

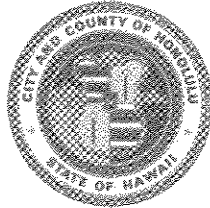
DEPARTMENT OF GENERAL PLANNING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET  
HONOLULU, HAWAII 96813

RECEIVED

FRANK F. FASI  
MAYOR

'90 JAN 30 AM 11:35



Benjamin B. Lee  
\*\*\*\*\*  
CHIEF PLANNING OFFICER

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

MH/DGP 1/90-53

January 26, 1990

Honorable Marvin T. Miura, Director  
Office of Environmental Quality Control  
State of Hawaii  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Dr. Miura:

Acceptance Notice for the Proposed  
Alakea/Richards Parking Lot Redevelopment  
Final Environmental Impact Statement (Final EIS)

We are notifying you of our acceptance of the Final EIS for the proposed Alakea/Richards Parking Lot Redevelopment, as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes.

Pursuant to Section 11-200-23 (c), Chapter 200, Title 11 ("Environmental Impact Statement Rules") of the Administrative Rules, this acceptance notice should be published in the February 8, 1990, OEQC Bulletin by your office.

We have attached our Acceptance Report for the Alakea/Richards Parking Lot Redevelopment Final EIS and the OEQC Form for Publication of EIS Documents. Should you have any questions, please contact Matthew Higashida at 527-6056.

Sincerely,

Handwritten signature of Benjamin B. Lee in black ink.  
BENJAMIN B. LEE  
Chief Planning Officer

BBL:lh

Attachments

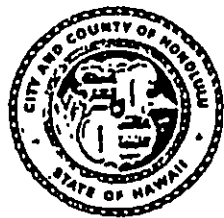
cc: Michael N. Scarfone, Department of Housing  
and Community Development  
George J. Krasnick, Parsons Hawaii

1990-Oahu - FEIS - FILE COPY  
Alakea Richards Parking FINAL

Environmental Impact Statement

ALAKEA/RICHARDS  
PARKING LOT  
REDEVELOPMENT

Prepared for:



DEPARTMENT OF HOUSING AND  
COMMUNITY DEVELOPMENT

CITY & COUNTY OF HONOLULU

PARSONS HAWAII *AHP*  
Worldwide Engineers/Constructors

**FINAL**

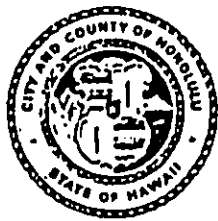
**Environmental Impact Statement**

**ALAKEA/RICHARDS**

**PARKING LOT**

**REDEVELOPMENT**

Prepared for:



**DEPARTMENT OF HOUSING AND  
COMMUNITY DEVELOPMENT**

**CITY & COUNTY OF HONOLULU**

**JANUARY 1990**

**PARSONS HAWAII**  
*Worldwide Engineers/Constructors* **RJP**

FINAL  
ENVIRONMENTAL IMPACT STATEMENT

FOR THE

ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT  
HONOLULU, HAWAII  
TMK: 2-1-17: 7,8, AND 17 .

This environmental document is prepared pursuant to:  
Chapter 343, HRS

Proposing Agency:

Department of Housing and Community Development  
City and County of Honolulu

Accepting Authority:

Department of General Planning  
City and County of Honolulu

Responsible  
Official:



MICHAEL N. SCARFONE, DIRECTOR

Date:

1/4/90

Prepared by:

Parsons Hawaii





01.0 SUMMARY

01.01 BRIEF ACTION DESCRIPTION

The proposed action would include development of an office-commercial project and a seven-story parking structure on the site of the existing city-owned parking garage at Richards and Alakea Streets. The 24-story office building would contain approximately 232,537 rentable square feet of office space, approximately 9,088 rentable square feet of retail commercial space and approximately 1,000 parking stalls. An additional 70,715 leasable square feet of office space would be allocated to the city. 235 public parking stalls would replace the 219 existing stalls. The state would purchase 432 stalls and the remainder (a minimum of 333 stalls) would be available for private use.

The City has entered into a development agreement with Equity Richards Venture, a partnership in which BetaWest Properties, Inc. (hereinafter, BetaWest) is the general partner, to develop the project and execute a long-term lease.

01.02 SIGNIFICANT BENEFICIAL AND ADVERSE IMPACTS

The proposed project would have significant beneficial impacts in terms of economic development and employment in the private sector. It would satisfy a portion of the demand for downtown office space and parking. It may stimulate nearby businesses; increase membership and demand for services at the adjacent YWCA; and increase use of the Palace Court Restaurant in the YWCA and other nearby restaurants.

It would also have significant public sector benefits. The City and County of Honolulu would derive revenues from lease rents, property taxes, and eventually, the parking concession, without any capital investment. The State would derive revenues from income, excise and use taxes. They would also acquire 432 parking stalls. The City government would occupy over 70,000 square feet of office space to enhance the efficiency of their operations. Land use and development policies of the City would be effected, and the enhanced quality of the open space provided would be a social benefit. The setting for the many nearby historic buildings would be improved, as would ground-level views past the site.

Construction would have short-term adverse impacts in several areas. Construction machinery and operations would cause noise and vibration as well as dust and localized vehicle emissions. On-site parking would be unavailable during construction, and there may be occasional traffic blockages in adjacent lanes

during unloading operations. Users of nearby properties may be inconvenienced by these circumstances, and there may be a consequent short-term loss of business.

In the long-term, the increase of the existing 219 parking stalls to 1,000 stalls would generate more traffic in the vicinity of the site with resultant increases in noise and concentrations of vehicle emissions. Additionally, there would be a greater demand on public services and utilities in the downtown area.

#### 01.03 PROPOSED MITIGATION MEASURES

The following mitigation measures are proposed in the respective areas of potential impact.

##### Water Quality

There is the possibility of increased sediment transport in runoff during construction. Mitigation includes adherence to all provisions of the Grading Ordinance and good construction practices.

##### Historical and Archaeological Resources

To best address the possibility of the presence of intact

historic (or prehistoric) deposits at the site, the following measures are recommended:

- o Archaeological inspection in final phases of demolition to determine whether historic materials are being exposed.
- o Archaeological test excavations consisting of 4-8 backhoe trenches within the project area following demolition, but preceding construction. Excavations would be made to the top of the cinder level, below which cultural remains would not be expected. Observation and study of the stratigraphy and content of these trenches should provide sufficient information to determine if intact, significant cultural materials are present.
- o If significant cultural materials are found in the backhoe testing, then archaeological monitoring of the excavation of building foundations and utility lines should be required.

#### Community Issues

The developer has made extensive efforts to design the project in order to achieve positive aesthetic impacts and to minimize possible adverse impacts of the building.

- o The building's design is intended to complement nearby historic structures;

- o Public parking would continue to be provided on-site, and the number of public spaces would be slightly larger than the number currently available on-site;
- o Parking entries and exits would be located further from street intersections than some of the existing entries and exits on the project site -- leading to less chance in the future that vehicles entering and leaving the project would contribute to traffic congestion;
- o Although about 1,000 parking stalls would be provided, passersby would not be confronted with the sight of these cars; and
- o Landscaping, fountains, and street level arcades would provide amenities for pedestrians.

The project's developers and architects, along with City and County staff, have conducted discussions with representatives of adjacent land users. Three formal meetings were held with the Highest and Best Use Committee of the YWCA. Repeated conversations and less formal meetings occurred between YWCA and BetaWest executives. The developer's project staff have heard the concerns of the YWCA and explored ways to minimize or alleviate anticipated impacts. Two major changes to the plans were made to accommodate concerns of the YWCA: none of the existing 10-foot easement will be taken (i.e., the building has

been moved 10 feet off the property line) and a mat-type foundation will be used to avoid the potential impacts associated with driving foundation piles.

The widespread concern with public parking during the construction phase cannot be addressed on-site. Alternate public parking sites are being developed by the City and County of Honolulu. Additional steps to develop new or alternate parking are being made by the State and the owners of the Liberty Theater site.

#### Traffic

Mitigation measures are recommended at eight intersections, as follows, although in 1993 four of these would operate at level-of-service F during the AM and PM peak hours even without the project.

Vineyard Boulevard at Nuuanu Avenue

Separate northbound and southbound left turn signal phasing should be installed, however, the improvement would not provide a level-of-service D or better. The level-of-service would still be F, which is undesirable.

Vineyard Boulevard at Pali Highway

Protected-permissive left turn phasing should be provided on the north and south approaches and an additional southbound left turn lane should be installed. It should be noted, however, that the unacceptable level-of-service is the result of background traffic growth. The project's traffic would represent only two percent of the growth from existing to cumulative-plus-project conditions. As with the previous intersection, the resulting level-of-service would still be F, but it would be more desirable than conditions without the project and without mitigation.

Vineyard Boulevard at Queen Emma Street

The impact of the project-related traffic would be significant during the AM peak hour. Reconfiguration of the lanes to provide separate north and southbound turn lanes and the addition of a separate northbound left-turn phase would mitigate the project's impacts.



Beretania Street at Alakea Street

The westbound approach should be restriped to provide an optional through or right-turn in addition to the existing right-turn only lane. This will result in an afternoon peak volume-to-capacity ratio of 1.110, which is an improvement from the 1.132 that would occur without the project or any mitigation. There would not be any change in the morning peak hour volume-to-capacity ratio and, therefore, no mitigation is required to accommodate morning peak hour traffic.

Beretania Street at Richards Street

To accommodate the project's impacts, the westbound approach along Beretania should be modified to provide an optional through or left-turn lane in addition to the existing left-turn only lane.

Hotel Street at Richards Street

To accommodate the flow of traffic into the parking garage, a signal should be installed and the intersection reconfigured to provide a separate southbound right-turn lane and two southbound through lanes. This could be accommodated within the existing street width.

King Street at Nuuanu Avenue

At this location, the southbound approach should be modified to provide an optional left-turn or through movement for the middle lane.

King Street at Alakea Street

Retiming of the signals will mitigate the project's afternoon peak hour traffic impacts, however, the level-of-service will be E. No mitigation is required for the morning peak hour traffic.

Air Quality

Applicable provisions of the State's dust control regulations (Title 11, Department of Health Administrative Rules, Chapter 60, Air Pollution Control, Subsection 5, Fugitive Dust) would be adhered to. To reduce dust during construction, exposed soil surfaces would be watered with water trucks and/or sprinklers as often as necessary. All vehicles leaving the project site would be cleaned to prevent dirt and mud from reaching adjacent streets, or if that is not feasible, roadways would be promptly cleaned. All open-bodied trucks transporting materials likely to give rise to airborne dust would be covered. Construction equipment would be properly maintained and tuned to minimize exhaust emissions. Equipment idling would be kept to a minimum.

Because the proposed project impacts are significant, measures to reduce emissions are appropriate. CO monitoring inside the garage to obtain actual CO levels is recommended. Most mitigation measures that can be easily incorporated into a project revolve around reducing motor vehicle use by individuals during peak hour traffic flow. Transit amenities and incentives such as increased conveyance and attractiveness of transit stops, i.e., telephones, drinking fountains, waiting shelters, etc. could be implemented to partially mitigate peak hour traffic congestion. Another mitigation measure could be the incorporation of alternative work schedules. This would distribute the traffic amounts over a longer period of time, thereby lessening peak hour flow. Bicycle and pedestrian lanes would also partially mitigate the peak hour traffic flows. Actual traffic flow improvements such as the provision of demand-responsive traffic signals with signal splits and phase lengths automatically adjusted to traffic demand on a real time basis, would ease periodic congestion. Development of a vehicle inspection smog check program would reduce vehicle emissions. Transportation related management actions such as 1) requiring the developer to reserve a percentage of parking spaces for car/van pool vehicles with discounted rates if a charge is made and 2) employer subsidy to employees using car and van pools, would help to mitigate the impacts.

## Noise

Construction equipment would exceed allowable noise limits. Thus, a permit would be required from the State Department of Health to operate construction equipment, vehicles and power tools which operate in excess of the noise limits. Permitting requirements for construction activities are as follows:

- o "No permit shall allow construction activities creating excessive noise...before 7:00 a.m. and after 6:00 p.m. of the same day."
- o "No permit shall allow construction activities which emit noise in excess of ninety-five dB(A) between 9:00 a.m. and 5:30 p.m. of the same day."
- o "No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on ...[certain] holidays. Activities exceeding ninety-five dB(A) shall [also] be prohibited on Saturdays."

