guidelines are contained in the Revised Ordnances of the City and County of Honolulu, Chapter 33.3. These guidelines are to ensure adequate access, adequate and properly located public recreation areas, provisions for solid and liquid waste treatment, and minimum adverse effect to water resources and scenic and recreational amenities (Guidelines 1.A-D). Further guidelines seek to minimize, where reasonable, any alterations to existing bodies of water, developments which would reduce areas usable for public recreation, developments which would reduce public access, developments which would substantially interfere with public views to and along the shoreline, and any development which would adversely affect water quality (Guidelines 3.A-E). Before a development shall be approved, it must first be found that it will not have a substantial adverse environmental effect, and that the development is consistent with HRS 205A-26, the County General Plan, Development Plans, and Zoning (Guidelines 2.A-C).

As discussed above, the proposed Kalia Tower and recreation facilities are in compliance with the SMA guidelines. Access to the shoreline and beach areas would not be reduced. Public ocean

view planes would not be impacted. The proposed action does not call for any alterations to existing bodies of water, nor would there be any significant adverse impacts to water quality. The proposed action is consistent with applicable State and County plans and policies, the zoning for the area, and with the objectives of the SMA regulations. Finally, not only is the Applicant committed to minimizing adverse impacts; the multi-level review and permit process that must be adhered to before development is undertaken will ensure that mitigation measures are made conditions to the construction.

8.0 WAIKIKI MASTER PLANS

Currently, master planning efforts are underway for the Waikiki area sponsored by both the Mayor and the private sector. Although there have been no official plans submitted through either effort, the Department of General Planning, in connection with the Mayor's Advisory Committee, has developed a synthesis of various planning ideas for a Waikiki Master Plan. Key among the concepts advanced through the DGP were the use of incentives to encourage pedestrian-oriented activities and open space; the identification and protection of street-level views of the mountains and oceans, and guidelines promoting the Hawaiian Gathering Place theme and establishing identities for sub-villages within Waikiki.

Although many of the thoughts contained within the DGP work were specific to other areas of Waikiki, many of the concepts for the Mayor's Advisory Committee, as well as concepts contained within the Waikiki Improvement Association's Waikiki Gateway Improvements Master Plan, would be advanced by the proposed Kalia Tower, recreation facilities, and related improvements. Chief among them would be the themes of increased open space within Waikiki and of improving the pedestrian environment. The emphasis of the Hilton proposals would be on redesigning the corner of Kalia Road and Ala Moana Boulevard to create a more open and pleasant pedestrian environment. Landscaping and separating the pedestrian from the street would create a safer and more comfortable area for strolling, as well as helping to increase the attractiveness of the Hilton Hawaiian Village as a sub-village within Waikiki.

The Hilton Hawaiian Village management is currently serving on both the Mayor's Waikiki Task Force and with the Waikiki 2020 private sector master planning committee. This interaction on both planning efforts, and the Hilton's commitment to achieve a quality environment within Waikiki, will help ensure that the final proposals for the Kalia Tower and recreation facilities will be reflective of the various concepts and guidelines put forth in forthcoming versions of a Waikiki Master Plan.

Chapter VI
Topical Issues

Chapter VI
Topical Issues

1.0 RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

The proposed project involves redevelopment of an area already used for resort purposes. No short-term exploitation of resources that will have negative long-term consequences have been identified. The proposed project, as envisioned by the Hilton Hawaiian Village Joint Venture, will be a high quality project, developed to last for many years. The principal long-term benefits of the proposed project include increased recreational and visitor facilities to meet increasing demand for those services. Increased open space around the property would also add to the long-term benefits of the immediate area residents and visitors. The maintenance and enhancement of Waikiki as a primary visitor-destination is considered to be a long-term benefit in terms of helping to meet State and City policies and objectives for the visitor industry as a whole.

As the site is currently underutilized, the long-term productivity of the property would be enhanced through the proposed project. No reasonable land use options are foreclosed by the proposal, as the project encompasses no actual change in the existing designated hotel and commercial uses, which are considered appropriate for the site.

Socioeconomic benefits will also result, in the form of increased job opportunities and increased tax revenues. Direct, full-time employment opportunities and temporary construction employment will be generated by the project, and these in turn, will have benefits that ripple through the economy. Similarly, indirect, induced employment is anticipated in those industries and services that cater to the construction and visitor related businesses that would serve the proposed project. Public revenues from excise, personal and real property taxes are expected to more than offset any expenses associated with the expansion of public services to meet the requirements of the proposed project development.

2.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The development of the proposed project and resultant construction would result in the irreversible and irretrievable commitment of certain natural and fiscal resources. Major resource commitments include the land on which the project is located and on which the facilities would be constructed, as well as money, construction materials, manpower, and energy. The impacts of using these resources should be weighed against the expected positive socioeconomic benefits to be derived from the project versus the consequences of taking no action or of adopting another, less beneficial, use of the property.

The project would increase the portion of the property in open space and enhance pedestrian level views. The increased landscaping would add to the aesthetic character of the area.

The proposed project does not call for a commitment of government supplied services or facilities over and above that which would be required and necessary even without the proposed project. The project would add to the recreational facilities available to the residents of, and visitors to, the area. Similarly, the project would add to the tax revenues of the county and state.

3.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

Construction of the proposed project will produce impacts which are considered unavoidable. The loss of mature trees on the site will be unavoidable, but minimized to the extent possible by adhering to the basic landscape concept, which is to create an area of tropical lushness and to replace the mature trees onto other areas of the Hilton property whenever possible. Tree loss will be offset by additional landscaping both within the interior of the site and on the perimeters. If impossible to relocate trees, the possibility exists of donating them to the City for use in nearby parks or other open space areas.

It can be anticipated that, for the short-term, air quality in the immediate vicinity of the project site will be affected by dust and automotive pollutants during construction. Some degradation of air quality within the immediate vicinity of the project site is expected during construction activities. These effects will be monitored on-site and all appropriate governmental requirements regarding control of fugitive dust and other pollutants will be followed. Frequent watering of the area and the cleaning of equipment can help minimize fugitive dust problems.

A temporary degradation of the acoustic environment will also occur. Audible construction noise will likely be unavoidable during the construction period. Mitigation of construction noise to inaudible levels will not be practical in all cases, due to the intensity of construction noise sources, and due to the exterior nature of the work. Properly muffled construction equipment will be utilized on the job site.

The incorporation of State Department of Health (DOH) construction noise limits and curfew times applicable on Oahu are standard noise mitigation measures which will be applied to construction activities. Noisy construction activities would not be allowed on holidays, Saturdays, Sundays, during the early morning and during the late evening periods under DOH permit procedures, The Hilton Hawaiian Village management will endeavor to work together closely with employees, retailers, area residents, and guests to mitigate problems associated with construction activities.

No public coastal views will be affected. However, following construction, a change in the visual landscape from the Ala Moana corridor will be unavoidable. The proposed tower and recreational deck will visually impact, both positively and negatively, the existing views of some high-rise buildings near the property. In some cases, current views of the ocean may be reduced. However, the tower is lower than the designated height allowed by current zoning for the site. Thus, partial loss of some ocean views should be considered an eventual and inevitable occurrence within an ever expanding urban environment. The partial loss of some private views would be accompanied by the increased visual benefits at the public pedestrian level, as the additional open space, landscaping, and redirection of pedestrian traffic away from the street curb would create a more aesthetic pedestrian environment.

4.0 OFFSETTING CONSIDERATIONS OF GOVERNMENTAL POLICIES

As indicated in Chapter V, the proposed project is generally consistent with the applicable Hawaii State Plan, the various State Functional Plans, the County General Plan, and various Development Plan goals, policies and standards relating to the growth of the tourist industry and the maintenance of Waikiki as a viable primary resort area. Furthermore, the benefits derived from the public revenues generated by the project, would more than offset the public costs of upgrading the infrastructure to support the project.

5.0 UNRESOLVED ISSUES

The Hilton Hawaiian Village Joint Venture will continue to work with the various State and County agencies, residents, and area retailers, as well as elected officials, to assure that the final development plans meet the developer's project objectives and satisfactorily address issues that remain unresolved to date. Some of those unresolved issues include:

- The final determination of actual need for upgrading existing infrastructure to support the project, specifically water, sewage, and electrical facilities, where that infrastructure should be located, and who should bear the ultimate cost of replacing that infrastructure; and,

- The interpretation of, and compliance with, the special provision of the Development Plan for the Primary Urban Center establishing a transient vacation unit destination area of about 30,000 units within Waikiki; the appropriateness of this provision; and how Ordinance 89-154 impacts this provision.

- The conformance with any future Waikiki Master Plan goals.

Chapter VII

Parties Consulted and those who Participated in the Preparation of the EIS

Chapter VII
Parties Consulted and Those Who Participated in the Preparation of the EIS

1.0 CONSULTED PARTIES

The notice of availability of the Environmental Assessment and the EIS Preparation Notice for the Kalia Tower was published in the OEOC Bulletin by the Office of Environmental Quality Control on December 23, 1990. Notice of availability of the Draft Environmental Impact Statement was published in the OEOC Bulletin on July 23, 1991. In addition, representatives of the Hilton Hawaiian Village Joint Venture and Belt Collins & Associates met with representatives of numerous public agencies and community organizations, with elected officials, and with private citizens. The agencies, organizations, and individuals asked to comment are listed below. Those who responded in writing to the Preparation Notice are identified with an asterisk (*) next to their names. Those who responded in writing to the DEIS are identified with a check (√) next to their names. Copies of the correspondence with them are reproduced in this chapter. Groups or individuals with whom meetings were held are indicated by the pound sign (#) next to the name.

1.1 Federal Agencies

U.S. Army Corps of Engineers * √
U.S. Department of Agriculture, Soil Conservation Service * √
U.S. Department of Interior * √
U.S. Department of the Navy √

1.2 State Agencies

Department of Accounting and General Services * √
Department of Business, Economic Development & Tourism * √
Adjutant General and Director of Civil Defense √
Department of Education *
Department of Hawaiian Home Lands *
Department of Health * √
Department of Land and Natural Resources * √
Department of Land and Natural Resources, Historic Preservation Office * √
Housing, Finance, and Development Corporation *
Office of Hawaiian Affairs
Office of State Planning
Department of Transportation * # √
University of Hawaii, Environmental Center * √
Office of Environmental Quality Control √

1.3 State Legislators

Representative Duke Bainum #

Senator Mary Jane McMurdo √

1.4 City and County of Honolulu Agencies, Public Utilities

Board of Water Supply * # √
Building Department * √
Fire Department * √
Department of General Planning * # √
Hawaiian Electric Company, Inc. * √
Department of Housing and Community Development * √
Department of Land Utilization * # √
Department of Parks and Recreation *
Police Department * √
Department of Public Works *
Department of Transportation Services * # √
Waikiki Neighborhood Board Number 9 * #

1.5 City and County of Honolulu Elected Officials

Councilmember John De Soto #
Councilmember Leigh-Wai Doo #
Councilmember John Henry Felix #
Councilmember Gary Gill #
Councilmember Donna Kim
Councilmember Steve Holmes #
Councilmember Rene Mansho #
Councilmember Andrew Mirikitani #
Councilmember Arnold Morgado

1.6 Community Organizations and Private Citizens

American Lung Association
Buckminster Fuller Institute *
Hawaii Chamber of Commerce
Hawaii Hotel Association *
Hawaii Visitors Bureau
The Outdoor Circle *
Waikiki Improvement Association*
Waikiki Residents Association # √
Windward Community Arts Council *

Board of Directors, Ilikai Marina
Board of Directors, The Wailana #
Board of Directors, Canterbury Place
Board of Directors, Discovery Bay #
Board of Directors, The Kalia

Mr. Bob Crone, AIA √
Ms. Louise Hewett
Mr. Joe Gorecki
Mr. David Frankel * √

2.0 ORGANIZATIONS AND INDIVIDUALS WHO ASSISTED IN THE PREPARATION OF THIS EIS

2.1 Belt Collins & Associates

Perry J. White	Director of Planning
Mark R. Willey	Project Planner/Author of EIS
Patricia Hayashi	Graphics Artist
Mara Soloway	Editor

2.2 Subconsultants

Archaeology:	Paul H. Rosendahl, Ph.D., Inc.
Air Quality:	Barry Neal
Design:	Jon Pharis, Wimberly Allison Tong and Goo
Traffic:	Dr. C.S. Papacostas, Ph.D., University of Hawaii
Electrical:	Al Kilburg, Douglas V. MacMahon, Ltd.

2.3 Hilton Hawaiian Village

Dieter Huckestein	Senior Vice President
Daniel Dinell	Assistant to the Senior Vice President
Fred Ing	Chief Engineer
Angela Murphy	Regional Director of Leasing
Dale Carter	Operations Analyst

3.0 Correspondence and Comments Pertaining to the Environmental Impact Statement Preparation Notice

January 22, 1991
91-150 (033.47)

_____

_____

_____

Dear _____:

The Hilton Hotels Corporation, Hilton Hawaiian Village, proposes to redevelop the portion of the Hilton Hawaiian Village property where the Hilton Dome presently stands (TMK 2-6-09:13). The proposed new building would be approximately 210 feet tall and would contain 400 moderately-priced guest rooms, a health club/spa, and approximately 5,000 square feet of retail space. In addition, the rooftop of the adjacent Coral Ballroom/parking structure would be renovated to provide a recreation deck with tennis courts, landscaping, and a sports clinic. Additional landscaped open space, including a lagoon and waterfall features, would be created at the site which would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well.

On December 14, 1990, Hilton Hotels Corporation submitted a Shoreline Management Permit application and a Waikiki Special Design District application for the project to the City and County of Honolulu Department of Land Utilization (DLU). The DLU determined that an Environmental Impact Statement (EIS) should be prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS). An EIS Preparation Notice announcing this determination was published in the Office of Environmental Quality Control Bulletin on January 8, 1991. Copies of the EISPN and the Environmental Assessment (EA) are enclosed. The EA describes the proposed project, provides an overview of the existing environment, and identifies the kinds of impacts that are anticipated.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. We request that you or your organization assist us in preparing the EIS by providing comments on the proposed project as it relates to your jurisdiction and responsibility, special knowledge, or interest. You could help us address those issues that are of greatest concern by indicating in writing the specific questions, issues, and topics you believe are important and the reasons why they are.

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency "...upon good cause shown...." We hope you will be able to respond within this time period. If all goes as planned, the draft EIS will be available for public review and comment in April of this year.

Thank you for your cooperation. If you have any questions regarding the project or would like to discuss the kinds of input which would be most helpful, please call me at 521-5361.

Sincerely,

Mark R. Willey

MRW:lf

Enclosures:

(1) EISPN, 01/08/91
(2) Environmental Assessment, 12/20/90

Environmental Impact Statement Preparation Notice - General Form Letter to Neighborhood Residents

February 7, 1991
91-270 (033.47)

_____

_____

_____

Dear _____:

The Hilton Hotels Corporation, Hilton Hawaiian Village, proposes to redevelop the portion of the Hilton Hawaiian Village property where the Hilton Dome presently stands (TMK 2-6-09:13). The proposed new building would be approximately 210 feet tall and would contain 400 moderately-priced guest rooms, a health club/spa, and approximately 5,000 square feet of retail space. In addition, the rooftop of the adjacent Coral Ballroom/parking structure would be renovated to provide a recreation deck with tennis courts, landscaping, and a sports clinic. Additional landscaped open space, including a lagoon and waterfall features, would be created at the site which would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well.

On December 14, 1990, Hilton Hotels Corporation submitted a Shoreline Management Permit application and a Waikiki Special Design District application for the project to the City and County of Honolulu Department of Land Utilization (DLU). The DLU determined that an Environmental Impact Statement (EIS) should be prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS). An EIS Preparation Notice announcing this determination was published in the Office of Environmental Quality Control Bulletin on January 8, 1991. Copies of the EISPN and the Environmental Assessment (EA) are enclosed. The EA describes the proposed project, provides an overview of the existing environment, and identifies the kinds of impacts that are anticipated.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. We would like your organization and residents to assist us in preparing the EIS by providing comments on the proposed project as it relates to you. We would like to take the time to present the project to both your Board of Directors and your residents, perhaps at your next meeting, to answer any questions and to listen to your specific concerns. Either myself or Daniel Dinell of the Hilton Hawaiian Village will contact you to make arrangements.

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency "...upon good cause shown...." We hope you will be able to respond within this time period. If all goes as planned, the draft EIS will be available for public review and comment in April of this year.

Thank you for your cooperation. If you have any questions regarding the project or would like to discuss the kinds of input which would be most helpful, please call me at 521-5361.

Sincerely,

Mark R. Willey

MRW:lf

Enclosures:

(1) EISPN, 01/08/91
(2) Environmental Assessment, 12/20/90

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4432

RECEIVED
DEC 31 1990
BELT, COLLINS & ASSOCIATES

FRANK F. FASI
MAYOR

DONALD A. CLEGG
DIRECTOR

LORETTA K. C. CHEE
DEPUTY DIRECTOR

90/SMA-119(AC)

Mr. Perry J. White
Belt Collins & Assoc.
680 Ala Moana Blvd., Suite 200
Honolulu, Hawaii 96813

Dear Mr. White:

ENVIRONMENTAL ASSESSMENT/DETERMINATION
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPN)
KALIA TOWER - HILTON HAWAIIAN VILLAGE, WAIKIKI, OAHU
CHAPTER 343, HRS

Recorded Owner	:	Hilton Hotels Corporation
Applicant	:	Hilton Hotels Corporation
Agent	:	Belt Collins & Assoc.
Location	:	2005 Kalia Road, Waikiki, Oahu
Tax Map Key	:	2-6-09: 13
Request	:	400 Unit Hotel with Health Club/Spa and 5,000 Square Feet of Retail Space
Determination	:	Environmental Impact Statement (EIS) Required

We have reviewed the Environmental Assessment (EA) you prepared for the proposed project to satisfy the requirements of Chapter 343, HRS. We have determined that an EIS is required. We have submitted an EISPN to the Office of Environmental Quality Control (OEQC) for publication in the "OEQC Bulletin." A copy of this notice is attached. Also attached is a list of parties to be consulted. You are required to send each a copy of the EISPN and the EA, allowing them 30 days to comment.

If you have any questions, please contact Art Challacombe of our staff at 523-4107.

Very truly yours,

DONALD A. CLEGG
Director of Land Utilization

DAC:lg
attachs.

DEPARTMENT OF LAND UTILIZATION
90/SMA-119(AC)
December 20, 1990

CHAPTER 343, HRS
Environmental Assessment/Determination
Environmental Impact
STATEMENT PREPARATION NOTICE (EISPN)

Recorded Owner	:	Hilton Hotels Corporation
Applicant	:	Hilton Hotels Corporation
Agent	:	Belt Collins & Associates
Location	:	2005 Kalia Road, Waikiki, Oahu
Tax Map Key	:	2-6-09: 13
Request	:	400 Unit Hotel with Health Club/SPA & 5,000 Square Feet of Retail Space
Determination	:	Environmental Impact Statement (EIS) Required

Attached and incorporated by reference is the environmental assessment prepared by the applicant for the project.

On the basis of the environmental assessment, we have determined that an Environmental Impact Statement is required.

APPROVED
DONALD A. CLEGG
Director of Land Utilization

DAC:lg

January 22, 1991
91-154 (033.47)

Mr. Joseph A. Magaldi, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Mr. Magaldi:

The Hilton Hotels Corporation, Hilton Hawaiian Village, proposes to redevelop the portion of the Hilton Hawaiian Village property where the Hilton Dome presently stands (TMK 2-6-09:13). The proposed new building would be approximately 210 feet tall and would contain 400 moderately-priced guest rooms, a health club/spa, and approximately 5,000 square feet of retail space. In addition, the rooftop of the adjacent Coral Ballroom/parking structure would be renovated to provide a recreation deck with tennis courts, landscaping, and a sports clinic. Additional landscaped open space, including a lagoon and waterfall features, would be created at the site which would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well.

On December 14, 1990, Hilton Hotels Corporation submitted a Shoreline Management Permit application and a Waikiki Special Design District application for the project to the City and County of Honolulu Department of Land Utilization (DLU). The DLU determined that an Environmental Impact Statement (EIS) should be prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS). An EIS Preparation Notice announcing this determination was published in the Office of Environmental Quality Control Bulletin on January 8, 1991. Copies of the EISPN and the Environmental Assessment (EA) are enclosed. The EA describes the proposed project, provides an overview of the existing environment, and identifies the kinds of impacts that are anticipated.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. We request that you or your organization assist us in preparing the EIS by providing comments on the proposed project as it relates to your jurisdiction and responsibility, special knowledge, or interest. You could help us address those issues that are of greatest concern by indicating in writing the specific questions, issues, and topics you believe are important and the reasons why they are.

In addition, we would appreciate it if you or someone on your staff could provide us with answers to the following questions:

1. Traffic has long been seen as an item of major concern for residents in the Waikiki area. In order to facilitate as complete and accurate traffic study as possible for this project, I would like to request the following information.

   a. The distances (in feet) between the following intersections: Hobron/Ala Moana and Kalia Road/Ala Moana; between Kalia Road/Ala Moana and Ala Moana/Kalakaua; and between the Hilton entrance and Kalia Road/Ala Moana, or perhaps a map showing this information.

   b. The intersection geometrics for the above listed intersections (lanes, lane widths, length of turning bays, etc.).

   c. The signal conditions, type of actuation system used, and phasing for the above intersections (length of phasing, conditions for phase changes, etc.).

   d. The most recent data you have concerning turning volumes for the various movements through the intersections (vph).

2. Are you aware of any street improvements likely to be made in the next three years which might affect the capacity or level of service in the area?

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency "...upon good cause shown...." We hope you will be able to respond within this time period. If all goes as planned, the draft EIS will be available for public review and comment in April of this year.

Thank you for your cooperation. If you have any questions regarding the project or would like to discuss the kinds of input which would be most helpful, please call me at 521-5361.

Sincerely,

Mark R. Willey

MRW:lt

Enclosures:

(1) EISPN, 01/08/91
(2) Environmental Assessment, 12/20/90

January 22, 1991
91-153 (033.47)

Hawaiian Electric Company, Inc.
900 Richards Street
Honolulu, Hawaii 96813

Dear Sir:

The Hilton Hotels Corporation, Hilton Hawaiian Village, proposes to redevelop the portion of the Hilton Hawaiian Village property where the Hilton Dome presently stands (TMK 2-6-09:13). The proposed new building would be approximately 210 feet tall and would contain 400 moderately-priced guest rooms, a health club/spa, and approximately 5,000 square feet of retail space. In addition, the rooftop of the adjacent Coral Ballroom/parking structure would be renovated to provide a recreation deck with tennis courts, landscaping, and a sports clinic. Additional landscaped open space, including a lagoon and waterfall features, would be created at the site which would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well.

On December 14, 1990, Hilton Hotels Corporation submitted a Shoreline Management Permit application and a Waikiki Special Design District application for the project to the City and County of Honolulu Department of Land Utilization (DLU). The DLU determined that an Environmental Impact Statement (EIS) should be prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS). An EIS Preparation Notice announcing this determination was published in the Office of Environmental Quality Control Bulletin on January 8, 1991. Copies of the EISPN and the Environmental Assessment (EA) are enclosed. The EA describes the proposed project, provides an overview of the existing environment, and identifies the kinds of impacts that are anticipated.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. We request that you or your organization assist us in preparing the EIS by providing comments on the proposed project as it relates to your jurisdiction and responsibility, special knowledge, or interest. You could help us address those issues that are of greatest concern by indicating in writing the specific questions, issues, and topics you believe are important and the reasons why they are.

In addition, we would appreciate it if you or someone on your staff could provide us with answers to the following questions:

1. What are the sizes and capacities of the electrical supply systems currently servicing the Hilton Hawaiian Village site and vicinity?

2. Do you know of any current problems with the electrical supply system servicing the area? If so, what are the problems, and what are the perceived causes?

3. It is estimated by our engineers that the proposed project would increase electrical demand by approximately 4.5 KV per room per day and 150 KV per 10,000 square foot per day for the retail portion. Do these figures seem appropriate, or are there more applicable standards which are recommended for determining electrical demand?

4. Are the existing HECO facilities capable of meeting this increased need if the project were to be completed in 1993? If not, what off-site improvements would be required? Do you foresee any problems providing these?

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency "...upon good cause shown...." We hope you will be able to respond within this time period. If all goes as planned, the draft EIS will be available for public review and comment in April of this year.

Thank you for your cooperation. If you have any questions regarding the project or would like to discuss the kinds of input which would be most helpful, please call me at 521-5361.

Sincerely,

Mark R. Willey

MRW:lf

Enclosures:

(1) EISPN, 01/08/91
(2) Environmental Assessment, 12/20/90

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

TE-0168
PL91.1.025

February 21, 1991

Mr. Mark R. Willey
Belt Collins & Associates
Suite 200
680 Ala Moana Boulevard
Honolulu, Hawaii 96813

Dear Mr. Willey:

Subject: Hilton Hawaiian Village
Proposed Environmental Impact Statement (EIS)
TMK: 2-6-09: 13

This is in response to your letter of January 22, 1991 requesting our assistance in the preparation of the proposed EIS for the subject project.

We will be happy to assist you in obtaining information for your traffic study on roadways under our jurisdiction. I understand that Mel Hirayama of my staff spoke with you to discuss your specific requests to prepare your traffic study.

Other projects in the vicinity of the Hilton Hawaiian Village which will affect vehicular flow and capacity include the proposed redevelopment of Fort DeRussy. As part of this project, Kalia Road will be realigned from Paoa Place to Saratoga Road.

The traffic study should include an assessment on the amount of traffic generated by the proposed expansion in relation to the planned location of the porte cochere. The length and location of the porte cochere should be designed such that vehicles and other large passenger buses will not queue on Hilton Hawaiian Village's main access drive and Kalia Road.

Should you have any questions, please contact Mel Hirayama of my staff at 523-4119.

Sincerely,

JOSEPH M. MAGALDI, JR.
Director

Hawaiian Electric Company, Inc. • P.O. Box 2750 • Honolulu, HI 96840-00(

ENV 3-3
PCBs
JA/G

William A. Bonnet
Manager
Environmental Department

February 21, 1991

Mr. Mark R. Wiley
Belt Collins & Associates
680 Ala Moana Boulevard
Suite 200
Honolulu, Hawaii 96813

Dear Mr. Wiley:

Subject: Environmental Assesment for a 400-Room Kalia Tower at Hilton Hawaiian Village (HHV)

We have reviewed the subject EIS, and have the following comments:

1. Hilton Hawaiian Village (HHV) and the surrounding area is served by the Ena Substation at 12.47 KV. The substation contains four 10 MVA transformers with two 12.47 KV circuits from each unit. HHV is normally served by one of the circuits and backed up by another circuit from a different transformer. The cable capacity for those circuits near HHV is limited to 5 MVA per circuit (two 4/0 cables).

2. Presently, the electrical system in this area is adequate and there are no problems with the system.

3. The electrical demand for a medium priced hotel is typically 3 KVA per room and 12 VA per square foot of retail space. The total load addition may be 1300 to 1500 KVA.

4. Studies regarding service to the HHV with the proposed load addition have not been done, but additional transformer and circuit capacity is required. The additional transformer will require a substation site. A substation located at the HHV site will minimize the cable and duct work and it would be well suited to serving the entire HHV complex. The present distribution voltage of 12 KV within the complex could be converted to 25 KV.

Sincerely,

January 22, 1991
91-154 (033.47)

Mr. Edward Y. Hirata, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Hirata:

The Hilton Hotels Corporation, Hilton Hawaiian Village, proposes to redevelop the portion of the Hilton Hawaiian Village property where the Hilton Dome presently stands (TMK 2-6-09:13). The proposed new building would be approximately 210 feet tall and would contain 400 moderately-priced guest rooms, a health club/spa, and approximately 5,000 square feet of retail space. In addition, the rooftop of the adjacent Coral Ballroom/parking structure would be renovated to provide a recreation deck with tennis courts, landscaping, and a sports clinic. Additional landscaped open space, including a lagoon and waterfall features, would be created at the site which would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well.

On December 14, 1990, Hilton Hotels Corporation submitted a Shoreline Management Permit application and a Waikiki Special Design District application for the project to the City and County of Honolulu Department of Land Utilization (DLU). The DLU determined that an Environmental Impact Statement (EIS) should be prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS). An EIS Preparation Notice announcing this determination was published in the Office of Environmental Quality Control Bulletin on January 8, 1991. Copies of the EISPN and the Environmental Assessment (EA) are enclosed. The EA describes the proposed project, provides an overview of the existing environment, and identifies the kinds of impacts that are anticipated.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. We request that you or your organization assist us in preparing the EIS by providing comments on the proposed project as it relates to your jurisdiction and responsibility, special knowledge, or interest. You could help us address those issues that are of greatest concern by indicating in writing the specific questions, issues, and topics you believe are important and the reasons why they are.

In addition, we would appreciate it if you or someone on your staff could provide us with answers to the following questions:

1. Traffic has long been seen as an item of major concern for residents in the Waikiki area. In order to facilitate as complete and accurate traffic study as possible for this project, I would like to request the following information.

   a. The distances (in feet) between the following intersections: Hobron/Ala Moana and Kalia Road/Ala Moana; between Kalia Road/Ala Moana and Ala Moana/Kalakaua; and between the Hilton entrance and Kalia Road/Ala Moana, or perhaps a map showing this information.

   b. The intersection geometrics for the above listed intersections (lanes, lane widths, length of turning bays, etc.).

   c. The signal conditions, type of actuation system used, and phasing for the above intersections (length of phasing, conditions for phase changes, etc.).

   d. The most recent data you have concerning turning volumes for the various movements through the intersections (vph).

2. Are you aware of any street improvements likely to be made in the next three years which might affect the capacity or level of service in the area?

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency "...upon good cause shown...." We hope you will be able to respond within this time period. If all goes as planned, the draft EIS will be available for public review and comment in April of this year.

Thank you for your cooperation. If you have any questions regarding the project or would like to discuss the kinds of input which would be most helpful, please call me at 521-5361.

Sincerely,

Mark R. Willey

MRW:lf

Enclosures:

(1) EISPN, 01/08/91
(2) Environmental Assessment, 12/20/90

JOHN WAIHEE
GOVERNOR

RECEIVED
FEB 11 1991
BELT, COLLINS & ASSOCIATES

EDWARD Y. HIRATA
DIRECTOR

DEPUTY DIRECTORS
DANIEL KOCHI (PRIMARY)
RONALD N. HIRANO
JEANNE K. SCHULTZ
CALVIN M. TSUDA

IN REPLY REFER TO

HWY-PS
2.5491

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

FEB 7 1991

Mr. Mark K. Wiley
Belt collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Wiley:

Environmental Assessment, Hilton Hawaiian Village,
400-Room Kalia Tower, Honolulu, TMK: 2-6-09: 13

Thank you for your letter of January 22, 1991, requesting information and comments regarding the subject project.

We have the following comments:

1. Information regarding intersection distances and intersection geometrics can be obtained by contacting our Highway Design Branch at 548-7468. They have the "As Built" construction plans for Ala Moana Boulevard. Geometrics for streets such as Kalia Road, Kalakaua Avenue, and Hobron Lane, under the City jurisdiction, may be obtained from the City Department of Public Works.

2. Information on signal conditions, phasing, etc., can be obtained from the City Department of Transportation Services.

3. Please contact our Highway Planning Branch at 548-3228 to obtain traffic data on the project area.

4. At present, we have no immediate roadway improvement plans for Ala Moana Boulevard which would affect its capacity or level of services. We suggest that you consult the City and County for their plans on the streets in the project vicinity. Ala Moana Boulevard is the only street in the vicinity that is under the jurisdiction of our Highways Division.

General Comments:

1. This proposed project should be fully coordinated with other committed and planned projects in the area, including the Waikikian Hotel, Waikiki Landmark, Fort DeRussy Recreational Center, and the Honolulu Convention Center Complex.

2. Please incorporate the Traffic Impact Analysis Report in the Draft Environmental Impact Statement and circulate a copy for us to review.

Very truly yours,

Edward Y. Hirata
Director of Transportation

January 22, 1991
91-151 (033.47)

Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Mr. Hayashida:

The Hilton Hotels Corporation, Hilton Hawaiian Village, proposes to redevelop the portion of the Hilton Hawaiian Village property where the Hilton Dome presently stands (TMK 2-6-09:13). The proposed new building would be approximately 210 feet tall and would contain 400 moderately-priced guest rooms, a health club/spa, and approximately 5,000 square feet of retail space. In addition, the rooftop of the adjacent Coral Ballroom/parking structure would be renovated to provide a recreation deck with tennis courts, landscaping, and a sports clinic. Additional landscaped open space, including a lagoon and waterfall features, would be created at the site which would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well.

On December 14, 1990, Hilton Hotels Corporation submitted a Shoreline Management Permit application and a Waikiki Special Design District application for the project to the City and County of Honolulu Department of Land Utilization (DLU). The DLU determined that an Environmental Impact Statement (EIS) should be prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS). An EIS Preparation Notice announcing this determination was published in the Office of Environmental Quality Control Bulletin on January 8, 1991. Copies of the EISPN and the Environmental Assessment (EA) are enclosed. The EA describes the proposed project, provides an overview of the existing environment, and identifies the kinds of impacts that are anticipated.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. We request that you or your organization assist us in preparing the EIS by providing comments on the proposed project as it relates to your jurisdiction and responsibility, special knowledge, or interest. You could help us address those issues that are of greatest concern by indicating in writing the specific questions, issues, and topics you believe are important and the reasons why they are.

In addition, we would appreciate it if you or someone on your staff could provide us with answers to the following questions:

1. What are the sizes, capacities, and locations of the water mains currently servicing the Hilton Hawaiian Village site? If available, would you provide a map showing these?

2. Do you know of any current problems with the water system servicing the area? If so, what are they, and what are the perceived causes?

3. It is estimated that the proposed project will increase water use from the BWS system an average of 153,000 gallons per day. This estimate is based on the following table:

Type of Use	No. of Units	Use Rate	Expected Consumption
Hotel Rooms	400 rooms	350 gpd/room	140,000 gpd
Additional Landscaping	5,000 sf	1.5*/wk	668 gpd
Water Feature Replacement	10,000 sf	0.33*/day	2,050 gpd
Health Club	200 persons/day	50 g/person/day	10,000 gpd

Do these figures seem appropriate, or are there more current standards which should be used?

4. Are the existing and/or already planned BWS facilities capable of meeting this increased need if the project were to be completed in 1993? If not, what off-site improvements will be required? Do you foresee any problems providing these improvements?

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency "...upon good cause shown...." We hope you will be able to respond within this time period. If all goes as planned, the draft EIS will be available for public review and comment in April of this year.

Thank you for your cooperation. If you have any questions regarding the project or would like to discuss the kinds of input which would be most helpful, please call me at 521-5361.

Sincerely,

Mark R. Willey

MRW:lf

Enclosures:

(1) EISPN, 01/08/91
(2) Environmental Assessment, 12/20/90

January 22, 1991
91-152 (033.47)

Mr. Sam Callejo
Director & Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Callejo:

The Hilton Hotels Corporation, Hilton Hawaiian Village, proposes to redevelop the portion of the Hilton Hawaiian Village property where the Hilton Dome presently stands (TMK 2-6-09:13). The proposed new building would be approximately 210 feet tall and would contain 400 moderately-priced guest rooms, a health club/spa, and approximately 5,000 square feet of retail space. In addition, the rooftop of the adjacent Coral Ballroom/parking structure would be renovated to provide a recreation deck with tennis courts, landscaping, and a sports clinic. Additional landscaped open space, including a lagoon and waterfall features, would be created at the site which would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well.

On December 14, 1990, Hilton Hotels Corporation submitted a Shoreline Management Permit application and a Waikiki Special Design District application for the project to the City and County of Honolulu Department of Land Utilization (DLU). The DLU determined that an Environmental Impact Statement (EIS) should be prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS). An EIS Preparation Notice announcing this determination was published in the Office of Environmental Quality Control Bulletin on January 8, 1991. Copies of the EISPN and the Environmental Assessment (EA) are enclosed. The EA describes the proposed project, provides an overview of the existing environment, and identifies the kinds of impacts that are anticipated.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. We request that you or your organization assist us in preparing the EIS by providing comments on the proposed project as it relates to your jurisdiction and responsibility, special knowledge, or interest. You could help us address those issues that are of greatest concern by indicating in writing the specific questions, issues, and topics you believe are important and the reasons why they are.

In addition, we would appreciate it if you or someone on your staff could provide us with answers to the following questions:

1. What are the locations, sizes, and capacities of the storm drains currently servicing the Hilton Hawaiian Village site and vicinity? If available, would you provide a map showing these?

2. Do you know of any current problems with the storm drains servicing the area? If so, what are the problems, and what are the perceived causes?

3. The building footprints of the proposed structures and paved areas are slightly less than the area covered by the existing Dome and walkways. Hence, very little effect on storm runoff is anticipated. Are you aware of any existing drainage problems in the area that should be taken into consideration? If so, could you please describe them briefly and indicate who on your staff would be able to provide additional information?

4. The solid waste generated at the HHV is currently being collected by a private hauler and taken to various City landfills and to the H-Power plant. It is anticipated that the small amount of additional waste generated as a result of the operation of the new facility (2,800 lbs/day) will be handled in the same fashion. Do you foresee any problems with this?

5. What are the locations, sizes, and capacities of the sanitary sewer mains currently servicing the Hilton Hawaiian Village site?

6. Do you know of any current problems with the sewer infrastructure servicing the area? If so, what are the problems, and what are the perceived causes?

7. Sewage is anticipated to be approximately 122,000 gpd (80% of the water used by the hotel rooms and health spa, estimated to be approximately 153,000 gpd). Are the existing City facilities capable of meeting this increased need if the project were to be completed in 1993? If not, what off-site improvements will be required? Do you foresee any problems providing these?

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency "...upon good cause shown...." We hope you will be able to respond within this time period. If all goes as planned, the draft EIS will be available for public review and comment in April of this year.

Thank you for your cooperation. If you have any questions regarding the project or would like to discuss the kinds of input which would be most helpful, please call me at 521-5361.

Sincerely,

Mark R. Willey

MRW:lt

Enclosures:

(1) EISPN, 01/08/91
(2) [illegible]ment, [illegible]ssment, 1990

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU

630 SOUTH BERETANIA STREET

HONOLULU, HAWAII 96843

RECEIVED

FEB 26 1991

BELT, COLLINS & ASSOCIATES

FRANK F. FASI, Mayor

DONALD G. GIN, Chairman

DERRICK DAVIS, Vice Chairman

SAM CALLEJO

EDWARD Y. HIRATA

WALTER O. WATSON, JR.

MAURICE H. YAMASATO

KAZU HAYASHIDA

Manager and Chief Engineer

February 25, 1991

Mr. Mark R. Willey
Belt, Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Subject: Your Letter of January 22, 1991 Regarding the Environmental Assessment for the Proposed Hilton Hawaiian Village Redevelopment, TMK: 2-6-09: 13, Kalia Road

Thank you for the opportunity to comment on the environmental assessment for the proposed 400-unit Kalia Tower, health club/spa, retail space, recreation deck and lagoon/waterfall features. We have the following response to your questions:

1. There is an existing 12-inch main along Ala Moana Boulevard and an 8-inch main along Kalia Road fronting the proposed project. There are presently four services for the subject property, of which two are for domestic and two are for fire protection purposes. (see attached map)

2. A study of the Waikiki area has shown that the Kalia Road - Lewers Street area and the area bounded by Ala Moana Boulevard, Ala Wai Canal, and Kalakaua Avenue are weak points in the water system in terms of peak hour pressures and velocities. The main sizes in the area cannot cope with the large water demand.

3. The design factors used to arrive at an average day demand of 153,000 gallons per day for the proposed project are acceptable.

4. To be able to meet the project's large proposed water demand within a weak area of our water system, the developer will be required to replace the existing 8-inch main along Kalia Road with approximately 900 linear feet of 12-inch main from Ala Moana Boulevard to Paoa Place. The construction drawings should be submitted for our review and approval.

In addition to the foregoing response to your questions, we have the following comments regarding the proposed project.

The availability of additional water will be confirmed when the building permits are submitted for our review and approval. When additional water is made available, the applicant will be required to pay our Water System Facilities Charges for source-transmission and daily storage.

If a larger meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.

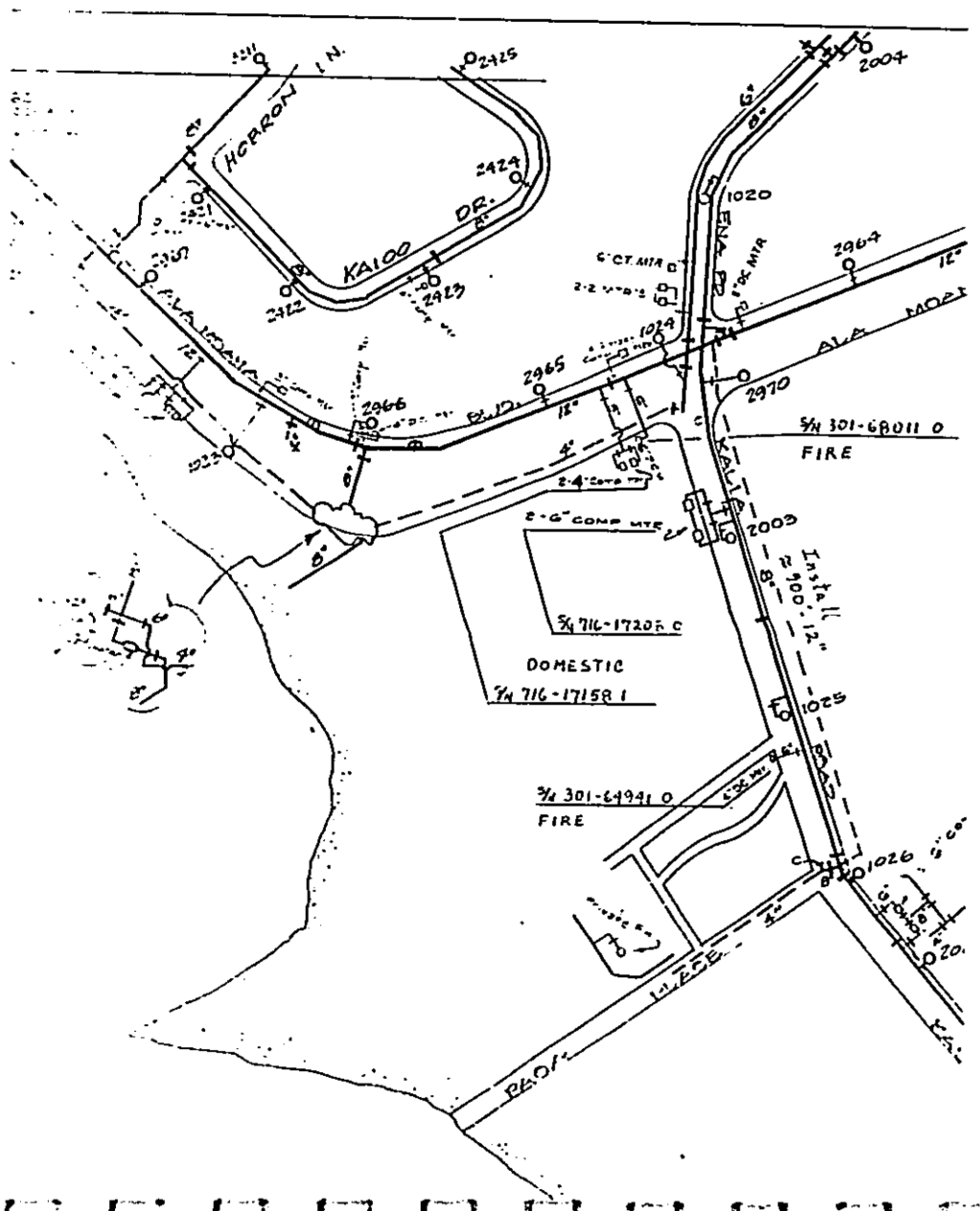
Approved reduced pressure principle backflow prevention devices will be required to be installed immediately after all existing and proposed domestic water meters serving the property.

If you have any questions, please contact Bert Kuioka at 527-5235.

Very truly yours,

KAZU HAYASHIDA
Manager and Chief Engineer

Attachment



DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

SAM CALLEJO
DIRECTOR AND CHIEF ENGINEER

C. MICHAEL STREET
DEPUTY DIRECTOR

RECEIVED
FEB 14 1991
BELT, COLLINS & ASSOCIATE

In reply refer to:
ENV 91-35(448)

February 11, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Subject: Environmental Assessment (EA)
Hilton Hawaiian Village Hotel - Kalia Tower
Tax Map Key: 2-6-09: 13

We have reviewed the subject EA and have the following comments:

1. As suggested, you may obtain information on Item 1 through Item 3 directly from our Drainage Section, Division of Engineering.

2. We do not foresee any problem of additional solid waste generated from the proposed project.

3. Item 5: Please refer to the attached sketch indicating the location and size of sewer line servicing the property. The capacity of the 24-inch sewer line is 2.19 mgd.

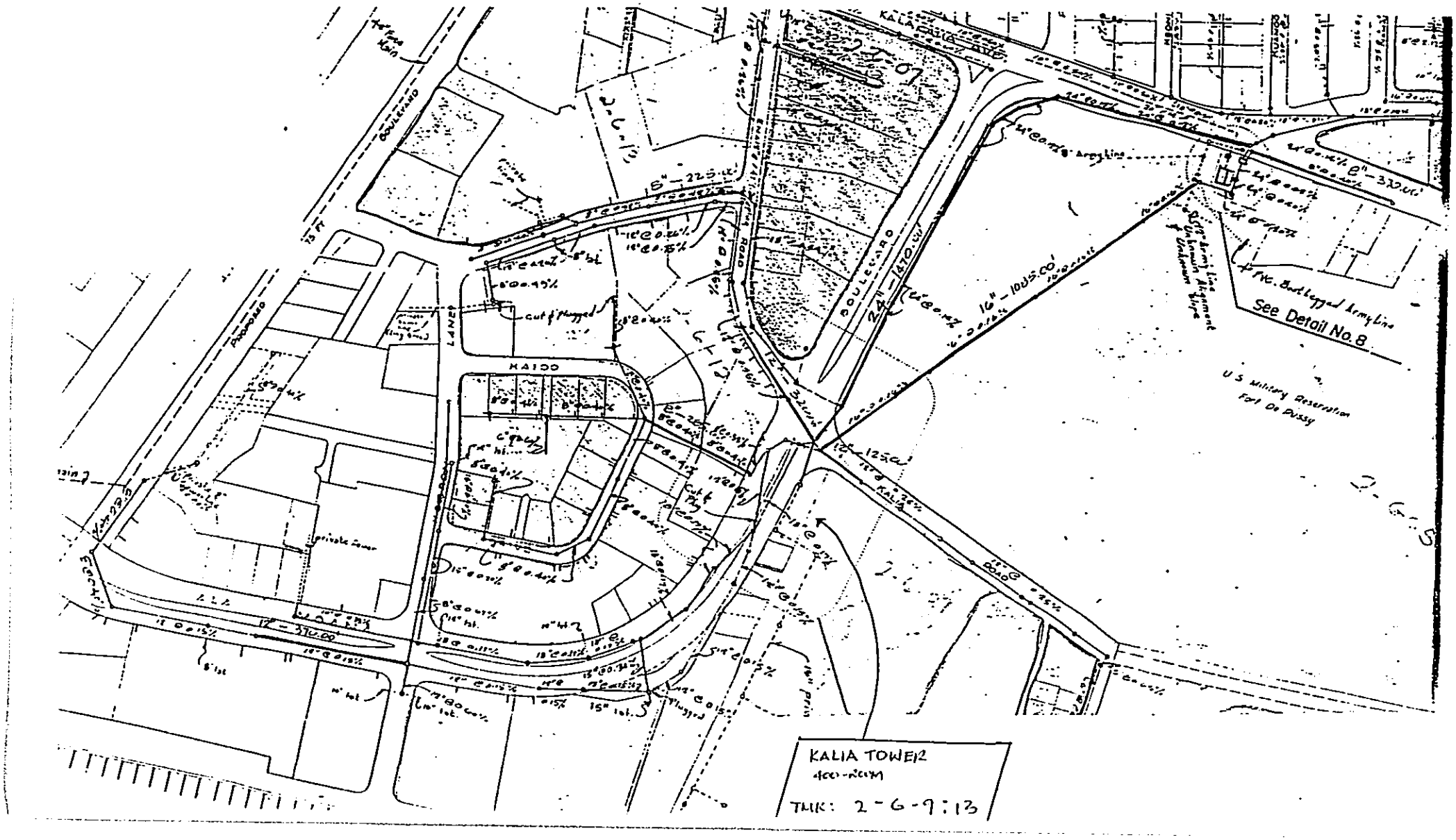
4. Item 6: Although we have no sewer backup problems in the vicinity of the proposed hotel, the municipal sewer system is inadequate.

5. Item 7: The off-site sewer lines that require relief are the 24-inch sewer line indicated on the sketch and a 36-inch sewer line in Ala Moana Boulevard in the vicinity of Ward Warehouse. We have no plans to relieve these lines at this time.

Very truly yours,

C. Michael Street
for SAM CALLEJO
Director and Chief Engineer

Att.


KAIDO
See Detail No. 8
U.S. Military Reservation
Fort De Russy
KALIA TOWER
400-ROOM
TMK: 2-6-9:13

January 22, 1991
91-155 (033.47)

Mr. Lionel E. Camara, Chief
Fire Department
City and County of Honolulu
1455 S. Beretania Street, 3rd Floor
Honolulu, Hawaii 96814

Dear Mr. Camara:

The Hilton Hotels Corporation, Hilton Hawaiian Village, proposes to redevelop the portion of the Hilton Hawaiian Village property where the Hilton Dome presently stands (TMK 2-6-09:13). The proposed new building would be approximately 210 feet tall and would contain 400 moderately-priced guest rooms, a health club/spa, and approximately 5,000 square feet of retail space. In addition, the rooftop of the adjacent Coral Ballroom/parking structure would be renovated to provide a recreation deck with tennis courts, landscaping, and a sports clinic. Additional landscaped open space, including a lagoon and waterfall features, would be created at the site which would greatly enhance not only the entrance to the Hilton Hawaiian Village, but the Ala Moana gateway to Waikiki as well.

On December 14, 1990, Hilton Hotels Corporation submitted a Shoreline Management Permit application and a Waikiki Special Design District application for the project to the City and County of Honolulu Department of Land Utilization (DLU). The DLU determined that an Environmental Impact Statement (EIS) should be prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS). An EIS Preparation Notice announcing this determination was published in the Office of Environmental Quality Control Bulletin on January 8, 1991. Copies of the EISPN and the Environmental Assessment (EA) are enclosed. The EA describes the proposed project, provides an overview of the existing environment, and identifies the kinds of impacts that are anticipated.

It is our intention to explore all aspects of the project's probable effects in the EIS, but we would like to devote the bulk of our effort towards those issues which are of greatest concern. We request that you or your organization assist us in preparing the EIS by providing comments on the proposed project as it relates to your jurisdiction and responsibility, special knowledge, or interest. You could help us address those issues that are of greatest concern by indicating in writing the specific questions, issues, and topics you believe are important and the reasons why they are.

In addition, we would appreciate it if you or someone on your staff could provide us with an answer to the following question:

> Construction of the new tower may mean the removal of an existing emergency fire staircase servicing the Coral Ballroom. The new emergency fire exit would occur across the bridge and down the stairs in the new tower (see Figure 2.11 of the EA). Do you foresee any problems with this plan? Would the stairs within the new tower need to be of a certain standard if used as emergency exits?

As you probably know, the State Environmental Quality Commission's Environmental Impact Statement Regulations stipulate that written responses to requests for comments must be made within 30 days of the receipt of the request unless this is extended by the accepting agency "...upon good cause shown...." We hope you will be able to respond within this time period. If all goes as planned, the draft EIS will be available for public review and comment in April of this year.

Thank you for your cooperation. If you have any questions regarding the project or would like to discuss the kinds of input which would be most helpful, please call me at 521-5361.

Sincerely,

Mark R. Willey

MRW:lf

Enclosures:

(1) EISPN, 01/08/91
(2) Environmental Assessment, 12/20/90

RECEIVED
FEB 2

BELT, COLLINS & ASSOCIATES

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
1455 SOUTH BERETANIA STREET, ROOM 305
HONOLULU, HAWAII 96814

FRANK F. FASI
MAYOR

LIONEL E. CAMARA
FIRE CHIEF

DONALD S. M. CHANG
DEPUTY FIRE CHIEF

February 22, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard
Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

SUBJECT: Environmental Assessment
Hilton Hawaiian Village--400-Room Kalia Tower

We have reviewed the subject material provided and foresee no adverse impact in Fire Department facilities or services.

Access for fire apparatus, water supply and building construction shall be in conformance to existing codes and standards.

In response to your specific question regarding the removal and relocation of an existing staircase, prior approval shall be obtained from the City and County Building Department for such action and shall meet their code requirements.

Should you have any questions, please contact Battalion Chief Attilio Leonardi of our Administrative Services Bureau at 943-3838.

Very truly yours,

DONALD S. M. CHANG
Acting Fire Chief

AKL:ny

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P. O. BOX 50004
HONOLULU, HAWAII
96850

February 6, 1991

Mr. Mark R. Willey
Belt Collins and Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Subject: Environmental Assessment (EA) - Hilton Hawaiian Village,
Waikiki, Oahu, Hawaii

We have reviewed the above-mentioned document and have no comments to offer at this time. We would appreciate the opportunity to review the the Draft Environmental Impact Statement (DEIS).

Sincerely,

ACTING

WARREN M. LEE
State Conservationist

BUILDING DEPARTMENT

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

RECEIVED
FEB 4 1991
BELT, COLLINS & ASSOCIATES

PB 91-88

January 31, 1991

Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Assessment
Hilton Hawaiian Village

We have reviewed the environmental assessment for the subject project and have no comments to offer.

Thank you for the opportunity to review the document.

Very truly yours,

HERBERT K. MURAOKA
Director and Building Superintendent

cc: J. Harada

JOHN WAIHEE
GOVERNOR
STATE OF HAWAII

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BELT, COLLINS & ASSOCIATES

HOALIKU L. DRAKE
CHAIRMAN
HAWAIIAN HOMES COMMISSION

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

February 1, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard
Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

SUBJECT: EIS Preparation Notice
Hilton Hawaiian Village
Shoreline Management Permit and
Waikiki Special Design District

The Department of Hawaiian Home Lands (DHHL) appreciates the opportunity to comment on the preparation notice for an Environmental Impact Statement regarding proposed renovations to the Hilton Hawaiian Village.

The project does not impact Hawaiian Home Lands; we have no comments.

Warmest aloha,

Hoaliku L. Drake, Chairman
Hawaiian Homes Commission

HLD:DCY:CI

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU HAWAII 96813

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BENJAMIN B. LEE
Chief Planning Officer

ROLANDO LIBBY JR
Deputy Chief Planning Officer

VW 1/91-192

February 14, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Environmental Assessment (EA)
for the Hilton Hawaiian Village Kalia Tower,
Kalia Road, Waikiki - TMK 2-06-09: 13

In response to your letter of January 22, 1991 regarding the subject EA, we have the following comments:

Since your proposal would add 400 hotel rooms to the Hilton Hawaiian Village development, we find that the General Plan Economic Activity Objective B, Policy 4 which states "Prohibit major increases in permitted densities in Waikiki" must be addressed. A discussion on the relative magnitude of the proposed increase in hotel rooms and how it compares to the "permitted densities" on the subject site should therefore be included in your Environmental Impact Statement (EIS).

Calculations by the Department of General Planning (DGP) indicate that there now are approximately 31,800 visitor units in Waikiki. This already exceeds the 30,000 visitor unit limit set under the Development Plan (DP) Special Provisions, Section 32-2.2.(b)(2)(B). We note that the EA does not state the need to amend the DP Special Provisons for the Primary Urban Center to allow for the additional visitor units planned for this project. This requirement should be stated in the EIS.

The EIS should address provisions of additional parking required for the proposed 400 room Kalia Tower.

The EIS should discuss how the proposed project will be consistent with Waikiki Master Plan concepts and urban design guidelines indicated in DGP's list of preliminary proposals (attached).

An amendment to the General Plan and/or Development Plan Special Provisions may be required before construction of the additional hotel rooms is permitted.

Should you have any questions, please contact Verne Winquist of our staff at 527-6044.

Sincerely,

BENJAMIN B. LEE
Chief Planning Officer

BBL:lh

Attachment

Department of General Planning
July 19, 1990

A LIST OF PRELIMINARY PROPOSALS FOR DISCUSSION TO EMBRACE THE IDEA OF A "GATHERING PLACE" AND IMPROVE THE PEDESTRIAN EXPERIENCE IN WAIKIKI

I. Pedestrian Improvements

A. Create pedestrian promenades along the Ala Wai and the beach

B. Create pedestrian malls

C. Widen sidewalks

D. Provide a central focus and major open space in the heart of Waikiki

E. Provide sidewalk cafes and cohesive shopping environment

F. Improve shoreline access and widen beaches

G. Improve and enhance pedestrian use of the Ala Wai Canal

II. Transportation

A. Provide rapid transit

B. Complement rapid transit with a people mover/trolley or mini-bus system

C. Reduce cars and vehicular traffic and implement the concept of perimeter parking

D. Explore feasibility of ferry system along the Ala Wai

E. Create bicycle lanes and jogging paths

III. Parks, Open Space and Landscaping

A. Provide a variety of mini-parks

B. Create parking bays with intermittent street trees

IV. Land Use

A. Encourage redevelopment through lot consolidation

B. Develop an urban design plan to insure more compatible development

WAIKIKI IMPROVEMENTS

- Reconfigure Ala Wai Canal as a Natural Lagoon
- Fill-in Portions of Ala Wai Canal and Reconfigure Ala Wai Boulevard Mauka
- Improve Ala Wai Promenade with Landscaping, Restaurants, Ferry System
- Create Continuous Beachfront Promenade and Widen Beach
- Create Marina Promenade and Link to Beachfront Promenade
- Widen Sidewalks along Kuhio Avenue
- Widen Sidewalks along Kalakaua Avenue
- Convert Portion of Kalakaua Avenue into Pedestrian Mall
- Convert Nahua Street to Pedestrian Mall
- Convert Beachwalk to Pedestrian Mall
- Create "Commons/Town Center" at International Market Place
- Alternate Convention Center Site at Jefferson School
- Encourage Redevelopment through Lot Consolidation
- Provide More Landscaping and Street Trees
- Grade Level People Mover
- Kalakaua Avenue One Way Diamond Head
- Kuhio Avenue One Way Diamond Head
- Ala Wai One Way Ewa
- Perimeter Underground Parking at:
  - Jefferson School
  - Ft. DeRussy
  - Ala Wai Golf Course
  - Aloha Motors Site
  - Zoo
- Pedestrian Bridges over the Ala Wai Canal

May 17, 1991
91P-92

Mr. Verne Winquist
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Winquist:

I would like to take this time now to discuss the matters brought up in your department's response to the Kalia Tower EIS Preparation Notice. Hopefully, we can come to some agreement on how I should proceed in answering your concerns adequately, so as to avoid a serious misunderstanding after publication of the Draft EIS.

Your first concern was with the General Plan Economic Activity Objective B, Policy 4, which states: "Prohibit major increases in permitted densities in Waikiki." The Hilton Hawaiian Village consists of 20.21 acres of land currently zoned Resort/Hotel. The FAR for such a designation is 2.8. With the inclusion of 56,300 square feet of allowable public street frontage, the permissible area for the Hilton property is 2,622,603 square feet. Currently, the Hilton has an existing built area of 2,398,568 square feet, 19,410 square feet of which is utilized by the Dome and its ancillary services. Removal of the Dome will leave 243,445 square feet of additional permitted floor area under current zoning laws. The floor area for the Kalia Tower is approximately 220,000 square feet, well under what is still allowed by the current zoning laws. Therefore, the proposed Kalia Tower would remain well within the permitted densities as meant in the General Plan Economic Activity Objective. In addition, the project will remain below the allowed height limit of 350 feet and will maintain the required 50% open space.

Your second concern revolved around the possible need for a Development Plan amendment to address Section 32-2.2.(b)(2)(B). You are correct in noting that the EA did not discuss the need to amend the DP Special Provisions. This was mainly due to the fact that there is some difference of opinion on how we should handle the matter.

Currently it appears that the matter of just how many visitor units are in Waikiki is unclear. The count of 31,800 included in your correspondence was done in 1989. The latest Visitor Plant Inventory shows 32,563. However, since the 1989 count an event occurred which would have a dramatic impact upon the overall visitor unit total. Passage of Ordinance 89-154, amending Chapter 21A of the Land Use Ordinance, now makes it illegal to operate Transient Vacation Units in areas outside of Resort Districts as defined in Honolulu Revised Ordinances Section 21A-7.80-5.A, whose use as such units

was not in lawful existence prior to October 22, 1986. Units whose use can be shown to have been in lawful existence prior to October 22, 1986 must obtain a nonconforming use certificate. The deadline for applying for such a certificate was September 1990.

This ordinance, in effect, now prohibits the use of condominiums as transient vacation units without specific approval in all areas mauka of Kuhio Avenue designated as an Apartment Precinct. Some question remains as to the intent of the ordinance vis-a-vis the Resort-Commercial District.

According to Steve Young of your Department, this new ordinance has not yet been incorporated into your figures. Currently, the Department of Land Utilization is processing the remaining applications for nonconforming use. Using the HVB Visitor Plant Inventory, I have identified at least 2,805 condominium units located within the Apartment Precinct (see attached). In addition, some 5,885 recognized hotel units exist within the Apartment Precinct. According to DLU estimates, only approximately 1,000 applications for nonconforming use were received from the Waikiki area. It appears that a readjustment of the visitor unit count might need to be done, especially in light of the upcoming Waikiki Master Plan(s), and I understand that Mr. Young is doing this. This matter was also raised during the last City Council Committee on Zoning hearing concerning the Waikikian Hotel's application for an SMP, and was referred back to DLU for further examination. As you may well remember, during consideration of the Hawaii Prince Hotel, Council determined that the underlying zoning took precedence over the "policy" statement in the Development Plan. I would like to suggest that you count the hotel units, those transient vacation units located within the Resort-Hotel and Resort-Commercial Districts, and, when available, those nonconforming condominium units with certificates. It should be possible to do this using the HVB Visitor Plant Inventory. Once you have determined your new figures, I could incorporate them into the Kalia Tower EIS. On a further note, Councilmember Doo has sponsored a resolution (90-501), asking that all appropriate agencies enforce the provisions of 89-154.

In further conversations with your office I was informed that the DGP would be making recommendations to Council and to the Master Plan committees to rewrite the Development Plan Special Provision, probably to increase the number to somewhere around 35,000. I notice from DGP's "Concepts for a Waikiki Master Plan" the Department suggests that "the Waikiki master planning effort should also evaluate the purpose and effectiveness of the existing Development Plan policy limiting the number of visitor units. Conversely, the plan should evaluate policies and regulatory tools for maintaining Waikiki's residential population.

Given the ever changing nature of the issues involved, I will list the matter of compliance with this Development Plan special provision as an Unresolved Issue under that portion of the EIS.

Your last concerns dealt with how the proposed project would be consistent with Waikiki Master Plan concepts and urban design guidelines. It is important to note that the applicant, the Hilton Hawaiian Village Joint Venture, is providing input into both the City and City Council Master Plan activities. Although many of the guidelines contained upon your attached list are specific to other projects and areas, many of the concepts will be advanced through this project. Chief among them would be the themes of increasing open space within Waikiki and of improving the pedestrian environment. The emphasis would be on redesigning the corner of Kalia Road and Ala Moana to create a more open and pleasant pedestrian environment. Landscaping and water features would fit not only into the concepts put forth by the DGP, but also into those put forth by the State in their draft Waikiki Gateway Master Plan. Finally, the schedule for completion of the Draft EIS would allow the incorporation into the project of the goals and objectives put forth in the draft Waikiki Master Plan planned before the end of this year.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

Enclosure: HVB Visitor Unit Breakdown

HVB Waikiki Special Design District - Visitor Units by Type and Precinct

Zone	Address	Name	Type	Units	Opened	Totals
A	2003 Ala Wai	Ala Wai King Apt	Apt/Hotel	60		
A	2411 Ala Wai	Edmunds Hotel Apts.	Apt/Hotel	8	1955	
A	2303 Ala Wai	Holiday Surf Apt. Hotel	Apt/Hotel	32	1969	
A	415 Nahua St.	Honolulu Prince Hotel	Apt/Hotel	125	1963	
A	376 Kaiolu	Hotel Honolulu	Apt/Hotel	24	1983	
A	2550 Kuhio Ave.	Kaimana Villa	Apt/Hotel	113	1979	
A	2170 Kuhio Ave.	Kuhio Surf Club	Apt/Hotel	42	1978	
A	1547 Ala Wai	Outrigger Ala Wai Terrace	Apt/Hotel	239	1947	
A	241 Kaiulani	Waikiki Lei Apt. Hotel	Apt/Hotel	8	1969	651
A	2121 Ala Wai	2121 Ala Wai	Condo	18	1981	
A	444 Nahua	444 Nahua	Condo	77		
A	229 Paoakalani	Aston Waikiki Sunset	Condo	335	1979	
A	1690 Ala Moana	Big Surf	Condo	46	1971	
A	411 Hobron	Chateau Waikiki	Condo	70	1975	
A	2171 Ala Wai	Coconut Plaza	Condo	84	1966	
A	2345 Ala Wai Blvd	Conominium Fairway Villa	Condo	110		
A	230 Makee Road	Diamond Head View Hotel	Condo	10		
A	2600 Pualani Way	Diamond Head Vista	Condo	12	1976	
A	1696 Ala Moana	Driftwood Hotel	Condo	71	1967	
A	2140 Kuhio Ave	Four Paddle	Condo	80	1974	
A	417 Nohononi	Hawaiian King	Condo	67	1958	
A	444 Niu	Hawaiian Monarch	Condo	293	1979	
A	1920 Ala Moana	Inn on the Park	Condo	118	1978	
A	445 Seaside	Island Colony	Condo	449	1979	
A	300 Wai Nani Way	Liliuokalani Gardens	Condo	200	1984	
A	249 Kapili	Pacific Islander	Condo	51		
A	2240 Kuhio	Royal Kuhio	Condo	193	1975	
A	201 Ohua Ave	Waikiki Banyan	Condo	500	1980	
A	2452 Tusitala	Waikiki Lanais	Condo	21	1978	2,805
A	444 Kanekapolei	Aloha Surf Hotel	Hotel	200	1968	
A	2040 Kuhio Ave.	Ambassador Hotel	Hotel	200		
A	2426 Kuhio Ave	Continental Surf Hotel	Hotel	140	1983	
A	1830 Ala Moana	Hawaii Dynasty Hotel	Hotel	200		
A	445 Nohonani	Ilima Hotel	Hotel	99	1968	
A	440 Seaside	Outigger Seaside Suite Hotel	Hotel	56	1985	
A	343 Hobron	Outrigger Hobron Days Inn	Hotel	596	1984	
A	2058 Kuhio	Outrigger Maile Sky Court	Hotel	596	1984	
A	2500 Kuhio	Outrigger Prince Kuhio Hotel	Hotel	626	1980	
A	2280 Kuhio	Outrigger Surf Hotel	Hotel	251	1973	
A	422 Royal Hawaiian	Outrigger Waikiki Surf East	Hotel	102	1969	
A	412 Lewers	Outrigger Waikiki Surf West	Hotel	115	1962	
A	2200 Kuhio	Outrigger Waikki Surf Hotel	Hotel	303	1970	
A	2330 Kuhio	Outrigger West Hotel	Hotel	663	1973	
A	1956 Ala Moana	Park Plaza Waikiki	Hotel	310	1973	
A	440 Olohana St.	Sat Grand Hotel/Royal Lokilani	Hotel	100	1990	
A	1850 Ala Moana	Waikiki Parkside hotel	Hotel	250	1971	
A	1700 Ala Moana	Waikiki Phoenix	Hotel	136	1984	
A	2375 Ala Wai	Waikiki Sand Villa Hotel	Hotel	211	1970	5,234
A	431 Nohonani	White Sands Waikiki Resort Club	Hotel	80	1979	8,690