Construction equipment and on-site vehicles or devices requiring an exhaust of gas or air must be equipped with mufflers. In addition, all construction related vehicles must meet the vehicle and noise level requirements set by the State.

Back-up alarms, exempt from DOH noise regulations, are often an irritant to neighbors. With this in mind, it may be possible to route haul trucks forward through or past the site to minimize backing.

The design and planning of the orientation of the office building and parking garage would include noise mitigation measures for potential noise sources during the operational phase, in order to comply with the state and local noise limits.

#### Vibration

It is concluded that neither demolition (other than by explosives) nor construction (other than pile driving) will generate vibrations of a building damaging magnitude. It is recommended that provisions be made to monitor the adjacent YWCA historic structure during the most severe construction activities, such as demolition and excavation.

#### 01.04 ALTERNATIVES CONSIDERED

The four actions considered as alternatives to the proposed action are discussed in Sections 06.0 and 11.0 and are listed as follows:

- o No action - no City initiated redevelopment, however, the State would then condemn the site and initiate its own redevelopment for parking.

- o All parking - limit the project to only parking, i.e., no office or retail space. This is essentially the same as above, but with the City rather than the State controlling the redevelopment.
  
- o Alternative sites - redevelop other City-owned properties with the same basic specifications used for this action.
  
- o Reduce the scale of the redevelopment to something less than maximum use intensity.

#### 01.05 UNRESOLVED ISSUES

In the absence of due diligence by the City and its chosen developer, BetaWest Properties, Inc., the State would pursue its condemnation of the site to redevelop it into an all-parking facility.

For many years, the site was used for automobile repair and maintenance as well as parking. Disposal of fuels and lubricants onto the ground may have caused soil contamination. The developer is currently performing a study to determine if this is the case and if so, its extent. Results of the study will guide soil disposal operations.

It is as yet unresolved whether or not the Hotel Street bus stop would require relocation during construction.

The federal government is currently reviewing a pre-draft environmental impact statement for the City's proposed light rail rapid transit system. It has yet to be shown that such a system is environmentally or economically acceptable. At this point, the concept has not been officially approved, funding has not been secured, route selection has not been finalized, and no permits have been issued. For these reasons, its cumulative impacts are too ambiguous to be analyzed in this EIS. The types of environmental impacts which the subject redevelopment and a rapid transit system would have in common potentially included alterations in air quality, noise and vibration and traffic. Implementation of a rapid transit system would presumably decrease downtown traffic and therefore decrease automobile exhaust emissions and noise. The net effect would be to mitigate to some extent the impacts of the redevelopment, and therefore, the analysis in this document is a conservative "worst case."

The City's agreement with the developer requires that provision be made in the design of the building to potentially accommodate a transit station by installing removable exterior wall panels in the second floor.

#### 01.06 COMPATIBILITY WITH LAND USE PLANS AND ISSUES

The proposed action would be compatible with all relevant plans and policies of the State of Hawaii, including the Hawaii State Plan, the State Land Use District designation and the State environmental policy. At the City level, a zoning variance or government waiver would be required as the tower roof and parking

structure would penetrate the building height limit for the Alakea/Hotel Street Precinct of the Hawaii Capital Special District. In order that the ornamental fencing along Richards Street align with that fronting the YWCA, this portion of the project would encroach into the 20-foot setback along Richards and also receive a waiver. Open space would be approximately 37%, below the 40% requirement, however, including arcade space would total nearly 50%. The proposed action would be compatible with all other plans and policies of the City and County of Honolulu, including the General Plan, the Development Plans, the Land Use Ordinance, and the Hawaii Capital Special District regulations.



01.07 LIST OF NECESSARY APPROVALS AND THEIR STATUS

Approvals

1. Environmental Impact Statement (EIS)  
Responsible Agency: Department of Housing and Community Development  
Acceptance by: Department of General Planning  
Status: Notice to Prepare EIS published in 7/8/89  
OEQC Bulletin, Draft EIS notice published in 10/8/89  
OEQC Bulletin, Final EIS notice published in 1/8/80  
OEQC Bulletin - Acceptance pending.
2. Determination by Federal Aviation Administration that buildings exceeding 200 feet in height will not be an obstruction or hazard to air navigation.  
Responsible Agency: Project Developer  
Acceptance by: Federal Aviation Administration  
Status: no action necessary at this time.

Permits

(Status of all permits pending final design approval.)

City and County of Honolulu

1. Special District Permit  
Law(s): Chapter 46, Hawaii Revised Statutes;  
Revised City Charter, Chapter 9, 1979 Supplement  
Revised Ordinances of Honolulu, 1978, Chapter 21  
(as amended)  
Responsible Agency: Department of Land Utilization
2. Building Permit for Buildings, Electrical, Plumbing, Sidewalk/Driveway Work and Demolition.  
Law(s): Revised City Charter, Chapter 14, 1979 Supplement  
Revised Ordinances of Honolulu. 1978.  
Chapters 16, 17, 18, 19 and 25, (as amended)  
Responsible Agencies: Building Department and review by various other City agencies
3. Construction Dewatering Permit (Temporary)  
Law(s): Revised Ordinances of Honolulu, Chapter 16  
Responsible Agency: Department of Public Works
4. Grading, Grubbing and Stockpiling Permit  
Law(s): Chapter 180C, Hawaii Revised Statutes  
Revised Ordinances of Honolulu, Chapter 23  
Responsible Agency: Department of Public Works

5. Sign Permit  
Law(s): Chapter 445, Hawaii Revised Statutes  
Revised City Charter, 1973, Chapter 9, 1979 Suppl.  
Revised Ordinances of Honolulu, Chapter 21  
Responsible Agencies: Building Department and review by  
Department of Land Utilization
6. Certificate of Occupancy  
Law(s): Revised Ordinance of Honolulu. 1978, Chapter 16  
Responsible Agencies: Building Department and review by  
various other City agencies
7. Water and Water System Requirements for Developments  
Law(s): Chapter 54, Hawaii Revised Statutes  
Revised City Charter, Article VII, 1979  
Supplement  
Responsible Agency: Board of Water Supply
8. Trenching Permit  
Law(s): Revised Ordinances of Honolulu, 1978, Chapter 20  
Responsible Agency: Department of Public Works
9. Street Usage Permit  
Law(s): Chapter 286, Hawaii Revised Statutes;  
City Ordinance No. 4650(76)  
Responsible Agency: Department of Transportation Services
10. Permit to Excavate Public Right-of-Way  
Law(s): Revised Ordinances of Honolulu, Chapter 20  
Responsible Agency: Department of Public Works
11. Sewer Connection Permits  
Law(s): Revised Ordinances of Honolulu, Chapter 11  
Responsible Agency: Department of Public Works
12. Sewer Extension, Oversizing and Relief Sewer Requirements  
Law(s): Revised Ordinances of Honolulu, Chapter 11  
Responsible Agency: Department of Public Works
13. Noise Permit  
Law(s): Chapter 342, Hawaii Revised Statutes  
Responsible Agency: Hawaii Department of Health

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03.0 LISTS OF FIGURES, TABLES AND APPENDICES

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**04.0 PURPOSE AND NEED FOR ACTION**

#### 04.0 PURPOSE AND NEED FOR ACTION

Revitalization of the central business district (CBD) has been an active goal of the City in recent years, affecting areas from Chinatown to the Alapai Street bus terminal. The proposed redevelopment of the Alakea/Richards parking lot would significantly improve the appearance and character of the downtown area by replacing the existing dilapidated two-story parking structure with a modern office building, parking and landscaped open space specifically designed to complement the Hawaii Capital Special District.

A major aspect of the City's revitalization program has been the redevelopment of municipally-owned parking structures. The potentials of sites which have yet to be redeveloped are currently being evaluated. Many, if not all, of these structures are at prime downtown locations which are designated by land use controls and policies for the highest intensity use on the island. Yet, as is the case with the Alakea/Richards site, the current uses are well below the site's potential. Redevelopment of this site would help the City attain its goal of facilitating full development of the primary urban core. (Section 08.02 discusses the relationship of the proposed project to land use policies and controls of the City and County of Honolulu.)

The fact that Downtown Honolulu is currently faced with a low supply of vacant office space has played a major role in the formation of the City's plans for revitalizing the CBD. The

current vacancy rate is near five percent, as compared to an average of 18 percent nationwide. Historically, the demand for new office space in Honolulu has been approximately 250,000 square feet per year. The proposed project would play an important role in helping downtown Honolulu meet present and future office space demand which, in turn, would stimulate economic growth.

While the building would provide primarily leasable commercial office space, nearly a quarter of the floor area would be used by the City Prosecutor's office which currently leases private office space.

Additionally, the project would provide the State of Hawaii with 432 parking stalls to meet needs of its employees and other commitments. The 219 public parking stalls that are provided on the existing site would be replaced with 235 in the new building.



## 05.0 PROJECT DESCRIPTION

### 05.01 PROJECT LOCATION

The project site is located in Honolulu's central business district (Figure 1), and is presently used for off-street public parking, a small maintenance facility for three-wheeled police vehicles and open space (Figure 2). It is contained within the Hawaii Capital Special District, and comprises the Alakea/Hotel Street Precinct (Figure 3). Access is provided by Alakea, Hotel and Richards Streets. The project site lies within a three-block radius of government offices, the financial district and commercial and retail areas. The site is easily accessible from all areas of the island, with public transportation available on all three surrounding streets. Easy access is also available for private vehicles from Alakea and Richards Streets with both King and Beretania Streets only one block in either direction from the project.

The project would overlook the State Capitol and Iolani Palace. From upper levels, there would be an unobstructed view of the island looking eastward, including views of Waikiki, Diamond Head and the ocean. Panoramic views of the Leeward coast and the Koolau mountains would also be visible from higher levels of the building.

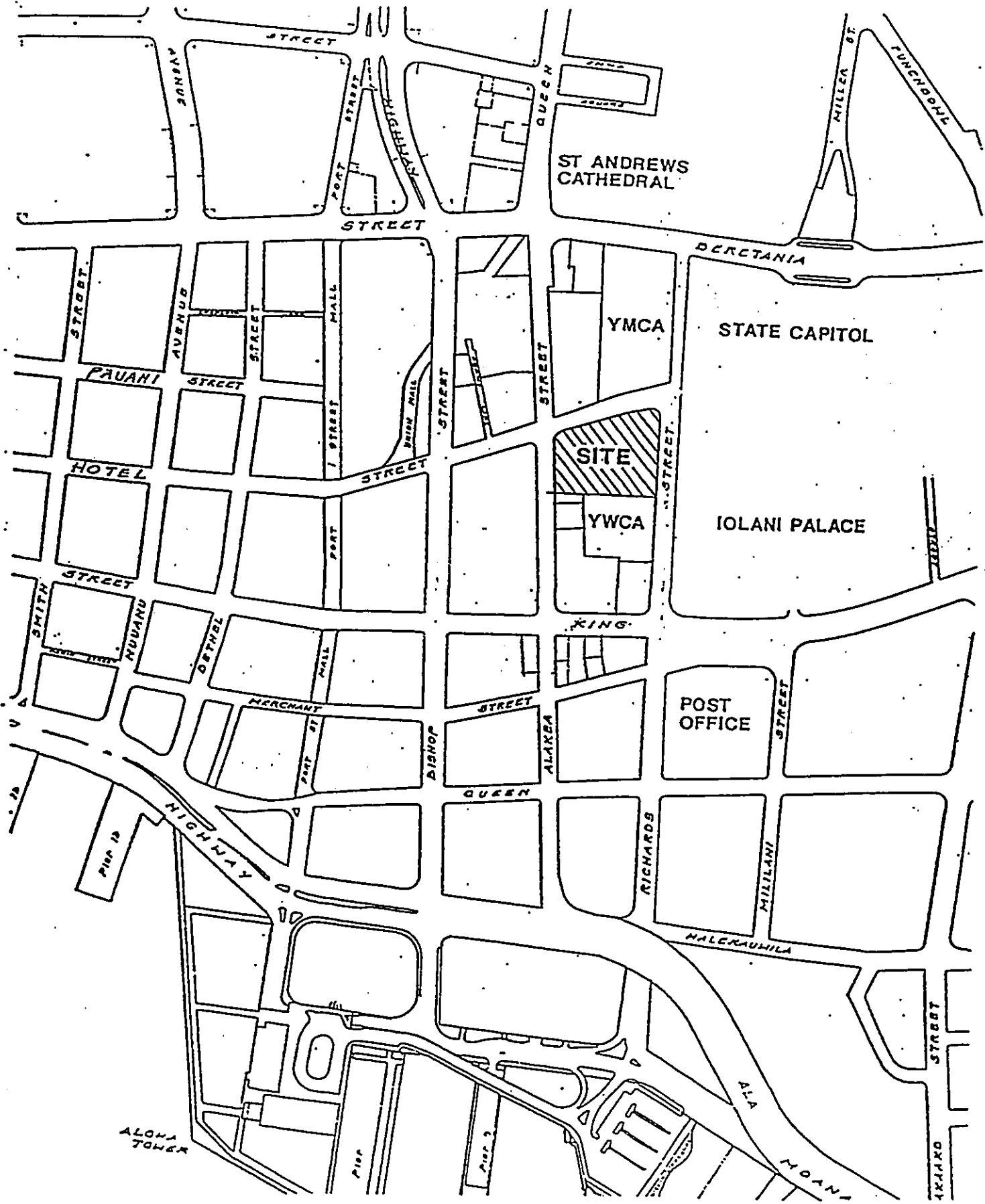
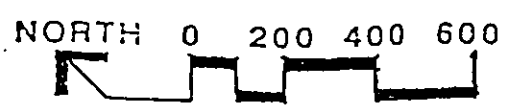
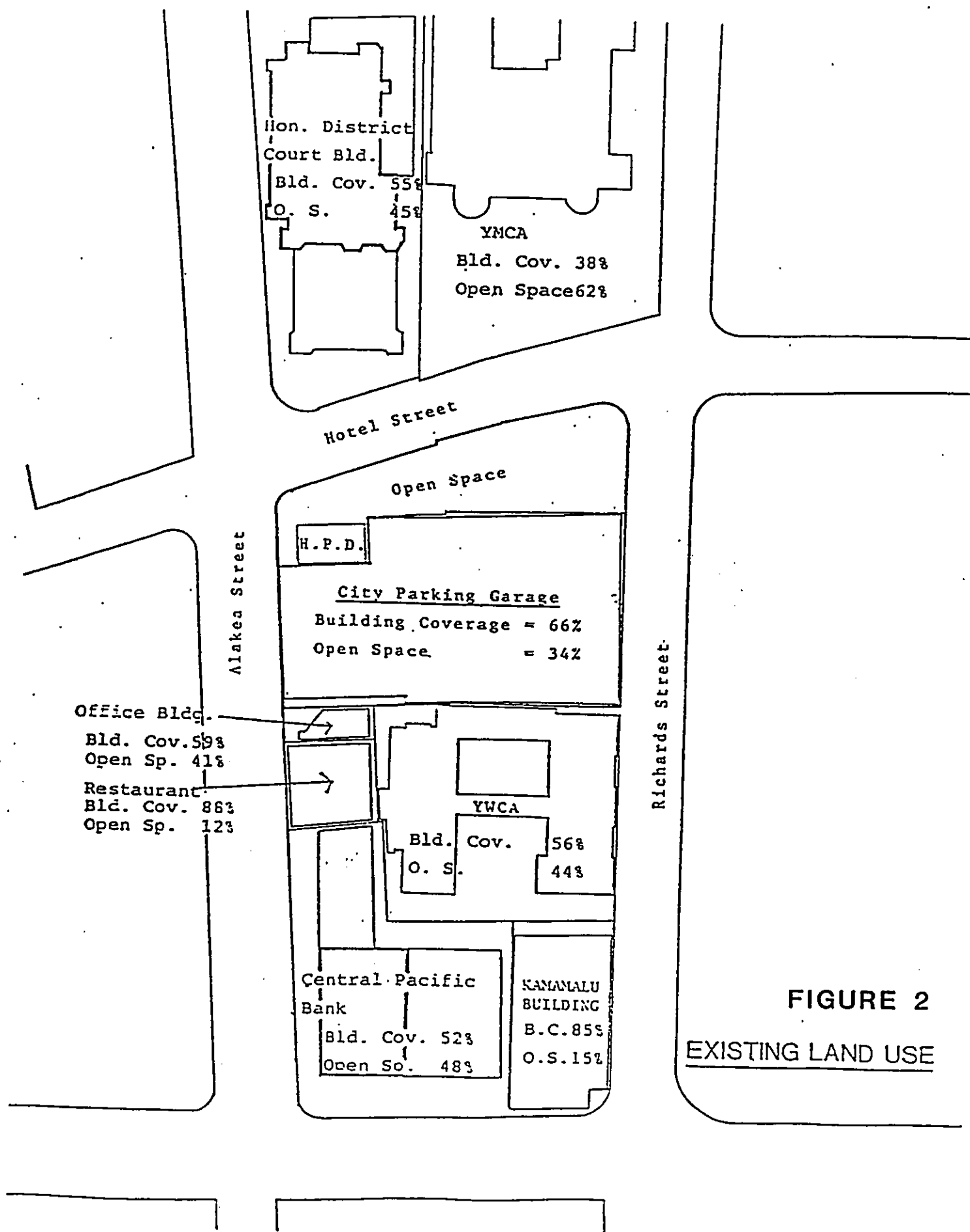


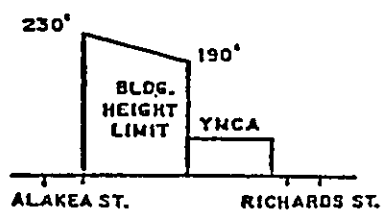
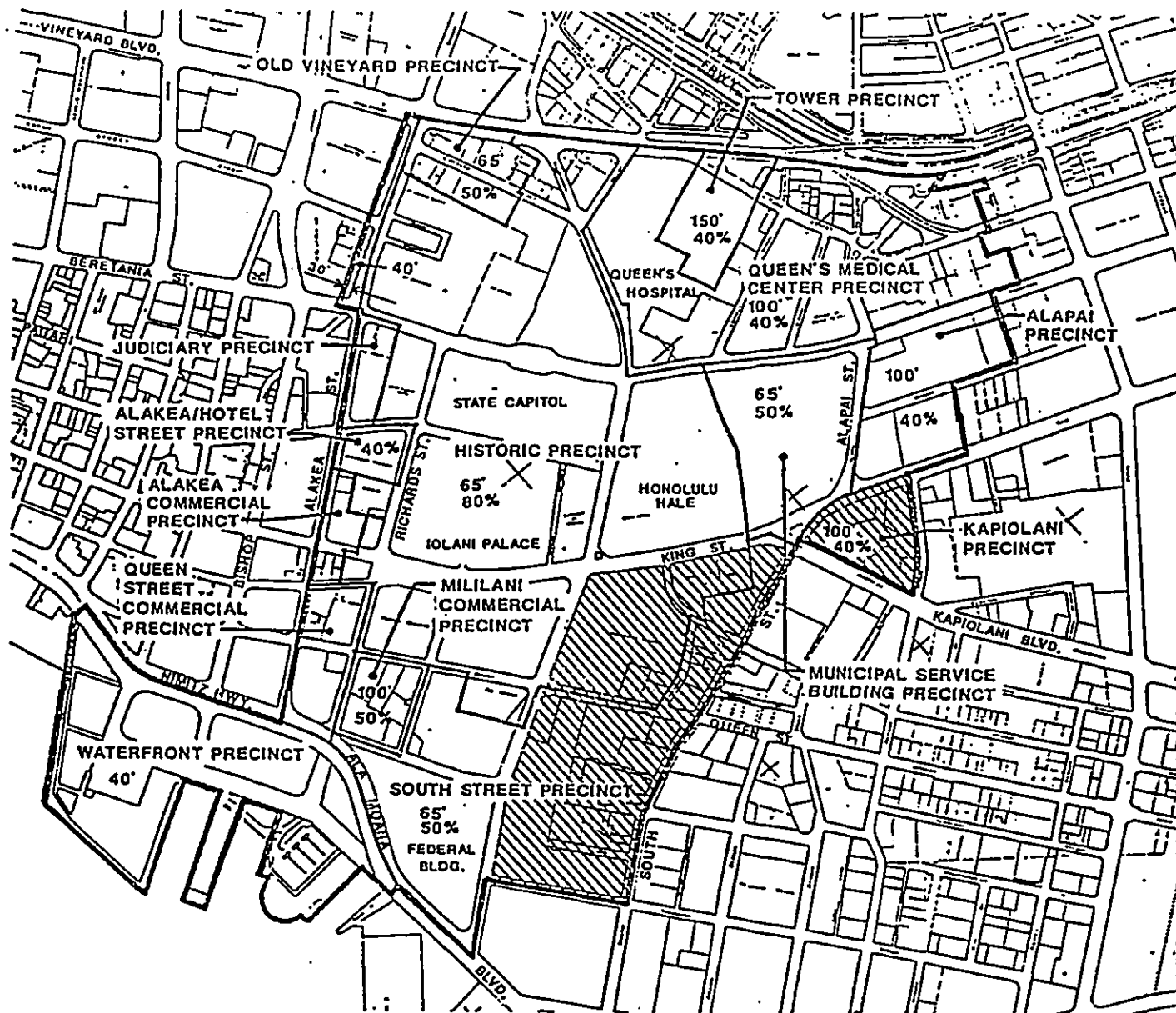
FIGURE 1  
PROJECT LOCATION



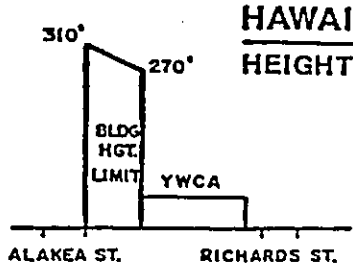


**FIGURE 2**  
EXISTING LAND USE

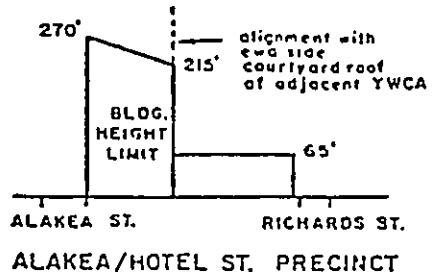




JUDICIARY PRECINCT



ALAKEA COMMERCIAL PRECINCT



ALAKEA/HOTEL ST. PRECINCT

**HAWAII CAPITAL SPECIAL DISTRICT  
HEIGHT AND OPEN SPACE PRECINCTS**

**FIGURE 3**

**LEGEND**

SUPERCEDED BY HCDA

NORTH



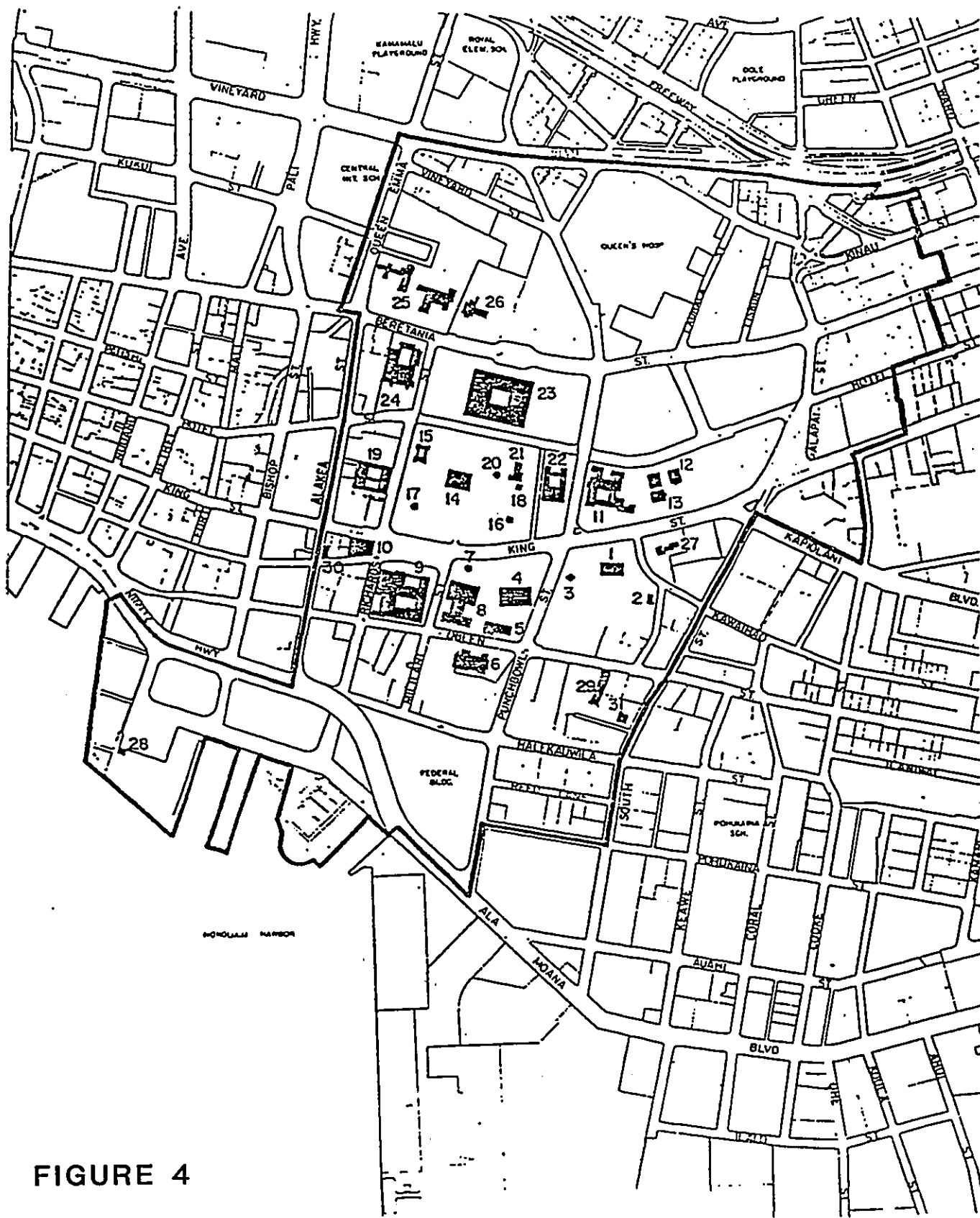
The project site does not contain any historic structures, however, the Richards Street YWCA, Iolani Palace, and the Armed Services YMCA (Hemmeter Corporation Building), all of which are listed on the National and State Registers of Historic Places, are located next to, and across the street from the project site (Figure 4).