HVB Waikiki Special Design District - Visitor Units by Type and Precinct

Zone	Address	Name	Type	Units	Opened	Totals
C	2131 Kalakaua	Polynesian Plaza	Apt/Hotel	47	1972	47
C	1945 Ala Moana	Hawaiian Colony	Condo	15	1960	
C	1911 Kalakaua	Kalakauan	Condo	4	1965	
C	364 Seaside	Marine Surf Waikiki	Condo	118	1968	
C	1925 Kalakaua Ave.	Pavilion at Waikiki	Condo	140	1975	277
C	2299 Kuhio	Coral Reef hotel	Hotel	247	1973	
C	2211 Kuhio	Outrigger Malia Hotel	Hotel	328	1979	
C	2300 Kalakaua	Waikiki Beachcomber Hotel	Hotel	498	1970	
C	2070 Kalakaua	Waikiki Gateway Hotel	Hotel	185	1968	
C	320 Lewers	Waikiki Joy Hotel	Hotel	101	1956	
C	1956 Ala Moana	Waikiki Marina Hotel	Hotel	320	1974	1,911
C	2045 Kalakaua	Waikiki Terrace	Hotel	232	1973	2,235
H	305 Saratoga	Aloha Punawai Apt. Hotel	Apt/Hotel	19	1959	
H	250 Beachwalk	Breakers Hotel	Hotel	64	1954	
H	150 Kapahulu Ave.	Coral Surf Apt.	Condo	15	1970	
H	2555 Cartwright	Ewa Hotel Waikiki	Hotel	90	1988	
H	2500 Kalakaua	Foster Tower	Condo	25	1960	
H	2417 Prince Edward	Hale aloha AYH Hostel	Other	50	1984	
H	2055 Kalia rd.	Hale Koa Hotel	Hotel	420	1975	
H	228 Beachwalk	Hale Pua Nui Hotel Apart.	Apt/Hotel	22		
H	2410 Koa Ave	Hale Waikiki Apt. Hotel	Apt/Hotel	15		
H	100 Holomoana	Hawaii Prince Hotel Waikiki	Hotel	521	1990	
H	2552 Kalakaua	Hawaiian Regent Hotel	Hotel	1346	1972	
H	260 Beachwalk	Hawaiiana Hotel	Hotel	95	1955	
H	2005 Kalia Rd.	Hilton Hawaiian Village	Hotel	2523	1955	
H	2570 Kalakaua	Holiday Inn-Waikiki Beach	Hotel	716	1971	
H	2424 Kalakaua	Hyatt Regency Waikiki	Hotel	1230	1976	
H	1777 Ala Moana	Ilikai Apartments	Apt/Hotel	4	1964	
H	1777 Ala Moana	Ilikai Hotel	Hotel	800	1964	
H	1765 Ala Moana	Ilikai Marina	Condo	151	1968	
H	205 Lewers	Imperial Hawaii resort	Condo	277	1970	
H	2413 Kuhio Ave.	Inter-Club Hostel Waikiki	Other	150	1988	
H	235 Saratoga	Kataloha Apt. Hotel	Apt/Hotel	18	1955	
H	2199 Kalia Rd.	Kalekulani Hotel	Hotel	456	1983	
H	2425 Kuhio Ave.	Kaulana Kai Hotel	Condo	90	1968	
H	2464 Prince Edward	Kuhio at Waikiki	Condo	75	1971	
H	2463 Kuhio	Kuhio Village resort	Condo/Hot	141	1990	
H	217 Saratoga	Malihini Hotel	Apt/Hotel	29	1955	
H	2345 Kuhio	Miramar at Waikiki Hotel	Hotel	357	1971	
H	247 Beachwalk	Niihau Apt. Hotel	Condo	22		
H	250 Lewers	Outrigger Coaral Seas	Hotel	109	1960	
H	150 Kaiulani	Outrigger East Hotel	Hotel	445	1972	
H	2168 Kalia	Outrigger Edgewater Hotel	Hotel	184	1951	
H	260 Lewers	Outrigger Edgewater lanai	Hotel	65	1955	
H	2169 Kalia	Outrigger Reef Hotel	Hotel	885	1955	
H	225 Saratoga	Outrigger Reef Lanais Hotel	Hotel	110	1962	
H	227 Lewers	Outrigger Reef Towers Hotel	Hotel	477	1959	
H	2164 Kalia	Outrigger Royal Islander Hotel	Hotel	101	1961	
H	240 Lewers	Outrigger Village Hotel	Hotel	440	1974	
H	2335 Kalakaua	Outrigger Waikiki Hotel	Hotel	530	1967	
H	200 Lewers	outrigger Waikiki Tower Best West	Hotel	439	1978	

HVB Waikiki Special Design District - Visitor Units by Type and Precinct

Zone	Address	Name	Type	Units	Opened	Totals
H	2490 Kalakaua	Pacific Beach Hotel	Hotel	850	1968	
H	142 Uluniu Ave.	Pacific Monarch	Condo	180	1979	
H	2586 Kalakaua	Park Shore Hotel	Hotel	227		
H	270 Lewers	Pleasant Holiday Isle Hotel	Hotel	260	1965	
H	175 Paoakalani	Quality Inn Hotel Waikiki	Hotel	451	1972	
H	150 Kapahulu	Queen Kapiolani Hotel	Hotel	315	1969	
H	151 Uluniu	Royal Gove Hotel	Apt/Hotel	85	1951	
H	2365 Kalakaua	Sheraton Moana Surfrider	Hotel	793	1901	
H	120 Kaiulani	Sheraton Princess Kaiulani Hotel	Hotel	1150	1955	
H	2259 Kalakaua	Sheraton Royal Hawaiian Hotel	Hotel	526	1927	
H	2255 Kalakaua	Sheraton Waikiki Hotel	Hotel	1900	1971	
H	2572 Lemon	Tradewinds Plaza	Condo	5	1979	
H	2470 Kalakaua Ave.	Waikiki Beach Tower	Condo	85	1984	
H	2556 Lemon Rd.	Waikiki Beachside Apt.	Condo	8	1981	
H	2464 Kalakaua	Waikiki Circle Hotel	Hotel	100	1963	
H	134 Kapahulu	Waikiki Grand Hotel	Condo	120		
H	2233 Helumoa	Waikiki Park Hotel	Hotel	298	1987	
H	2431 Prince Edward	Waikiki Prince Hotel	Hotel	30		
H	2460 Koa	Waikiki Resort Hotel	Hotel	297	1970	
H	255 Beach Walk	Waikiki Royal Suiutes	Condo	47	1964	
H	2161 Kalia rd	Waikiki Shore Apts.	Condo	120	1961	
H	2452 Kalakaua	Waikiki Surfside Hotel	Hotel	80	1974	
H	1811 Ala Moana	Waikikian on the Beach	Hotel	132	1956	
H	2424 Koa Ave.	Waikliki Hana Hotel	Hotel	73	1983	21,638
						32,563

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

BENJAMIN B. LEE
CHIEF PLANNING OFFICER

ROLAND D. GIBBS, JR.
DEPUTY CHIEF PLANNING OFFICER

VW 5/91-1764

June 26, 1991

Mr. Mark R. Willey, Environmental Planner
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Hilton Hawaiian Village, Proposed Kalia Tower

Thank you for your letter of May 17, 1991 and the detailed information on the number of hotel rooms in Waikiki.

We will review the appropriateness of the 30,000 visitor unit cap as a measure of density for Waikiki as part of our ongoing studies on the Waikiki Master Plan. We will agree with your conclusion to list compliance with the Development Plan Special Provisions as an unresolved issue under that portion of the EIS.

We request that a better assessment of how this project will be designed to meet the urban design goals and objectives outlined in Concepts for Waikiki be included in the EIS. For example, how will your project promote a reduction of traffic in Waikiki, provide open space and enhance the pedestrian environment.

Your statement that our department will probably increase the visitor unit to 35,000 is unsubstantiated and incorrect. No such statement has been made by the Chief Planning Officer nor is this figure referenced in our report titled Concepts for a Waikiki Master Plan.

We would also like to clarify that the planning group called "Vision for Waikiki 2020" is an ad-hoc committee created by Arnold Morgado acting as a private citizen and not a City Council Chair. The committee has not been sanctioned or approved by the City Council nor does it comply with provisions of the City Charter. It is unfortunate that Arnold Morgado has mislead you and the general public by the creation of this citizens committee which has no official status or legal standing.

Should you have any questions, please contact Walter Lee at 527-6015.

Sincerely,

FOR BENJAMIN B. LEE
Chief Planning Officer

BBL:js

JOHN WAIHEE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
KEITH W. AHUE
MANABU TAGOMORI
Dan T. Kochi

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

REF:OCEA:JN

MAR 14 1991

File No.: 91-303
Doc. No.: 9951E

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard
Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Subject: EISPN for the Hilton Hawaiian Village, Waikiki, Oahu
TMK: 2-6-9: 13

Thank you for giving our Department the opportunity to comment on this matter. We have reviewed the materials you submitted and have the following comments.

The project does not directly address or mitigate potential drainage problems associated with the construction phase of this project. The site is susceptible to flooding which could impact adversely the coastal environment. Information should be provided on impact prevention and disposition of drainage and storm runoff.

Additional information on the lagoon type and construction (closed or open) is necessary, and if aquatic life would be introduced. Aquatic Resources concerns would include intended species, care and maintenance, potential problems such as fish kills, and measures proposed to prevent runoff into the lagoon from the landscaped area should pesticides or herbicides be used.

Further, precautions should be taken during construction to prevent contamination of coastal waters and resources by eroded soils, debris, pesticides, herbicides, petroleum products and other potential contaminants.

Additionally, the EIS should address the feral pigeon problem. It is well documented that roosting of feral pigeons is a major problem and can present a health hazard. The EIS should address how they will deal with this situation before it becomes a problem.

Finally, our Historic Preservation Division has indicated that they have contacted you directly. If you have not received their comments, please let us know.

Thank you again for your cooperation in this matter. If you have any question please call me or Cathy Tilton at our Office of Conservation and Environmental Affairs at 548-7837.

Very truly yours,

William W. Paty

RECEIVED
FEB 14 1991

JOHN WAIHEE
GOVERNOR OF HAWAII

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

KEITH W. AHUE
MANABU TAGOMORI
Dan T. Kochi

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

BELT COLLINS & ASSOCIATES

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

February 11, 1991

Mr. Mark R. Willey
Belt Collins and Associates
680 Ala Moana Blvd., Suite 200
Honolulu, HI 96813

Dear Mr. Willey:

SUBJECT: Comments on Environmental Assessment, 400-Room Kalia Tower
TMK:2-6-9:13

Thank you for the opportunity to comment on this document. The Bishop Museum survey in February, 1977, documented a lack of surface historic sites on the parcel, but noted that subsurface sites, including fishponds and burials, may remain. More recent archaeological and historical research at Fort DeRussy has shown that Kalia Road marks the makai boundary of fishponds in this section of Waikiki, so that it is unlikely that subsurface evidence of fishponds will be found on the project parcel. However, this and other research indicates that, in addition to burials, it is likely that the remains of prehistoric and historic habitation sites remain. In 1980 construction activities at the Hilton Hawaiian Village, immediately south of the proposed project area, unearthed the remains of three individuals, presumed to be Hawaiian, and historic artifacts dating to the 1890s and associated most probably with the residence of W.L. Green, Minister of Foreign Affairs under Kalakaua. The location of the burials and historic deposits has been given state site number 50-80-14-2870. During construction of the Hale Koa Hotel in 1976, six human burials were uncovered. Elsewhere along Waikiki Beach, human burials and intact historic and prehistoric deposits were found at the Pacific Beach Hotel, Halekulani Hotel, and Moana Hotel. It seems clear from this work that significant historic sites are likely present at the project parcel.

Your suggestion in section 4.3.9 that all work be monitored, which follows the recommendations made by Bishop Museum in 1977, is now generally not considered a desirable procedure to find and treat historic sites. Rather the procedure now followed is to complete an archaeological inventory survey prior to construction, so it can be determined if significant sites are present and, if so, how to treat them.

Typically in urban contexts, we first request that historical research establish the history of land use in the project parcel, and set this within a regional context. Based on this research, the need for archaeological excavations can be determined. If it is unlikely that historic sites are present, due to the magnitude and nature of prior development activities, then a determination of "no effect" can be made, and historic preservation compliance is concluded. If, however, historic sites are likely to remain, then we would recommend archaeological procedures to evaluate this situation. Often such procedures are for an archaeologist to evaluate the ground surface after demolition and also to place representative test excavations on the parcel. These steps enable a determination to be made on the presence of historic sites. If sites are present, the archaeologist then gathers sufficient information, either through the above or additional test excavations, to determine if the site is significant. A report documenting findings, offering a significance evaluation, and proposing mitigation measures, if needed, is submitted to our office and to the City & County agency controlling the permit for review and agreement.

Usually, the archaeological test excavations and any other mitigation procedures are attached as conditions to a City & County permit.

Our office maintains a list of individuals and organizations presently engaging in archaeological consultant work in Hawai'i, which we will gladly make available on request. Should you have questions, please contact Tom Dye (587-0014).

Sincerely,

DON HIBBARD, Acting Administrator
State Historic Preservation Division

United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS OFFICE
P.O. BOX 50167
HONOLULU, HAWAII 96850

RECEIVED
FEB 1 1991
BELT, COLLINS & ASSOCIATES

JOHN WAIHEE
GOVERNOR

JAN 31 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Re: Proposal by the Hilton Hotels Corporation to Redevelop Portion of the Hilton Hawaiian Village Property

Due to current staff limitations, the Pacific Islands Office, Fish and Wildlife Enhancement cannot devote the time to adequately evaluate potential impacts to important fish and wildlife resources from the proposed project. Please understand that this notification does not represent the Fish and Wildlife Service's approval of the proposed activity. We may review future actions related to this project should workload constraints be alleviated, or if significant adverse impacts to trustee fish and wildlife resources are identified.

Sincerely yours,

Ernest Kosaka
Field Office Supervisor
Fish and Wildlife Enhancement

RECEIVED
JAN 31 1991
BELT, COLLINS & ASSOCIATES

RUSSEL S. NAGATA
COMPTROLLER

ROBERT P. TAKUSHI
DEPUTY COMPTROLLER

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

LETTER NO (P)1072.1

JAN 29 1991

Belt Collins and Associates
680 Ala Moana Boulevard
Suite 200
Honolulu, Hawaii 96813

Attention: Mr. Mark Willey

Gentlemen:

Subject: Hilton Hawaiian Village
Kalia Tower

Thank you for the opportunity to review the subject document. We have no comments to offer.

Should there be any questions, please contact Mr. Ralph Yukumoto of the Planning Branch at 548-7192.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

RY:jk

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET 8TH FLOOR
HONOLULU HAWAII 96813
PHONE 523 4427 • FAX 527 5488

FRANK F. FASI
MAYOR

MICHAEL H. SCARFONE
DIRECTOR

GAIL M. KAITO
DEPUTY DIRECTOR

RECEIVED
FEB 27 1991
BELT, COLLINS & ASSOCIATES

February 22, 1991

Mr. Mark R. Willey
Belt Collins and Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Subject: Environmental Assessment
Hilton Hawaiian Village
400-Room Kalia Tower

We appreciate the opportunity to review the environmental assessment for the proposed redevelopment of the portion of the Hilton Hawaiian Village property presently occupied by the Hilton Dome. We note that the proposed expansion will result in the creation of new jobs. The Department, therefore, recommends that the forthcoming Environmental Impact Statement address the issue of providing affordable housing for Hilton Hawaiian Village employees.

Thank you for the opportunity to comment.

Sincerely,

MICHAEL H. SCARFONE
Director

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU HAWAII 96813

BELT, COLLINS & ASSOCIATES

FRANK F. FASI
MAYOR

WALTER H. OZAWA
DIRECTOR

ELWIN C. AU
DEPUTY DIRECTOR

March 12, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard
Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Subject: Environmental Assessment
Hilton Hawaiian Village Kalia Tower - Waikiki
Tax Map Key 2-6-09: 13

We have reviewed the Environmental Assessment for the proposed Hilton Hawaiian Village Kalia Tower in Waikiki and offer the following comments. The recreational needs for the proposed project have been addressed with plans to provide resort-type amenities such as a health club/spa, tennis courts and landscaped gardens.

Thank you for the opportunity to comment on the EIS.

Sincerely,

WALTER H. OZAWA, Director

WHO:sl

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

JOHN WAIHEE
GOVERNOR
MURRAY E. TOWILL
ACTING FOR
BARBARA KIM STANTON
DEPUTY DIRECTOR
DEPUTY DIRECTOR

ENERGY DIVISION, 335 MERCHANT ST., RM 110, HONOLULU, HAWAII 96813 PHONE (808) 548-4080 FAX (808) 531-3243

1312D

March 13, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, HI 96813

Dear Mr. Willey:

Thank you for the opportunity to comment on the redevelopment project proposed for a portion of the Hilton Hawaiian Village (HHV) property where the Hilton Dome presently stands.

As the State agency charged with the overall development of tourism in Hawaii, the Department of Business, Economic Development and Tourism is responsible for the preparation of the State Tourism Functional Plan (STFP). Implementation of the plan is the responsibility of various State and County agencies and the private sector. The STFP is currently being updated, and a draft of the revised plan is enclosed for your information.

The Environmental Assessment for the HHV site which was transmitted for our review omits any reference to the STFP. We suggest that the Environmental Impact Statement (EIS) for the project include a review of the project's relationship to all relevant objectives, policies, and actions of the STFP.

In addition, we recommend that the EIS examine the proposed project for consistency with the energy provisions of the Hawaii State Plan and the State Energy Functional Plan. The EIS should explain in detail the energy impacts of the project and the energy conservation design/technologies and renewable energy sources that will be used to help meet its energy requirements. We hope that the most efficient energy-saving technology will be used in the structure's air conditioning, water heating, and lighting systems. High efficiency motors and chillers, a heat recovery system, and energy-saving fluorescent lamps and ballasts are among the items we would like to have considered and specified in the EIS. We also recommend separate metering where appropriate for the retail units in order to encourage efficient energy consumption by the occupants.

Please feel free to contact the Department's Office of Tourism at 548-7700 if you have any questions regarding the State Tourism Functional Plan. If you have any questions regarding our recommendations on energy conservation, please contact Mr. Phil Estermann in the Energy Division, at 548-3230.

Very truly yours,

Murray E. Towill

MET:MAA:cat

Enclosure

JOHN WAIHEE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HAWAII 96801

RECEIVED
FEB 26 1991
BELT, COLLINS & ASSOCIATES

JOHN C. LEWIN, M.D.
DIRECTOR OF HEALTH

In reply, please refer to:
File:

February 20, 1991

Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Ste 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Subject: Comments to Environmental Assessment for the Hilton Hawaiian Village, 400 room Kalia Tower
2005 Kalia Road, Waikiki, Oahu
TMK 2-6-09: 13

Thank you for allowing us to review and comment on the subject document. We have the following comments:

1. Noise from stationary equipment, such as air conditioning units and exhaust fans, must be attenuated to comply with the provisions of Title 11, Administrative Rules Chapter 43, Commmunity Noise Control for Oahu.

2. Constructions activities must comply with the provisions of Title 11, Administrative Rules Chapter 43, Community Noise Control for Oahu.

   a. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the allowable levels of the regulations.

   b. All equipment and on-site vehicles requiring an exhaust of gas or air must be equipped with mufflers.

   c. The contractor must comply with the requirements specified in the regulations and conditions issued with the permit.

3. Traffic noise from heavy vehicles travelling to and from construction sites must be minimized near existing residential areas and must comply with the provisions of Title 11, Administrative Rules Chapter 42, Vehicular Noise Control for Oahu.

If you should have any questions, please contact Jerry Haruno of the Noise and Radiation at 548-3075.

Very truly yours,

for JOHN C. LEWIN, M.D.
Director of Health

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
BUILDING 230
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF:
Planning Division

February 21, 1991

RECEIVED
FEB 2 2 19
BELT, COLLINS & ASSOCIATES

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Thank you for the opportunity to review the Environmental Impact Statement Preparation Notice (EISPN) for the Hilton Hawaiian Village Kalia Tower, Honolulu. The following comments are offered:

a. A Department of the Army permit is not required.

b. As indicated on page 27 (paragraph 3.2.3) of the EISPN, the project site is in Zone AO, a flood hazard area inundated by the 100-year flood, with an average flood depth of 2.0 feet.

Sincerely,

for Clarence S. Fujii
Acting Director of Engineering

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
1455 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96814 - AREA CODE (808) 943-3111

RECEIVED
FEB 1 2 1991
BELT, COLLINS & ASSOCIATES

FRANK F. FASI
MAYOR

MICHAEL S. NAKAMURA
CHIEF

HAROLD M. KAWASAKI
DEPUTY CHIEF

OUR REFERENCE ES-LK

February 7, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

This is in response to your letter of January 22, 1991, which requested comments concerning the Kalia Tower proposal for the Hilton Hawaiian Village.

A review of the environmental assessment for the proposed development suggests no specific questions that we would like to have addressed at this time. We assume that normal precautions will be taken during the construction phase to ensure public safety. We also assume that attention will be given to the principles of environmental security in the planning for and operation of the new facility.

We do have one request, which concerns traffic flow in the area. Your assessment has estimated a slightly higher traffic volume for Ala Moana Boulevard and Kalia Road as a result of this project. However, these roadways will also be affected by other developments already under way in the area. We would like to see future estimates of traffic conditions take into account the other projects in the area as well (e.g., Fort DeRussy and the Waikikian Hotel).

Thank you for the opportunity to comment.

Sincerely,

MICHAEL S. NAKAMURA
Chief of Police

By
CHESTER E. HUGHES
Assistant Chief of Police
Support Services Bureau

JOHN WAIHEE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
HOUSING FINANCE AND DEVELOPMENT CORPORATION
SEVEN WATERFRONT PLAZA, SUITE 300
500 ALA MOANA BOULEVARD
HONOLULU, HAWAII 96813
FAX (808) 543-6041

RECEIVED
FEB 14 1991
BELT, COLLINS & ASSOCIATES

JOSEPH K. CONANT
EXECUTIVE DIRECTOR

IN REPLY REFER TO:

91:PLNG/701jt

February 12, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Re: Environmental Assessment for the Proposed Redevelopment of the Hilton Dome

Thank you for the opportunity to review the subject assessment. We have no comments to offer.

Sincerely,

JOSEPH K. CONANT
Executive Director

JT:eks

JOHN WAIHEE
GOVERNOR

OFFICE OF THE SUPERINTENDENT

RECEIVED
FEB 21 1991
BELT, COLLINS & ASSOCIATES

CHARLES T. TOGUCHI
SUPERINTENDENT

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

February 4, 1991

Mr. Mark R. Willey
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

SUBJECT: Draft Environmental Impact Statement
Proposed 400-Room Kalia Tower at
Hilton Hawaiian Village
TMK: 2-6-09: 13

Our review of the subject project indicates that it will have negligible impact on the public schools.

Thank you for the opportunity to comment. Please call the Facilities Branch at 737-4743 if there are any questions.

Sincerely,

Charles T. Toguchi
Superintendent

CTT:jl

cc: OBS
J. Kim

THE OUTDOOR CIRCLE

RECEIVED
FEB 14 1991
BELT, COLLINS & ASSOCIATES

February 11, 1991

Mark Willey
BELT COLLINS & ASSOCIATES
680 Ala Moana Blvd., Suite 200
Honolulu, Hawai'i 96813

Subject: EIS Hilton Hawaiian Village

Dear Mr. Willey:

Thank you for giving the Circle the opportunity to comment on the Environmental Assessment of the redevelopment of Hilton Hawaiian Village.

We feel the plan "M-5 Alternative" to be by far the better solution. It would retain as much green open space as possible in an otherwise crowded intersection.

We question tennis courts being possibly lighted at night which will be a detriment to surrounding neighbors as well as the Hilton's guests.

Sincerely,

Betty Crocker

Betty Crocker
President

University of Hawaii at Manoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road
Honolulu, Hawaii 96822
Telephone (808) 956-7361

RECEIVED
FEB 13 1991
BELT, COLLINS & ASSOCIATES

February 7, 1991
PR:0078

Mr. Mark R. Riley
Belt Collins & Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawaii 96813

Dear Mr. Riley:

Preparation Notice
Environmental Impact Statement (EIS)
Hilton Hawaiian Village Hotel
Waikiki, Oahu

The proposed project includes the redevelopment of the Hilton Dome property for a 400 guest room hotel, health spa, and retail shopping area.

The Waikiki area has been designated a Special Design District (SDD) incorporating specific limits on a variety of design parameters. Foremost among these is a ceiling on the allowable number of hotel rooms, which already has been exceeded. The EIS should discuss the intent and goals of the SDD designation vis-a-vis proposed elements of the project. Where the project fulfills and/or violates each relevant policy should be addressed. In land use policy analysis, it is tempting to select those policies which support the proposal and to ignore those which the proposal violates. We trust that this will be avoided and an unbiased assessment will be presented.

Of particular concern are issues regarding the growth of visitor accommodations and impacts to the community character of Waikiki, and the adequacy of the public infrastructure and traffic/circulation systems.

If you have any questions, please call me or my staff at 956-7161.

Yours truly,

John T. Harrison, Ph.D.
Environmental Coordinator

cc: OEQC
Roger Fujioka
Lee Lyttle

BUCKMINSTER FULLER INSTITUTE

1743 S. LA CIENEGA BLVD., LOS ANGELES, CA 90035 (213) 837-7710 FAX (213) 837-7715

Dieter Huckstein
Senior Vice President
Hilton Hawaiian Village
20005 Kalia Rd.
Honolulu, HI 96815-1999
FAX # (808) 947-7800

March 15, 1991

Dear Mr. Huckstein,

As a matter of courtesy, Scott D. Hamilton Jr., the Founding Chair of the Waikiki Neighborhood Board Environmental Committee, has informed us of your plans to construct 400 new hotel rooms on the same site on which the Kaiser Dome has rested for nearly 35 years. As part of this construction proposal, the dome itself seems to be in peril of being demolished.

We must express our deep concern over the possible destruction of Buckminster Fuller's first prototype of a large commercial clear span aluminum dome. Besides our present awareness of the historical and cultural value that this dome holds for the the local community in Waikiki, we would like to give voice to the importance of saving the dome for its historical value as an architectural monument as well.

The Kaiser Dome was not only the production model for some of the largest aluminum clear span domes in the world that followed (many of which continue to be successfully built around the world by Bucky's former student and colleague, Don Richter, President of a California-based geodesic clear span dome company, TEMCOR). The dome itself had also served as the prototype for the famous eight-hundred-foot dome built over the Magneto Stadium in Moscow in 1959. This Moscow Dome was built for the World Trade Fair held in Russia that year and housed the famous 1959 "kitchen debate" between Nixon and Kruschev. When we contacted Don Richter, who originally designed the Kaiser Dome, he expressed his own concern over the Kaiser dome being a "very important historical monument for Buckminster Fuller" and mentioned that the cost of relocating it could present a huge expense and quite possibly lead to significant reconstruction problems. But if there were no way of saving it at the property on which it presently resides, it is crucial for the involved parties to consider its relocation and renovation over its unfortunate demise.

We at the Buckminster Fuller Institute would like to support the efforts of the Waikiki Neighborhood Board Environmental Committee in their cause to provide public acknowledgement of the importance of the dome in question and its historical value which extends from cultural to community to its existence an architectural monument or "artifact," (as it would be termed by Buckminster Fuller) for the world community. In this interest, we ask to be informed as to your plans for the dome itself and how we can seriously work together to save this very valuable structure from an untimely and unnecessary loss. We are submitting documentation on the architectural history of the Kaiser Dome to Mark Willey who is preparing your environmental impact report. Thank you for your consideration.

Sincerely,

Jaime Snyder
Executive Vice President & Chief Executive Officer
Buckminster Fuller Institute
(dictated from outside office)

Windward Community Arts Council

91 MAR 23 A9:47

45-045 Kam Highway
Kaneohe, Hawaii 96744

March 20,1991

Mr. Dieter Huckestein
Senior Vice President, Hilton Hotel Corporation
2005 Kalia Road
Honolulu, HI 96815

The Windward Community Arts Council has been informed that you are in the process of building a high-rise at the site of your Hilton Hawaiian Dome. We understand that the Hilton Hawaiian Dome itself would no longer be needed by your hotel. We would like you to know that we are very much interested in obtaining this renowned dome by the noted architect Buckminster Fuller.

We feel that the Buckminster Fuller Dome is a work of art and technology built by one of the foremost Architects of our time, and should be preserved and used here in Hawaii. We have an ideal site on which to place it and it would be a wonderful addition to the Windward Community.

The Windward Community Arts Council is a non-profit organization comprised of numerous organizations and over 200 other individuals interested in all areas of Culture and Arts. We represent visual artists, performing artists including musicians and dancers, and literary artists. All of our groups are in dire need for performing and rehearsal space. The Windward Theater Guild is one of those. They have been performing for the Windward Side for nearly 40 years and still have no proper facility in which to perform.. The Windward Artists Guild, Windward Potters, and other Visual Art Organizations are in need of an appropriate place for exhibitions. We sponsor Chamber Music Hawaii concerts on the Windward side, the Windward Community Chorus, the Windward Symphony, Jazz Groups and other musicians in concert, and need a suitable place to hold these concerts. We sponsor poetry and other literary readings. We bring Ballet Hawaii to Windward Oahu and sponsor our own Windward Ballet as well as other Dancers and Dance Programs. We sponsor many programs on the varied arts and crafts of Hawaiiana, architecture and other artistic areas.

We also provide an extensive scholarship program for windward students in 1) ceramics and sculpture, 2) creative writing(poetry and fiction), 3)dance, 4)musical instruments and voice, 5) painting and drawing, and 6) theater arts.

We also need space for our Art Classes in our "Explore the Arts Program" where we have artists-in-residence teaching beginning and continuing students in various classes.

As you can see our need is great because we are fulfilling a much needed function here in Windward Oahu.

The Hilton Hawaiian Corporation could provide a significant community service by contributing the Buckminster Fuller Structure to the Windward Community Arts Council. We would like to meet with you to discuss this possibility at your earliest convenience.

Mahalo and Aloha,

Daunna Yanoviak, Chair
Windward Community Arts Council
(808) 261-1168

cc Mr. Peter Schall, General Manager Hilton Hawaiian Village

WAIKIKI NEIGHBORHOOD BOARD ENVIRONMENTAL COMMITTEE REVIEW

HILTON HAWAIIAN VILLAGE ENVIRONMENTAL ASSESSMENT 400-ROOM ALIA TOWER, PREPARED BY BELT COLLINS & ASSOCIATES, DECEMBER 1990. REVIEW BY COMMITTEE CO-CHAIRS COL. WRIGHT HIATT AND SCOTT HAMILTON SUBMITTED TO BOARD MEETING OF MARCH 5, 1991.

SPECIFIC COMMENTS: (W.H.). The data in Table 2.2 generates several questions: Of what significance are CZC areas and figures, since the LUO ordinance is the only present applicable law? Why are Lagoon Tower and Diamond Head Apartments shown in parentheses? Existing LUO-Resort Hotel Precinct-Section 7.80-5, requires a floor area ratio not exceeding 2.8 and 50% of the zoning lot devoted to open space. Using the zoning lot size of 880,044 sq. ft., as shown in Table 2.1, it appears that the total allowable floor area should be 2,464,123 sq. ft. The discrepancy between that figure, and your 2,622,603 sq. ft. (158,480 sq. ft. or 3.6 acres) should be explained. And we can find no flat statement that there will remain at least 30% of the zoning lot as open space. In fact, a simple inclusion of those sections of the present Land Use Ordinance, applicable to the proposed development, and specifically citing the design controls, would be helpful for an intelligent appraisal and evaluation of the EIA. Also, the EIA should address the existing Development Plan limitation on the number of hotel rooms in Waikiki to "around 30,000". We note a lack of information concerning the comparative economic benefits and costs between various alternatives considered and recommend that it be provided. We also seek clarification of the fact that only 64,000 gl/day wastewater generation, while the required water supply is estimated at 173,000 gal./day. Other comments might be the need to assess the "venturi effect" (wind factor) and plane views from different directions. The landscaping appears to have good effect, and the tennis court plan is commendable.

GENERAL COMMENTS (S.H.) There is no question but that Henry Kaiser's vision of a spacious Hawaiian Village in Waikiki has resulted in one of the most unique and well-landscaped of all tourist abodes in Waikiki. If you need background information, consult with Tim Yee, President of the Queen Emma Foundation, who was one of Kaiser's top aides at the time. Furthermore, during the past thirteen or so years, the HHV representatives have always showed the greatest of respect for the comments of the WNB in their construction of additional towers, and have carried through on their pledge of good landscaping and enhancement. We know that Belt Collins & Associates have been most thorough when upgrading an Environmental Assessment (EA) to an Environmental Impact Assessment (EIS). In my opinion, the H-5 alternative is the only one of the options that appears truly viable in preserving the spacious quality at the corner of Ala Moana and Kalia Road. The difficult is that the HHV proposal is not considered along with the Waikikian Hotel proposal and plans for expansion of the Hale Koa. This is another reason for a moratorium in Waikiki until a master plan is developed so that the overview of several projects can be understood. This EA has not addressed the heart of the problem, however: why must you have an additional 400 guest rooms in a 25-story structure, when it violates the given limits, and at the expense of demolition of a truly historic Buckminster Fuller geodesic dome, unique in its time and place? With the pressure for more conventions in Waikiki, why not expand and develop the existing Mid-Pacific Convention Center, and still have your tennis courts and health club on top. Not even a single paragraph is devoted to the importance of the Geodesic Dome, its history, its current use, and possible enhancement.

RECOMMENDATION: The Waikiki Neighborhood Board ask the Hilton Hotels Corporation to consider some means of preserving the Geodesic Dome on the current or another site and justify why another 400 rooms would be required in violation of the present 30,000 Waikiki limit. Of the alternatives provided, it recommends careful consideration of H-5 as the one most in keeping with the quality atmosphere.

HAWAII HOTEL ASSOCIATION
SUITE 1103
2270 KALAKAUA AVENUE
HONOLULU, HAWAII 96815-2564
TELEPHONE (808) 923-0407
FAX (808) 924-3843

May 14, 1991

Mr. Mark Willey
Belt Collins & Associates
680 Ala Moana Blvd., Suite 200
Honolulu, Hawaii 96813

Re: Environment Assessment for the Kalia Tower at the Hilton Hawaiian Village

Dear Mr. Willey:

The Hawaii Hotel Association strongly supports the upgrading of visitor facilities in an effort to keep Hawaii a competitive visitor destination.

We feel the redevelopment project at the site of the Hilton Dome on the Hilton Hawaiian Village Grounds will be beneficial for Waikiki as a whole. This proposed project will not only enhance the Ala Moana Gateway by increasing the open space on the corner of Ala Moana Boulevard and Kalia Road, but improve the pedestrian walkways through upgrading and landscaping in a garden water theme.

The proposed recreation deck itself will provide visitors with more leisure time activities while retaining an overall Hawaiian character through extensive dominant landscaping.

Additionally, the boost to the City and the State in the form of increased business sales and tax revenues from employment and employee payrolls is extremely positive in our opinion.

Thank you for this opportunity to comment on the assessment.

Sincerely,

CLEM JUDD, JR.
President

CJ:ty
c: Hilton Hotels Corporation

File 037-4700

BELT, COLLINS & ASSOCIATES 1638-A Hikahala Way
Honolulu, HI 96816

January 19, 1990

Perry White
Belt Collins and Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawai'i 96813

Dear Mr. White,

These comments pertain to the proposed project at the Hilton Hawaiian Village. I will not have the opportunity to send these comments to the city, Hilton, and OEQC, but I hope that you will be able to address my concerns.

Carrying Capacity

The recent controversy over the Hanauma Bay rules illustrates the crisis that the tourist industry on O'ahu is facing. In fact, Hanauma Bay is but a synecdoche of what is happening on O'ahu. This island has reached its carrying capacity. We cannot handle any more tourists. Your EIS should evaluate the cumulative impact of approximately 800 more tourists a day in Honolulu. Where will they go? Lifeguards at Sandy Beach are horrified by the fact that tourists excluded from Hanauma Bay are now plunging into the treacherous shorebreak. Please include in your analysis where you expect the tourists to go and what impact they will have on our beaches and other scenic spots. What will be the impact on overcrowded trails like the Manoa Falls hike? Look at the impact that overuse has had on Diamond Head; can we anticipate other such impacts due to the cumulative impact of your project?

Our water supply is limited. What projects will be blocked in the next two decades because your project has taken a significant amount of water out of the system? Demands from projects like yours will force us to desalinate water. What will be the impact on the average worker's water bills when we are forced to desalinate? Please remember to analyze the entire cumulative impact of your project.

How much more traffic will this project generate--particularly on the overcrowded Kalanianiole Highway?

Affordable Housing

Your project will drive housing prices up in two ways and your EIS should thoroughly analyze this issue.

1. The construction industry is presently at full employment, and importing workers to get jobs completed. How many workers will immigrate thanks to this project? And how many will remain in Hawaii once the work is completed? What exactly will be there impact on the present shortage of housing in Hawai'i? Prices rise as demand increases.

2. Construction wages escalate as more and more construction workers are needed. Wages on projects such as yours necessarily drive wages across the industry up. As construction costs rise, so too does the cost of building affordable housing--thereby increasing the price of outrageously expensive affordable housing.

Sincerely,
David Kimo Frankel

WAIKIKI
IMPROVEMENT
ASSOCIATION

May 20, 1991

Mr. Mark Willey
Belt Collins & Associates
680 Ala Moana Bovd., Suite 200
Honolulu Hawaii 96813

Dear Mr. Willey:

The Waikiki Improvement Association's goal is to ensure continued renewal of Waikiki as a top global competitior among desirable visitor destinations. Planned construction and renovation are critical to maintaining and enchancing Waikiki.

We feel the redevelopment project at the site of the Hilton Dome on the Hilton Hawaiian Village Grounds will be beneficial for Waikiki as a whole. This project will replace the existing facility with one that enhances the overall resort image, increases the amount and quality of open space, improves the pedestrian environment, provides additonal recreational facilities, enhances the landscaping; and more importantly meets all open space, setback, parking and other requirements of the Waikiki Special Design District. It is important to our organization that the project retains the essentially Hawaiian character of the resort and maintains the same high quality that the recent renovations have provided at the Hilton Hawaiian Village.

We thank you for this opportunity to comment on what we feel is a beneficial and worthwhile project for Waikiki.

Sincerely,

Christina Kenner
President

4.0 Correspondence and Comments Pertaining to the Draft Environmental Impact Statement

WAIKIKI RESIDENTS ASSOCIATION

Suite 2 A A 1720 Ala Moana [illegible], HI 96815 942-3961

Association boundaries include residents of Diamond Head, Waikiki, and Kapiolani Blvd.

September 6, 1991

BELT COLLINS & ASSOCIATES

TO: Donald A. Clegg
Director Dept. Land Utilization

FROM: The Waikiki Residents Association

SUBJECT: Hilton Hawaiian Village Kalia Tower
Environmental Impact Statement

The Waikiki Residents Association's review of the comprehensive Environmental Impact Statement prepared for the Hilton's Kalia Tower has met with general approval of this community association.

Replacement of the antiquated Dome with a sightly landscaped gateway into Waikiki is very appealing. The Association appreciates, too, the addition of the new recreational facilities in the area and of which it is said will will be available to the condo and coop dwellers as well.

Two sources of concern expressed by residents are the traffic impact at Ala Moana Blvd. and Kalia Rd. and the additional drain on Oahu's water supply. We recognize the Hilton's effort to mitigate these negative aspects of the new addition to the Village.

However, the Waikiki Residents Association looks forward to an outstanding contribution to the Waikiki scene from the Hilton with the Kalia Tower.

Georgia E. Miller
President Waikiki Residents Association

cc: Dieter H. Huckestein, Hilton Hotel
Dan Dinell, Hilton Hotel
Mark Wiley, Belt Collins & Associates
Office of Environmental Quality Control

* Congratulations on the best E.I.S. I have ever read. G. Miller

BCA
BELT COLLINS & ASSOCIATES
Engineering • Planning
Landscape Architecture

680 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813
Phone: (808) 521-5361, Fax: (808) 538-7819
Hawaii • Singapore • Australia • Hong Kong • Saipan • France • Thailand

September 9, 1991
91P-363 (33.47)

Ms. Georgia Miller
President, Waikiki Residents Association
1720 Ala Moana Boulevard
Honolulu, HI 96815

Dear Ms. Miller:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you very much for your comments and support of the Kalia Tower. We appreciate the time you and your group spent in reviewing the document, and particularly enjoyed the opportunity to present our plans to your organization.

In response to your concerns, the Hilton Hawaiian Village is particularly sensitive to the traffic and water issues, and is making every effort to mitigate the impacts identified within the DEIS. One positive step was the discovery of illegal tour bus parking along Kalia Road in front of the Tapa Tower. The Hilton Hawaiian Village has since taken steps to prevent further violations which have a negative impact upon traffic flows for the area.

Again, thank you for your support for the project. We look forward to working with your organization in the future.

Sincerely,

Mark R. Willey
Environmental Planner

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

JOHN WAIHEE
GOVERNOR
MURRAY E. TOWILL
DIRECTOR
BARBARA KIM STANTON
DEPUTY DIRECTOR
RICK EGGED
DEPUTY DIRECTOR

ENERGY DIVISION: 335 MERCHANT ST., RM 110, HONOLULU, HAWAII 96813 PHONE: (808) 548-4068 FAX: (808) 536-5143

91:950e

September 4, 1991

Mr. Art Challacombe
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Challacombe:

Subject: Draft Environmental Impact Statement (DEIS)
for Kalia Tower - Hilton Hawaiian Village

Thank you for requesting our review and comments on the above DEIS.

We appreciate the breakdown of types of energy use and expected consumption for the Kalia Tower as detailed in Chapter IV, Section 10.4. This attention to energy consumption, and the accompanying commitment to "utilize the most modern and efficient technology for conserving energy" in the Kalia Tower (Chapter V, Section 2.5), is illustrative of the kind of energy impact analysis we would like to see in all of the DEIS's that come to the State Energy Division for review.

The only specific question we have concerns "the selection of energy efficient light sources" (p.V-4). Have compact fluorescent lamps been specified in stairwells, hallways, exit fixtures and guest bathrooms? Many hotels are retrofitting to this highly efficient source.

Thank you for the opportunity to comment.

Sincerely,

Maurice H. Kaya
Energy Program Administrator

MHK/PE:do

cc: Dan Dinell
Mark Willey

BCA
BELT COLLINS & ASSOCIATES
Engineering • Planning
Landscape Architecture

1001 Kamokila Boulevard, Suite 200, Honolulu, Hawaii 96813
Phone: (808) 521-5361, Fax: (808) 538-7819
Hawaii • Singapore • Australia • Hong Kong • Guam • France • Thailand

September 5, 1991
91P - 376 (047.33)

Mr. Maurice H. Kaya
Energy Program Administrator
Department of Business, Economic Development & Tourism
335 Merchant St., Rm 110
Honolulu, HI 96813

Dear Mr. Kaya:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your comments on the Kalia Tower DEIS. We appreciate the time you spent in reviewing the document.

To answer your question regarding "energy efficient light sources," the Kalia Tower project has not yet advanced to the stage of selecting specific types of fixtures. With the project not anticipated until 1994, the goal is to select the most energy efficient and appropriate fixtures available at that time. We have forwarded your suggestion concerning retrofitting to the Hilton management for their consideration.

Please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 5TH FLOOR
HONOLULU, HAWAII 96813
PHONE 523-4427 • FAX 527-5896

FRANK F. FASI
MAYOR

MICHAEL N. SCARFONE
DIRECTOR

GAIL M. KAITO
DEPUTY DIRECTOR

August 8, 1991

MEMORANDUM

TO: Donald A. Clegg, Director
Department of Land Utilization

ATTENTION: Art Challacombe

FROM: Michael N. Scarfone

SUBJECT: Draft Environmental Impact Statement
Kalia Tower - Hilton Hawaiian Village
Tax Map Key: 2-6-09: 13

The Department has reviewed the subject Draft Environmental Impact Statement (DEIS). According to the DEIS, the proposed development will conform to existing Development Plan and zoning regulations for the project site. Should it later be determined that the proposed project will require a zone change or other City approval to increase allowable densities at the project site, the Department will recommend that the developer be required to contribute toward the development of affordable housing.

The Department's general policy is to recommend that a minimum of 30 percent of the units in a residential development be set aside for affordable housing; 10 percent of the units for households earning annual incomes not exceeding 80 percent of median for the City and County of Honolulu, as determined by the U.S. Department of Housing and Urban Development; and 20 percent for households earning annual incomes ranging between 81 and 120 percent of median. Because the proposed project does not include residential units, the aforementioned requirements are not strictly applicable. However, we note that the DEIS estimates that the proposed project will result in the creation of approximately 100 new permanent jobs. The developer will be requested to provide units or contribute in kind to address the housing needs of the persons expected to fill the new positions and their families. We will apprise the developer of specific requirements at the time of application.

Thank you for the opportunity to comment.

MICHAEL N. SCARFONE
Director

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

680 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813
Phone: (808) 521-5361, Fax: (808) 538-7819
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September 9, 1991
91P-361 (033.47)

Mr. Michael N. Scarfone, Director
Department of Housing and Community Development
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your review comments on the Kalia Tower DEIS. At the present time we do not anticipate any requests for a variance or a zoning change as a result of this project. Should one be determined to be necessary in the future, the Hilton Hawaiian Village Joint Venture would discuss your requirements with you at that time.

Please contact me should you have further questions or comments concerning the Kalia Tower project.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu HI 96840-00[illegible]

William A. Bonnet
Manager
Environmental Department

BELT. COLLINS & ASSOCIATES

August 26, 1991

Mr. Art Challacombe
City and County of Honolulu
Dept of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Challacombe:

Subject: Draft Environmental Assessment for Kalia Tower-
Hilton Hawaiian Village

We have reviewed the subject DEA, and note that section 10.4.1 (page IV.26) does not respond to my February 21, 1991 letter to Mr. Mark Willey of Belt Collins and Associates. Actual load addition will be approximately 900 kw. A 25 kv conversion is not practical at this location.

HECO shall reserve further comment pertaining to the protection of existing power lines within the development area until construction plans are finalized.

Sincerely,

cc: Mr. Dan Dinell, Hilton Hawaiian Village Joint Venture
Mr. Mark Willey, Belt Collins & Associates

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-362 (033.47)

Mr. William C. Bonnet
Hawaiian Electric Company
P.O. Box 2750
Honolulu, Hawaii 96840

Dear Mr. Bonnet:

Hilton Hawaiian Village
Kalia Tower Environmental Impact Statement Response

Thank you for your comments regarding the Kalia Tower EIS. We appreciate the time you spent reviewing the document. We concur with your assessment that it would not be practical to convert to 25 Kv at the Hawaiian Village.

As stated in the EIS, analyses done by Douglas V. MacMahon, Ltd, electrical consultants to the Hilton Hawaiian Village show that both the Hilton Hawaiian Village distribution system and the HECO feeder have sufficient capacity to absorb the 900 KVA load increase. This assumption is based upon the fact that the current capacity of the Hilton Hawaiian Village system is approximately 9,000 KVA and current usage is only abou; 6,800 KVA. Given the excess capacity available on site, the electrical consultants do not see a project related need for additional circuit capacity.

We recognize HECO's interest in obtaining a site for a new sub-station to serve this part of Waikiki. However, the Hilton Hawaiian Village does not have suitable available space for such a facility.

Should you have further comments please contact me.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

[illegible] Comp[illegible]

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
BUILDING 230
FT. SHAFTER, HAWAII 96858-5440

RECEIVED
AUG 29 1991
BELT, COLLINS & ASSOCIATES

REPLY TO ATTENTION OF

August 27, 1991

Planning Division

Mr. Donald A. Clegg
Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Clegg:

Thank you for the opportunity to review and comment on the draft Environmental Impact Statement (DEIS) for the proposed Kalia Tower-Hilton Hawaiian Village, Waikiki, Oahu, Hawaii (TMK 2-6-09:13). Our previous comments in response to the EIS Preparation Notice (letter dated February 21, 1991) have been incorporated into the document. We have no additional comments.

Sincerely,

James S. Watkins

Kisuk Cheung
Director of Engineering

Copies Furnished:

Hilton Hawaiian Village Joint Venture
Attn: Dan Dinell
2005 Kalia Road
Honolulu, Hawaii 96815-1999

Belt Collins & Associates
Attn: Mark Willey
680 Ala Moana Blvd., First Floor
Honolulu, Hawaii 96813

Office of Environmental Quality Control
State of Hawaii
220 South Street, Fourth Floor
Honolulu, Hawaii 96813

BCA
BELT COLLINS & ASSOCIATES
Engineering • Planning
Landscape Architecture

680 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813
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September 9, 1991
91P-355 (033.47)

Mr. Kisuk Cheung
Director of Engineering
Department of the Army
U.S. Army Engineer District, Honolulu
Building 230
Ft. Shafter, Hawaii 96858-5440

Dear Mr. Cheung:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

1455 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96814 • AREA CODE [illegible]

FRANK F. FASI
MAYOR

MICHAEL S. NAKAMURA
CHIEF

HAROLD M. KAWASAKI
DEPUTY CHIEF

RECEIVED
AUG 29 1991
BELT, COLLINS & ASSOCIATES

OUR REFERENCE ES-LK

August 27, 1991

TO: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

ATTENTION: ART CHALLACOMBE
DEPARTMENT OF LAND UTILIZATION

FROM: MICHAEL S. NAKAMURA, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: KALIA TOWER--HILTON HAWAIIAN VILLAGE

Our review of the draft environmental impact statement for the Kalia Tower at the Hilton Hawaiian Village suggests no further questions. The statement's analysis of the traffic problem was particularly helpful.

Thank you for the opportunity to comment.

MICHAEL S. NAKAMURA
Chief of Police

By Chester E. Hughes
CHESTER E. HUGHES
Assistant Chief of Police
Support Services Bureau

cc: OEQC
Hilton Hawaiian Village
Joint Venture
Belt Collins & Associates

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-355 (033.47)

Mr. Michael S. Nakamura, Chief
Police Department
City and County of Honolulu
1455 South Beretania Street
Honolulu, Hawaii 96814

Dear Mr. Nakamura:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

United States Department of the Interior

GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
677 Ala Moana Blvd., Suite 415
Honolulu, Hawaii 96813

TAKE PRIDE IN AMERICA

RECEIVED
AUG 19 1991
BELT, COLLINS & ASSOCIATES

August 15, 1991

Mr. Art Challacombe
City and County of Honolulu
Dept. of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Challacombe:

Re: Draft EIS -- Kalia Tower, Hilton Hawaiian Village

Thank you for the opportunity to review the subject draft EIS. We have no comments to offer.

As requested, we are returning the DEIS to OEQC.

Sincerely,

William Meyer
District Chief

cc: State of Hawaii, Office of Environmental Quality Control
Dan Dinell, Hilton Hawaiian Village Joint Venture
Mark Willey, Belt Collins & Associates

Enclosure

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-355 (033.47)

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

Dear Mr. Meyer:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

P. O. BOX 50004
HONOLULU, HAWAII
96850

RECEIVED
AUG 14 1991
BELT, COLLINS & ASSOCIATES

August 12, 1991

Mr. Art Challacombe
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Challacombe:

Subject: Draft Environmental Impact Statement (DEIS) - Proposed Kalia Tower, Hilton Hawaiian Village, Waikiki, Hawaii

We have reviewed the DEIS for the proposed Kalia Tower and have no comments to offer at this time. Thank you for the opportunity to comment on this document.

Sincerely,

Warren M Lee

WARREN M. LEE
State Conservationist

cc:
Mr. Dan Dinell, Hilton Hawaiian Village Joint Venture, 2005 Kalia Road, Honolulu, Hawaii 96815-1999
Mr. Mark Willey, Belt Collins & Associates, 680 Ala Moana Boulevard, First Floor, Honolulu, Hawaii 96813

BCA
BELT COLLINS
& ASSOCIATES
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Phone: (808) 521-5361, Fax: (808) 538-7819
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September 9, 1991
91P-355 (033.47)

Mr. Warren M. Lee
Soil Conservation Service
U.S. Department of Agriculture
P.O. Box 50004
Honolulu, Hawaii 96850

Dear Mr. Lee:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

RECEIVED
AUG 2 1991
BELT, COLLINS & ASSOCIATES

(P)1812.1

AUG 0 1 1991

City and County of Honolulu
Department of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

Attention: Mr. Art Challacombe

Gentlemen:

Subject: Kalia Tower
Hilton Hawaiian Village
DEIS

Thank you for the opportunity to review the subject document. We have no comments to offer.

Should there be any questions, please have your staff contact Mr. Ralph Yukumoto of the Planning Branch at 548-7192.

Very truly yours,

TEUANE TOMINAGA
State Public Works Engineer

RY:bk
cc: Hilton Hawaiian Village Joint Venture
Belt Collins and Associates
OEQC

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-355 (033.47)

Mr. Teuane Tominaga
State Public Works Engineer
Dept. of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Tominaga:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

DEPARTMENT OF THE NAVY
COMMANDER
NAVAL BASE PEARL HARBOR
BOX 110
PEARL HARBOR, HAWAII 96860-5020

IN REPLY REFER TO
11011
Ser 00F2/1882
01 AUG 1991

BELT, COLLINS & ASSOCIATES

Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Gentlemen:

KALIA TOWER - HILTON HAWAIIAN VILLAGE

We have reviewed the subject DEIS and have no comments to offer. Since we have no further use for the DEIS, it being returned to the Office of Environmental Quality Control.

Thank you for the opportunity to review the draft.

Sincerely,

W. K. LIU
Assistant Base Civil Engineer
By direction of
the Commander

Copy to:
Hilton Hawaiian Village Joint Venture
(Mr. Dan Dinell)
Belt Collins & Associates
(Mr. Mark Willey)
OEQC (w/DEIS)

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-355 (033.47)

Mr. W. K. Liu
Assistant Base Civil Engineer
Department of the Navy
Naval Base Pearl Harbor
Box 110
Pearl Harbor, Hawaii 96860-5020

Dear Mr. Liu:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

JOHN WAIHEE
GOVERNOR

RECEIVED
AUG 5 1991
BELT, COLLINS & ASSOCIATES

EDWARD V. RICHARDSON
BRIGADIER GENERAL
ADJUTANT GENERAL

MYLES M. NAKATSU
COLONEL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD, HONOLULU, HAWAII 96816-4495

July 31, 1991

Engineering Office

Mr. Art Challacombe
City and County of Honolulu
Department of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Challacombe:

Thank you for providing us the opportunity to review the above subject project.

We have no comments to offer at this time regarding this project.

Sincerely,

Jerry M. Matsuda

Jerry M. Matsuda
Lieutenant Colonel
Hawaii Air National Guard
Contracting and Engineering Officer

c: Mr. Dan Dinell
Hilton Hawaiian Village Joint Venture
Mr. Mark Willey
Belt Collins and Associates

NATIONAL GUARD
Americans At Their Best

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

680 Ala Moana Boulevard, Suite 200, Honolulu, Hawaii 96813
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September 9, 1991
91P-355 (033.47)

Lt. Col. Jerry M. Matsuda
Hawaii Air National Guard
Contracting and Engineering Officer
Office of the Adjutant General
State Department of Defense
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

Dear Lt. Col. Matsuda:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
1455 SOUTH BERETANIA STREET, ROOM 305
HONOLULU, HAWAII 96814

FRANK F. FASI
MAYOR

LIONEL E. CAMARA
FIRE CHIEF

DONALD S.M. CHANG
DEPUTY FIRE CHIEF

July 29, 1991

TO: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

ATTN: ART CHALLACOMBE

FROM: LIONEL E. CAMARA, FIRE CHIEF

SUBJECT: KALIA TOWER - HILTON HAWAIIAN VILLAGE

033-4720

We have reviewed the subject material provided and have no additional comments.

Should you have any questions, please contact Acting Assistant Chief Attilio Leonardi of our Administrative Services Bureau at 943-3838.

LIONEL E. CAMARA
Fire Chief

AKL:ny

Copy to: Hilton Hawaiian Village Joint Venture
Attn: Dan Dinnell
Belt Collins & Associates
Attn: Mark Willey
Office of Environmental Quality Control
w/DEIS

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-355 (033.47)

Mr. Lionel E. Camara, Chief
Fire Department
City and County of Honolulu
1455 S. Beretania Street, Room 305
Honolulu, Hawaii 96814

Dear Mr. Camara:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

PB 91-831

July 29, 1991

MEMO TO: DONALD CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

ATTN: ART CHALLACOMBE

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
KALIA TOWER - HILTON HAWAIIAN VILLAGE

We have reviewed the DEIS for the subject project and have no comments to offer.

633-4700

HERBERT K. MURAOKA
Director and Building Superintendent

JH:jo
cc: J. Harada
Hilton Hawaiian Village Joint Venture
Belt Collins & Associates
Office of Environmental Quality Control

BCA
BELT COLLINS & ASSOCIATES
Engineering • Planning
Landscape Architecture

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Phone: (808) 521-5361, Fax: (808) 538-7819
Hawaii • Singapore • Australia • Hong Kong • Saipan • France • Thailand

September 9, 1991
91P-355 (033.47)

Mr. Herbert K. Muraoka
Director and Building Superintendent
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Muraoka:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

JOHN WAIHEE
Governor

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813

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SEP 9 PM
BELT, COLLINS & ASSOCIATES

BRIAN J. J. CHOY
Director

September 4, 1991

Mr. Art Challacombe
City and County of Honolulu
Department of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Challacombe:

Subject: Draft Environmental Impact Statement for the Kalia Tower - Hilton Hawaiian Village

Thank you for the opportunity to review the subject document. We have no comments to offer.

Sincerely,

Brian J. J. Choy

Brian J. J. Choy
Director

BC:jt

c: Hilton Hawaiian Village Joint Venture
Belt Collins & Associates

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-355 (033.47)

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

Dear Mr. Choy:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for taking the time to review and comment upon the Kalia Tower DEIS. Although you had no comments at this time, please contact me should you have any questions concerning the project in the future.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

COPY
RECEIVED
SEP 11 1991
BELT, COLLINS & ASSOCIATES

September 6, 1991

TO: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

ATTN: ART CHALLACOMBE

FROM: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) DATED JULY 1991 FOR THE PROPOSED HILTON HAWAIIAN VILLAGE KALIA TOWER, TMK: 2-6-09: 13, KALIA ROAD

Thank you for the opportunity to review and comment on the proposed Kalia Tower project. Our comments of February 25, 1991 on the environmental assessment, which are included in the DEIS, are still applicable. We have the following additional comments on the DEIS:

1. We agree with the Hilton Hawaiian Village's commitment to reduce the overall water consumption by modern conservation measures. Although the estimated water demand has decreased from 153,000 gallons per day (gpd) to 98,000 gpd, it is still substantial and will impact our water system in the area. Therefore, the installation of the 900 linear feet of 12-inch main along Kalia Road from Ala Moana Boulevard to Paoa Place is still required.

2. The reference to the DEIS for the proposed Armed Forces Recreational Center--Fort DeRussy, on Page IV-22, Section 10.1.2.1 should also state our comments of February 14, 1990 to the DEIS which required the upgrading of the Kalia Road 8-inch to a 12-inch main from Paoa Place to Saratoga Road.

If you have any questions, please contact Bert Kuioka at 527-5235.

cc: Office of Environmental Quality Control
Hilton Hawaii Village Joint Venture
Belt, Collins & Associates

BCA
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& ASSOCIATES
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September 13, 1991
91P - 383 (033.47)

Mr. Kazu Hayashida, Manager and Chief Engineer
Board of Water Supply
630 S. Beretania St.
Honolulu, HI 98643

Dear Mr. Hayashida:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your comments regarding the Kalia Tower DEIS. We appreciate the time spent by you and your staff in reviewing the document and with meeting with us and Dan Dinell of the Hilton Hawaiian Village staff to discuss your requirements.

We acknowledge your request for the installation of a 900 linear foot 12-inch main along Kalia Road from Ala Moana Boulevard to Paoa Place as a contribution from the Hilton Hawaiian Village Joint Venture as a part of the Kalia Tower Project. Your request has been added to the section discussing water supply (IV-10.1) in the Final EIS. In addition, the information pertaining to your request of the U.S. Army to update the water line from Paoa Place to Saratoga Road has been added to this section.

The Hilton Hawaiian Village Joint Venture is presently reviewing your request. Therefore, the matter will be listed as an unresolved issue in the Final EIS. We anticipate the matter to be resolved during the processing of the Shoreline Management Permit and Waikiki Special Design District Permit.

Should you have any questions, please contact me at 521-5361.

Sincerely,

Mark R. Willey
Environmental Planner

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

1638-A Mikahala Way
Honolulu, HI 96816

August 25, 1991

Mark Willey
Belt Collins and Associates
680 Ala Moana Boulevard, Suite 200
Honolulu, Hawai'i 96813

Dear Mr. Willey,

As a third year law student and a graduate student in the Department of Urban and Regional Planning, I am dismayed by Belt Collins and Associates' draft EIS for the Hilton's Kalia Tower project.

During the scoping stage, I requested that certain issues be discussed in the EIS. Unfortunately, my comments were ignored. Failure to consider the cumulative impacts of the project is not only poor planning, but a violation of the law.

Once again, your EIS should seriously respond to the following comments:

Carrying Capacity

The recent controversy over the Hanauma Bay rules illustrates the crisis that the tourist industry on O'ahu is facing. In fact, Hanauma Bay is but a synecdoche of what is happening on O'ahu. This island has reached its carrying capacity. We cannot handle any more tourists. Your EIS should evaluate the cumulative impact of approximately 800 more tourists a day in Honolulu. Where will they go? Lifeguards at Sandy Beach are horrified by the fact that tourists excluded from Hanauma Bay are now plunging into the treacherous shorebreak. Please include in your analysis where you expect the tourists to go and what impact they will have on our beaches and other scenic spots. What will be the impact on overcrowded trails like the Manoa Falls hike? Look at the impact that overuse has had on Diamond Head. Similarly, Punchbowl cannot handle more tourist visits. Can we anticipate other such impacts due to the cumulative impact of your project?

Our water supply is limited. What projects will be blocked in the next two decades because your project has taken a significant amount of water out of the system? Demands from projects like yours will force us to desalinate water. What will be the impact on the average worker's water bills when we are forced to desalinate? In fact, we are right now being asked to conserve water. How will 800+ tourists affect the summer demand [illegible] Please remember to analyze the entire cumulative impact of your project.

How much more traffic will this project generate--particularly on the overcrowded Kalanianiole Highway?

Affordable Housing

Your project will drive housing prices up in two ways and your EIS should thoroughly analyze this issue.

1. The construction industry is presently at full employment, and importing workers to get jobs completed. How many workers will immigrate thanks to this project? And how many will remain in Hawaii once the work is completed? What exactly will be there impact on the present shortage of housing in Hawai'i? Prices rise as demand increases.

2. Construction wages escalate as more and more construction workers are needed. Wages on projects such as yours necessarily drive wages across the industry up. As construction costs rise, so too does the cost of building affordable housing--thereby increasing the price of outrageously expensive affordable housing.

Once again, I will not have the opportunity to send these comments to the city, Hilton, and OEQC, but I hope that you will be able to address my concerns.

Sincerely,

David Kimo Frankel

BCA
BELT COLLINS
& ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-360 (033.47)

Mr. David Frankel
1638-A Mikahala Way
Honolulu, Hawaii 96816

Dear Mr. Frankel:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your letter of August 25, 1991 outlining the concerns you have with the Kalia Tower DEIS. We are sorry that you feel that your original comments were ignored. However, the areas of concern you raise were, indeed, covered within the document in Chapter IV. Impacts the project would have upon recreational resources were discussed in section 12.4, "Recreational Facilities," those on traffic in section 9.0, water in section 10.1, and socioeconomic impacts in section 11.0. Your assertions to the contrary appear to be based on a mis-reading of the document and a different interpretation of the requirements of Chapter 343, HRS, and Chapter 200 of the State Department of Health regulations.

When assessing the impacts a project has on the environment we use as our criteria those areas which will experience a significant impact. An Environmental Impact Statement does not generally discuss effects which, while foreseeable, are so small that they would not substantially alter existing conditions. For example, while it is true that one to two persons staying at the Kalia Tower might visit Sandy Beach for an hour or two on a given day, the presence of these visitors would not make a measurable difference to the situation there. Similarly, the two to three cars expected to be on Kalanianiole Highway during the peak hour would have no significant impact upon the level-of-service of that arterial.

The cumulative effect of the Kalia tower with other planned projects was addressed by accounting for the background conditions anticipated to exist when the Kalia Tower is built. This can be seen in the discussion of traffic, especially, which anticipated the completion of not only the Landmark project, which is actually under construction, but also the Fort DeRussy, Waikikian, and the Honolulu Convention Center projects, which are in various stages of planning. It should be noted that the assessment of cumulative impacts is performed as a regular function of both City and State governments. This is done as they review all Environmental Impact Statements, create master plans, and implement zoning and land use regulations.

It is hoped that this has helped to address your concerns. Again, thank you for your comments.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

JOHN WAIHEE
GOVERNOR OF HAWAII

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

KEITH W. AHUE
MANABU TAGOMORI

DAN T. KOCH

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

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AUG 14 1991
BELT, COLLINS & ASSOCIATES

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

August 12, 1991

Art Challacombe
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Challacombe:

SUBJECT: Draft Environmental Impact Statement, Kalia Tower
(Hilton Hawaiian Village Joint Venture)
Waikiki, Kona, O'ahu
TMK: 2-6-09: 13

We have commented directly to Mark Willey at Belt Collins & Associates on a preliminary version of this document.

The intact trash pits discovered by PHRI between 1985 and 1987, which yielded glass bottles and dishes indicating that the area had been used by wealthy inhabitants in the 1800s, are almost certainly associated with the house of Herman A. Widemann, who was named Minister of Interior by Kalakaua in 1874. These remains are thus eligible for inclusion on State and National Registers of Historic Places under criterion B, association with the lives of persons important in our past. Thus, we disagree with the assessment in Paul Rosendahl's May 3, 1991, letter (Appendix A) that it is unlikely that this area contains significant archaeological remains.

In general, we think that archaeological monitoring of construction activity is an adequate procedure for locating any extant historic trash pits, but we would ask that the EIS be more specific in its outline of the archaeologist's duties. In particular, we would like to see specific mention of 19th century trash pits and archaeological data recovery excavations upon their discovery. In addition, our office will require an acceptable final report of the monitoring and data recovery work.

Our office does not have a copy of a report on the earlier Paul H. Rosendahl, Inc. work on the property, which appears to have resulted in the collection of a substantial number of artifacts which may be associated with the Widemann house. Thus, we ask that a commitment to produce an acceptable final report of this earlier work be added to the EIS.

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

Sincerely,

DON HIBBARD, Administrator
State Historic Preservation Division

cc. Dan Dinell, Hilton Hawaiian Village Joint Venture
Mark Willey, Belt Collins & Associates

JOHN WAIHEE
GOVERNOR OF HAWAII

AUG 28 1991

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

KEITH W. AHUE
MANABU TAGOMORI

Dan T. Kochi

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

BELT, COLLINS & ASSOCIATES

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

REF:OCEA:SKK

AUG 27 1991

FILE NO.: 92-069
DOC. NO.: 1453E

Mr. Art Challacombe
Environmental Affairs Branch Chief
Department of Land Utilization
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

ATTN: Mr. Art Challacombe

Dear Mr. Challacombe:

Subject: Kalia Tower - Hilton Hawaiian Village Draft Environmental Impact Statement
Location: Waikiki, Oahu
TMK: 2-6-9: 13

Thank you for giving our Department the opportunity to comment on this matter. We have reviewed the submitted draft EIS and have the following comments.

Brief Description:

The applicant proposes to construct a building on the northeastern corner of the Hilton Hawaiian Village property in Waikiki where the Hilton Dome presently stands. Called the "Kalia Tower," it would be approximately 270 feet tall and would contain 400 guest rooms with a health-sports clinic-spa. A portion of the project would provide a recreation deck with tennis courts, landscaping, and a sports clinic for guests, local area residents and local school children atop the rooftop of the adjacent Coral Ballroom/parking structure. The existing Hilton Dome would be removed or relocated if feasible to make room for the project. Approximately 5,000 square feet of additional landscaped op[illegible] would be created at the site which would include a lagoon and an approximately 2 [illegible] high waterfall feature flowing out from the lobby of the Kalia Tower into the surrounding lagoons.

LAND MANAGEMENT COMMENTS:

If construction access is needed from Duke Kahanamoku Beach or the lagoon area, access permit arrangements should be made with the Division of Land Management.

AQUATIC RESOURCES COMMENTS:

This proposed project is not expected to adversely impact aquatic resources, as standard mitigation measures will be implemented for construction activities and the project site is located approximately 940 feet from the shoreline.

Water quality of the surrounding waters should not be adversely impacted by project improvements. In fact, according to the developer, there should be a decrease in storm runoff as a result of the increase in landscaped areas.

HISTORIC PRESERVATION DIVISION COMMENTS:

We have commented directly to Mark Willey at Belt Collins & Associates on a preliminary version of this document and to the Department of Land Utilization, City and County of Honolulu on this document.

The intact trash pits discovered by PHRI between 1985 and 1987, which yielded glass bottles and dishes indicating that the area had been used by wealthy inhabitants in the 1800s, are almost certainly associated with the house of Herman A. Widemann, who was named Minister of Interior by Kalakaua in 1874. These remains are thus eligible for inclusion on State and National Registers of Historic Places under criterion B, association with the lives of persons important in our past. Thus, we disagree with the assessment in Paul Rosendahl's May 3, 1991, letter (Appendix A) that it is unlikely that this area contains significant archaeological remains.

In general, we think that archaeological monitoring of construction activity is an adequate procedure for locating any extant historic trash pits, but we would ask that the EIS be more specific in its outline of the archaeologist's duties. In particular, we would like to see specific mention of 19th century trash pits and archaeological data recovery excavations upon their discovery. In addition, our office will require an acceptable final report of the monitoring and data recovery work.

Our office does not have a copy of a report on the earlier Paul H. Rosendahl, Inc. work on the property, which appears to have resulted in the collection of a substantial number of artifacts which may be associated with the Widemann house. Thus, we ask that a commitment to produce an acceptable final report of this earlier work be added to the EIS.

Thank you for your cooperation in this matter. Please feel free to call me or Sam Lemmo at our Office of Conservation and Environmental Affairs, at 548-7837, should you have any questions or in need of assistance.

Very truly yours,

WILLIAM W. PATY

cc: Belt Collins & Assocs.
Hilton Hawaiian Village
Joint Ventures
OEQC

BCA
BELT COLLINS & ASSOCIATES
Engineering • Planning
Landscape Architecture

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September 9, 1991
91P-358 (033.47)

Mr. William W. Paty, Director
Department of Land and Natural Resources
State of Hawaii
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Paty:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your comments concerning the Kalia Tower EIS. They have been incorporated into the document.