#### 05.02 STATEMENT OF OBJECTIVES

The general objectives of the proposed action are to redevelop the site to its fullest potential and to stimulate economic growth. The project represents one facet of the City's program to revitalize the downtown central business district by expanding business and employment opportunities and enhancing the visual and social environs of downtown.

Specific objectives of the project include the following:

- o Develop the site to its maximum potential, but in such a manner as to complement and enhance the historic nature of the Hawaii Capital Special District;
- o Provide additional City office space;
- o Provide additional parking for the State of Hawaii to meet needs in the immediate area and to satisfy a prior commitment made to the Hemmeter Corporation; and



**FIGURE 4**  
**HAWAII CAPITAL SPECIAL DISTRICT**  
**HISTORIC STRUCTURES**



NUMERICAL KEY

FOR

FIGURE 4

The following is a listing of sites, structures and objects which are on the State and/or National Registers of Historic Sites, and, therefore, are worthy of preservation. They are identified by number on Figure 4.

1. Kawaiahao Church and Grounds
2. Adobe School House
3. Lunalilo Mausoleum
4. Kekuanaoa Building
5. Kapuaiwa Building
6. Hale Auhau
7. Kamehameha I Statue
8. Aliiolani Hale
9. U.S. Post Office
10. Hawaiian Electric Building
11. Honolulu Hale and Grounds
12. Mission Memorial Building Annex
13. Honolulu Hale Annex (Mission Memorial Building and Auditorium)
14. Iolani Palace and Grounds
15. Iolani Barracks
16. Royal Burial Ground and Fence
17. Coronation Band Stand
18. Captain Cook Memorial Tablet
19. YWCA and Grounds
20. Banyan Tree on the Iolani Palace Grounds
21. Old Archives Building (Attorney General's Building)
22. Hawaii State Library
23. State Capitol and Grounds
24. Armed Services YMCA and Grounds
25. St. Andrew's Cathedral, including St. Andrew's Close--Davies and Tenny Halls and Parke Memorial Chapel adjacent to the Cathedral
26. Washington Place and Grounds
27. Mission Houses
28. Aloha Tower
29. Royal Brewery
30. Podmore Building
31. Old Kakaako Fire Station

- o Replace the existing 219 off-street public parking stalls with 235 public spaces in the new building.

#### 05.03 GENERAL DESCRIPTION OF THE ACTION

The proposed action would include development of an office-commercial project and a seven-story parking structure on the site of the existing city-owned parking garage at Richards and Alakea Streets. The 24-story office building would contain approximately 232,537 leasable square feet of office space, approximately 9,088 square feet of retail commercial space and approximately 1,000 parking stalls. An additional 70,715 leasable square feet of office space would be allocated to the city. 235 public parking stalls would replace 219 existing stalls. The state would purchase 432 stalls, and the remainder (a minimum of 333 stalls) would be available for private use.

The City has entered into a development agreement with BetaWest Properties, Inc. (as the general partner in Equity Richards Venture) to develop the project and execute a long-term lease.

#### 05.04 USE OF PUBLIC FUNDS OR LANDS

The use of public funds or lands are two categories of action that subject a project to the provisions of Hawaii's Environmental Impact Statement Law (Chapter 343, Hawaii Revised Statutes). The City has entered into a development agreement

with BetaWest to develop the project and execute a long-term lease. The City will retain ownership of the project site. BetaWest would be responsible for demolition and clearing of the existing structures. The City would not use public funds for project development. However, State funds would be used to acquire parking stalls, which would subject the project to the provisions of Chapter 343. The use of public land also subjects the project to the provisions of Chapter 343.

05.05 PHASING, TIMING AND COST ESTIMATE

A tentative development schedule is shown in Table 1. Demolition and excavation work begin in February of 1990. It is estimated that construction would last approximately 24 months. According to this schedule, grand opening would occur in February, 1992.

TABLE 1  
DEVELOPMENT TIMETABLE

DEVELOPMENT	TASK	DATE
Commence	planning (entire project) .....	Feb. 1989
Commence	Demolition and Excavation Work.....	Feb. 1990
Commence	Foundation Work.....	Mar. 1990
Complete	Construction .....	Jan. 1992

Cost Estimate

The construction cost estimates are based on current square footage costs. No contingency has been added for design or construction unknowns. The current estimated cost to construct, as shown in Table 2, is \$66,000,000.

TABLE 2  
CONSTRUCTION COST ESTIMATE

COMPONENT	COST
Office Space/Retail/Parking .....	\$53,000,000
Fees and taxes .....	<u>\$13,000,000</u>
Total .....	<u>\$66,000,000</u> =====

05.06 SUMMARY TECHNICAL DATA, DIAGRAMS, ETC.

The following table is a summary of site development data. The table serves as a checklist of critical land use information for the property.

TABLE 3  
SITE DEVELOPMENT DATA

CATEGORY	DATA
Land Area.....	68,754 Square Feet (1.58 Acres)
Tax Map Key Numbers.....	2-1-17: 7,8 and 17
Ownership.....	City and County of Honolulu
State Land Use.....	Urban
General Plan.....	Primary Urban Center
Development Plan Map.....	Commercial/Park
Zoning Map.....	No. 4, Nuuanu - McCully
Zoning Precinct Classification.....	Central Business Mixed Use
Zoning Map Designation.....	BMX-4
Floor Area Ratio.....	4.0
Maximum Height.....	7.5 maximum with open space bonuses 65' (Richards Street to Ewa side courtyard roof of YWCA) 215'-270' (sloping upward from YWCA Ewa courtyard roof to Alakea Street)
Adjacent Precinct Classifications.....	Medium Density Business, General Preservation
Flood Insurance Rate Map...	Zone X, outside 500 year flood plain
Special District.....	Hawaii Capital Special District, Alakea/Hotel Street Precinct
Street Setbacks.....	20' required yard along Hotel Street & Richards Street
Bordering Streets.....	Alakea, Richards & Hotel Streets
Vistas.....	Hotel Street between Richards Street & Alakea Street
Utilities.....	Water, Electricity, Telephone, Gas, and Sewer all available for service
Issues of Concern.....	Traffic, parking, noise, air quality & aesthetics



## Development Program

The overall development program for the project site is described in Table 4 and illustrated in Figure 5. Approximately 9,088 square feet of leasable retail commercial space would be located at street level. Two parking levels below grade and six levels above grade would contain approximately 1,000 parking stalls. Office space would be located on floors 8 through 24. Approximately 4,712 leasable square feet of office space on the ground floor and 66,003 leasable square feet of office space on floors 8 and 9 would be allocated to the City.

TABLE 4  
DEVELOPMENT PROGRAM

TYPE OF USE	SQUARE FEET (LEASABLE)
City Office Space	70,715
General Office Space	232,537
Retail Space	<u>9,088</u>
TOTAL DEVELOPMENT	312,340 =====

### Site Design Features

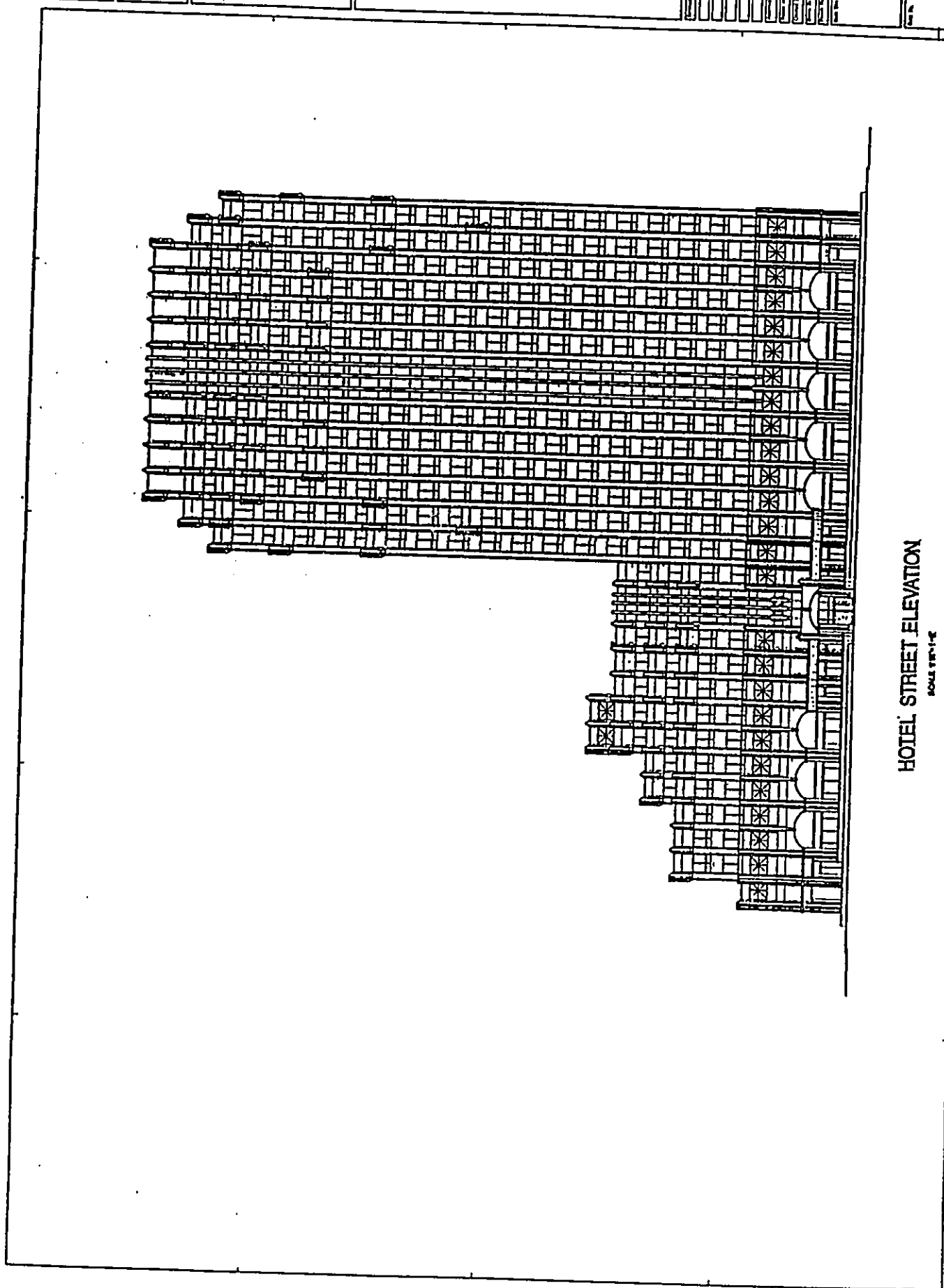
The general development concept is a mixed-use project of class "A" office space, convenience retail and parking. The three primary components of the project would be integrated into an exterior expression that supports and sustains the architecture of Iolani Palace, the YWCA, the newly remodeled Hemmeter Corporation Headquarters, and other significant historical



structures in the Hawaii Capital Special District. Classical design forms including flat arches, railings, pedestrian paths and courtyards would reinforce the character of the district and create a concept that complements all elements of the neighborhood (Figures 6-8).