As a follow-up to your comments, and our many telephone conversations, the Hilton Hawaiian Village has asked Paul H. Rosendahl, Inc. to complete a report outlining the results of their previous excavation and field work from 1985 to 1987. Copies of your comments outlining your concerns have been forwarded to them. This report will be sent to you as soon as it is finished.

Also, during the excavation of the site, all work will be monitored by an archaeologist. This archaeologist will have the authority to halt construction in the immediate area of a find. Appropriate data collection and assessment will be performed in cooperation with your office. The greatest care will be taken to avoid degradation of finds before their significance can be established.

Should you have further concerns in this matter, please contact me.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc OEQC
Art Challacombe, DLU
Dan Dinell, HHV
Paul H. Rosendahl, Ph.D.

University of Hawaii at Manoa

Environmental Center
A Unit of Water Resources Research Center
Crawford 317 • 2550 Campus Road • Honolulu, Hawaii 96822
Telephone: (808) 956-7361

September 6, 1991
RE:0587

Mr. Art Challacombe
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Challacombe:

Draft Environmental Impact Statement (DEIS)
Hilton Hawaiian Village - Kalia Tower
Honolulu, Oahu

The above referenced project proposes to remove the existing Hawaiian Village Dome and ancillary facilities located on the northeastern corner of the Hilton Hawaiian Village property for the purpose of constructing a larger building on the same location which includes 12 tennis courts situated atop the parking garage, and new landscaping and water features at the Kalia Road/Ala Moana Boulevard corner. The new structure will be 26 stories tall and contain 400 guest units, and a health club/spa facility. A smaller, seperated structure to be built will contain approximately 5,000 square feet of retail space.

Our comments on the Kalia Tower DEIS were prepared with the assistance of Ken Lowry, Urban and Regional Planning; Yu-Si Fok, Water Resources Research Center; Fred Creager, School of Architecture; and Alex Buttaro of the Environmental Center.

Wind Analysis

The discussion of wind characteristics (chapter IV, pages IV-35 to IV-39) should address the proposed tower's wind tunnel effect on Ala Wai Yacht Harbor and also should consider noise level increases resulting from such an effect.

Traffic

Although the traffic study in Appendix C contains extensive information on present and anticipated level-of-service for vehicular traffic, no information is provided to assess the project's impact on pedestrian traffic delays. We note that it is extremely uncomfortable for some pedestrians to wait on traffic and some of our reviewers personally have witnessed many occasions in which impatient pedestrians are crossing active vehicular lanes. This is an unsafe situation which may be exacerbated by further delays caused by this project and therefore should be addressed in the EIS.

Additional Infrastructural Requirements and Their Relationship to the Proposed Project

Although the DEIS correctly notes that the existing sewage capacity is inadequate and would have to be expanded to accommodate this development, it leaves open the question of what mitigation measures the developer would be willing to take. Section 10.2.2.1 of chapter IV (page IV-24) states that "Should the Waikikian Hotel project not be completed, then Hilton Hawaiian Village would need to consider construction of this line to support development of the Kalia Tower." What mitigation measures are under consideration and what criteria will the developer apply to determine the point at which those measures will need to be implemented?

Page 13 of chapter IV states with regard to expected traffic improvements to be made by the State, "Should these mitigation measures not be undertaken to relieve the current traffic congestion in the area, the level-of-service for all intersections in the area will be even worse than shown in the results of this study." This statement makes it quite clear that major changes of off-site infrastructure are an interrelated part of the project. (See further comments below on cumulative impacts)

Health Care Services

The paragraph addressing existing conditions in chapter IV, section 12.3, should make mention of the Queens Healthcare Center (1860 Ala Moana Boulevard) on Ena Road, just off the Ala Moana Boulevard - Ena Road intersection. It is an emergency medical clinic staffed with a physician and technicians, and is open daily from 8AM to 8PM.

Land Use Plans, Policies, and Controls of the Affected Area

The DEIS effectively illuminates a variety of conflicting elements in the multiplicity of land use plans, policies and controls under which the project is evaluated. Our reviewers suggest that it is essential that such conflicts be reevaluated and codified by the legislative bodies and authorities having jurisdiction in order to establish a clearly articulated public position.

Unresolved Issues

The primary unresolved issue has to do with the degree to which the proposal complies with existing policies regarding the capacity of Waikiki to absorb more visitors. The Development Plan for the area now sets the capacity of Waikiki at "about 30,000 visitor units." The proposed units in the Kalia tower would put Waikiki over that standard. The preparers of the EIS seem to regard the 30,000 units as an arbitrary 'optimum' number that can be exceeded without consequence. By contrast, our interpretation is that the intuition of the Development Plan was to regard 30,000 units as a maximum number for the area.

One can argue that 30,000 units is an arbitrary maximum, and that any "maximum" or even "optimum" number should take into consideration the location of specific proposals relative to roads and infrastructure, site design, access to and exits from Waikiki, and a host of similar considerations. However, what the 30,000 maximum does express is the broad public recognition that Waikiki is approaching an intolerable level of density and congestion, even if we cannot specify that maximum precisely in terms of the number of new units. Hence, the consensus seems to be that if limits are not imposed on individual landowners, some version of Hardin's "tragedy of the commons" may ensue. The mayor's Waikiki planning committee and Council Chair Horgado's Waikiki Vision 2020 are both attempts to develop strategies for Waikiki that will help avoid that tragedy, and they should be acknowledged and acted on accordingly.

Cumulative Impacts

The DEIS inadequately addresses the significance of the proposed project's cumulative impacts on the overall quality of Waikiki as a destination by emphasizing that the proposed development would only increase the number of units in the total Waikiki inventory by a small percentage. That same argument could be made for all the new hotel proposals for Waikiki, yet one would have difficulty arguing that the effects of such developments is minimal.

Additionally, what are the expected cumulative impacts upon the island of Oahu's recreational resources and tourist attractions which are already nearing their carrying capacity?

The Final EIS should better address the cumulative impacts upon Waikiki and Oahu as a whole, pursuant to Section 11-200-17(i) of Title 11 EIS Rules.

Thank you for the opportunity to review this document and we hope you will find our comments helpful.

Sincerely,

John T. Harrison, Ph.D.
Environmental Coordinator

cc: OEQC
Art Challacombe, Department of Land Utilization
Dan Dinell, Hilton Hawaiian Village Joint Venture
Mark Willey, Belt Collins and Associates
Roger Fujioka
Yu-Si Fok
Ken Lowry
Fred Creager
Alex Buttaro

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September 12, 1991
91P- 375 (33.47)

Dr. John T. Harrison
Environmental Coordinator
Environmental Center
University of Hawaii at Manoa
Crawford 317
2550 Campus Road
Honolulu, HI 96822

Dear Dr. Harrison:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your comments regarding the Kalia Tower DEIS. We appreciate the time spent by your group in reviewing the DEIS. Responses to your specific concerns are listed below.

Wind Analysis

The nearest portion of the Ala Wai Yacht harbor is approximately 2,000 feet away from the site of the proposed Kalia Tower. Under open field conditions, with no obstructions, design standards used generally by architects anticipate a slight leeward lessening of wind velocity from a 270-foot tower for a distance upwards of 540 feet. This occurs as wind travels encounters the barrier and becomes disrupted.

Platforms both in front of, and behind, structures, deflect wind, lessening velocities. Between the proposed Kalia Tower and the Ala Wai Yacht Harbor the Coral Ballroom/Parking Garage would function as such a platform. In addition, the Rainbow Tower, Waikikian Hotel, and the Ilikai Hotel act as additional barriers to disrupt wind flows between the proposed Tower and the Ala Wai Yacht Harbor. Given the wind characteristics for the area, and the layout of the various buildings, it is extremely improbable that the proposed Kalia Tower would have any "wind tunnel" effect upon the Yacht Harbor.

The Kalia Tower has the potential to change wind patterns in the immediate vicinity of the building. The affected area consists entirely of Hilton Hawaiian Village property. Therefore, there is a strong incentive for the Hilton management to see that the new building does not create problems for other uses. Project architects and designers will perform additional on site wind analyses before the final design and construction to minimize any wind and associated noise impacts.

Pedestrian Traffic

The proposed Kalia Tower project would not add sufficient numbers of vehicles to the surrounding road network to warrant a change in the various intersections' signalization or phase timing. Hence, there would be no additional long-term impact to pedestrian delay at street crossings caused by this project. It should be noted that a major emphasis of the project is to enhance the pedestrian environment and pedestrian safety of the area by directing pedestrian movements away from Kalia Road. Coordination with the Department of Transportation Services and the Honolulu Police Department will ensure that short-term disruptions to pedestrian movements during the construction phase will be kept to a minimum.

Additional Infrastructure

You are correct in noting that some off-site infrastructure improvements may be needed. The exact extent of the improvements and questions concerning the financing of these are complicated by the fact that there are numerous users and potential users of these facilities. The Hilton Hawaiian Village is currently discussing its possible contribution with the Board of Water Supply and the Department of Public Works.

Health Care Services

Thank you for the additional information. It has been incorporated within the FEIS.

Land Use Plans

Thank you for your comments concerning land use planning in Hawaii. Current planning processes underway at this time by the State, City and private parties should help to clarify some of the inconsistencies among the various goals and policies.

Unresolved Issues

Our interpretation of Development Plan provision 32-2.2(2)(B), relating to a destination area of 30,000 visitor units, is based upon the opinion stated by the City's Corporation Counsel during discussion of a Shoreline Management Permit for what is now the Hawaii Prince Hotel. Their opinion, reported on page V-12 of the Kalia Tower DEIS, is that the policy is to be a guide to zoning, and "it is zoning to which a property looks to ascertain whether the law will allow a particular project." This opinion was accepted by a majority of the City Council.

Given your arguments that the "optimum" number should take into consideration the location of specific proposals relative to roads and infrastructure, site design, and access to and exits from Waikiki, then the Kalia Tower is a good example of a project that "fits within the guidelines." Located in the West Waikiki area, along an easily accessible Waikiki Gateway point, the project's infrastructure needs can be readily met. Finally, it is worth noting that the site of the Hilton Hawaiian Village is the least dense of any of Waikiki's resorts, and completion of the Tower would not alter that distinction. Moreover, the broad public reaction to this specific project has been favorable, with endorsements from the Waikiki Residents Association and approval from the Waikiki Neighborhood Board.

On a final note, the Hilton Hawaiian Village has been an active participant in both the City Administration's Waikiki Master Planning process and in the private Waikiki 2020 planning process. This active participation has led to the incorporation of several themes currently still only under discussion by both groups.

Cumulative Impacts

Section 11-200-17(i) of the State EIS Regulations (DOH Administrative Rules) stipulates that: "the interrelationships and cumulative environmental impacts of the proposed actions and other related projects shall be discussed in the draft EIS." This requirement is meant to insure that when several actions are being proposed at the same time by different agencies or applicants, the potential effects of all are taken into account in the evaluation.

The Kalia Tower DEIS did address the cumulative effect of the project with other planned and related projects. This was done by factoring these other projects into the background conditions anticipated to exist when the Kalia Tower is built. This can be seen in the discussion of traffic, especially, which anticipated the completion of not only the Landmark project, which is actually under

construction, but also the Fort DeRussy, Waikikian, and the Honolulu Convention Center projects, which are in various stages of planning. Similar cumulative impact considerations played a part in the discussion of visual impacts (Section IV-15.0), infrastructure impacts (Section IV-10.0), recreation impacts (Section IV-12.4) and the purpose and need for the project (Section II-4.0), among others.

In addition to the treatment in the EIS, the assessment of cumulative impacts is performed as a regular function of both City and State governments. This is done as they review all Environmental Impact Statements, create master plans, and implement zoning and land use regulations.

With respect to the project's potential effects on Oahu's resources and tourist attractions, we believe the DEIS did this to the extent that such discussions are meaningful. It does not discuss effects which, while foreseeable, are so small that they would not substantially alter existing conditions. For example, while it is true that one to two persons staying at the Kalia Tower might visit Sandy Beach for an hour or two on a given day, the presence of these visitors would not make a measurable difference to the situation there. Similarly, the two to three cars expected to be on Kalanianiole Highway during the peak hour would have no significant impact upon the level-of-service of that arterial.

We do acknowledge that tourist destinations such as the Polynesian Cultural Center, Arizona Memorial, Sea Life Park, and Waimea Falls would experience additional visits as a result of the Kalia Tower. In addition, non-commercial tourist and recreational destinations such as Hanauma Bay and the beaches in Waikiki could also experience slight in increases in visitors.

Should you have any further questions, please contact me at 521-5361.

Sincerely,

Mark R. Willey
Environmental Planner

cc: OEQC
Art Challacombe, DLU\
Dan Dinell, HHV

JOHN WAIHEE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HAWAII 96801

JOHN C. LEWIN, M.D.
DIRECTOR OF HEALTH

RECEIVED
AUG 27 1991
BELT, COLLINS & ASSOCIATES

August 23, 1991

In reply, please refer to:
91-3-262X

Mr. Donald A. Clegg, Director
Department of Land Utilization
City & County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Attn: Mr. Art Challacombe

Dear Mr. Clegg:

Subject: Draft Environmental Impact Statement
Kalia Tower - Hilton Hawaiian Village
Waikiki, Oahu
TMK: 2-6-09: 13

We have reviewed the material on the subject project submitted by your office. We have the following comments to offer:

Clean Water

Waters from the operation and maintenance of the lagoon and waterfall feature which may require disposal shall comply with all applicable Federal, State and City regulations.

If you should have any questions, please contact Mr. Mark Tomomitsu, Engineering Section of the Clean Water Branch, at 543-8309.

Wastewater

The subject project is located within the proposed critical wastewater disposal area, as determined by the Oahu Wastewater Advisory Committee. Consequently, no new cesspools will be allowed in the subject area.

It has been determined that the subject project is located within the County sewer service system. As the area is sewered, we have no objections to the proposed development provided that the project is connected to the public sewers. However, the municipal sewer system is reported to be inadequate at this time, due to the estimated volume of wastewater being generated. Therefore, it will be the responsibility of the developer of the project to coordinate with the City and County of Honolulu to provide adequate sewer infrastructure needs. We do reserve the right to review the detailed wastewater plans for conformance to

the Department of Health Administrative Rules, Chapter 11-62, "Wastewater Systems."

If you should have any questions regarding wastewater disposal, please contact Mr. Harold Yee of the Planning and Design Section, Wastewater Branch, at 543-8294.

Very truly yours,

for JOHN C. LEWIN, M.D.
Director of Health

c: Office of Environmental Quality Control
Dan Dinell, Hilton Hawaiian Village Joint Venture
Mark Willey, Belt Collins & Associates

BCA
BELT COLLINS
& ASSOCIATES
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September 9, 1991
91P-359 (033.47)

Dr. John C. Lewin, Director
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 98601

Dear Dr. Lewin:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your response to the Kalia Tower DEIS. To answer your comments, all waters from the operation and maintenance of the lagoon and waterfall will be disposed of in accordance with applicable Federal, State and City regulations. Also, coordination with the City and County of Honolulu Department of Public Works and Board of Water Supply is continuing to assure that the infrastructure needs of the project will be adequately met.

Should you have further comments or questions concerning the Kalia Tower project, please contact me.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

RECEIVED
AUG 16 1991
BELT, COLLINS & ASSOCIATES

FRANK F. FASI
MAYOR

JOSEPH M. MAGALDI, JR.
DIRECTOR

AMAR SAPPAL
DEPUTY DIRECTOR

TE-3953
PL91.1.243

August 14, 1991

MEMORANDUM

TO: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM: JOSEPH M. MAGALDI, JR., DIRECTOR

SUBJECT: HILTON HAWAIIAN VILLAGE; KALIA TOWERS
DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
TMK: 2-6-09: 13

This is in response to the DEIS submitted to us for review on July 24, 1991 by the Office of Environmental Quality Control.

Our concerns are as follows:

1. All new vehicular access points which may connect to City roadways should be constructed as standard City dropped driveways.

2. The length and location of the porte cochere should be designed such that vehicles will not queue on Rainbow Drive and Kalia Road.

3. The method of determining the traffic generated by the subject project should be estimated by using trip rates and equations for hotels from the ITE, Trip Generation, Fourth Edition.

4. Landscaping should be placed in locations where it does not interfere with sight lines.

5. Construction plans for off-site work within the City's right-of-way should be reviewed by our department.

Should you have any questions, please contact Lance Watanabe of my staff at local 4199.

JOSEPH M. MAGALDI, JR.

cc: Hilton Hawaiian Village Joint Venture
Belt Collins & Associates

BCA
BELT COLLINS
& ASSOCIATES
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August 19, 1991
91P-301 (033.47)

Mr. Joseph M. Magaldi, Jr.
Department of Transportation Services
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Magaldi:

Thank you for your comments regarding the Hilton Hawaiian Village Kalia Tower Draft Environmental Impact Statement as included in your letter of August 14, 1991. In that letter you listed five concerns which we would like to address.

1. No new vehicular access points connecting to City roadways are currently planned. Access would remain through Rainbow Drive to Kalia Road.

2. The porte-cochere for the Kalia Tower will be located and designed so that vehicles will not queue back onto Rainbow Drive. Also, buses will continue to be banned from utilizing the Rainbow Drive entrance to the Hawaiian Village. The port cochere for the Kalia Tower will be used by taxis and by private automobiles dropping off baggage before they continue on to the parking garage. Vehicle attendance will be strictly monitored to ensure that no queuing occurs.

3. When first attempting to estimate the number of additional trips to be generated by the proposed Kalia Tower, we considered using trip-generation rates from the ITE Trip Generation Manual, now in its Fifth Edition. However, the 1,500 to 1,800 peak-hour trips which resulted from using the ITE rates and equations were clearly inconsistent with the observed situation of only approximately 240 peak hour trips. This made it clear to us that it would be inappropriate to use the ITE rates to evaluate potential effects from the Kalia Tower project.

   The cause of the disparity can be found within the Manual itself, as the Hotel rates which it contains were based on only six to seven cases on the Mainland dating back to 1966, with the sample hotels much smaller and located in areas outside heavily urbanized areas. The situation found within Waikiki, with its dense urban environment, extensive private and City bus service, and large number of foreign tourists, produce very low trip-generation rates for its hotels, especially full service resort hotels like the Hilton Hawaiian Village.

   Given the unique situation of both Waikiki and the Hilton Hawaiian Village, and the large differences between ITE rates and the observed situation, we decided to gather data and calibrate a trip-generation equation that would better reflect local conditions, as is recommended by the ITE Manual when confronted with this situation. Using parking counts, employee driving habits, rental automobile use by guests, and the observed ingress and egress from the Hawaiian Village, two

distinct vehicle usage patterns were discovered. On an occupied room basis it was found that only 5 percent of Japanese guests utilized an automobile and only 10 percent of Westbound tourists used a car during their stay. Only 50 percent of employees drove. Thus, trip generation was determined to be 10 percent of occupied rooms and 50 percent of employees on shift. Commercial establishments were also included according to current vehicle usage.

In reviewing the methodology employed for the impact analysis, we feel that the trip generation rates used for the Hilton Hawaiian Village are very representative of the situation. However, we must stress that the percentages employed for the Kalia Tower are valid only for the Hilton Hawaiian Village. Other hotels, given their different services, locations and tourist mixes would vary somewhat in their trip generation, and separate rates should be calibrated on an individual basis.

4. Landscaping will be placed so as to not interfere with sight lines.

5. Construction plans for any off-site work within the City's right-of-way will be submitted to your department for review.

I hope this has helped to answer your concerns. Should you have additional questions or comments, please contact me.

Sincerely,

Mark R. Willey
Environmental Planner

MRW:lf

cc: Dan Dinell
Art Challacombe

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

BENJAMIN B. LEE
CHIEF PLANNING OFFICER

ROLAND D. LIBBY, JR.
DEPUTY CHIEF PLANNING OFFICER

RECEIVED
BELT, COLLINS & ASSOCIATES

VW 7/91-2469

September 4, 1991

MEMORANDUM

TO: DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM: BENJAMIN B. LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE KALIA TOWER--HILTON HAWAIIAN VILLAGE

We have reviewed the subject DEIS and have the following comments:

The concerns expressed in our letter on the Environmental Assessment (EA) dated February 14, 1991 and our letter to Mark R. Willey, Belt Collins and Associates, dated June 26, 1991 still apply.

We reiterate our previous comment that the 30,000 visitor unit cap as a measure of density for Waikiki will be reviewed as part of our ongoing studies on the Waikiki Master Plan (WMP); this should, therefore, be listed as an unresolved issue.

We believe that the Final EIS should respond to the following issues and should either provide additional data or list these as unresolved issues:

1. Compliance with Master Plan Concepts for Waikiki Traffic

   How will this project promote a reduction of traffic in Waikiki? Since a major Waikiki Master Plan concept is the reduction of automobile traffic, we do not believe that increasing the number and usage of the HHV's parking stalls conforms to automobile traffic reduction objectives for Waikiki.

2. Compliance with Master Plan Concepts for Open Space and Enhancement of Pedestrian Environment

   The DEIS does not describe in adequate detail the provision of open space nor how public pedestrian access would be promoted.

3. Compliance with Cumulative Impacts on Vehicular and Pedestrian Traffic Due to Possible Simultaneous Construction Activities

   The EIS should discuss and identify the potential cumulative vehicular and pedestrian traffic impacts along Kalia Road and Ala Moana Boulevard that may result from simultaneous construction activities at the Hale Koa, Waikikian and Hilton Hawaiian Village (Kalia Tower).

Compliance with the goals and objectives of any future Waikiki Master Plan is an unresolved issue at this time.

Should you have any questions, please contact Verne Winquist at 527-6044.

BENJAMIN B. LEE
Chief Planning Officer

BBL:js

cc: Hilton Hawaiian Village Joint Venture
Belt Collins & Associates

BCA
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& ASSOCIATES
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September 7, 1991
91P - 366 (033.47)

Mr. Ben Lee, Director
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Lee:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your comments on the Kalia Tower DEIS. We appreciate the time spent in reviewing the document. Responses to your concerns are listed below.

Visitor Unit Counts

We understand that the 30,000 visitor unit cap policy is currently under review It will continue to be listed as an unresolved issue in the Final EIS.

Waikiki Master Plan Traffic Concepts

The Kalia Tower, in and of itself, will not reduce traffic within Waikiki. However, the Hilton Hawaiian Village strives to be a self-contained destination resort with sufficient amenities to keep visitors on site, and the parallel construction of the recreation deck and health club spa as a part of this project guests' need to leave the Hawaiian Village complex. As indicated in the traffic analysis presented in the DEIS, the proposed project would have little measurable impact upon the average peak hour traffic levels of the area. And in actuality, additional simulations factoring out traffic related to the entire Hilton Hawaiian Village Resort produced little change in overall delays or the levels-of-service of the surrounding road network. Thus, problems must be viewed as regional in nature, due to through traffic along Ala Moana Boulevard and the Fort DeRussy area. Completion of the Rapid Transit System, which the Hilton Hawaiian Village supports, should serve to alleviate a portion of these broader, regional traffic problems.

Your letter questions the wisdom of restriping the parking structure, suggesting that it may contribute to traffic congestion. However, this restriping is not necessary as a part of this project to meet current Land Use Ordinance parking requirements, nor is the restriping proposed as a part of this project. Under the LUO, the Hilton Hawaiian Village is required to provide 115 stalls for the Kalia Tower. Estimates within the EIS show that the Hawaiian Village currently has 174 parking stalls over the LUO requirements.

The Hilton Hawaiian Village's interest in re-striping the garage stems from the existing activities in the Resort's meeting spaces.. Problems occur when functions attended by a large number of local residents take place. The restriping of the parking structure is to address these short-term events caused by local conditions. The Kalia Tower will not include any banquet facilities or large meeting rooms, so it is not expected to add to this condition. The Hilton Hawaiian Village will continue to work closely with the Honolulu Police Department to ensure orderly traffic progression during these short-term events.

On a project specific basis, the traffic analysis did identify point sources of congestion occurring near the Hilton Hawaiian Village due to illegal stopping of tour buses near the Tapa Tower. As a result of this finding, Hilton management sent letters to the transit companies informing them to halt this practice. This action should help improve traffic flows along Kalia Road and is an indication of the management's willingness to impose reasonable restriction on users in order to improve vehicle circulation.

Open Space and Pedestrian Environment

Development of the proposed Kalia Tower and recreation deck will increase the open space at the ground level on site by approximately 5,000 square feet. This is accomplished through the removal of the Dome, with a footprint of approximately 15,000 square feet, and its replacement with the Tower, with a footprint of approximately 10,000 square feet. Hedge barriers currently limiting open space access on the site will be removed, providing even more accessible open space above the additional 5,000 square feet. The goal of the proposed plan is to provide an inner sidewalk area away from the curb of Kalia Road, similar in concept to the sidewalk area at the Royal Hawaiian Shopping Center. This will improve both pedestrian ambiance and pedestrian safety by removing people from the narrow confined sidewalk areas currently existing along Kalia Road. One concept discussed is to continue the theme of using landscape barriers to separate the pedestrian sidewalk areas from traffic which is contained within the Waikiki Gateway Master Plan. A detailed site concept plan is included in Chapter II of the FEIS.

Cumulative Construction Activities

Given the time schedules of the Fort DeRussy improvements, the Waikikian Hotel project, and the Kalia Tower project, it is possible that construction activities will overlap. Concentrating construction activity in the area into a compressed time, rather than having three separate projects strung out over time, could help to better coordinate the improvements and shorten the impact and disruption time to area residents. The Hilton Hawaiian Village will work in close coordination with the Department of Transportation, the Department of Transportation Services, and the Honolulu Police Department, as well as with the developers of the various neighboring projects to assure a minimum of traffic and pedestrian disruption during the construction phase of the Kalia Tower.

Should you have any questions, please contact me at 521-5361.

Sincerely,

Mark R. Willey
Environmental Planner

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • PHONE 523-4432

FRANK F. FASI
MAYOR

DONALD A. CLEGG
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

September 6, 1991

Mr. Mark R. Willey
Belt Collins and Associates
680 Ala Moana Boulevard
Suite 200
Honolulu, Hawaii 96813

Dear Mr. Willey:

Re: Draft Environmental Impact Statement (DEIS)
Kalia Towers, Hilton Hawaiian Village
Tax Map Key: 2-6-09: 13 and Por. 9

We have reviewed the above-reference DEIS and have the following comments:

1. The DEIS identifies two unresolved issues. The first issue concerns the interpretation and compliance with the special provisions of the Primary Urban Center Development Plan establishing a limit of about 30,000 transient vacation units in Waikiki. An application for a SMA permit must comply with zoning and development plan requirements in order to be accepted for processing by our department. The second unresolved issue related to the need for upgrading existing sewer infrastructure. The DEIS states that required upgrading of the system will be provided by the proposed Waikikian Hotel improvement project. This project is currently awaiting City Council action on an SMA permit application. This application will not be acted upon until the moratorium on construction in Waikiki is lifted. It is still uncertain as to how the upgraded system improvements will be implemented. Resolution of this issue must be addressed in the SMA application.

2. The DEIS indicates that it is unlikely that the site contains prehistoric archaeological remains. Given the past record of findings related to the Tapa Tower construction, excavation of the site may reveal other remains. Because a major objective of Chapter 205A is to protect historic resources in the SMA, a report describing past and future date recovery work will be required as part of the SMA permit application.

3. We are concerned that the proposed Kalia Tower project may have a negative impact on mauka-makai views and that the building will block the prevailing tradewinds.

   Please develop in the final EIS, an alternative development proposal similar to alternative H-3 with consideration for mauka-makai view corridors and ventilation. This design should maintain the roadway to the garage by shifting the tower makai and building it over this road. The spread of shops should be reduced and open space with ponds incorporated at the front as reflected in the proposal

Thank you for the opportunity to review the DEIS.

Very truly yours,

DONALD A. CLEGG
Director of Land Utilization

DAC:ea

BCA
BELT COLLINS
& ASSOCIATES
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September 13, 1991
91P- 382 (033.47)

Mr. Donald Clegg, Director
Department of Land Utilization
650 South King Street
Honolulu, HI 96813

Dear Mr. Clegg:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your comments on the Kalia Tower DEIS. We appreciate the time your staff spent in reviewing the document. We also appreciate the time and effort Mr. Challacombe has spent in coordinating this project for your department. Responses to the particular concerns you raised follow.

Unresolved Issues

The issues of compliance with the Development Plan and infrastructure improvements will continue to be listed as unresolved issues in the Final EIS. These matters will be addressed in the forthcoming SMA process. In the matter of the 30,000 visitor unit destination area, we feel that the issue may best be left up for interpretation and action by the City Council.

Archaeological

The Hilton Hawaiian Village is committed to see a final report finished in line with the comments received from both your office and the the State Historic Preservation Office. An interim report, prepared to fulfill SMA permit application requirements, will be forwarded to your office by mid-November. We anticipate the completion of the final report, describing past and future data recovery work, to be completed before the first of January. These reports will be forwarded to you as soon as we receive them.

View and Wind Impacts

A 270-foot alternative aligned perpendicular to Kalia Road was considered at an early stage of the project by the design consultants and the Hilton management, but subsequently rejected. This design had some attractive features from the standpoint of the Hilton management, specifically, virtually all rooms would experience an ocean view. Thus, they could command a higher room rate. However, such an orientation contained several significant adverse environmental impacts, especially to views and wind, which made it undesirable.

When comparing this orientation with one parallel to Kalia Road, it was discovered that a perpendicular orientation disrupted a considerable number of public view planes towards Diamond Head. Conversely, the parallel orientation disrupted no public view planes either mauka-makai or makai-mauka. Presently, no mauka-makai public ocean views exist through the Hilton property. In addition, a perpendicular orientation helped add to the walled in effect of the urban corridor along Ala Moana Boulevard, so strongly objected to by the Waikiki Neighborhood Board as contained within their correspondence. Perpendicular orientations were also strongly opposed by residents of the neighboring condominiums because it would interfere with their private views of Diamond Head and would expose them to a larger number of directly facing rooms (with a greater potential for loss of privacy). Based on this feedback, the architects and Hilton management selected a tall thin building, oriented parallel to Kalia Road as the preferred alternative.

Most of the project's effect on winds will be restricted to the Hilton Hawaiian Village. Design standards generally used by architects would indicate a lessening of wind velocities on the lee side of a barrier over a distance twice the height of the barrier. Thus, the 270-foot high Kalia Tower could be expected to cause decreased wind velocities for 540 feet on its leeward side. After this distance, wind velocities resume their original state. As the end of the Coral Ballroom/Parking Garage will be approximately 620 feet from the back side of the Kalia Tower, wind blockage during the prevailing tradewinds would be restricted to the recreation deck. The Kalia Tower is not expected to have a significant effect beyond the Hilton property. It should also be noted that the proposed recreation deck is located in an area that is likely to experience the greatest reduction in wind under tradewind conditions. A perpendicular orientation, with its increased side surfaces along the wind flow, could actually increase wind speeds upon the recreation deck, making activities even more difficult.

As the affected area of potential changes in wind patterns consists entirely of Hilton Hawaiian Village property, the Hilton management has a strong incentive to see that the new building does not create problems for other uses. Project architects and designers will perform additional on site wind analyses before the final design and construction to minimize any wind and associated noise impacts.

We hope that we have addressed the concerns raised by you and your staff. Should you have any questions, please contact me at 521-5361.

Sincerely,

Mark R. Willey
Environmental Planner

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV
Paul Rosendahl, PHRI

The Senate
The Fifteenth Legislature
of the
State of Hawaii

STATE CAPITOL
HONOLULU, HAWAII 96813

September 9, 1991

VIA FAX

Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
Attn: Mr. Art Challacombe

Dear Mr. Challacombe,

I have read the draft EIS for the Hilton Hawaiian Project and I do not find my original misgivings assuaged very much. However, before getting into the details of this particular project, let me say that in view of the projected projects at Fort DeRussy, the Waikikian and the Super Block along Hobron Lane, all of which are in the same immediate area, that no project should be approved until they have been reconciled with the Waikiki Master Plan.

As for the Hawaiian Village Project, about two years ago, Mr. Dieter Huckestein presented a plan to then Representative Joan Hayes and me. We were told only of a fourteen story building which might be used for office space, or might contain around 400 hotel rooms. At the time, Joan and I both reminded Mr. Huckestein that there was still a limit of 30,000 hotel rooms for Waikiki, and that this limit had already been exceeded by several thousand rooms. Now, I am being made aware of this so called Fifth Plan, which calls for a height of 270 feet and twenty-six stories! It still calls for 400 hotel rooms, although the 30,000 limit is ostensibly still in effect.!

With regard to the EIS, the writer apparently feels that because there will be a beautiful waterfall for pedestrians to look at as they pass by, that will make up for the height of the building. I am not sure that is true. This proposed building <u>will</u> intrude into viewplanes for many condominium units. I must interject here that I don't believe my own personal view will be impacted, but I must speak for my

State of Hawaii
Fifteenth Legislature
The Senate

constituents, and I believe that although pedestrians may be aware of the waterfall, they will also have the feeling that there is nothing but a solid wall of concrete around the Hawaiian Village, except for Rainbow Drive. Add to this the impact which will be made if the Waikikian is allowed to build hundreds of more hotel units and it really will be a concrete jungle!

The EIS makes rather light of the noise which will be made by piledrivers. Obviously, whoever wrote this part has not listened to the ear-splitting cacophony which came from the piledriving at the McCully triangle. I live in the Haipuna, and believe me, even on the seventh floor swim deck, one had to shout to be heard. The piledriving has stopped, but the noise goes on, punctuated by that inane and irritating noise which occurs when trucks are backing. Dirt also will be far more irritating to residents than the EIS implies. The amount of dirt and sand which accumulates on kitchen counters and furniture is unbelievable.

Last, but not least, I disagree that traffic impact will not be a problem with 400 more hotel rooms on the Hilton grounds. Right now, every time there is a major function at the Hilton, traffic is badly impeded on Kalia Road. Widening the road and also Ala Moana Boulevard, will help some, of course; but there are already so many trucks and busses at that intersection, that any more than normal Hilton traffic creates traffic problems. And at night when an off duty policeman is directing traffic, his whistle can be heard all over the area.

The Tapa Tower is already out of scale for the area and to add another building, even though slightly smaller that the Tapa Tower is just <u>too much</u>.

Again, let me say that no projects should be approved until the Master Plan is finished and then only if such project falls with the parameters of the Master Plan.

Sincerely,

Mary-Jane McMurdo

Mary-Jane McMurdo
Senator, 15th District

Copy to: Hilton Hawaiian Village, Joint Venture

BCA
BELT COLLINS
& ASSOCIATES
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September 16, 1991
91P - 388 (033.47)

Sen. Mary-Jane McMurdo
Minority Leader
Hawaii State Senate
State Capitol
Honolulu, HI 96813

Dear Sen. McMurdo:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your September 9, 1991 letter commenting on the Draft Environmental Impact Statement (DEIS) for the proposed Kalia Tower project at the Hilton Hawaiian Village. We appreciate the time you spent reviewing the document. Item-by-item responses to your comments are presented below.

Relationship to the Waikiki Master Plan

To the best of our knowledge, the Honolulu City Council will not grant Special Management Area Permits or Waikiki Design District Consistency Certifications until an updated Master Plan for Waikiki has been completed. However, applications for such permits will be accepted and processed by the Department of Land Utilization.

Although neither the City's Waikiki Master Plan or the private Waikiki 2020 Master Plan has been formalized, several preliminary themes from both were able to be incorporated into the Kalia Tower project due to the active participation of representatives from the Hilton Hawaiian Village in both efforts.

Project Scale/Waikiki Development Plan Limits

The Development Plan policy regarding a destination area for visitor units referred to in your letter is discussed on pages V-10 through V-14 of the DEIS. The Department of Land Utilization and the City Council will have to be convinced that the proposed project is indeed consistent with the Development Plan before they will approve it.

With respect to changes in the proposed height of the Kalia Tower, these have occurred as a result of efforts to minimize the adverse visual impacts of the project by minimizing its footprint, maximizing the amount of ground-level landscaping, and creating a structure that is as open as possible at ground level. As explained in the DEIS, a lower structure is possible, but it would reduce the amount of public open space relative to the proposed design.

Impacts on Viewplanes

We agree that the proposed structure will affect views from nearby apartments. The visual effects of the applicant's preferred alternative (as well as those of the other alternatives that are under consideration) are discussed in Section IV-15.0 of the DEIS.

The proposed structure is set back approximately 125 feet from Kalia Road and 150 feet from Ala Moana Boulevard. It occupies only one-quarter of the Ala Moana frontage of the site and one-half of the Kalia Road frontage. This setback is much farther than any of the other structures in the area, including the apartment buildings on the opposite side of Ala Moana Boulevard (many of which crowd the sidewalk). The garden areas and water features, as well as the open nature of the lower 25 feet of the structure, are all designed to emphasize the openness of the area. In view of this, we do not believe it will have the appearance of a concrete wall.

Construction Noise

The DEIS treats noise from construction activities quite seriously. Figure 4.8 makes it clear that noise levels in excess of 100 dB could occur on and immediately around the equipment during pile-driving and that exterior noise levels from this source could exceed 80 dB for short periods at the closest point on neighboring properties. Noise from other construction activities will be considerably lower, but Section 14.4 of the DEIS makes it clear that construction noise is likely to be annoying and even disruptive. Section 14.7 discusses ways that the impacts could be reduced, but notes that the possibilities are limited and that they would not radically reduce noise. Construction activities are, however, short-term in nature, and must conform to Department of Health regulations regarding noise emittance.

Traffic Impacts

We understand your concern for the traffic situation in the vicinity of the Hilton Hawaiian Village. The DEIS contains a thorough discussion of the effects that the proposed project would have on it (see Section 9.3). The fundamental point made in the DEIS is that the great majority of the existing congestion near the Ala Moana Boulevard/Kalia-Ena Roads intersection is the result of regional traffic patterns, not activities at the Hilton Hawaiian Village. The number of additional trips that would be generated by the proposed project is so small that it would not result in a measurable change in the level of service at the intersections in question.

While the proposed project would not significantly alter the existing situation, the management of the Hilton Hawaiian Village recognizes the problems that can occur when a large function is held in its meeting rooms. Because it has successfully maintained more of a "local" flavor than many of the other Waikiki hotels, the Hawaiian Village is very popular with local residents, many of whom celebrate weddings, birthdays, anniversaries, and other important events in their lives with banquets at its meeting rooms. And because residents of the island are far more likely to come by private car than are tourists, these special functions tend to lead to the greatest traffic volumes. The Hotel's management is working closely with the Honolulu Police Department to insure that traffic flows as smoothly as possible, but it is unlikely that congestion can be fully eliminated.

Scale of the Kalia Tower

You conclude by saying that the Tapa Tower is already out of scale for the area, and that adding another building, "...even though slightly smaller than the Tapa Tower, is just too much." It is important to recognize that the Kalia Tower is much smaller than the Tapa Tower by almost every measure -- 400 rooms versus 1,013 rooms, 220,000 square feet versus 1,107,870 square feet, and zero square feet of meeting space versus 26,263 square feet of meeting space. Also, the addition of the Kalia Tower would not change the Hawaiian Village's status as the least-dense resort-hotel complex in Waikiki.

Thank you again for your comments. We hope our responses have helped to clarify the issues you raised. We have discussed your concerns with Mr. Dieter Huckestein, General Manager of the Hilton Hawaiian Village, and he has asked us to extend to you an invitation to meet and further discuss the project, as well as any other aspects of the Hawaiian Village operation that may be of interest to you. Please call me at 521-5361.

Sincerely,

Perry White
Director of Planning

cc OEQC
Art Challacombe, DLU
Dan Dinell, HHV

ROBERT M CRONE ARCHITECT 1188 BISHOP PLACE HONOLULU HI 96816

August 30, 1991

Belt Collins & Associates
680 Ala Moana Blvd, 1st Floor
Honolulu, Hawaii 96813

Attention: Mark Willey

Re: Hilton Hawaiian Village Kalia Tower Draft EIS

Dear Mark,

Thank you for the opportunity to review the Draft EIS for the Hilton Hawaiian Village Kalia Tower.

From an urban design point of view, my greatest concern is the impact of the proposed Kalia Tower on the view corridor at the Ala Moana Gateway to Waikiki. Public views are considered more significant than private ones. Of the public views, the most significant one impacted by the proposed tower, especially with the current attention it is receiving, is the view from the Ala Moana Gateway.

Upon entering Waikiki, the view of open sky is funneled by the Discovery Bay towers on the left and the Ilikai on the right. About half the remain view of sky is further blocked by the Tapa Tower. The Tapa Tower has been criticized for blocking this openness. It is important that the view at this important entry to Waikiki is not further closed in. The first impression of Waikiki would be considerably impacted. The proposed Waikikian Tower will not impact this area further since its position will be entirely in front of the Tapa Tower.

However, it appears that the proposed Kalia Tower will severely impact the view at the Ala Moana Gateway (see enclosed diagram). Yet the Draft EIS examines views from Kalakaua & Ala Moana, from the Wailana and from the Waikiki Plaza, generally more distant and less significant views. I request that the Final EIS include a look at the view from the Ala Moana Gateway with and without the proposed tower. An appropriate vantage point would be in the Diamond Head bound traffic lanes in front of the Marina Theaters.

Second, from an urban design mico-scale point of view, I am concerned about imposing effect of the proposed 270 foot high tower. Other taller towers in the HHV are set back further from public rights-of-way and are screened by lower structures. Comparisons for the Kalia Tower might be the Halekalani (150 feet high) and the Hale Koa (approximately 175 to 200 feet) unless the full impact of the tower is broken by heavy landscaping or lower

fore-court buildings (such as at the Princess Kaiulani). This would suggest, perhaps, a preference for Alternate 4. Figure 4.12 appears to indicate relatively open landscaping. Heavy landscaping could lessen the impact of the tall tower.

Also, during the Waikiki master planning process, preference was stated for people oriented activity spaces at sidewalk level rather than passive spaces. Thus, retail or landscaping that the public can walk through, sit in and participate in are preferable to passive walls (for example at the Waikiki Prince) or landscaped but off limits fore-courts. Without further clarification of the nature of the landscaping in Alternate 5, this might also lean toward Alternate 4.

The Final ZIS might address how these micro-scale urban design issues are addressed.

Third, there appears to be a discrepancy in the heights of the alternatives. Alternate 3 is indicated at 150 feet yet Alternate 4 is indicated at 175 feet. Twenty-five additional feet for one standard floor seems excessive. Likewise, twenty-five floors at eight-and-a-half to nine feet (standard height and that necessary in the other alternatives to meet the heights indicated) plus twenty-five feet open below could be accomplished in less than 250 feet rather than the 270 feet in Alternate 5. I recommend this be refined for the Final EIS.

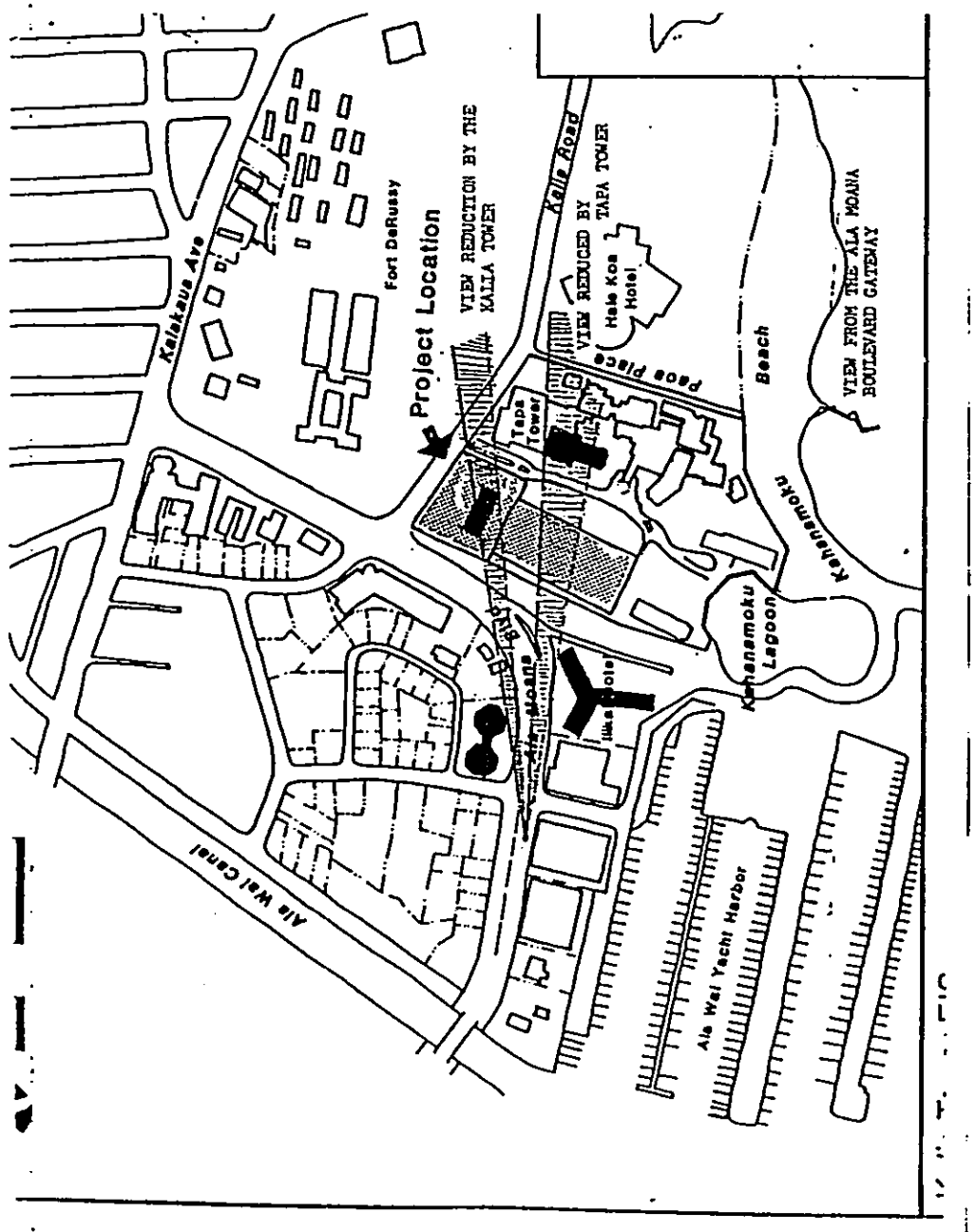
I look forward to seeing these issues addressed in the Final EIS.

Sincerely yours,

ROBERT M CRONE, AIA

One enclosure

cc: C&C Department of Land Utilization
Hilton Hawaiian Village
State OEQC



BCA
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September 9, 1991
91P-357 (033.47)

Mr. Robert M. Crone
4130 Paloma Place
Honolulu, Hawaii 96816

Dear Mr. Crone:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your comments regarding the Kalia Tower DEIS. We appreciate you taking the time to review the document. Responses to the three issues raised in your letter follow below.

Ala Moana View Corridor

We must disagree with your assessment of the view plane analysis performed within the DEIS. In particular, we feel that the proposed Waikikian Hotel will have a much greater impact upon the views within the Waikiki Gateway then you state. The size, shape, and positioning upon the lot of the Waikikian Hotel will present a visual focal point, which, although superimposed to some extent against the Tapa Tower, will nevertheless, create a far more imposing image that can be seen from Ala Moana Boulevard. The attached photographs show how the proposed buildings would appear from the vantage point you suggested.

The Hilton Hawaiian Village shares your desires to enhance the character of the urban environment. Towards this end, the Kalia Tower will actually exceed the City's current setback requirements. In addition, the landscaping to be provided around the building will help break up the full impact of the tower. The lower bulk design of the Kalia Tower, as well as its orientation on the site, will also help lessen the impact of the tower upon views and the pedestrian environment.

Urban Design

The desire to avoid imposing structures close to the pedestrian environment led to the decision to develop the corner of Kalia Road and Ala Moana Boulevard as open space, including water features and sidewalks. The desire is to create an easily accessible pedestrian environment without off-limits fore-courts or passive walls. While people-oriented activity areas can be important elements to a street-scape, they are not appropriate in every instance. The Hilton Hawaiian Village

Joint Venture feels that a continuation of this small shop atmosphere, prevalent along Ala Moana Boulevard, or the continuation of the highly successful Rainbow Bazaar theme to that corner would not appropriately address the other pedestrian-oriented goals put forth by the Department of General Planning.

Building Heights

To address your final concern regarding the heights of the different alternatives, the various designs presented by the project architects contained varied floor heights for the first and second floors depending upon the retail configurations, and for the Spa area. Additional between floor areas necessary for inclusion of the Spa, covered walkways to the Coral Ballroom, etc., also caused variations in height. The preferred alternative height was determined using approximately nine feet per floor, as well as additional areas for floor structures at the first floor, Spa level, and roof areas. As stated in the DEIS, the first floor would be approximately 25 feet high.

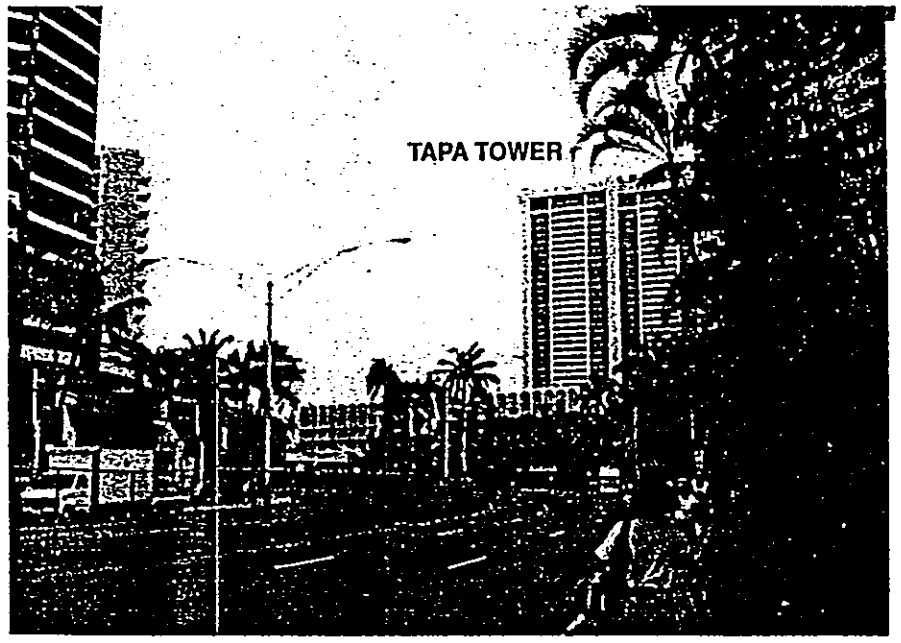
I hope this has helped answer your concerns. Should you have further questions please call me at 521-5361.

Sincerely,

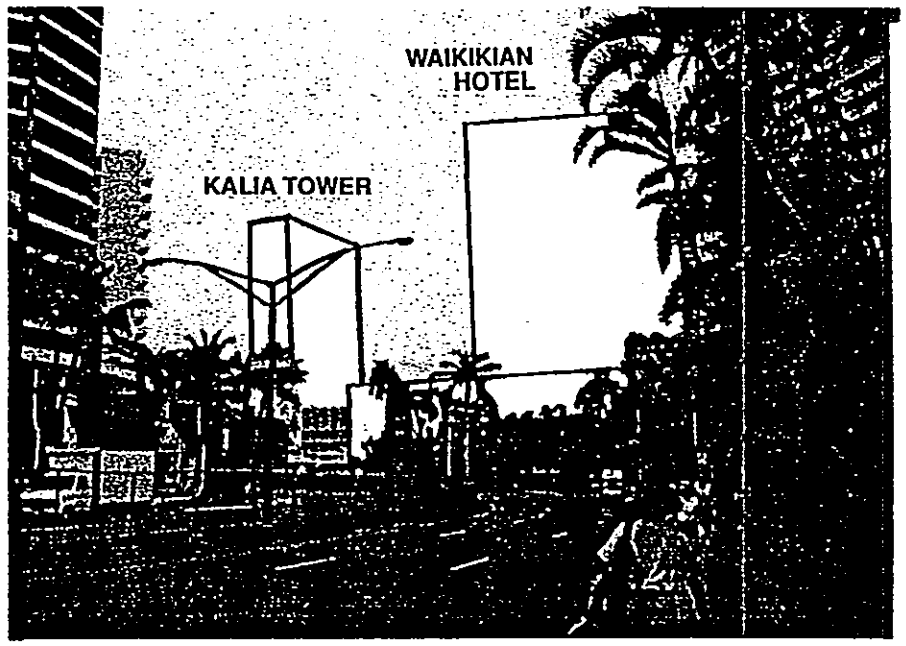
Mark R. Willey
Environmental Planner

MRW:lf

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV



1. Existing view from Hobron / Ala Moana Blvd.



2. View from Hobron / Ala Moana Blvd. after construction of Waikikian Hotel and Kalia Tower.

JOHN WAIHEE
GOVERNOR

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

EDWARD Y HIRATA
DIRECTOR

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

IN REPLY REFER TO
HWY-PS
2.8464

September 9, 1991

Mr. Donald A. Clegg, Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Clegg:

Draft Environmental Impact Statement (DEIS),
Kalia Tower - Hilton Hawaiian Village,
Honolulu, Oahu, TMK: 2-6-9: 13

We are submitting the following comments on the subject documents:

1. The traffic report should include an analysis for the weekend peak traffic period, including the Friday PM peak period.

2. The traffic study should address and evaluate the vehicular and pedestrian movements at the Rainbow Drive and Kalia Road intersection.

3. The traffic analysis should be revised to reflect more appropriate trip generation rates. The rates cited in the DEIS are too low, and do not account for the additional trips represented by visitors to the complex, private vehicles and taxis picking up or dropping off guests, etc. Rates from the ITE,manual are more reasonable.

4. The parking structure and the hotel internal road circulation should be designed to prevent vehicle backups onto Kalia Road and Ala Moana Boulevard.

5. Landscape plans along Ala Moana Boulevard should be coordinated with our Highways Division.

6. Widening of Kalia Road to four lanes from Halekoa Hotel to Saratoga Road should be considered as part of this project's traffic mitigation measures. This roadway improvement should be coordinated with the Port DeRussy Armed Forces Recreation Center Project.

Very truly yours,

Edward Y. Hirata
Director of Transportation

bc: Mr. Mark Willey

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September 16, 1991
91P- 397 (047.33)

Mr. Edward Hirata, Director
Department of Transportation
869 Punchbowl St.
Honolulu, HI 96813-5097

Dear Mr. Hirata:

Hilton Hawaiian Village
Kalia Tower Draft Environmental Impact Statement Response

Thank you for your comments concerning the Kalia Tower DEIS. We appreciate the time taken to review the document. Responses to your individual concerns follow below.

Weekend Traffic

Analyses of weekend traffic anticipated in 1994 both with and without the Kalia Tower project were performed as you suggested. These analyses included background traffic from the various projects in the area (Fort DeRussy, Waikikian, Convention Center, Landmark), and also the mitigation measures proposed through the Waikiki Gateway Master Plan. The results of these analyses show that 1994 weekend vehicle-to-capacity (v/c) ratios are little changed from 1994 PM weekday levels in the "without-project" scenario. The additional Saturday traffic increased the v/c ratio for the intersection of Ala Moana Boulevard/Kalia-Ena Roads from 1.034 to 1.154. The Rainbow Drive/Kalia Road intersection v/c ratio changed from 0.518 to 0.576. Results of these analyses can be seen in Tables 1 to 4 attached.

Present observations done along Kalia Road do not indicate a noticeable difference in weekday and weekend peak hour traffic increases. Thus, the analyses helped verify that this trend would likely continue. Observations of the present conditions also determined that increases along Kalia Road on the weekend were due almost exclusively to traffic going to and from Fort DeRussy.

Traffic entering the Hilton Hawaiian Village at Rainbow Drive currently increases slightly on the entrance movement on Saturday in comparison to the weekday PM peak. This is due to banquets and other short-term events. During these short-term events, which are known well in advance, the Hilton management assigns traffic monitors to direct traffic flow from Ala Moana Boulevard to Rainbow Drive. The Kalia Tower would contain no banquet or convention facilities. Therefore, it would not add to the number of short-term events occurring at the Hilton Hawaiian Village. The Hilton management will continue to upgrade their monitoring of traffic situations during heavy banquet use.

The Kalia Tower project is anticipated to increase traffic by only three percent at the Ala Moana Boulevard/Kalia-Ena Roads intersection. The Saturday PM peak v/c ratio for that intersection is anticipated to change from 1.154 to 1.191 due to the project. In addition, the v/c ratio for the intersection at Rainbow Drive and Kalia Road is expected to change from 0.576 to 0.605. These results are detailed in Tables 4 to 8 attached. Neither change represents a significant change in the anticipated level-of-service.

Rainbow Drive Movements

Use of the NETSIM simulation program allowed a detailed study of the travel times and delays for the individual movements through the intersections in question. Pedestrian movements and levels were built into these analyses and the model calculated vehicle delays based upon potential pedestrian conflicts. Pedestrian timing during the signalization process was also included. Analyses of the individual vehicular movements for the Rainbow Drive intersection are contained in the DEIS in Table 4.10 on page IV-19. Overall vehicle delay would show a slight improvement over present conditions. This is primarily due to the improvements planned as part of the Fort DeRussy project.

Pedestrian movements crossing Kalia Road at the present crosswalk would remain unchanged. Pedestrian crossing of Rainbow Drive would still be available at the present location at the entrance to the Hawaiian Village. As no change in the present signalization is recommended, pedestrian delays at these crossing would not be increased. Pedestrian flows and safety between Ala Moana Boulevard and Rainbow Drive will be improved through the construction of the open space areas and the incorporation of landscape concepts contained within the Waikiki Gateway Master Plan. The goal of the landscape design for the Kalia Tower site is to provide a green barrier between the pedestrian and the traffic along Kalia Road.

Trip Generation Rates

When first attempting to estimate the number of additional trips to be generated by the proposed Kalia Tower, we considered using trip-generation rates from the ITE Trip Generation Manual, now in its Fifth Edition. If the ITE rates were correct, the Hilton Hawaiian Village would now be generating between 1,500 and 1,800 peak-hour trips. Our traffic counts showed that the entire resort produced only approximately 240 peak hour trips (only 13 percent of the ITE rate). The observed rate included all vehicles entering and exiting Rainbow Drive, specifically, taxis, trucks, vans, hotel vehicles, and passenger cars. The great disparity between actual observed and the ITE rates made it clear to us that the ITE rates were not appropriate to use in this situation.

The cause of the disparity can be found within the Manual itself, as the Hotel rates which it contains were based on only six to seven cases on the Mainland dating back to 1966, with the sample hotels much smaller and located in areas outside heavily urbanized areas. The situation found within Waikiki, with its dense urban environment, extensive private and City bus service, and large number of foreign tourists, produce very low trip-generation rates for its hotels, especially full-service resort hotels like the Hilton Hawaiian Village.

Given the unique situation of both Waikiki in general, and the Hilton Hawaiian Village in particular, as well as the large differences between ITE rates and the observed situation, we decided to gather data and calibrate a trip-generation equation that would better reflect local conditions, as is recommended by the ITE Manual when confronted with this situation. To do this we used parking counts, knowledge of employee driving habits, rental automobile use by guests, number of parking permits issued commercial vendors, and the observed ingress and egress from the Hawaiian Village.

The data collected showed two distinct vehicle usage patterns for tourists. On an occupied room basis, it was found that only 5 percent of Japanese guests utilized an automobile and only 10 percent of Westbound tourists used a car during their stay. Thus, to determine the number of trips to assign tourists, the higher 10 percent rate was used. This reflects the target market orientation of the Kalia Tower, which is towards mainland business persons.

In addition to the tourism component, traffic generated from the Kalia Tower employees and the increased commercial space was factored in. Presently, only 50 percent of Hilton Hawaiian Village employees and commercial vendors drive. This can be determined from the number of employee parking permits issued by the Hilton management. The additional commercial space to be included in the Kalia Tower was seen as too small to generate shopping related trips. Therefore, trip generation for both the employees and commercial employees was based upon the observed 50 percent

In reviewing the methodology employed for the impact analysis, we feel that the trip generation rates used for the Hilton Hawaiian Village are very representative of the situation. However, we must stress that they are valid only for the Hilton Hawaiian Village. Other hotels, given their different services, locations, and tourist mixes, would vary somewhat in their trip generation, and rates for them would need to be calibrated on an individual basis.

Vehicle Queuing on Rainbow Drive

The port cochere for the Kalia Tower will be located and designed so that vehicles will not queue back onto Rainbow Drive. Also, buses will continue to be banned from utilizing the Rainbow Drive entrance to the Hawaiian Village. The port cochere for the Kalia Tower will be used only by taxis and by private automobiles dropping off baggage before they continue on to the parking garage. Vehicle attendance will be strictly monitored to ensure that no queuing occurs. During short-term events, traffic monitors will be employed to ensure safe and orderly traffic circulation in the Hilton Hawaiian Village area.

Landscape Coordination

Landscape plans along Ala Moana Boulevard will be coordinated with your Department.

Widening of Kalia Road

The widening of Kalia Road to four lanes is a recommendation contained within the Fort DeRussy Improvements EIS as a part of their project. The Kalia Tower does not front the stretch of road in question, and it is anticipated that traffic from it would amount to less than one percent of the forecast 1994 PM two-way volume between the Hale Koa and Saratoga Road. Thus, the management of the Hilton Hawaiian Village does not feel it is necessary to widen Kalia Road through Fort DeRussy as a part of the Kalia Tower project.

I hope that these responses have answered your concerns. Should you have any questions please contact me at 521-5361.

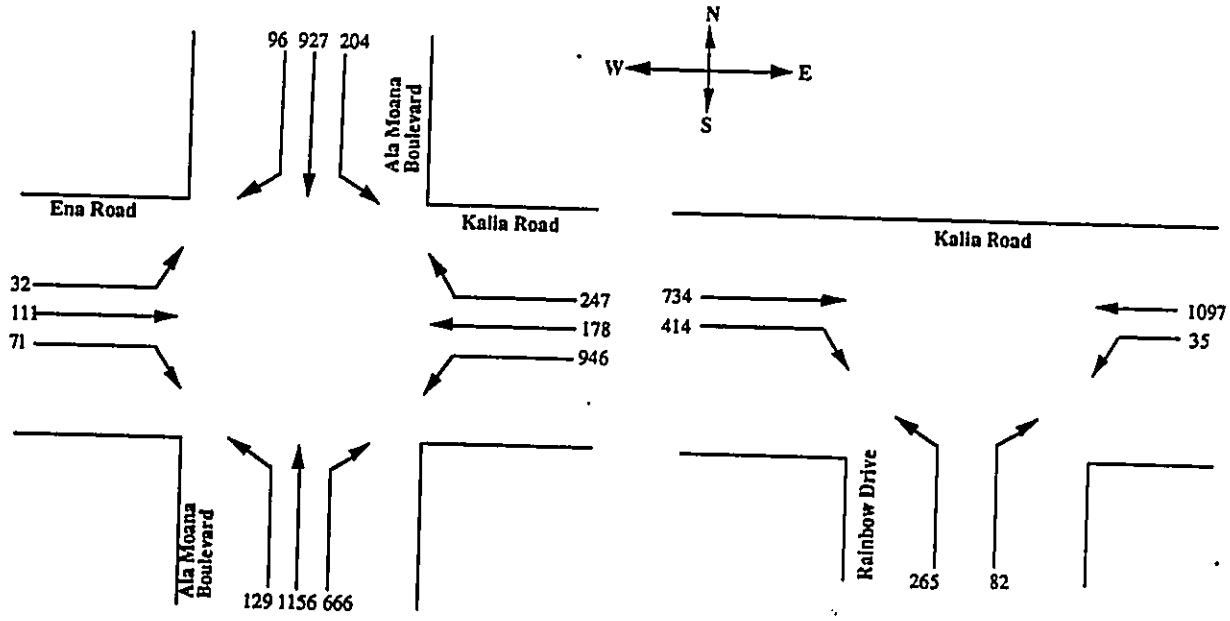
Sincerely,

Mark Willey
Transportation Planner

attachments

cc: OEQC
Art Challacombe, DLU
Dan Dinell, HHV

1994 Saturday PM Peak Traffic Volumes - Without Kalia Tower



1994 Saturday PM Peak Traffic Volumes - With Kalia Tower

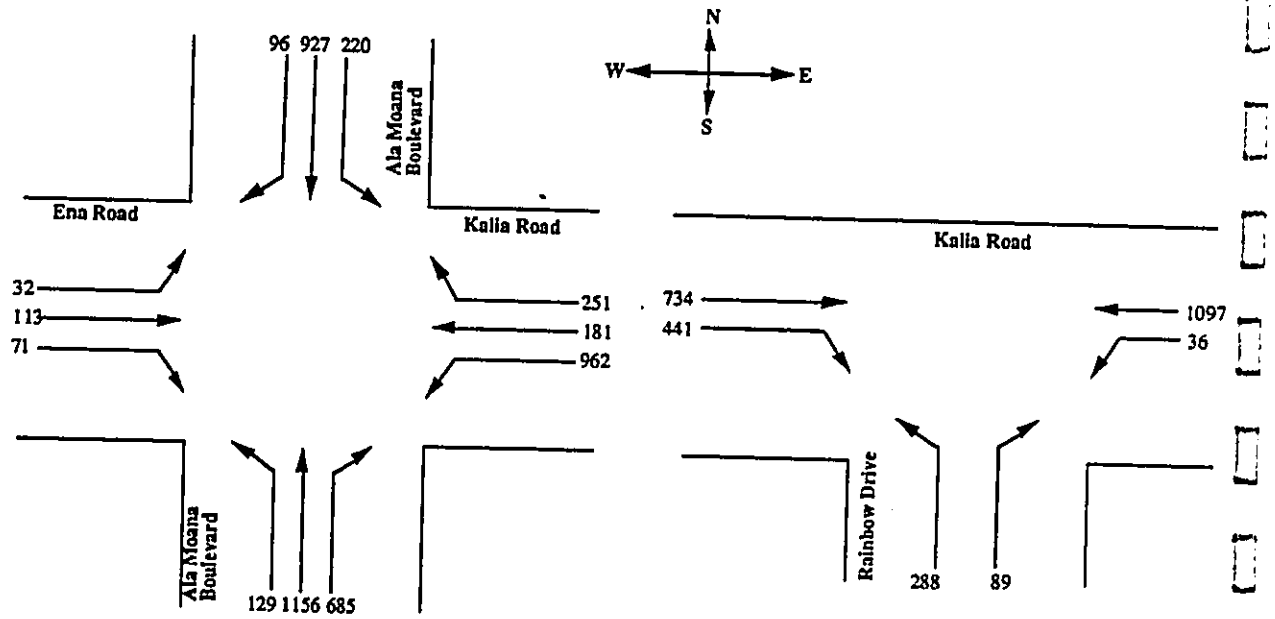


Table 1

Level-of-Service for Ala Moana Boulevard/Kalia-Ena Road Intersection
1994, Weekday PM Peak Hour, Without Kalia Tower

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Ala Moana (Northbound)	Left	0.518	54.7	E	94.5	F
	Thru	1.178	125.4	F		
	Right	0.465	4.8	A		
Ala Moana (Southbound)	L/T/R	0.934	45.1	E	43.2	E
Kalia (Westbound)	Left	1.332	*	*	*	*
	Left/Thru	1.283	*	*		
	Right	0.253	3.7	A		
Ena (Eastbound)	L/T/R	0.829	61.6	F	60.7	F
INTERSECTION		1.034	*	*		

* Delay and LOS not meaningful when V/C ratio is greater than 1.2

Table 2

Level-of-Service for Ala Moana Boulevard/Kalia-Ena Road Intersection
1994, Saturday PM Peak Hour, Without Kalia Tower

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Ala Moana (Northbound)	Left	0.552	0.172	E	34.6	D
	Thru	0.876	0.339	E		
	Right	0.495	0.780	B		
Ala Moana (Southbound)	Left	0.611	0.172	E	43.0	E
	L/T/R	0.883	0.339	E		
Kalia (Westbound)	Left	1.638	0.253	*	*	*
	Left/Thru	1.577	0.253	*		
	Right	0.311	0.780	A		
Ena (Eastbound)	L/T/R	1.016	0.172	F	95.1	F
INTERSECTION		1.154	*	*		

* Delay and LOS not meaningful when V/C ratio is greater than 1.2

Table 3

Level-of-Service for Kalia Road/Rainbow Drive Intersection
1994, Weekday, PM Peak Hour, Without Kalia Tower

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Kalia - Eastbound	Thru/Right	0.568	10.4	B	4.8	A
Kalia - Westbound	Left/Thru	0.427	8.5	B	4.0	A
Rainbow Dr. - North	Left	0.398	21.4	C	13.5	B
Rainbow Dr. - North	Right	0.052	0.2	A		
INTERSECTION		0.518	5.8	B		

Table 4

Level-of-Service for Kalia Road/Rainbow Drive Intersection
1994, Saturday PM Peak Hour, Without Kalia Tower

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Kalia - Eastbound	Thru/Right	0.651	5.5	B	11.6	B
Kalia - Westbound	Left/Thru	0.566	4.7	A	6.8	B
Rainbow Dr. - North	Left	0.398	16.0	C	16.7	C
Rainbow Dr. - North	Right	0.052	0.2	A		
INTERSECTION		0.576	15.1	C		

Table 5

Level-of-Service for Ala Moana Boulevard/Kalia-Ena Road Intersection
1994, Weekday PM Peak Hour, With Kalia Tower

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Ala Moana (Northbound)	Left	0.518	54.7	E	93.5	F
	Thru	1.178	125.4	F		
	Right	0.491	5.1	B		
Ala Moana (Southbound)	L/T/R	0.939	45.6	E	45.5	E
Kalia (Westbound)	Left	1.359	*	*	*	*
	Left/Thru	1.310	*	*		
	Right	0.258	3.7	A		
Ena (Eastbound)	L/T/R	0.838	62.6	F	62.6	F
INTERSECTION		1.043	*	*		

* Delay and LOS not meaningful when V/C ratio is greater than 1.2

Table 6

Level-of-Service for Ala Moana Boulevard/Kalia-Ena Road Intersection
1994, Satuday PM Peak Hour, With Kalia Tower

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Ala Moana (Northbound)	Left	0.552	0.172	E	34.4	D
	Thru	0.876	0.339	E		
	Right	0.517	0.780	B		
Ala Moana (Southbound)	Left	0.659	0.172	E	37.9	D
	L/T/R	0.652	0.339	D		
Kalia (Westbound)	Left	1.666	0.253	*	*	*
	Left/Thru	1.604	0.253	*		
	Right	0.316	0.780	A		
Ena (Eastbound)	L/T/R	1.025	0.172	F	97.7	F
INTERSECTION		1.191				

* Delay and LOS not meaningful when V/C ratio is greater than 1.2

Table 7

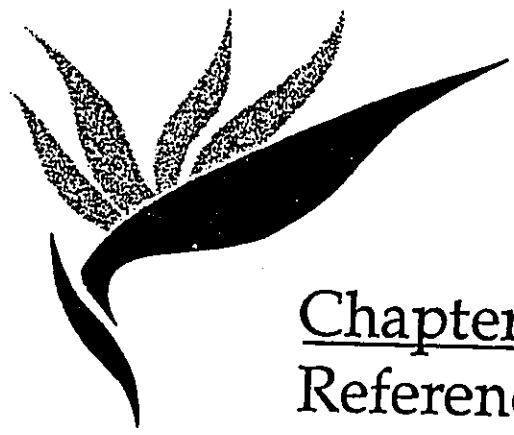
Level-of-Service for Kalia Road/Rainbow Drive Intersection
1994, Weekday PM Peak Hour, With Kalia Tower

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Kalia - Eastbound	Thru/Right	0.596	5.0	B	5.0	B
Kalia - Westbound	Left/Thru	0.432	4.1	A	4.1	A
Rainbow Dr. - North	Left	0.432	16.2	C	13.6	B
Rainbow Dr. - North	Right	0.059	0.2	A		
INTERSECTION		0.547	6.0	B		

Table 8

Level-of-Service for Kalia Road/Rainbow Drive Intersection
1994, Satuday PM Peak Hour, With Kalia Tower

DIRECTION	LANE GROUP	V/C	DELAY (SEC/V)	LOS	APPROACH DELAY (SEC/V)	APPROACH LOS
Kalia - Eastbound	Thru/Right	0.678	5.8	B	11.7	B
Kalia - Westbound	Left/Thru	0.577	4.8	A	6.9	B
Rainbow Dr. - North	Left	0.432	16.2	C	16.6	C
Rainbow Dr. - North	Right	0.059	0.2	A		
INTERSECTION		0.605	15.1	C		



Chapter VIII
References

Chapter VIII
References

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Appendices

APPENDIX A

Archaeological Survey Correspondence

PHRI

Paul H. Rosendahl, Ph.D., Inc.
Archaeological • Historical • Cultural Resource Management Studies & Services
305 Mohouli Street • Hilo, Hawaii 96720 • (808) 969-1763 • FAX (808) 961-6998
P.O. Box 23305 • G. M. F., Guam 96921 • (671) 472-3117 • FAX (671) 472-3131

Report 170-050491

May 3, 1991

Mr. Mark Willey
Belt, Collins & Associates
680 Ala Moana Blvd., Suite 200
Honolulu, Hawaii 96813

Subject: ***Hilton Hawaiian Village Monitoring Project***
Hilton Hawaiian Village
Land of Waikiki, Kona District, Island of Oahu

Dear Mr. Willey,

Enclosed is the map you requested showing the locations of Trenches A and C. The locations are only approximate, but the map does show the general area covered by the trenches. During PHRI Project 85-170 profiles of various sections of both trenches were recorded. The profiles for Trench A indicate the subsurface in the trench area has been extensively modified and consists primarily of concrete, asphalt, sand, and soil. The Trench C profiles are generally similar and in addition contain trashpits. Within the trashpits are numerous, primarily modern historic artifacts—mostly fragmented ceramics, glass, and miscellaneous building material.