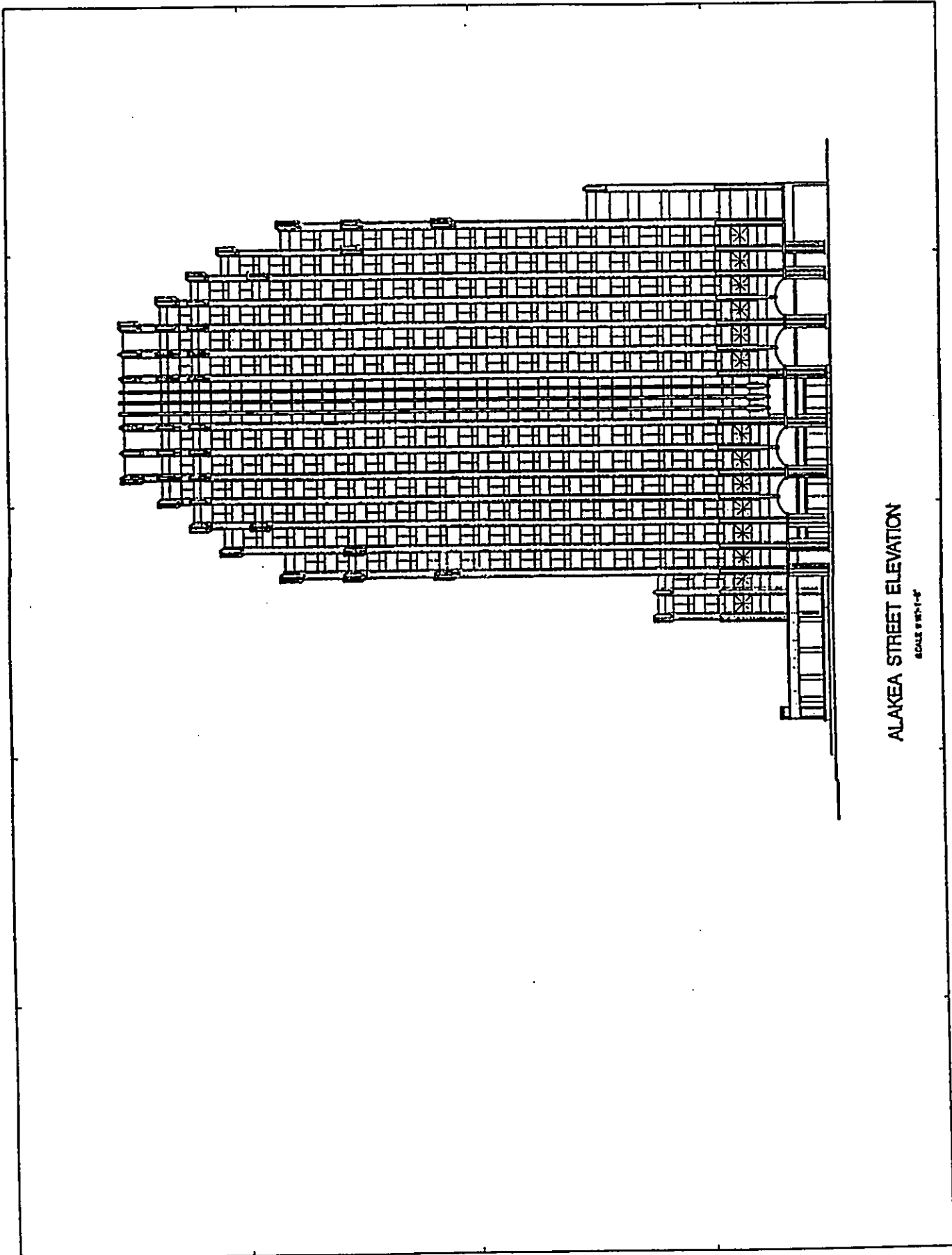
There would be pedestrian circulation on Alakea, Hotel, and Richards Streets under a covered arcade leading to a courtyard which separates the lowrise and highrise elements, and would also serve as the primary entry to the office tower. A separate entry on Richards Street would serve the city offices. Retail shops on Hotel and Alakea Streets would have entries under the arcade. Vehicular ingress/egress would be from Richards and Alakea Streets. Service and delivery would take place off Alakea Street and would be self-contained and screened from view (Figure 9).

The building mass and configuration would comprise a shape which complements nearby historical structures and has been designed to retain and enhance the existing green space. Government-related facilities in the project, including 235 replacement public parking stalls, 432 State-required parking stalls and approximately 70,715 square feet of City office space were a major influence on the building's height and width. Respect for the Capital District and the nearby historic buildings dictated a sensitive approach to space utilization resulting in terracing back both buildings. The parking structure will be about 45 feet in height nearest Richards Street, but will terrace back to about 98 feet high at its interior maximum. The tower would front Alakea Street and would be situated a minimum of 135'-0" from the



HOTEL STREET ELEVATION  
SCALE 1/8" = 1'-0"

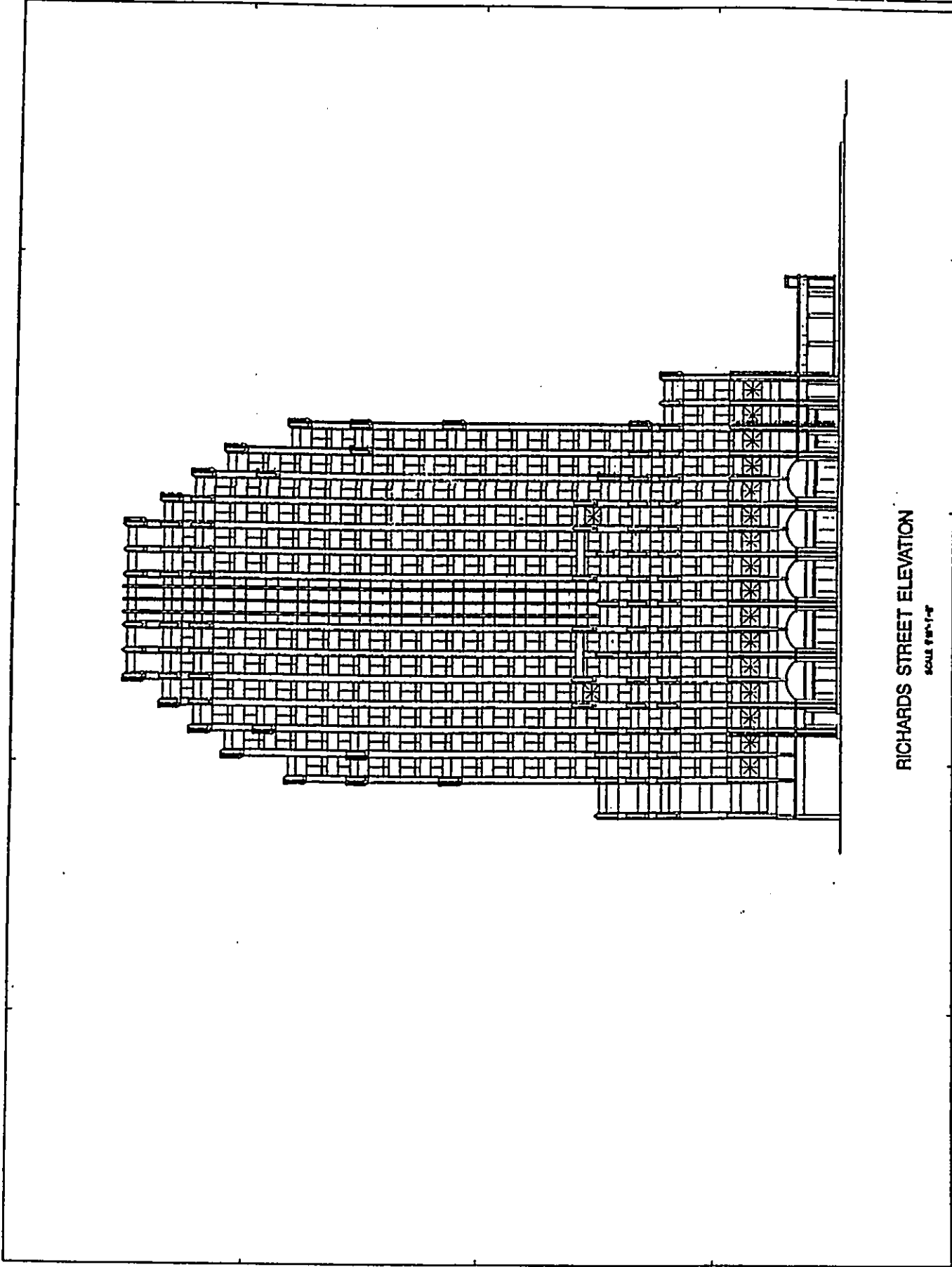
FIGURE 6



ALAKEA STREET ELEVATION  
SCALE 1/8"=1'-0"

FIGURE 7

	<p><b>DMJM Hawaii</b>          Drafting, Surveying, Architecture &amp; Interiors          210 South King Street, Suite 1100          Honolulu, Hawaii 96813 • 808-531-0112</p>		
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**FIGURE 8**



Richards Street property line, stepping incrementally to a height of 270'-0". The outer dimensions of the tower structure itself would be approximately 143' x 143'. The floor plates would vary in size between 34,590 and 8,682 leasable square feet.

Landscaping would be consistent with the surrounding areas and strive to create a harmonious feeling. Planter boxes have been designed into the various levels to provide for additional green spaces. The existing Monkeypod trees on Hotel Street would be saved and re-used, and new trees placed into the landscaped setback on Richards and Alakea Streets. The character of the manicured lawns and open spaces of the Capitol and Iolani Palace, combined with pathways, trees, ornamental fencing and colorful flowers are incorporated into the design.

#### Parking

Parking would be provided both below ground (2 levels) and above ground (6 levels). The two below grade parking levels would have approximately 350 stalls and would ingress and egress via Richards Street. Approximately 650 stalls would be provided in six above grade levels which would ingress and egress via Alakea Street. The allocation of parking spaces is approximately as follows:

- o 432 stalls for the State of Hawaii (includes commitments to the Hemmeter Corporation);



- o 235 public stalls to replace 219 lost by demolition of the existing parking facility; and
- o the balance of the parking (a minimum of 333 private stalls) for building tenants.

Parking for the approximately 71,000 square feet of City office space would be off-site. The above-ground parking would be provided three access lanes at the parking controls. One of these lanes would be reversible to accommodate peak traffic flows. Public parking would exit past a manned booth where fees would be collected. Monthly parking would enter and exit through lanes provided with card key readers to avoid unnecessary delays. The dedicated ingress lane would have both a ticket dispenser machine and a card reader, as would the ingress side of the reversible lane.

#### 05.07 HISTORIC PERSPECTIVE

Historical research and archeological assessment of a block portion of downtown Honolulu bounded by Alakea, Richards and Hotel Streets was completed for this EIS. The area was one of the early residential areas of Honolulu and was the location of six Land Court Awards in the 1850's. At least seven residences stood on the parcel during this period, the most prominent owners being Williams-Sumner, a servant of royalty and John Voss, a German businessman who reportedly ground cane for Queen Ka'ahumanu on the property. The residences were strategically located across Richards Street from Iolani Palace. The late 19th

Century saw greater density of residences with increasing commercial use. The stable of the Hawaiian Hotel stood at the corner of Richards and Hotel Streets. Dense commercial use continued into the 20th Century with the establishment of the Royal Hawaiian Garage and later the Von Hamm Young Garage. During World War II, the portion fronting Hotel Street became a red-light district. In the late 1950s, most buildings were demolished for construction of the present Municipal Parking Garage. Exploratory soil borings done for this project (Dames & Moore, 1989) show natural cinder deposits five feet below the present surface. There is a definite possibility that 19th Century features and deposits may be preserved in the subsurface layers. These deposits may be of archaeological significance. For this reason, an archaeologist will inspect the site in the final phases of demolition to determine whether cultural materials are being exposed. Subsurface testing following demolition and preceding construction will take place with possible archaeological monitoring or a full on-site survey prior to construction depending on the results of the testing. Data recovery, if called for, would be fully coordinated with the State Department of Land and Natural Resources Historic Sites Section.

15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

## 06.0 ALTERNATIVES TO THE PROPOSED ACTION

## 06.0 ALTERNATIVES TO THE PROPOSED ACTION

Although conceptualized by the City and County of Honolulu in its August 26, 1988 Request for Proposal (RFP), the design for the proposed project has been developed by BetaWest Properties Inc., the chosen developer. It is clearly the preferred alternative. Other alternatives to the proposed action do exist, however, and it is useful for assessment purposes to discuss them.

### 06.01 NO ACTION

A true "no-action" alternative does not exist. The default action is redevelopment of the site by the State of Hawaii. The State of Hawaii has an interest in acquiring the project site and building a structure which at a minimum, would provide for State employee and public parking stalls. The Hawaii State Legislature appropriated \$5,115,000 for land acquisition in Act 216, Session Laws of Hawaii, 1987. The State also filed an action in eminent domain with the First Circuit Court for acquisition of the property on March 10, 1989 (State of Hawaii vs. City and County of Honolulu, Civil Action 89-0754-03). The State will proceed with site acquisition and subsequent development if the City fails to proceed with its proposed project. Thus, in reality, the "no action" alternative still involves redevelopment of the existing parking structure. The impacts associated with this alternative would obviously hinge on State development plans.

Preliminary indications are that the State would build a 10-story parking structure. The impacts associated with an "all parking" structure are discussed below in section 06.02.

In essence, the "no action" alternative represents redevelopment initiated by a different government body. Construction and other related impacts would not be avoided, the only questions relate to their degree. The significant area of concern would be loss of economic benefits to citizens and government of the City and County of Honolulu.

#### 06.02 ALL PARKING

Development of an "all parking" structure would still involve a substantial amount of demolition, foundation and other work, and thus, would not eliminate construction related impacts. Similarly, negative impacts associated with noise, air quality, and traffic would still remain.

Redevelopment with no provision of office space would substantially reduce potential benefits to the City. As compared to the preferred alternative, the City would not receive 70,715 square feet of office space, and land lease rents and property taxes would be much lower. Stimulation of economic growth would be lost.

The City and County of Honolulu's General Plan, Development Plan and Land Use Ordinance call and provide for downtown Honolulu to be the financial and business center of the Island of Oahu.

Furthermore, current vacancy rates of 5 percent as compared to the national average rate of 18 percent suggest a strong demand for more office space downtown. Historically, it is estimated that annual demand for new office space in Honolulu is about 250,000 square feet. In an effort to fulfill the intent of the City's land use plans and policies, and, perhaps more importantly, to increase the supply of office space to meet existing demand, the City has undertaken a program to revitalize the downtown central business district by expanding business and employment opportunities. Redevelopment of the site without providing for additional office space would not help attain City and County objectives nor meet the high demand for downtown office space.

A full discussion of the relationship of the action to land use plans, policies and controls is presented in Section 8. A recurrent theme among all these instruments is to provide for the highest intensity of development in downtown Honolulu in order to encourage urban growth in existing urban areas and to utilize existing resources efficiently. Redevelopment of the site by choosing an "all parking" alternative would represent a lower intensity use of the site, whereas, State and City and County of Honolulu plans for downtown Honolulu call for development of the primary urban core to the fullest extent practicable.

#### 06.03 ALTERNATIVE SITES

The City has been evaluating other municipal parking lots in the downtown area as to their potential for redevelopment. Where feasible, the City intends to use such underdeveloped sites to provide additional residential and commercial space in the central business district to achieve the City's revitalization objectives. Thus, potential alternative sites are currently being evaluated for redevelopment purposes, however, plans are to have these projects complement, not substitute for City plans for redevelopment of the Alakea/Richards site. The proposed project represents only one facet of the City's program. Redevelopment of the Alakea/Richards site in the manner proposed is consistent with surrounding uses. The site is well situated for general office purposes and its inclusion in the Hawaii Capital Special District makes it a desirable location for government offices.

#### 06.04 REDUCED SCALE

As with the "all parking" alternative, redevelopment of the site at a "reduced scale" relative to the proposed action would represent a lower intensity use of the site than that which is called for in City and County and State land use plans and policies. The negative aspects of a lower intensity use are described above. Analysis by the developer showed that the addition of facilities from the City in terms of its office space and parking requirements and from the State in terms of its

parking requirements, make the reduced-scale alternative economically infeasible. In order to achieve the intended goal of having the project constructed at no cost to the taxpayers, it is necessary that the project be economically feasible to the developer. To significantly reduce the commercial office space without concomitant reductions in City office space and State and public parking would render the project economically infeasible.





## 07.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING

### 07.01 CLIMATE AND METEOROLOGY

Downtown Honolulu receives a yearly average rainfall of 24 inches. Hawaii, in general, has a small seasonal variation in average temperature ranging from about 74-75°F in March to 79-80°F in September. Northeasterly tradewinds prevail across the islands. Honolulu's average windspeed for the month of January is 9.3 miles per hour, and it reaches 12.8 miles per hour in July. Through the months of October to April, Kona storms with southerly winds may be experienced. Relative humidity for Honolulu remains between 60% and 80% on a year-round average (University of Hawaii, 1984).

### 07.02 TOPOGRAPHY, GEOLOGY AND SOILS

The project site is relatively flat and surface elevations shown on City & County of Honolulu contour maps indicate site surface elevations range from about 21 feet at the Hotel Street side of the site to 20 feet at the makai (seaward) boundary of the site. The site is not subject to hazardous landslides, falling rocks or other unstable geological conditions.

Geologically, the site is located on the Honolulu coastal plain, a broad sedimentary plain, in places overlain by tuff cones and ash deposits. The plain contains numerous artificially filled marshes. At the shore, earthy and calcareous sediments, collectively termed caprock, are at least 1,000 feet thick and

overlie the Koolau aquifer (Takasaki, 1977). The caprock forms a wedge-shaped barrier, progressively thinning inland. At the project site, the caprock layer is probably less than half the thickness of that at the shoreline. Deposits in the caprock consist of terrestrial alluvium, marine sediments, calcareous reef deposits, pyroclastic rocks of the Honolulu volcanic series, and weathered basalt, with the first three predominant. The deposits in the caprock vary in their permeability, but the net collective permeability of the layer is low in comparison to the water-bearing basalt below (Visher and Mink, 1964).

A preliminary geotechnical survey of the site has been completed (Dames & Moore, 1989). Exploratory borings encountered highly variable ground conditions beneath the project site. The borings indicated that the site is underlain by approximately five feet of stiff sandy to clayey silt over an approximately four to nine feet thick cemented to uncemented volcanic cinder sand. Between approximately 23 and 62 feet below the existing ground surface, the exploratory borings encountered primarily medium dense to locally cemented silty sand deposits. Based on the exploratory boring data, the basaltic rock formation beneath the site is anticipated to be highly variable in occurrence, thickness and lateral extent.

Groundwater was encountered at about 15.5 to 20 feet below existing ground level during the course of the foundation investigation, although measurements may have been affected by drilling water. Groundwater in the area is normally found at

elevation one to two feet above sea level (i.e., 21 to 23 feet below the surface) but may be higher during periods of high rainfall.

#### 07.03 NATURAL HAZARDS

##### Tsunami Hazard

According to the Civil Defense "Tsunami Inundation Maps," the project site is inland from the inundation area, which extends from Ala Moana Boulevard to the shoreline (Hawaiian Telephone Company, 1988). Therefore, the site would not be affected by tsunami activity.

##### Flood Hazard

According to the Flood Insurance Rate Map for the City and County of Honolulu, the project site lies within Zone X, an area determined to be outside the 500 year flood plain. Zone X covers the majority of the downtown area.

#### 07.04 HYDROLOGY AND WATER QUALITY

There are no surface water resources within the site. The closest water features are the Nuuanu Stream and Honolulu Harbor, both approximately 2000 feet from the project site. Beneath the project site, however, are significant groundwater resources. An extensive basal aquifer containing large supplies of fresh water underlies all of southern Oahu. The caprock near the coast,

being less permeable than water-bearing lava flows nearer the Koolau Range, retards the seaward flow of groundwater and results in a higher water table than would exist absent the caprock. Central Honolulu has the highest water table in southern Oahu. The basal groundwater is under artesian pressure; water levels range from 10 to 30 feet above sea level. This corresponds to the area of thickest potable groundwater, about 1,000 feet, measured as the depth to the 250 mg/l chloride level, the potable water standard (Swain, 1973). In the coastal caprock area which includes the project site, water levels are 1-3 feet above sea level.

Because fresh water is lower in specific gravity (has lower concentrations of dissolved solids) than seawater, the fresh water floats on top of the seawater which saturates lower geological strata. This fresh water "lens" displaces seawater below it in a ratio approximating 1:40 for fresh water above and below sea level, respectively. Typically, the lens is thickest near the middle of the island, thinning towards the coast, with seepage to the sea occurring very close to the shoreline. Recharge to the groundwater is from rainfall on the Koolau Range.

At the interface between the fresh water lens and the underlying seawater, there is a transition zone of brackish water which varies in thickness due to natural factors such as fluctuations in recharge and discharge rates and tidal cycles, and also due to pumping from wells in the aquifer.

Although the capacity of the caprock to store and transmit water is small compared to that of the basalt aquifer, caprock does contain large quantities of water. Fresh water in the caprock accumulates from rainfall, return irrigation and leakage upward from the artesian portion of the basaltic aquifer. Along the shore, sea water moves readily into the caprock, as evidenced by the high efficiency in transmitting tidal fluctuations. Caprock water is generally of poor quality due to its relatively high chloride content and is developed for agricultural and industrial purposes only. In Honolulu, caprock water has been developed for purposes such as irrigation and equipment cooling.

Dissolved constituents enter the groundwater from the sea, the atmosphere, the surface layer of soil and vegetation, the rocks through which the water percolates, components of irrigation waters (such as fertilizers) and from waste injection wells. The sea is the primary source of dissolved solids to groundwater, and chloride, being the most abundant ion in seawater (and one which neither reacts with other dissolved constituents nor is subject to appreciable ion exchange), is used as an index of the chemical quality of groundwater.

The chloride content in the caprock under Honolulu varies with distance from the shoreline. Near Honolulu Harbor, levels range to near 18,000 mg/l, close to those of full-strength seawater.

The flow gradient for the basal water aquifer in central Honolulu is toward Pearl Harbor to the northwest, rather than directly from the midline of the Koolau Range to the sea as might be

expected. This is because of a marked curvature in the equipotential surface lines for water storage heads around Pearl Harbor. In other words, "downhill" for basal groundwater in central Honolulu is toward Pearl Harbor rather than toward the sea. The pollution potential of the caprock water is generally high for both point and nonpoint sources, but the pollution potential of the volcanic aquifer underlying the sedimentary deposits in the coastal plain is low with the exception of seawater intrusion due to overpumping of potable water source wells (Takasaki, 1977).

There are numerous injection wells for waste discharge in central Honolulu, including those for thermal water, car-wash return and rain water. Scattered cesspools and abandoned cesspools exist. According to the "Water Quality Management Plan for the City and County of Honolulu" (DOH and City and County of Honolulu, 1980), the Honolulu population on cesspools (principally the communities of Nuuanu and Makiki Heights) is 15,270. Approximately 1,527,000 gallons of waste per day are disposed of into 4,491 cesspools, of which about 7% are defective. The chief recipient of injected waste is caprock water. However, none of these sources are close enough to impact water quality beneath the project site. In any event, because of the large head difference between water in caprock and Koolau lavas, pollutants would not enter artesian-water resources from the caprock water.

#### 07.05 FLORA AND FAUNA

The only notable vegetation on the site are three large Monkeypod trees (Samanea saman) which occupy the open space area fronting Hotel Street. The majority of the rest of the open space area is grass. None of the trees are listed on the "Register of Exceptional Trees" according to Honolulu Revised Ordinance No. 78-91, "Protective Regulations of Exceptional Trees."

Urban bird species that frequent the trees are the only notable fauna on the site. No candidate, endangered or threatened plant or animal species are known to exist on the site or use the site as habitat (Kosaka, 1989).