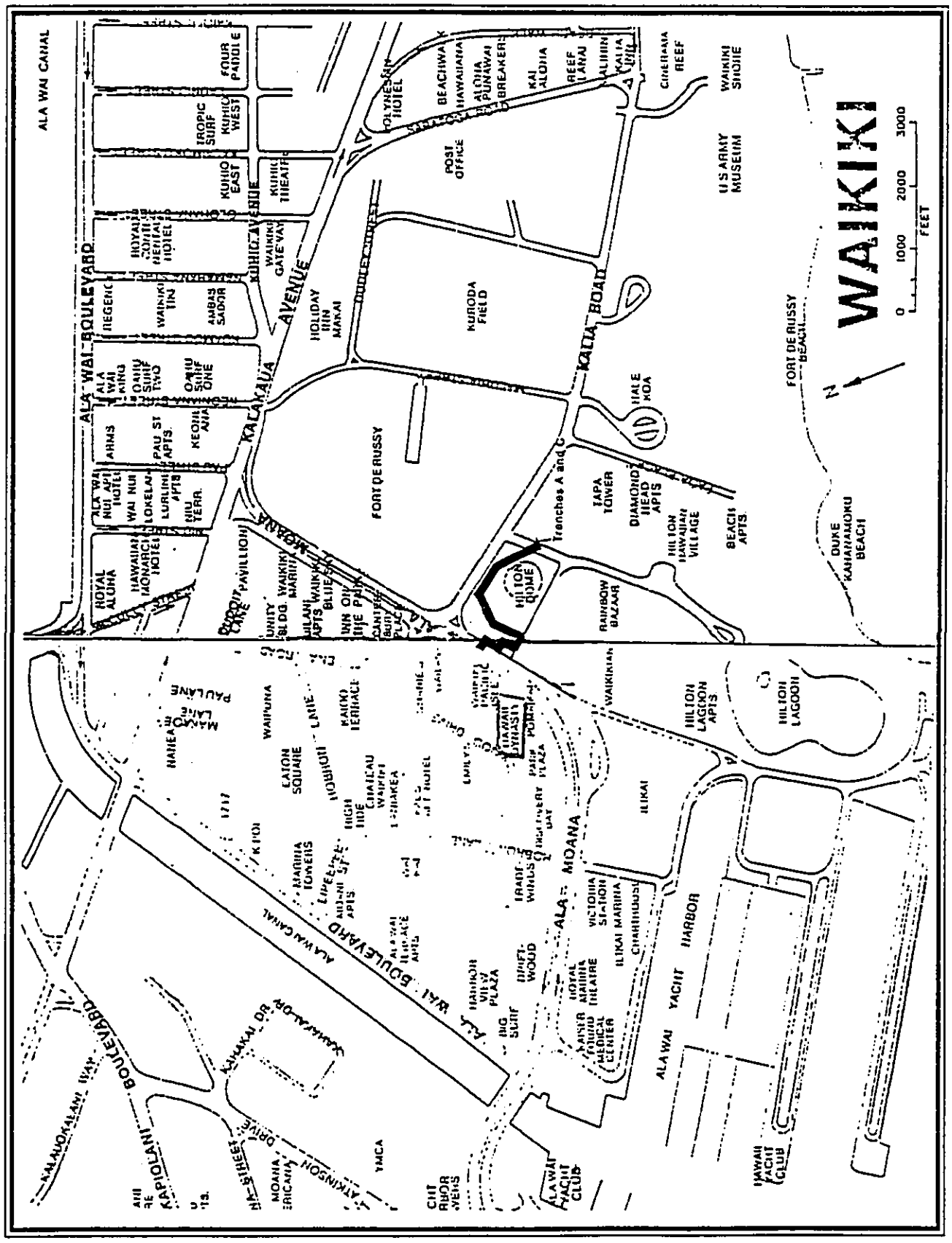
Given the evidence, it is unlikely that the area you wish to redevelop (the area in the immediate vicinity of the Hilton Dome) contains prehistoric or otherwise significant archaeological remains. However, because this is not a certainty, we recommend that any earth moving in conjunction with future development of the area be monitored by a qualified archaeologist.

If you have any questions, please contact me at our main Hilo office (808-969-1763).

Sincerely yours,

Paul H. Rosendahl, Ph.D.
President and Principal
Archaeologist

lmk:lmk


ALA WAI CANAL
ALA WAI BOULEVARD
KUHIO AVENUE
KALAKAUA AVENUE
KALIA ROAD
FORT DE RUSSY
WAIKIKI
0 1000 2000 3000
FEET
HILTON HAWAIIAN VILLAGE
HILTON LAGOON
ALA WAI YACHT HARBOR
KAPIOLANI BOULEVARD
ALA WAI BOULEVARD
MOANA

PROJECT 170 - HILTON HAWAIIAN VILLAGE

Paul H. Rosendahl, Inc. (PHRI), from July 1, 1985 to early 1987, conducted a program of archaeological monitoring at the Hilton Hawaiian Village Mechanical Loop, located in Waikiki, Honolulu, Hawaii. The work was conducted at the request of Hilton Hotels Corporation. The overall goal of the work was to fulfill permit conditions imposed by the City and County of Honolulu Department of Land Utilization. The specific objectives of the work were to monitor excavations of various areas and trenches, and to identify and record cultural resources that might be encountered during the excavations. The overall program was to include limited background research, data analyses, and preparation of reports. The monitoring crew consisted of one to two persons; generally, one archaeologist monitored excavations while the other examined excavated fill for artifacts and other cultural remains.

For purposes of analysis, the project area was subdivided into seven monitoring areas (Areas 1-7). The following outlines the areas, and the various trenches and other excavation work that was monitored:

Area 1 - Trenches A and C, and Trench TT/KR (trench along Kalia Road).
Area 2 - Trenches D, K, G, and RTE (Rainbow Tower Entrance).
Area 3 - Rainbow Tower, Old Pool Site, Temporary Pool Site, New Pool Site, Trench N, Trenches HTB/NHTB/New Hau.
Area 4 - Duck Pond, Trench L, RTE.
Area 5 - Duck Pond, Trenches E, H, I, J.
Area 6 - Fire Line Trench, Tapa Tower, Trench M, Trench F.
Area 7 - Under Lee Apartments, Garden Terrace, Lower Ocean Tower Complex.

Over 4,000 historic artifacts were identified during the monitoring. The artifacts include ceramics, glass, metal fragments, and miscellaneous building materials and hardware. In general, the excavations showed that the project area consists of disturbed fill overlying sterile sand. Within this fill are occasional horizontal features. Most of the features are pits, and most of the pits contain historic debris and probably functioned as trash pits. No evidence of prehistoric occupation was encountered in the project area.

APPENDIX B

Land Use Ordinance 89-154

ORDINANCE NO. 89-154 BILL NO. 151 (1989)
CD-2

A BILL FOR AN ORDINANCE TO AMEND CHAPTER 21A, REVISED ORDINANCES OF HONOLULU 1978, AS AMENDED (THE LAND USE ORDINANCE), RELATING TO TRANSIENT VACATION UNITS.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. Section 21A-3.120, Revised Ordinances of Honolulu 1978, as amended, is amended by adding a new Subsection 1, ("Nonconforming Use Certificates for Transient Vacation Units") to read as follows:

"21A-3.120-1. Nonconforming Use Certificates for Transient Vacation Units.

A. The purpose of this subsection is to treat certain transient vacation units which have been in operation since prior to October 22, 1986 as nonconforming uses and to allow them to continue subject to obtaining a nonconforming use certificate as provided by this subsection.

B. The owner, operator, or proprietor of any transient vacation unit which is operating in an area where such use is not expressly permitted by this chapter shall, within nine months of the effective date of this ordinance, establish to the satisfaction of the director that the use was in existence prior to October 22, 1986 and has continued through the effective date of this ordinance, or shall cease its operation. The owner, operator, or proprietor shall have the burden of proof in establishing that the use is nonconforming. Documentation substantiating existence may include records of occupancy or tax documents, such as State of Hawaii general excise tax records, transient accommodations tax records, and federal and/or State of Hawaii income tax returns, for the years 1986 to 1989. Upon a determination that the use was in existence prior to October 22, 1986 and has continued through the effective date of this ordinance, the director shall issue a nonconforming use certificate for the transient vacation unit.

C. Failure to obtain a nonconforming use certificate within nine months of the effective date of this ordinance shall be presumptive evidence that the alleged nonconforming use was

not in lawful existence prior to October 22, 1986 or has not continued through the effective date of this ordinance, is not a bona fide nonconforming use, and shall not continue as a nonconforming use, but shall be treated as an illegal use.

D. The owner, operator, or proprietor of any transient vacation unit who has obtained a nonconforming use certificate under this subsection 21A-3.120-1 shall apply to renew the nonconforming use certificate annually during the thirty-day period preceding the anniversary date of the issuance of the certificate by submitting to the director proof that there were in effect a State of Hawaii general excise tax license and transient accommodations tax license for the nonconforming use for the prior calendar year and that the nonconforming use was continued during that calendar year. Failure to renew the nonconforming use certificate shall create a presumption that the nonconforming use of the transient vacation unit was discontinued for the prior calendar year."

SECTION 2. Section 21A-3.120, Revised Ordinances of Honolulu 1978, as amended, is amended to add a new Subsection 2, ("Bed and Breakfast Homes; Nonconforming Use Certificates") to read as follows:

"21A-3.120-2. Bed and Breakfast Homes; Nonconforming Use Certificates.

A. The purpose of this subsection is to prohibit bed and breakfast homes, while permitting certain bed and breakfast homes which have been in operation since prior to the effective date of this ordinance to continue to operate as nonconforming uses subject to obtaining a nonconforming use certificate as provided by this subsection.

B. The owner, operator, or proprietor of any bed and breakfast home shall, within nine months of the effective date of this ordinance, establish to the satisfaction of the director that the use was in existence as of the effective date of this ordinance, or shall cease its operation. The owner, operator, or proprietor shall have the burden of proof in establishing that the use is nonconforming. Documentation substantiating existence of a bed and breakfast home as of the effective date of this ordinance may include records of occupancy or tax documents, such as State of Hawaii general excise tax records, transient accommodations tax records, and federal and/or State of Hawaii income tax returns, for the year preceding the effective date of this ordinance. Upon a determination that the use was in existence as of the effective date of this ordinance, the director shall issue a nonconforming use certificate for the bed and breakfast home.

C. Failure to obtain a nonconforming use certificate within nine months of the effective date of this ordinance shall be presumptive evidence that the alleged nonconforming use was not in lawful existence as of the effective date of this ordinance, is not a bona fide nonconforming use, and shall not continue as a nonconforming use, but shall be treated as an illegal use.

D. The owner, operator, or proprietor of any bed and breakfast home who has obtained a nonconforming use certificate under this subsection 21A-3.120-2 shall apply to renew the nonconforming use certificate annually during the thirty-day period preceding the anniversary date of the issuance of the certificate by submitting to the director proof that there were in effect a State of Hawaii general excise tax license and transient accommodations tax license for the nonconforming use for the prior calendar year and that the nonconforming use was continued during that calendar year. Failure to renew the nonconforming use certificate shall create a presumption that the nonconforming bed and breakfast use was discontinued for the prior calendar year.

E. Except those bed and breakfast homes which are nonconforming uses, and, after nine months from the effective date of this ordinance, for which a nonconforming use certificate has been issued and renewed, as required, pursuant to this subsection 21A-3.120-2, bed and breakfast homes are prohibited in all zoning districts. Subsection 21A-3.140-1 relating to home occupations shall not apply to bed and breakfast homes.

F. Those bed and breakfast homes for which a nonconforming use certificate has been issued and renewed, as required, pursuant to this subsection 21A-3.120-2 shall operate pursuant to the following restrictions and standards:

1. Detached dwellings used as bed and breakfast homes shall be occupied by a family and shall not be used as a group living facility. Rooming shall not be permitted in bed and breakfast homes.

2. No more than two guest rooms shall be rented to guests, and the maximum number of guests permitted within the bed and breakfast home at any one time shall be four.

3. There shall be no exterior signage that advertises or announces that the dwelling is used as a bed and breakfast home.

4. One off-street parking space shall be provided for each guest room, in addition to the required spaces for the dwelling unit."

SECTION 3. Chapter 21A, Revised Ordinances of Honolulu 1978, is amended by amending Table 12-A ("Resort District Permitted Uses and Structures") to read as follows:

89-154

"TABLE 12-A

RESORT DISTRICT
PERMITTED USES AND STRUCTURES

Principal	Special Accessory	Conditional
Art galleries, museums	See Article 9, Accessory Use	See Article 4
Bars, nightclubs, taverns		Conditional Uses, Type 1:
Cabarets, dance halls		Helistops
Commercial parking lots and garages		Historic structures, Use of
Convenience stores	In addition:	Joint development
Dwellings, multi-family	Amusement and recreation facilities, indoor	Joint use of parking
Eating establishments	Business services	Marina accessories
Hotels	Day-care facilities	Off-site parking facilities
Meeting facilities	Duplex units	Utility installations, Type B
Public uses and structures	Dwellings, detached, one-family, two-family	
Recreation facilities, outdoor	Financial institutions	Conditional Uses, Type 2:
Telecommunications antennas, provided that fencing or other barriers are provided to restrict public access within the area expose to a power density of 0.1 milliwatt/cm²	Home occupations, see also Article 3	None"
Time sharing	Kennels, see also Article 3	
Theaters	Medical clinics	
Transient vacation [rentals] units	Personal services	
Utility installations, Type A	Photography studios	
	Retail establishments	

89-154

SECTION 4. Section 21A-7.80-5.A, Revised Ordinances of Honolulu 1978, as amended, is amended to read as follows:

"A. Permitted Uses.

1. Art galleries and museums.
2. Car rental establishments, excluding repair facilities.
3. Commercial parking lots and garages.
4. Day-care facilities.
5. Hotels.
6. Marina accessories.
7. Meeting facilities.
8. Other uses and structures: Uses and structures customarily associated with and clearly incidental and subordinate to permitted uses and structures.
9. Public uses and structures.
10. Recreational facilities, outdoor.
11. Retail establishments, provided there is no outdoor storage or display of merchandise, financial institutions, office buildings for visitor industry-oriented activities, including eating establishments, theaters, indoor amusement and recreation facilities, excluding amusement arcades.
12. Time sharing.
13. Transient vacation [rentals] units.
14. Utility installations, Type A."

SECTION 5. Chapter 21A, Article 9, Revised Ordinances of Honolulu 1978, as amended, is amended by adding new definitions for "Bed and Breakfast Home," "Corporate Retreat," "Rooming" and "Transient Vacation Unit," to read as follows:

a. "Bed and Breakfast Home. A use in which overnight accommodations are provided to guests for compensation, for periods of less than 30 days, in the same detached dwelling as that occupied by an owner, lessee, operator or proprietor of the detached dwelling."

b. "Corporate Retreat. A transient vacation unit which is furnished with or without compensation to transient occupants, including but not limited to employees, directors, executives or shareholders of a business, company or corporation, including non-profit corporations."

c. "Rooming. A use accessory to the principal use of a dwelling unit in which overnight accommodations are provided to persons ("roomers") for compensation for periods of 30 days or more in the same dwelling unit as that occupied by an owner, lessee, operator or proprietor of the dwelling unit."

d. "Transient Vacation Unit. A dwelling unit or lodging unit which is furnished for compensation to transient occupants for less than 30 days, other than a bed and breakfast home. For purposes of this definition, compensation includes monetary payment, services or labor of employees."

SECTION 6. Chapter 21A, Article 9, Revised Ordinances of Honolulu 1978, as amended, is amended by deleting the definition of "Transient Vacation Rentals," as follows:

"[Transient vacation rentals. Dwelling or lodging unit rentals with the duration of occupancy less than 30 days for the transient occupant.]"

SECTION 7. Chapter 21A, Article 9, Revised Ordinances of Honolulu 1978, as amended, is amended by amending the definitions of "Dwelling Unit," and "Lodging Unit," to read as follows:

a. "Dwelling Unit. A room or rooms connected together, constituting an independent housekeeping unit for a family and containing a single kitchen. Two or more essentially separate structures, except for a token connection, such as a covered walkway or a trellis, do not constitute a single dwelling unit. Unless specifically permitted in use regulations, dwelling unit shall not include a unit used for "time sharing" or ["transient vacation rental"] a transient vacation unit as defined in this Chapter."

b. "Lodging Unit. A room or rooms connected together, constituting an independent living unit for a family which does not contain any kitchen. Unless specifically permitted in use regulations, "lodging unit" shall not include a unit used for "time sharing" or ["transient vacation rental"] a transient vacation unit as defined in this Chapter."

SECTION 8. Ordinance material to be repealed is bracketed. New material is underscored. When revising, compiling, or printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the Corporation Counsel need not include the brackets, the bracketed material or the underscoring. When printing this ordinance for inclusion in the Revised Ordinances of Honolulu, the Corporation Counsel may italicize those words or phrases thereof that are defined in Chapter 21A, Article 9, Revised Ordinances of Honolulu 1978, as amended.

When revising, compiling, or printing this ordinance for inclusion in the Revised Ordinance of Honolulu, the Corporation Counsel is directed to replace the phrase "effective date of this ordinance" with the actual effective date of this ordinance.

When printing the tables revised by this ordinance in the Revised Ordinances of Honolulu, the Corporation Counsel may adjust the location of the table and column headings and footnotes as may be appropriate and indicate that a table or column is continued. The failure to set forth the text of any footnote herein shall not be deemed a repeal thereof. The Corporation Counsel shall amend Chapter 21A, Revised Ordinances of Honolulu 1978, Table A, as necessary, to conform to this ordinance. To the extent that the tables of contents to Chapter 21A, Revised Ordinances of Honolulu 1978, or of specific articles thereof, or any table of Tables or Figures or any number references therein, requires amendment to reflect the amendments made by this ordinance, the Corporation Counsel is directed to make such amendments.

APPENDIX C

NETSIM Computer Simulation Example Results; 1994, "With-Kalia Tower"

1

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TTTTTTTTTTT  RRRRRRRRR      AAAAAAA     FFFFFFFFFFF
TTTTTTTTTTT  RRRRRRRRRR    AAAAAAAAA    FFFFFFFFFFF
TTTTTTTTTTT  RRRRRRRRRRR  AAAAAAAAAAA   FFFFFFFFFFF
    TTT      RRR      RRR  AAA   AAA    FFF
    TTT      RRR      RRR  AAA   AAA    FFF
    TTT      RRRRRRRRRRR   AAAAAAAAAAA  FFFFFFF
    TTT      RRRRRRRRRR    AAAAAAAAAAA  FFFFFFF
    TTT      RRR RRR       AAA   AAA    FFF
    TTT      RRR  RRR      AAA   AAA    FFF
    TTT      RRR   RRR     AAA   AAA    FFF
    TTT      RRR    RRR    AAA   AAA    FFF
    TTT      RRR     RRR   AAA   AAA    FFF
    TTT      RRR      RRR  AAA   AAA    FFF
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1

RELEASE DATE = 10/10/89
VERSION 3.00
TRAF SIMULATION MODEL

DEVELOPED FOR

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
TRAFFIC SYSTEMS DIVISION

0**********

START OF CASE 1

****

0***** WARNING - MESSAGE NUMBER 500, ROUTINE GLNKFN, PARAMETER(S) - P1 = 45, P2 = 49, P3 = 33
0***** WARNING - MESSAGE NUMBER 500, ROUTINE GLNKFN, PARAMETER(S) - P1 = 33, P2 = 49, P3 = 45
1 INITIALIZATION STATISTICS

TIME INTERVAL NUMBER	SUBNETWORK TYPE	PRIOR CONTENT (VEHICLES)	CURRENT CONTENT (VEHICLES)	PERCENT DIFFERENCE
1	NETSIM	0	209	10000
2	NETSIM	209	296	41
3	NETSIM	296	354	19

1 INITIALIZATION TIME EXHAUSTED, SIMULATION WILL BE PERFORMED ANYWAY
CUMULATIVE NETSIM STATISTICS AT TIME 16:36: 0

ELAPSED TIME IS 0: 6: 0 (360 SECONDS), TIME PERIOD 1 ELAPSED TIME IS 360 SECONDS

LINK		VEHICLE MILES	VEHICLE TRIPS	VEHICLE MINUTES MOVE TIME	VEHICLE MINUTES DELAY TIME	VEHICLE MINUTES TOTAL TIME	RATIO MOVE/ TOTAL	MINUTES/MILE TOTAL TIME	MINUTES/MILE DELAY TIME	SECONDS / VEHICLE TOTAL TIME	SECONDS / VEHICLE DELAY TIME	SECONDS / VEHICLE QUEUE TIME	SECONDS / VEHICLE STOP TIME	AVERAGE VALUES STOPS (%)	AVERAGE VALUES VOLUME VPH	AVERAGE VALUES SPEED MPH
(2,	7)	4.81	88	11.4	47.6	59.0	.19	12.28	9.90	40.2	32.4	20.9	19.1	70	880	4.9
(6,	7)	14.27	269	24.6	115.4	140.0	.18	9.81	8.09	31.2	25.7	15.4	12.9	69	2690	6.1
(7,	6)	.00	0	.0	.0	.0	.00	.00	.00	.0	.0	.0	.0	0	0	.0
(7,	8)	11.10	235	19.2	32.1	51.2	.37	4.62	2.89	13.1	8.2	4.0	3.9	12	2350	13.0
(7,	33)	8.36	122	14.4	7.8	22.3	.65	2.66	.94	11.0	3.9	.0	.0	2	1220	22.5
(8,	7)	.00	0	.0	.0	.0	.00	.00	.00	.0	.0	.0	.0	0	0	.0
(8,	3)	4.39	68	10.4	3.0	13.4	.78	3.06	.69	11.9	2.7	.0	.0	0	680	19.6
(8,	9)	17.70	294	30.5	12.9	43.4	.70	2.45	.73	8.9	2.6	.0	.0	0	2940	24.5
(9,	8)	.00	0	.0	.0	.0	.00	.00	.00	.0	.0	.0	.0	0	0	.0
(17,	18)	5.68	75	11.4	3.2	14.5	.78	2.56	.56	11.6	2.5	.0	.0	0	750	23.5
(17,	26)	1.91	87	3.8	4.5	8.4	.46	4.37	2.37	5.8	3.1	.4	.3	4	870	13.7
(17,	27)	1.35	21	5.4	.6	6.0	.90	4.47	.47	17.2	1.8	.0	.0	0	210	13.4
(17,	31)	.31	6	1.2	.4	1.6	.77	5.18	1.18	16.0	3.6	.0	.0	0	60	11.6
(18,	17)	5.39	71	10.8	28.2	39.0	.28	7.23	5.23	33.0	23.9	11.9	11.4	57	710	8.3
(24,	25)	3.15	94	6.3	19.5	25.8	.24	8.18	6.18	16.4	12.4	5.0	4.3	48	940	7.3
(24,	28)	1.78	27	7.1	.1	7.2	.98	4.07	.07	16.1	.3	.0	.0	0	270	14.7
(24,	49)	11.25	124	26.7	200.3	227.1	.12	20.19	17.81	109.9	96.9	65.4	62.1	94	1240	3.0
(25,	24)	2.72	98	5.4	31.9	37.3	.15	13.75	11.75	22.9	19.5	14.0	13.1	63	980	4.4
(25,	26)	4.87	103	9.7	7.8	17.5	.56	3.59	1.59	10.2	4.5	.0	.0	0	1030	16.7
(26,	17)	2.13	94	4.3	10.3	14.6	.29	6.85	4.85	9.3	6.6	4.3	3.8	30	940	8.8
(26,	25)	4.52	93	9.0	8.0	17.1	.53	3.77	1.77	11.0	5.2	1.5	1.2	17	930	15.9
(26,	30)	.45	7	1.8	.2	2.0	.89	4.48	.48	17.4	1.9	.0	.0	0	70	13.4
(27,	17)	1.71	26	6.8	4.7	11.6	.59	6.75	2.75	26.7	10.9	8.5	8.3	88	260	8.9
(28,	24)	2.51	39	10.0	15.3	25.3	.40	10.11	6.11	39.0	23.6	16.7	16.0	85	390	5.9
(29,	25)	.58	9	3.4	3.5	6.9	.49	11.89	6.02	45.9	23.2	21.8	20.3	75	90	5.0
(30,	26)	.27	4	1.1	2.4	3.4	.31	12.89	8.89	51.3	35.3	27.8	27.8	100	40	4.7
(31,	17)	.46	8	1.9	3.4	5.2	.35	11.28	7.28	39.3	25.3	18.8	18.8	87	80	5.3
(32,	8)	6.97	116	12.0	86.9	98.9	.12	14.19	12.46	51.1	44.9	29.4	24.0	88	1160	4.2
(33,	49)	14.40	121	24.8	221.1	246.0	.10	17.08	15.36	122.0	109.7	80.4	74.3	88	1210	3.5
(40,	42)	.88	21	2.1	82.7	84.8	.02	96.91	94.54	242.3	236.3	178.6	172.7	90	210	.6
(41,	42)	10.36	195	17.9	184.6	202.5	.09	19.54	17.82	62.3	56.8	43.8	41.7	54	1950	3.1
(42,	40)	1.48	29	3.5	1.1	4.7	.76	3.13	.75	9.6	2.3	.0	.0	0	290	19.1
(42,	41)	10.89	180	18.8	9.5	28.3	.66	2.60	.88	9.4	3.2	.0	.0	0	1800	23.1
(42,	43)	.85	23	2.0	.9	3.0	.69	3.46	1.08	7.7	2.4	.0	.0	0	230	17.3
(42,	44)	10.04	167	17.3	29.8	47.1	.37	4.70	2.97	16.9	10.7	4.5	4.6	11	1670	12.8
(43,	42)	.90	32	2.1	31.5	33.6	.06	37.43	35.05	63.1	59.1	48.7	47.1	76	320	1.6
(44,	42)	8.35	159	14.4	164.6	179.1	.08	21.43	19.71	67.6	62.1	49.0	47.2	58	1590	2.8
(44,	45)	16.06	169	27.7	33.6	61.3	.45	3.81	2.09	21.8	11.9	3.7	2.3	27	1690	15.7

(45, 49)	16.20	178	28.0	272.1	300.1	.09	18.52	16.79	101.2	91.7	72.1	65.1	94	1780	3.2
(46, 44)	15.66	163	27.0	107.3	134.3	.20	8.58	6.85	49.4	39.5	23.8	20.2	70	1630	7.0
(48, 49)	.91	20	2.2	37.4	39.5	.05	43.37	40.99	118.7	112.1	66.9	65.1	90	200	1.4
(49, 24)	9.36	106	18.7	40.6	59.3	.32	6.34	4.34	33.6	23.0	9.8	7.3	59	1060	9.5
(49, 32)	13.86	109	23.9	16.5	40.4	.59	2.91	1.19	22.2	9.1	1.0	.8	11	1090	20.6
(49, 46)	16.96	169	29.3	29.5	58.8	.50	3.47	1.74	20.9	10.5	2.9	2.8	12	1690	17.3
(49, 48)	1.41	31	3.3	1.2	4.6	.74	3.23	.85	8.8	2.3	.0	.0	0	310	18.6

1 CUMULATIVE NETSIM STATISTICS AT TIME 16:36: 0

ELAPSED TIME IS 0: 6: 0 (360 SECONDS), TIME PERIOD 1 ELAPSED TIME IS 360 SECONDS

LINK	VEHICLE MILES	VEHICLE TRIPS	VEHICLE MINUTES MOVE TIME	VEHICLE MINUTES DELAY TIME	VEHICLE MINUTES TOTAL TIME	RATIO MOVE/ TOTAL	MINUTES/MILE TOTAL TIME	MINUTES/MILE DELAY TIME	SECONDS / VEHICLE TOTAL TIME	SECONDS / VEHICLE DELAY TIME	SECONDS / VEHICLE QUEUE TIME	SECONDS / VEHICLE STOP TIME	AVERAGE VALUES STOPS (%)	AVERAGE VALUES VOLUME VPH	AVERAGE VALUES SPEED MPH
(50, 45)	.71	12	2.8	9.3	12.1	.23	17.08	13.08	60.4	46.3	40.1	38.5	83	120	3.5
(8011, 27)		26												260	
(8012, 28)		38												380	
(8013, 29)		9												90	
(8014, 30)		4												40	
(8015, 31)		7												70	
(8202, 2)		88												880	
(8206, 6)		270												2700	
(8209, 9)		0												0	
(8018, 41)		198												1980	
(8016, 40)		21												210	
(8017, 43)		31												310	
(8034, 48)		18												180	
(8035, 50)		12												120	
(8218, 18)		73												730	
OSUBNETWORK=	267.92	775	8.58	32.06	40.64	.21	9.10	7.18	3.15	2.48	1.63	1.50	2.1		6.6
			-- VEHICLE - HOURS --						--- MINUTES / VEHICLE-TRIP ---				PER TRIP		

1 CUMULATIVE NETSIM STATISTICS AT TIME 16:36: 0

ELAPSED TIME IS 0: 6: 0 (360 SECONDS), TIME PERIOD 1 ELAPSED TIME IS 360 SECONDS

LINK	AVERAGE OCCUPANCY (VEHICLE)	-- CONGESTION -- STORAGE (%)	PHASE FAILURE	AVERAGE QUEUE BY LANE 1	2	3	4	5	6	7	MAXIMUM QUEUE BY LANE 1	2	3	4	5	6	7
(2; 7)	9.0	34.1	0	3	3	0	0	0	0	0	8	9	0	0	0	0	0
(6, 7)	23.5	46.7	0	4	4	3	3	0	0	0	12	10	10	9	0	0	0
(7, 6)	.0	.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(7, 8)	8.5	18.7	0	0	0	1	1	0	0	0	2	1	3	4	0	0	0
(7, 33)	4.1	8.4	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
(8, 7)	.0	.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(8, 3)	2.6	8.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(8, 9)	7.4	12.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(9, 8)	.0	.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(17, 18)	2.8	8.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(17, 26)	1.8	18.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(17, 27)	1.4	4.3	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
(17, 31)	.4	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(18, 17)	6.7	20.4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
(24, 25)	4.3	29.2	0	0	1	0	0	0	0	0	6	4	0	0	0	0	0
(24, 28)	1.5	4.9	0	0	0	0	0	0	0	0	3	6	0	0	0	0	0
(24, 49)	31.3	51.7	2	3	11	11	0	0	0	0	0	0	0	0	0	0	0
(25, 24)	6.8	37.2	1	1	2	1	0	0	0	0	15	23	21	0	0	0	0
(25, 26)	3.3	16.1	0	0	0	0	0	0	0	0	4	7	5	0	0	0	0
(26, 17)	2.8	20.8	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
(26, 25)	3.2	14.6	0	0	0	0	0	0	0	0	3	4	0	0	0	0	3
(26, 30)	.5	3.5	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0
(27, 17)	2.3	7.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(28, 24)	4.0	8.3	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
(29, 25)	1.5	15.1	2	1	0	1	1	0	0	0	2	3	3	0	0	0	0
(30, 26)	1.0	6.3	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0
(31, 17)	1.3	4.2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
(32, 8)	14.9	34.3	1	3	4	3	0	0	0	0	1	1	0	0	0	0	0
(33, 49)	36.8	39.2	0	7	4	10	0	0	0	0	10	15	14	0	0	0	0
(40, 42)	11.4	56.9	1	10	1	0	0	0	0	0	16	10	20	0	0	0	12
(41, 42)	32.4	71.2	0	8	6	5	0	0	0	0	11	1	0	0	0	0	0
(42, 40)	.9	7.2	0	0	0	0	0	0	0	0	14	13	13	0	0	0	10
(42, 41)	4.9	12.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(42, 43)	.7	6.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(42, 44)	7.8	18.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(43, 42)	5.4	39.7	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
(44, 42)	28.8	61.6	0	7	7	6	0	0	0	0	3	8	0	0	0	0	0
(44, 45)	10.0	15.3	0	0	0	1	0	0	0	0	13	14	14	0	0	0	6
											3	3	13	0	0	0	0