#### 07.06 HISTORIC SITES

A study of the historical and archaeological significance of the project site was completed by Cultural Surveys Hawaii and is contained herein in its entirety as Appendix D. There are no officially designated historic sites on the property. The following is a summary of the historical and physical evidence collected relative to the site.

1. Between 1820 and the 1840s, the port of Honolulu evolved from a haphazard scatter of small houses clustered behind the port and harbor wharf to a town with a gridded pattern of streets and blocks. By the late 1840s, the Richards and Alakea project area contained at least seven house lots (one



of which had a well). Some of these houses belonged to important families who were in some way connected to the activities of the adjacent Iolani Palace.

2. From the 1840s to the 1900s the project area continued in residential use with the addition of the stables for the Hawaiian Hotel which stood directly across Hotel Street on the mauka side.
3. Throughout the early 20th Century, residential use gave way to professional offices, boarding houses, shops and an auto garage. In the late 1920s, major public buildings were constructed nearby (the YMCA and YWCA) and a major portion of the block was given over to the Von Hamm Young Garage.
4. Throughout the military build up of World War II, the portion fronting Hotel Street became a red-light district with restaurants and a bowling alley. The Von Hamm Young Garage remained until the late 1950s when most of the project area was given over to the present Municipal Parking Garage.
5. Although the information from the initial soil borings is sketchy, undisturbed natural deposits (volcanic cinder) could occur as shallow as 4-5 feet below the surface. It is quite possible that intact 19th Century features and deposits associated with early Honolulu could survive as intrusions into this cinder layer.

In addition to this site-specific information, the area surrounding the project site has numerous officially designated historic structures. These are shown on Figure 4 and identified on the list following the figure.

#### 07.07 LAND USES AND COMMUNITIES

This section and the following section, 07.08, Economy, are excerpted from Appendix E, Social Impact Assessment, which was prepared by Community Resources, Inc.

#### Other Projects

By the time the project is scheduled to open, other buildings now under construction or planned for Downtown Honolulu would be completed:

- o The State Office Tower on Beretania Street is planned for 1990. (This building will not add to the available inventory of office space.)
- o The Chinatown Gateway Plaza, a 200-apartment residential project to be built by mid-1990, with approximately 21,000 square feet of commercial and retail elements and street level open space.

- o Harbor Court, a mixed use development on the site of existing City parking facilities on Nimitz Highway and Bethel Street, to combine 170 condominium units, 200,000 square feet of office space in a second tower, and a 1,000-stall garage.
  
- o Pan Pacific Plaza, a 495,000 square foot office building with 800 parking stalls, on Bishop and Fort Streets, expected to open in mid 1991.
  
- o A 31-story building with nearly 180,000 square feet of space has been planned for the Merchandise Mart site, across the intersection of Alakea and Hotel Streets from the project site (Sylvester, 1989). Demolition work has begun.
  
- o The Pacific Nations Center, Aloha Tower, and Harbor Court projects could add up to 2,000,000 square feet of office/commercial space. These projects are not likely to be completed until approximately 1995.

On the Ewa side of Nuuanu Avenue, new projects include the Hawaii National Bank Building (140,000 square feet of office space, to open in 1990), the City's River-Nimitz residential project, and the Honolulu Park Place condominium.

In interviews with Community Resources, Inc., owners, operators and

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managers of other buildings in the blocks adjacent to the project site did not discuss plans for expansion or major changes in land use other than those noted above. (Persons representing properties in the blocks enclosed by Beretania Street, Bishop Street, King Street, and Punchbowl Street, as well as the makai side of King Street between Bishop Street and Punchbowl Street, were interviewed. Owners' representatives for four nearby sites -- Bishop Square, Merchandise Mart, Yong Sing, and First Hawaiian Bank would not discuss their plans. This account draws on newspaper reports of plans for those properties.)

Another project that may be built in the study area in the future is the State's Honolulu Waterfront project. This project includes a high-rise office structure and a mid-rise hotel (Helber, Hastert & Kimura and R.M. Towill, 1988). The adjoining HECO site is identified as a potential office tower and site for parking. An intrainland ferry terminal is also proposed for the Downtown waterfront. Various developers are now preparing proposals for the Aloha Tower Redevelopment. One would include development of the HECO site as part of the project (Kresnak, 1989).

#### Current Land Uses

The project site stands at the meeting point of the business and government zones of Central Honolulu. The primary study area for the social impact analysis includes:

- o The densely developed urban core: The Central Business District has half the state's office space (Grubb and Ellis, 1989). In recent decades, demand for additional office space has been steady. New office buildings have been built regularly during the last decade. The most recently completed structure, City Financial Tower, opened in 1989. Construction of a larger building, Pan Pacific Plaza, is scheduled to start immediately.
  
- o The government zone: This includes historic structures and low-rise office buildings, all surrounded by relatively large open spaces. The grounds of Iolani Palace and the State Capitol are across the street from the project site.

The two blocks between Alakea Street, King Street, Richards Street, and Beretania Street include some buildings of historic character as well as mid-sized and large office buildings. These blocks do not fit clearly within either of the above zones.

Uses of the project site and adjoining properties include:

- o The two-story City and County of Honolulu parking structure, built in 1960. It has approximately 219 stalls for public use.

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- o A small enclosure within the parking structure provides an administrative office for City and County parking meter regulators and parking for their 3-wheeled vehicles. Honolulu Police also park on site when they have business at the District Court, across Hotel Street from the project site, and on-street space reserved for them is full.
  
- o Along the project's Hotel Street frontage, the City and County has provided a bus shelter.
  
- o The Richards Street YWCA is a three-story building built in 1927. Its facilities include classrooms, exercise rooms, a heated pool, an open patio area and restaurant (space leased by Palace Court Restaurant).

The Richards Street facility is used by YWCA members and by members of the general public. It offers programs for women and children, and is the site of meetings of many different groups.

The YWCA has an easement for right-of-way on City and County land on the project site. The easement is located mauka of the Jury Box building, and stretches from Alakea Street about 77 feet, the length of the Jury Box building and a short distance alongside the YWCA. The easement's width is about 10 feet. It is used for access to the YWCA's boiler room and transport of trash dumpsters from YWCA property to Alakea Street.

The YWCA also leases on a month-to-month basis from the City and County an area which varies from about four to seven feet in width and 133 feet in length extending from Richards Street to the point where the YWCA building reaches the boundary of the project site. This area is used to supplement an existing twelve feet wide open space on the YWCA property that is used for van parking (near the street) and partially for a small play yard in the area further from Richards Street.

- o The "Jury Box" Building is a five-story office building. It has retail space on the ground floor and offices on upper floors. The office space is currently used by the lessor of the property, a real estate appraisal firm.

Well over 50,000 people are estimated to travel to central Honolulu daily. Downtown attracts office workers and customers or clients. The government area attracts government workers, citizens conducting business with the government, and tourists. Historic sites in the Downtown area on the State and/or National Registers of Historic Sites attract visitors as well. Many people transfer from one bus line to another in Downtown Honolulu, and hence are counted in the above estimate. (Major bus lines run along Hotel Street and Alakea Street, next to the project site.)

The area served by the Downtown Neighborhood Board, the secondary

study area, contains several land uses in addition to the zones described above:

- o An area of residential apartment buildings is mainly mauka of Downtown and Chinatown, between Beretania Street and Vineyard Boulevard. Many of these are located in the Kukui and Queen Emma Urban Redevelopment Areas, and were built with government support.
  
- o Chinatown contains a mix of commercial and residential structures, mostly in low-rise buildings. Older structures in this area, notably along Nuuanu Avenue, have been renovated and refurbished. New commercial residential projects have also been built. Hotel Street in Chinatown was Honolulu's adult entertainment center through the 1970's. Bars and other attractions continue to do business along Hotel Street although the area is much less busy than in earlier decades.
  
- o Other land uses in the area include major transportation arteries (H-1 Freeway and Nimitz Highway) and docks used by the Coast Guard and by ships offering interisland pleasure cruises.

Mauka of the primary study area are schools, a major hospital complex (Queens Medical Center), and private and public recreational facilities (the Nuuanu YMCA; Foster Botanical Garden; Kamamalu Park).



### Population Trends and Characteristics

The population of the City and County of Honolulu has grown regularly since 1950, but the rate of increase has been steadily slowing. The primary study area has seen a net loss of population over the long term (Table 5), however, the secondary study area population has grown in recent years. The population of the area, however, still has not reached the level of the early 1950's, before urban redevelopment.

The Primary Study Area: About a thousand people lived in Downtown Honolulu (Census Tract 40) in 1985. The population of Census Tract 39 had declined to less than 100 persons by that date.

Table 5 shows that the population of Tract 39, the government center, has been declining since the 1950's. In Downtown proper, population decline was reversed by 1980. Modest growth has occurred since 1980.

The residential population of Tracts 39 and 40 is a very small proportion of the number of people -- office workers, students, customers, and others -- who visit the area regularly.

TABLE 5  
 POPULATION TRENDS, CITY AND COUNTY OF HONOLULU AND  
 STUDY AREA, 1950 TO 1985 (ESTIMATED)

	April 1, 1950	April 1, 1960	April 1, 1970	April 1, 1980	July 1, 1985
City and County of Honolulu	248,034	500,409	630,528	762,565	811,096
Approximate Downtown Neighborhood Board Area	15,152	10,080	7,027	10,361	11,562
Census Tract 40		288	100	820	1,066
Census Tract 39	2,051	751	263	115	68

The Secondary Study Area: In 1985, the Downtown Neighborhood Board area contained an estimated 9,813 residents. This figure represented an increase of 13.1 percent over 1980. Population growth has been strong in the area mauka of Chinatown.

Table 5 shows overall population counts for an area similar to, but not identical with, the Downtown Neighborhood Board area. This area of less than 500 acres contained 6.1 percent of the total City and County population in 1950. While the population of this area now comes close to its 1950 size, the 1985 population accounts for a smaller fraction -- 1.4 percent -- of the islandwide total.

Detailed census data indicate distinctive characteristics of the residents of the study areas, as shown in Tables 6 and 7.

TABLE 6  
AVERAGE ANNUAL RATE OF GROWTH

	1950-60	1960-70	1970-80	1980-85	1950-85
City and County of Honolulu	7.3%	2.3%	1.9%	1.2%	3.4%
Approximate Downtown Neighborhood Board Area	-4.0%	-3.5%	4.0%	2.1%	-0.8%
Census Tract 40	-6.6%	-10.0%	23.4%	5.1%	-1.7%
Census Tract 39		-10.0%	-7.9%	-9.5%	

NOTE:

\* The "Approximate Downtown Neighborhood Board Area" is made up of Census Tracts 39, 40, 41, 42, 51, and 52. It is not identical with the Downtown Neighborhood Board area, but is a similar area in which long-term trends can be studied.

SOURCES: U.S. Bureau of the Census, 1972, 1981a; Hawaii State Department of Planning and Economic Development, 1973; Hawaii State Department of Business and Economic Development, 1988a.

TABLE 7  
1980 CENSUS INFORMATION ON NEIGHBORHOOD BOARD AREAS

	City and County of Honolulu	Downtown Board 13	Ala Moana/ Kakaako Board 11	Makiki Board 10
<b>Population</b>				
Number of Residents	762,534	8,674	10,032	28,695
<b>Age</b>				
Median (yrs.)	28.1	34.4	40.1	32.3
% under 5	7.9%	6.5%	3.7%	4.7%
% under 15	23.0%	13.7%	9.0%	11.7%
% over 65	7.3%	13.7%	17.1%	11.3%
Percentage below Poverty Line	9.5%	18.6%	13.1%	10.3%
<b>Labor Force</b>				
% Unemployed	4.6%	5.3%	4.7%	3.7%
<b>Household and Family</b>				
Number of Households	230,214	4,406	5,505	14,050
Persons per Household	3.15	1.85	1.8	2.01
Number of Families	176,916	1,968	2,373	6,816
Median Family Income	\$23,554	\$17,870	\$20,962	\$21,379
<b>Housing</b>				
% rented	50.1%	79.2%	68.7%	65.7%
% of Households in Same Unit				
10 years	26.8%	5.5%	14.9%	15.7%
% in units built before 1940	8.4%	8.4%	3.5%	9.4%
% in units built after 1970	35.2%	58.3%	35.4%	35.8%
% of owner-occupied units vacant	1.1%	0.3%	0.7%	2.5%
% of rental units vacant	7.8%	4.4%	9.0%	4.4%
Median Rent	\$279	\$262	\$289	\$593

SOURCE: 1980 U.S. Census, as summarized in City and County of Honolulu, Department of General Planning, 1988.