(45, 49)	49.4	56.2	2	3	14	12	9	0	0	2	13	21	21	18	0	0	5
(46, 44)	21.8	33.4	0	6	3	4	0	0	0	0	16	15	12	0	0	0	0
(48, 49)	4.9	42.9	0	4	0	0	0	0	0	0	9	0	0	0	0	0	0
(49, 24)	10.1	24.1	0	2	1	0	0	0	0	0	8	5	0	0	0	0	0
(49, 32)	6.3	6.8	0	0	0	0	0	0	0	0	1	3	3	0	0	0	0
(49, 46)	9.9	14.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(49, 48)	1.0	9.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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CUMULATIVE NETSIM STATISTICS AT TIME 16:36: 0

ELAPSED TIME IS 0: 6: 0 (360 SECONDS), TIME PERIOD 1 ELAPSED TIME IS 360 SECONDS

LINK	AVERAGE OCCUPANCY (VEHICLE)	-- CONGESTION -- STORAGE (%)	PHASE FAILURE	QUEUE LENGTH (VEHICLE) AVERAGE QUEUE BY LANE 1	2	3	4	5	6	7	MAXIMUM QUEUE BY LANE 1	2	3	4	5	6	7
(50, 45)	2.4	17.9	0	1	0	0	0	0	0	0	4	0	0	0	0	0	0
(8011, 27)																	
(8012, 28)																	
(8013, 29)																	
(8014, 30)																	
(8015, 31)																	
(8202, 2)																	
(8206, 6)																	
(8209, 9)																	
(8018, 41)																	
(8016, 40)																	
(8017, 43)																	
(8034, 48)																	
(8035, 50)																	
(8213, 18)																	
0SUBNETWORK=	391.4	25.3	9														

1

NETSIM PERSON MEASURES OF EFFECTIVENESS

LINK	PERSON MILE	PERSON TRIPS	DELAY PERSON-MIN	TRAVEL TIME PERSON-MIN
(2, 7)	6.2	114.4	61.9	76.7
(6, 7)	22.4	421.6	180.8	219.4
(7, 6)	.0	.0	.0	.0
(7, 8)	14.4	305.5	41.7	66.6
(7, 33)	15.7	229.7	14.8	41.9
(8, 7)	.0	.0	.0	.0
(8, 3)	5.7	38.4	3.9	17.5
(8, 9)	24.4	405.7	17.7	59.9
(9, 8)	.0	.0	.0	.0
(17, 18)	19.9	263.4	11.1	51.0
(17, 26)	5.6	255.3	13.3	24.5
(17, 27)	1.8	27.3	.8	7.8
(17, 31)	.4	7.8	.5	2.1
(18, 17)	18.6	245.3	97.5	134.8
(24, 25)	10.2	304.1	63.0	83.3
(24, 28)	2.3	35.1	.2	9.4
(24, 49)	31.8	350.8	566.8	642.4
(25, 24)	8.8	319.0	103.8	121.5
(25, 26)	17.6	373.2	28.1	63.4
(26, 17)	6.7	297.4	32.6	46.1
(26, 25)	12.8	263.1	22.7	48.3
(26, 30)	2.1	32.8	1.0	9.5
(27, 17)	2.2	33.8	6.1	15.0
(28, 24)	3.3	50.7	19.9	32.9
(29, 25)	7.6	118.3	45.8	90.5
(30, 26)	.3	5.2	3.1	4.4
(31, 17)	.6	10.4	4.4	6.8
(32, 8)	10.4	173.7	130.1	148.1
(33, 49)	27.5	231.5	423.0	470.5
(40, 42)	1.1	27.3	107.5	110.2
(41, 42)	21.2	399.4	378.2	414.8
(42, 40)	1.9	37.7	1.5	6.0
(42, 41)	27.1	448.5	23.8	70.6
(42, 43)	1.1	29.9	1.2	3.8
(42, 44)	22.9	381.0	68.0	107.5
(43, 42)	1.2	41.6	40.9	43.7
(44, 42)	22.0	418.7	433.5	471.5

	(44, 45)	36.6	384.6	76.4	139.5
	(45, 49)	34.7	381.2	582.8	642.6
	(46, 44)	36.8	383.0	252.2	315.7
	(48, 49)	1.2	26.0	48.6	51.4
	(49, 24)	26.7	302.1	115.8	169.2
	(49, 32)	21.0	164.8	24.9	61.0
1	(49, 46)	43.7	435.6	76.1	151.5

NETSIM PERSON MEASURES OF EFFECTIVENESS

LINK	PERSON MILE	PERSON TRIPS	DELAY PERSON-MIN	TRAVEL TIME PERSON-MIN
(49, 48)	1.8	40.3	1.6	5.9
(50, 45)	.9	15.6	12.0	15.7

1 ALL REMAINING LINKS ARE ENTRY LINKS WHICH HAVE NO STATISTICS AVAILABLE. THUS, REMAINDER OF THIS TABLE IS OMITTED.

NETSIM MOVEMENT SPECIFIC STATISTICS

0

LINK	VEHICLE-MILE			VEHICLE-TRIPS			SPEED (MPH)			STOPS (PCT)		
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
(2, 7)	.05	4.75	.00	1	87	0	2.9	4.9	.0	.0	70.1	.0
(6, 7)	.00	12.46	1.80	0	235	34	.0	6.2	5.6	.0	67.2	82.4
(7, 6)	.00	.00	.00	0	0	0	.0	.0	.0	.0	.0	.0
(7, 8)	1.37	9.73	.00	29	206	0	10.2	13.5	.0	16.7	12.0	.0
(7, 33)	.00	8.36	.00	0	122	0	.0	22.5	.0	.0	2.5	.0
(8, 7)	.00	.00	.00	0	0	0	.0	.0	.0	.0	.0	.0
(8, 3)	.00	4.39	.00	0	68	0	.0	19.6	.0	.0	.0	.0
(8, 9)	.00	17.70	.00	0	294	0	.0	24.5	.0	.0	.0	.0
(9, 8)	.00	.00	.00	0	0	0	.0	.0	.0	.0	.0	.0
(17, 18)	.00	5.68	.00	0	75	0	.0	23.5	.0	.0	.0	.0
(17, 26)	.02	1.89	.00	1	86	0	6.0	13.9	.0	.0	3.5	.0
(17, 27)	.00	1.35	.00	0	21	0	.0	13.4	.0	.0	.0	.0
(17, 31)	.00	.31	.00	0	6	0	.0	11.6	.0	.0	.0	.0
(18, 17)	.00	5.01	.38	0	66	5	.0	8.5	6.1	.0	54.1	100.0
(24, 25)	.00	3.15	.00	0	94	0	.0	7.3	.0	.0	49.0	.0
(24, 28)	.00	1.78	.00	0	27	0	.0	14.7	.0	.0	.0	.0
(24, 49)	.00	8.89	2.36	0	98	26	.0	2.6	6.4	.0	94.9	92.3
(25, 24)	.06	2.66	.00	2	96	0	3.5	4.4	.0	100.0	63.2	.0
(25, 26)	.00	4.58	.28	0	97	6	.0	16.7	17.1	.0	.0	16.7
(26, 17)	.32	1.70	.11	14	75	5	6.1	9.4	10.2	57.1	24.3	40.0
(26, 25)	.00	4.52	.00	0	93	0	.0	15.9	.0	.0	17.2	.0
(26, 30)	.00	.45	.00	0	7	0	.0	13.4	.0	.0	.0	.0
(27, 17)	.20	.00	1.51	3	0	23	6.3	.0	9.4	66.7	.0	90.9
(28, 24)	2.06	.00	.45	32	0	7	5.7	.0	7.4	87.5	.0	75.0
(29, 25)	.26	.00	.32	4	0	5	3.4	.0	8.2	75.0	.0	75.0
(30, 26)	.27	.00	.00	4	0	0	4.7	.0	.0	100.0	.0	.0
(31, 17)	.17	.12	.17	3	2	3	4.2	4.1	10.3	100.0	100.0	66.7
(32, 8)	.00	2.16	4.81	0	36	80	.0	4.5	4.1	.0	97.4	84.1
(33, 49)	2.50	11.07	.83	21	93	7	1.3	5.4	4.6	100.0	85.2	100.0
(40, 42)	.08	.12	.67	2	3	16	.8	.5	.6	100.0	100.0	87.5
(41, 42)	1.17	8.66	.53	22	163	10	1.4	3.8	1.9	100.0	46.8	80.0
(42, 40)	.00	1.48	.00	0	29	0	.0	19.1	.0	.0	.0	.0
(42, 41)	.00	10.89	.00	0	180	0	.0	23.1	.0	.0	.0	.0
(42, 43)	.00	.85	.00	0	23	0	.0	17.3	.0	.0	.0	.0
(42, 44)	.00	10.04	.00	0	167	0	.0	12.8	.0	.0	11.8	.0
(43, 42)	.73	.00	.17	26	0	6	1.4	.0	3.1	70.8	.0	100.0
(44, 42)	.42	7.62	.32	8	145	6	1.9	3.0	1.3	100.0	54.2	100.0
(44, 45)	.00	16.06	.00	0	169	0	.0	15.7	.0	.0	27.6	.0
(45, 49)	1.00	8.56	6.65	11	94	73	2.1	2.3	7.8	100.0	100.0	85.7
(46, 44)	.00	15.66	.00	0	163	0	.0	7.0	.0	.0	70.9	.0

(48, 49)	.09	.59	.23	2	13	5	.8	1.8	1.1	100.0	84.6	100.0
(49, 24)	.00	7.24	2.12	0	82	24	.0	9.5	9.3	.0	59.8	60.0
(49, 32)	.00	13.86	.00	0	109	0	.0	20.6	.0	.0	11.6	.0
(49, 46)	.00	16.96	.00	0	169	0	.0	17.3	.0	.0	12.6	.0
(49, 48)	.00	1.41	.00	0	31	0	.0	18.6	.0	.0	.0	.0

0 EACH VEHICLE WHICH CROSSES THE STOPLINE IS CONSIDERED AS 1 VEH-TRIP FOR THESE STATISTICS

1 NETSIM MOVEMENT SPECIFIC STATISTICS (CONT.)

0 LINK	VEHICLE-MILE			VEHICLE-TRIPS			SPEED (MPH)			STOPS (PCT)		
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
(50, 45)	.00	.00	.71	0	0	12	.0	.0	3.5	.0	.0	83.3
(8011, 27)				0	26	0						
(8012, 28)				0	38	0						
(8013, 29)				0	9	0						
(8014, 30)				0	4	0						
(8015, 31)				0	7	0						
(8202, 2)				0	88	0						
(8206, 6)				0	270	0						
(8209, 9)				0	0	0						
(8018, 41)				0	198	0						
(8016, 40)				0	21	0						
(8017, 43)				0	31	0						
(8034, 48)				0	18	0						
(8035, 50)				0	12	0						
(8218, 18)				0	73	0						

1 NETSIM VEHICLE-MINUTE STATISTICS BY TURN MOVEMENT

V E H I C L E - M I N U T E S

LINK	MOVING TIME			DELAY TIME			TOTAL TIME			RATIO MOVE/TOTAL		
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
(2, 7)	.13	11.36	.00	1.01	46.51	.00	1.14	57.88	.00	.11	.20	.00
(6, 7)	.00	21.50	3.11	.00	99.01	16.38	.00	120.51	19.49	.00	.18	.16
(7, 6)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(7, 8)	2.37	16.83	.00	5.67	26.37	.00	8.04	43.20	.00	.29	.39	.00
(7, 33)	.00	14.79	.00	.00	7.48	.00	.00	22.27	.00	.00	.66	.00
(8, 7)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(8, 3)	.00	10.51	.00	.00	2.94	.00	.00	13.45	.00	.00	.78	.00
(8, 9)	.00	30.75	.00	.00	12.65	.00	.00	43.40	.00	.00	.71	.00
(9, 8)	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(17, 18)	.00	11.36	.00	.00	3.15	.00	.00	14.52	.00	.00	.78	.00
(17, 26)	.05	3.91	.00	.17	4.22	.00	.22	8.13	.00	.00	.48	.00
(17, 27)	.00	5.57	.00	.00	.47	.00	.00	6.03	.00	.00	.92	.00
(17, 31)	.00	1.59	.00	.00	.01	.00	.00	1.60	.00	.00	.99	.00
(18, 17)	.00	10.00	.76	.00	25.28	2.98	.00	35.28	3.74	.00	.28	.20
(24, 25)	.00	6.41	.00	.00	19.36	.00	.00	25.77	.00	.00	.25	.00
(24, 28)	.00	7.16	.00	.00	.07	.00	.00	7.23	.00	.00	.99	.00
(24, 49)	.00	21.19	5.62	.00	183.72	16.55	.00	204.91	22.18	.00	.10	.25
(25, 24)	.11	5.35	.00	.83	31.05	.00	.94	36.40	.00	.00	.15	.00
(25, 26)	.00	9.19	.57	.00	7.32	.43	.00	16.50	1.00	.00	.56	.00
(26, 17)	.64	3.41	.23	2.46	7.40	.44	3.10	10.81	.66	.21	.32	.00
(26, 25)	.00	9.16	.00	.00	7.91	.00	.00	17.07	.00	.00	.54	.00
(26, 30)	.00	1.86	.00	.00	.18	.00	.00	2.03	.00	.00	.91	.00
(27, 17)	.80	.00	6.10	1.09	.00	3.56	1.89	.00	9.66	.42	.00	.63
(28, 24)	8.48	.00	1.86	13.21	.00	1.78	21.70	.00	3.63	.39	.00	.51
(29, 25)	1.56	.00	1.94	2.99	.00	.40	4.54	.00	2.34	.34	.00	.83
(30, 26)	1.06	.00	.00	2.36	.00	.00	3.42	.00	.00	.31	.00	.00
(31, 17)	.80	.53	.80	1.70	1.19	.22	2.50	1.72	1.02	.32	.31	.78
(32, 8)	.00	3.78	8.39	.00	25.30	61.42	.00	29.07	69.81	.00	.13	.12
(33, 49)	4.32	19.15	1.44	107.89	103.79	9.39	112.22	122.93	10.83	.04	.16	.13
(40, 42)	.20	.30	1.59	5.97	14.06	62.69	6.16	14.36	64.28	.03	.02	.02
(41, 42)	2.01	14.92	.92	46.98	121.65	16.03	49.00	136.56	16.94	.04	.11	.05
(42, 40)	.00	3.66	.00	.00	.99	.00	.00	4.65	.00	.00	.79	.00
(42, 41)	.00	18.82	.00	.00	9.51	.00	.00	28.33	.00	.00	.66	.00
(42, 43)	.00	2.28	.00	.00	.67	.00	.00	2.95	.00	.00	.77	.00
(42, 44)	.00	17.46	.00	.00	29.67	.00	.00	47.13	.00	.00	.37	.00
(43, 42)	1.76	.00	.41	28.63	.00	2.84	30.39	.00	3.25	.06	.00	.12

LINK		MOVING TIME			DELAY TIME			TOTAL TIME			RATIO MOVE/TOTAL		
		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
(44,	42)	.73	13.27	.55	12.84	137.83	13.82	13.58	151.10	14.37	.05	.09	.04
(44,	45)	.00	27.95	.00	.00	33.34	.00	.00	61.28	.00	.00	.46	.00
(45,	49)	1.73	14.75	11.45	26.75	205.92	39.50	28.48	220.67	50.95	.06	.07	.22
(46,	44)	.00	26.95	.00	.00	107.38	.00	.00	134.33	.00	.00	.20	.00
(48,	49)	.23	1.46	.56	6.86	18.22	12.22	7.09	19.68	12.78	.03	.07	.04
(49,	24)	.00	15.53	4.55	.00	30.17	9.10	.00	45.70	13.65	.00	.34	.33
(49,	32)	.00	24.22	.00	.00	16.16	.00	.00	40.38	.00	.00	.60	.00
(49,	46)	.00	29.27	.00	.00	29.51	.00	.00	58.78	.00	.00	.50	.00
(49,	48)	.00	3.49	.00	.00	1.06	.00	.00	4.55	.00	.00	.77	.00

1 NETSIM VEHICLE-MINUTE STATISTICS BY TURN MOVEMENT

LINK		MOVING TIME			DELAY TIME			TOTAL TIME			RATIO MOVE/TOTAL		
		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
(50,	45)	.00	.00	2.73	.00	.00	9.36	.00	.00	12.08	.00	.00	.23

1 NETSIM SECONDS PER VEHICLE STATISTICS BY TURN MOVEMENT

S E C O N D S P E R V E H I C L E

LINK	TOTAL TIME			DELAY TIME			QUEUE TIME			STOP TIME		
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
(2, 7)	65.4	39.9	.0	57.6	32.1	.0	19.0	20.9	.0	16.0	19.1	.0
(6, 7)	.0	30.8	34.0	.0	25.3	28.5	.0	15.2	16.4	.0	12.8	13.5
(7, 6)	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
(7, 8)	16.3	12.6	.0	11.4	7.7	.0	5.2	3.9	.0	4.9	3.8	.0
(7, 33)	.0	11.0	.0	.0	3.7	.0	.0	.0	.0	.0	.0	.0
(8, 7)	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
(8, 3)	.0	11.9	.0	.0	2.6	.0	.0	.0	.0	.0	.0	.0
(8, 9)	.0	8.9	.0	.0	2.6	.0	.0	.0	.0	.0	.0	.0
(9, 8)	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
(17, 18)	.0	11.6	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0
(17, 26)	13.0	5.7	.0	10.3	2.9	.0	.0	.0	.0	.0	.0	.0
(17, 27)	.0	17.2	.0	.0	1.3	.0	9.0	.3	.0	9.0	.2	.0
(17, 31)	.0	16.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
(18, 17)	.0	31.9	46.5	.0	22.8	37.4	.0	.0	.0	.0	.0	.0
(24, 25)	.0	16.4	.0	.0	12.4	.0	.0	10.9	24.4	.0	10.7	20.5
(24, 28)	.0	16.1	.0	.0	.2	.0	.0	5.0	.0	.0	4.3	.0
(24, 49)	.0	126.8	46.1	.0	113.8	33.2	.0	.0	.0	.0	.0	.0
(25, 24)	27.8	22.8	.0	24.5	19.4	.0	.0	79.3	13.3	.0	75.5	11.9
(25, 26)	.0	10.1	12.0	.0	4.4	6.4	19.8	13.9	.0	17.3	13.0	.0
(26, 17)	13.2	8.7	7.0	10.5	6.0	4.2	.0	.0	.2	.0	.0	.2
(26, 25)	.0	11.0	.0	.0	5.1	.0	8.3	3.7	1.3	7.6	3.3	1.1
(26, 30)	.0	17.4	.0	.0	1.5	.0	.0	1.5	.0	.0	1.2	.0
(27, 17)	37.0	.0	25.2	21.1	.0	9.3	.0	.0	.0	.0	.0	.0
(28, 24)	41.9	.0	27.2	26.0	.0	11.2	17.6	.0	7.3	17.3	.0	7.0
(29, 25)	61.0	.0	30.7	37.7	.0	7.4	19.0	.0	7.3	18.3	.0	7.1
(30, 26)	51.3	.0	.0	35.3	.0	.0	34.4	.0	9.1	32.4	.0	8.2
(31, 17)	50.0	51.5	20.3	34.1	35.6	4.4	27.8	.0	.0	27.8	.0	.0
(32, 8)	.0	47.6	52.8	.0	41.3	46.5	32.3	21.5	3.3	32.3	21.5	3.3
(33, 49)	317.0	78.2	87.2	304.6	65.8	74.9	.0	28.4	29.9	.0	26.5	22.9
(40, 42)	189.8	278.2	242.1	183.8	272.3	236.2	244.0	43.8	51.1	229.6	39.4	46.6
(41, 42)	130.6	50.4	99.5	125.1	45.0	94.0	152.0	182.7	181.1	151.5	178.7	174.3
(42, 40)	.0	9.6	.0	.0	2.1	.0	99.6	33.8	77.6	97.7	31.9	73.3
(42, 41)	.0	9.4	.0	.0	3.2	.0	.0	.0	.0	.0	.0	.0
(42, 43)	.0	7.7	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
(42, 44)	.0	16.9	.0	.0	10.7	.0	.0	.0	.0	.0	.0	.0
(43, 42)	71.2	.0	30.1	67.1	.0	26.0	.0	4.5	.0	.0	4.6	.0
(44, 42)	91.3	63.3	124.2	85.8	57.8	118.7	54.5	27.0	21.2	52.9	25.0	20.2
							75.9	44.7	101.9	73.9	43.2	94.7

(44, 45)	.0	21.8	.0	.0	11.8	.0	.0	3.7	.0	.0	2.3	.0						
(45, 49)	147.0	144.8	39.1	137.6	135.3	29.7	101.2	116.5	11.8	97.4	108.2	5.9						
(46, 44)	.0	49.4	.0	.0	39.5	.0	.0	23.8	.0	.0	20.2	.0						
(48, 49)	210.4	96.2	140.3	203.6	89.4	133.6	114.0	65.8	51.0	113.0	63.7	49.6						
(49, 24)	.0	33.8	33.1	.0	22.4	21.7	.0	9.9	9.3	.0	7.6	6.5						
(49, 32)	.0	22.2	.0	.0	8.9	.0	.0	1.0	.0	.0	.8	.0						
(49, 46)	.0	20.9	.0	.0	10.5	.0	.0	2.9	.0	.0	2.8	.0						
(49, 48)	.0	8.8	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0						

1 NETSIM SECONDS PER VEHICLE STATISTICS BY TURN MOVEMENT

S E C O N D S P E R V E H I C L E

LINK	TOTAL TIME LEFT	TOTAL TIME THRU	TOTAL TIME RIGHT	DELAY TIME LEFT	DELAY TIME THRU	DELAY TIME RIGHT	QUEUE TIME LEFT	QUEUE TIME THRU	QUEUE TIME RIGHT	STOP TIME LEFT	STOP TIME THRU	STOP TIME RIGHT
(50, 45)	.0	.0	60.4	.0	.0	46.8	.0	.0	40.1	.0	.0	38.5

1

NETSIM BUS STATISTICS

LINK	BUS TRIPS	PERSON TRIPS	TRAVEL TIME (MINUTES)	MOVING TIME (MINUTES)	DELAY TIME (MINUTES)	M/T	SPEED (MPH)	NUMBER OF STOPS
(6, 7)	3	75	1.9	.3	1.6	.15	5.1	0
(7, 33)	3	75	.8	.4	.4	.47	16.5	0
(8, 9)	1	25	.3	.1	.2	.39	13.6	0
(17, 18)	7	175	1.3	1.1	.3	.79	23.9	0
(17, 26)	6	150	.7	.3	.4	.41	12.3	0
(18, 17)	6	150	3.9	.9	3.0	.23	7.0	4
(24, 25)	8	200	3.1	.5	2.5	.18	5.3	3
(24, 49)	8	200	13.5	1.7	11.8	.13	3.2	0
(25, 24)	8	200	4.1	.4	3.6	.11	3.3	5
(25, 26)	10	250	2.0	.9	1.0	.48	14.4	0
(26, 17)	7	175	.8	.3	.4	.41	12.5	0
(26, 25)	6	150	1.2	.6	.6	.48	14.6	0
(26, 30)	1	25	.3	.3	.0	1.00	15.9	0
(29, 25)	4	100	3.0	1.6	1.5	.51	5.2	0
(32, 8)	1	25	1.0	.1	.9	.10	3.5	0
(33, 49)	3	75	10.6	.6	10.0	.06	2.0	0
(41, 42)	6	150	5.7	.5	5.2	.10	3.3	0
(42, 41)	9	225	1.7	.9	.7	.56	19.6	0
(42, 44)	7	175	3.0	.7	2.2	.25	8.6	3
(44, 42)	9	225	13.6	.8	12.8	.06	2.1	3
(44, 45)	7	175	2.5	1.2	1.4	.46	16.0	0
(45, 49)	6	150	6.5	.9	5.5	.15	5.1	0
(46, 44)	7	175	5.3	1.2	4.1	.22	7.6	0
(49, 24)	7	175	4.2	1.3	2.8	.32	9.5	0
(49, 32)	1	25	.4	.2	.2	.51	17.8	0
(49, 46)	9	225	5.3	1.6	3.7	.30	10.3	5
(8013, 29)	4	100						
(8206, 6)	3	75						
(8018, 41)	6	150						
(8218, 18)	6	150						

NETSIM BUS-STATION STATISTICS

STATION NUMBER	TIME CAPACITY EXCEEDED (MINUTES)	TIME EMPTY (MINUTES)	TOTAL DWELL TIME (BUS-MIN.)	BUSES SERVICED
2	.0	4.1	1.9	4
3	.0	5.2	.8	4
4	.0	4.8	1.2	4
7	.0	4.8	1.4	5
8	.0	4.4	1.9	4
9	.0	4.3	1.9	3

1

0 CUMULATIVE VALUES OF FUEL CONSUMPTION AND OF EMISSIONS

0

LINK VEHICLE TYPE-	FUEL CONSUMPTION GALLONS AUTO	GALLONS TRUCK	GALLONS BUS	M.P.G. AUTO	M.P.G. TRUCK	M.P.G. BUS	VEHICLE EMISSION RATES (KG/MILE.HOUR) HC	CO	NO X
(2, 7)	.9	.0	.0	5.2	.0	.0	.372	6.990	1.288
(6, 7)	2.7	.0	.0	5.2	.0	3.1	1.182	25.865	4.972
(7, 6)	.0	.0	.0	.0	.0	.0	.000	.000	.000
(7, 8)	1.6	.0	.0	6.7	.0	.0	.739	15.829	4.458
(7, 33)	1.1	.0	.1	7.6	.0	2.8	.309	6.622	2.089
(8, 7)	.0	.0	.0	.0	.0	.0	.000	.000	.000
(8, 3)	.5	.0	.0	9.4	.0	.0	.137	2.233	.657
(8, 9)	2.0	.0	.0	8.4	.0	2.7	.702	15.013	4.711
(9, 8)	.0	.0	.0	.0	.0	.0	.000	.000	.000
(17, 18)	.5	.0	.1	11.1	.0	4.7	.123	2.162	.641
(17, 26)	.3	.0	.0	5.5	.0	2.8	.289	5.919	1.761
(17, 27)	.1	.0	.0	12.2	.0	.0	.033	.538	.090
(17, 31)	.0	.0	.0	10.2	.0	.0	.008	.128	.027
(18, 17)	.7	.0	.1	6.5	.0	3.7	.211	3.762	.930
(24, 25)	.5	.0	.1	5.7	.0	3.2	.329	6.621	1.594
(24, 28)	.1	.0	.0	11.5	.0	.0	.042	.619	.115
(24, 49)	2.3	.0	.3	4.5	.0	2.7	.582	10.778	1.564
(25, 24)	.5	.0	.1	5.0	.0	2.9	.422	7.501	1.405
(25, 26)	.5	.0	.1	9.0	.0	3.5	.216	3.876	1.126
(26, 17)	.3	.0	.1	7.7	.0	3.5	.252	4.499	.976
(26, 25)	.4	.0	.1	9.8	.0	4.7	.182	3.182	.873
(26, 30)	.0	.0	.0	11.3	.0	3.4	.009	.127	.027
(27, 17)	.2	.0	.0	9.6	.0	.0	.055	.763	.128
(28, 24)	.3	.0	.0	7.6	.0	.0	.103	1.439	.242

(29, 25)	.0	.0	.0	6.6	.0	6.3	.015	.203	.026
(30, 26)	.0	.0	.0	6.9	.0	.0	.012	.153	.022
(31, 17)	.1	.0	.0	7.8	.0	.0	.019	.231	.039
(32, 8)	1.1	.0	.0	6.3	.0	4.2	.436	7.545	1.048
(33, 49)	2.5	.0	.2	5.6	.0	2.5	.498	8.128	1.307
(40, 42)	.6	.0	.0	1.4	.0	.0	.331	3.934	.475
(41, 42)	2.5	.0	.1	3.9	.0	2.5	1.070	18.534	3.256
(42, 40)	.2	.0	.0	8.3	.0	.0	.062	.999	.304
(42, 41)	1.3	.0	.2	7.7	.0	3.2	.441	9.512	3.023
(42, 43)	.1	.0	.0	6.6	.0	.0	.056	.973	.307
(42, 44)	1.2	.0	.1	8.0	.0	4.0	.414	7.942	2.223
(43, 42)	.3	.0	.0	2.6	.0	.0	.269	3.833	.606
(44, 42)	2.1	.0	.2	3.8	.0	2.8	.896	16.199	2.641
(44, 45)	1.3	.0	.1	11.6	.0	5.1	.305	5.415	1.312
(45, 49)	3.6	.0	.2	4.4	.0	3.6	.903	16.093	2.441
(46, 44)	1.8	.0	.2	8.2	.0	4.0	.455	8.807	1.302
(48, 49)	.3	.0	.0	2.9	.0	.0	.148	2.240	.357
(49, 24)	1.2	.0	.2	7.2	.0	3.6	.279	5.127	1.204
(49, 32)	1.4	.0	.0	9.3	.0	3.8	.240	4.925	1.501
(49, 46)	1.9	.0	.2	8.5	.0	4.3	.394	7.977	2.387
(49, 48)	.2	.0	.0	7.9	.0	.0	.073	1.238	.382

1 CUMULATIVE VALUES OF FUEL CONSUMPTION AND OF EMISSIONS

0 LINK	FUEL CONSUMPTION						VEHICLE EMISSION RATES (KG/MILE.HOUR)		
	GALLONS			M.P.G.			HC	CO	NO X
0 VEHICLE TYPE-	AUTO	TRUCK	BUS	AUTO	TRUCK	BUS			
(50, 45)	.1	.0	.0	5.0	.0	.0	.053	.725	.110

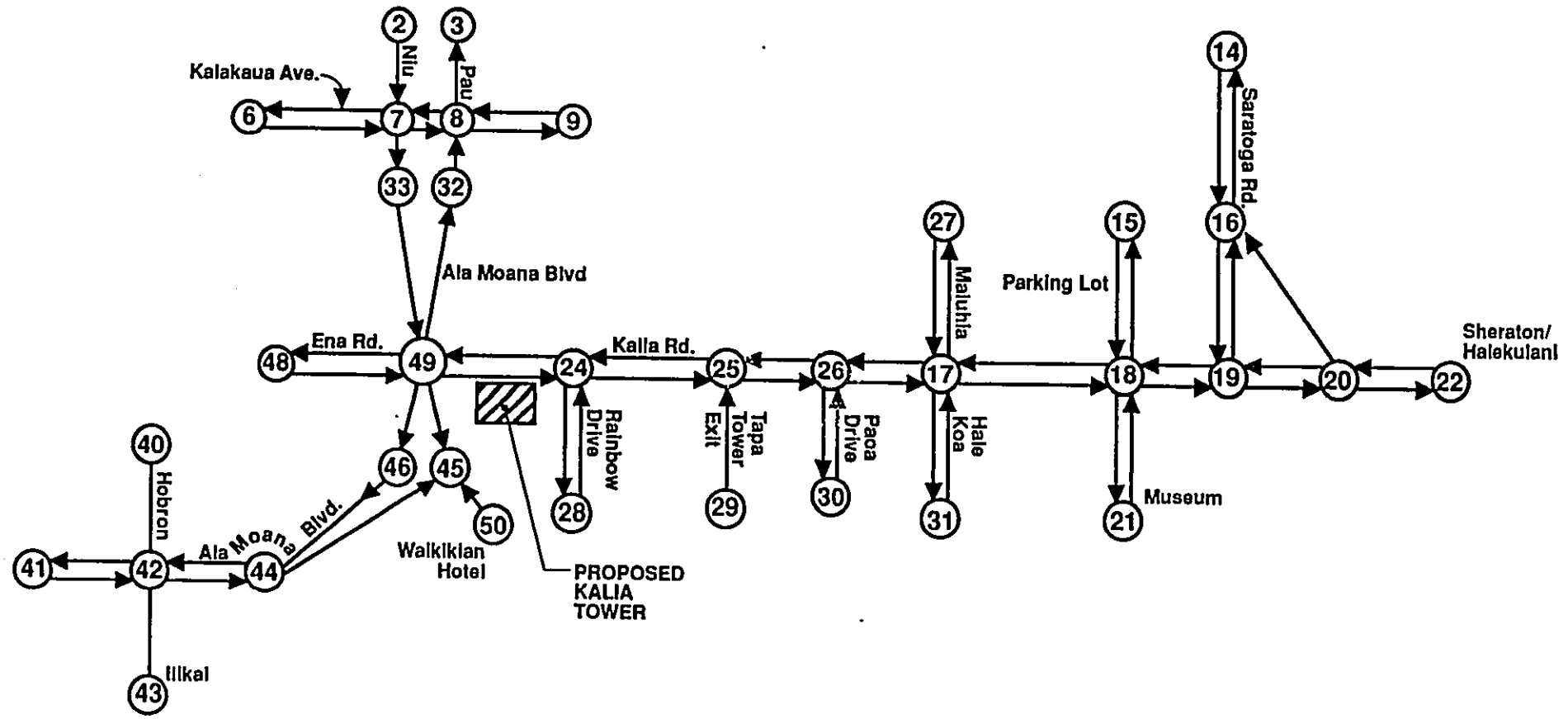
ALL REMAINING LINKS ARE ENTRY LINKS WHICH HAVE NO STATISTICS. THUS, REMAINDER OF THIS TABLE IS OMITTED.

0 SUBNETWORK-	39.5	.0	2.9	6.5	.0	3.5	.304	5.681	1.233

0 EMISSION STATISTICS FOR TRUCKS AND BUSES ARE NOT AVAILABLE

1 CUMULATIVE NETWORK-WIDE BUS STATISTICS AT TIME 16:36: 0

ELAPSED TIME IS 0: 6: 0 (360 SECONDS), TIME PERIOD 1 ELAPSED TIME IS 360 SECONDS



NETSIM TRAFFIC NETWORK
WEST WAIKIKI AREA