In the primary study area, the people of the two census tracts differed in age, background, residential history, and education in 1980:

- o The median age of Census Tract 40 residents was well above the islandwide average (Table 7). Caucasians formed the majority of the population. Slightly under half the population was Hawaii-born, and a third of the population had lived in another state five years previously. Nearly a third of the Census Tract's adults had finished college -- a fraction well above the islandwide average.
  
- o Census Tract 39 residents in 1980 were preponderantly Hawaii-born. Only a fifth had lived in the same residence five years before -- most of this small population was relatively transient. In terms of education, the high proportion of residents with less than a high school education was noteworthy.

The secondary study area population was somewhat older, on average, than the islandwide population. It resembled other urban districts in this respect, as Table 7 shows. Less than half the 1980 population was Hawaii-born, and only 22.1 percent of the people had lived in the same house five years before (as shown in Table 6). These figures are below islandwide averages, but not exceptional for urban Honolulu. The low percentage of residents who had been

in the same house in 1975 must in part be ascribed to growth in the population and housing stock.

#### Family Characteristics

In both tracts of the primary study area, just under half the 1980 population lived in family units (Table 8). In both tracts, a notable minority of families were headed by women. The two populations differed greatly, however, in terms of income and poverty status. Downtown residents' family incomes averaged well over the islandwide median. Most families in Census Tract 39 were poor, and the median family income was less than a quarter of the islandwide median.

In the Downtown Neighborhood Board area, the proportion of the population in families was higher, and slightly above the islandwide proportion in 1980.

Family incomes averaged well below the island wide median, and the percentage of families below the poverty level was relatively high.

#### Housing Characteristics

In Honolulu's urban districts, a high proportion of rental housing and household sizes below 2 persons/unit are common (Table 7). Both the primary study area census tracts and the secondary study

TABLE 8: FAMILY CHARACTERISTICS AND INCOME LEVELS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		DOWNTOWN NEIGHBORHOOD BOARD AREA		CENSUS TRACT 40		CENSUS TRACT 39	
	1970	1980	1970	1980	1970	1980	1970	1980
POPULATION IN FAMILIES	N/A	653,118	N/A	7,691	N/A	404	N/A	57
as percentage of total population	N/A	85.6%	N/A	88.7%	N/A	49.3%	N/A	49.6%
NUMBER OF FAMILIES	138,277	178,516	N/A	1,968	2	190	52	20
HEAD								
Husband/Wife	86.7%	82.8%	N/A	68.3%	50.0%	63.2%	69.2%	70.0%
Male only	3.6%	4.5%	N/A	8.0%	50.0%	12.6%	21.2%	0.0%
Female only	9.8%	12.7%	N/A	23.7%	0.0%	24.2%	9.6%	30.0%
WITH OWN CHILDREN UNDER 18	63.4%	54.9%	N/A	41.1%	0.0%	40.0%	50.0%	55.0%
Female head	6.2%	7.5%	N/A	15.4%	0.0%	17.4%	5.8%	30.0%
BELOW POVERTY LEVEL	7.2%	7.5%	N/A	14.6%	0.0%	3.2%	0.0%	75.0%
MEDIAN FAMILY INCOME	\$12,035	\$23,554	N/A	\$17,870	N/A	\$32,004	N/A	\$4,167
NON-FAMILY HOUSEHOLDS	N/A	53,298	N/A	2,497	N/A	326	N/A	51
percentage below poverty level	N/A	15.7%	N/A	N/A	N/A	12.6%	N/A	N/A

NOTES: All figures (except "Population in Families" and "Non-Family Households") based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.  
 "N/A": Not Available.

SOURCES: U.S. Bureau of Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1972; City and County of Honolulu, Department of General Planning, 1983.

TABLE 9: HOUSING STOCK AND CHARACTERISTICS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		DOWNTOWN NEIGHBORHOOD BOARD AREA		CENSUS TRACT 40		CENSUS TRACT 39	
	1970	1980	1970	1980	1970	1980	1970	1980
TOTAL YEAR-ROUND HOUSING UNITS	174,107	250,866	NC	4,706	53	608	119	80
vacant (total)	5.4%	8.2%	N/A	6.4%	1.9%	18.1%	5.0%	8.8%
vacant for sale	0.6%	0.5%	N/A	0.1%	0.0%	0.0%	0.0%	0.0%
vacant for rent held for occas. use	2.5%	3.6%	N/A	3.4%	0.0%	9.4%	4.2%	6.3%
other	N/A	0.9%	N/A	0.6%	N/A	3.8%	N/A	0.0%
	N/A	3.2%	N/A	2.3%	N/A	4.9%	N/A	2.5%
TOTAL YEAR-ROUND OCCUPIED UNITS	164,763	228,656	N/A	4,406	52	498	113	73
TENURE								
owner-occupied	45.0%	49.5%	N/A	20.8%	0.0%	35.1%	3.5%	9.6%
renter-occupied	55.0%	50.5%	N/A	79.2%	100.0%	64.9%	96.5%	90.4%
SELECTED CONDITIONS								
lacking some or all plumbing	3.5%	1.5%	N/A	8.9%	82.7%	30.9%	23.0%	21.9%
1.51 or more persons/room	6.9%	7.4%	N/A	10.6%	11.5%	3.8%	24.8%	27.4%
PERSONS PER HOUSEHOLD	3.60	3.15	N/A	1.85	1.19	1.57	2.21	1.58
MEDIAN CASH RENT (renter-occ'd)	\$130	\$279	N/A	\$262	\$58	\$250	\$93	\$215
as % of median family income**	13.0%	14.2%	N/A	17.6%	N/A	9.4%	N/A	61.9%
MEDIAN VALUE* (owner-occ'd)	\$38,100	\$130,400	N/A	\$90,000	N/A	N/A	N/A	N/A
MEDIAN MONTHLY MORTGAGE* (owner-occ'd)**	N/A	\$494	N/A	N/A	N/A	N/A	N/A	N/A
as % of median family income	N/A	25.2%	N/A	N/A	N/A	N/A	N/A	N/A

NOTES: \* For 1980, median values are for non-condominium housing units.  
 \*\* Figures based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.  
 "N/A": Not Available.

SOURCES: U.S. Bureau of Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, Honolulu, 1983; Hawaii State Department of Planning and Economic Development, Honolulu, 1983.



area (Downtown Neighborhood Board area) had these characteristics in 1980, as shown in Table 9.

In the Downtown area, much housing had been densely populated and lacking amenities in 1970. By 1980, conditions had improved greatly. Still, many units lacked separate plumbing at that time. The vacancy rate was high, probably because some units were held for transient use, while other apartments had been rented to visitors during the preceding vacation season, but stood empty at the date of the census.

In Census Tract 39, many units were still densely populated in 1980. While rents were relatively low, they demanded a large part of the family incomes disclosed to the census.

In 1980, housing characteristics in the Downtown Neighborhood Board area (secondary study area) were far better than in the primary study area. Occupancy and rental figures were more closely in line with islandwide and urban averages. Table 7 shows that over half the units in the area had been built since 1970.

For 1985, the number of occupied housing units in the Downtown Neighborhood Board area has been estimated at 4,899 (City and County of Honolulu, Department of General Planning, 1987). This amounts to an increase of 11.1 percent over the 1980 figure.

### Labor Force Characteristics

Primary Study Area. In 1980, the participation of Downtown residents in the civilian labor force was high even in comparison to other Oahu areas, as Table 10 indicates. Unemployment, too, was well above the island average. The proportion of Downtown workers in managerial, professional, technical, sales, and administrative jobs was above the average for Honolulu. The participation of a quarter the district's workers in the financial/real estate/insurance sector was highly distinctive.

The smaller pool of workers living in Census Tract 39 was more evenly dispersed according to occupation and industry. They were fully employed. A high proportion of residents were in the health/education/professional sector. The average commuting time for workers from this census tract was very short by Honolulu standards.

Only about a third (32.3%) of the workers living in the primary study area also worked there in 1980. Of the rest, 61% worked elsewhere in Honolulu, and 6.7% worked in other Oahu locations (calculations based on the Urban Transportation Planning Package, unpublished materials from the Hawaii State Department of Transportation, based on the 1980 U.S. Census.)

TABLE 10 LABOR FORCE SIZE AND CHARACTERISTICS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		DOWNTOWN NEIGHBORHOOD BOARD AREA		CENSUS TRACT 40		CENSUS TRACT 39	
	1970	1980	1970	1980	1970	1980	1970	1980
POTENTIAL LABOR FORCE (Aged 16+)	427,601	574,903	N/A	7,384	100	738	124	81
not in labor force	33.0%	30.8%	N/A	29.4%	13.3%	17.6%	22.6%	33.3%
armed forces	11.5%	10.1%	N/A	0.0%	0.0%	2.2%	0.0%	0.0%
civil. labor force	55.5%	59.1%	N/A	70.6%	86.7%	80.2%	77.4%	66.7%
CIVILIAN LABOR FORCE	237,338	339,863	N/A	5,211	98	592	96	54
unemployed	3.0%	4.6%	N/A	5.3%	6.1%	9.0%	0.0%	0.0%
TOTAL EMPLOYED, CIVILIAN LABOR FORCE	230,252	324,113	N/A	4,935	92	539	96	54
OCCUPATION:								
service	15.0%	17.6%	N/A	20.9%	58.7%	14.8%	16.7%	0.0%
manage./profes.	NC	24.7%	NC	27.3%	NC	28.9%	NC	13.0%
technical, sales & adminis.	NC	33.8%	NC	33.5%	NC	42.9%	NC	44.4%
farm/fish/forest	NC	1.8%	NC	1.3%	NC	2.6%	NC	11.1%
precision/craft/repair	NC	11.3%	NC	7.8%	NC	4.3%	NC	14.8%
operators/fabri-cators/laborers	NC	10.9%	NC	9.4%	NC	6.5%	NC	16.7%
INDUSTRY (selected):								
construction	9.5%	6.6%	N/A	3.7%	0.0%	8.2%	16.7%	13.0%
manufacturing	10.3%	7.7%	N/A	7.9%	12.0%	8.9%	10.4%	0.0%
retail trade	18.0%	20.5%	N/A	18.2%	21.7%	12.2%	20.8%	13.0%
financial, insur., real estate	5.6%	8.1%	N/A	9.8%	0.0%	25.8%	3.1%	11.1%
personal, entertain. & recreat. services	7.6%	8.1%	N/A	7.7%	N/A	4.3%	N/A	0.0%
health, educ., & professional	18.1%	18.5%	N/A	17.2%	18.5%	13.9%	11.5%	31.5%
public admin.	12.6%	10.9%	N/A	5.2%	12.0%	6.9%	0.0%	9.3%
COMMUTE TO WORK								
45 minutes or more	N/A	13.4%	N/A	N/A	N/A	13.4%	N/A	0.0%
mean travel (mins.)	N/A	22.6	N/A	N/A	N/A	18.8	N/A	9.0

NOTES: All figures based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.

"N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1972; City and County of Honolulu, Department of General Planning, 1983.

Secondary Study Area. Labor force participation by Downtown Neighborhood Board area residents in 1980 was somewhat higher than for all Oahu residents. The distribution of residents by occupation and industry was generally similar to the islandwide distribution

#### Issues and Concerns

Interviews with members of the community brought out both issues of general concern with regard to the project and viewpoints prevalent in specific groups. Nearly all other persons interviewed saw the project as an acceptable addition to Downtown Honolulu. Two concerns were widely shared:

- o Parking: Concern was expressed for the loss of public parking during construction and the amount of public parking included in the project. Most interviewees considered Downtown public parking inadequate.
  
- o Traffic: Increased traffic due to an additional building Downtown was a concern for many. Some thought that traffic patterns would change for the worse if entrances and exits of the proposed parking facility differ from those of the existing garage. The blockage of street

lanes and traffic disruption during the construction phase were also frequently discussed.

In both cases, many key informants expressed concern because they saw existing conditions as causing problems. Any impact attributable to the project would then exacerbate the existing situation. Some did not necessarily see the project as having major traffic or parking impacts in itself.

Persons involved in enterprises without parking were most concerned with the supply of public parking. They were likely to mention their customers' need for public parking. Informants in businesses that have parking tended to express less concern with parking and to see it as one issue among many, not the central issue to discuss in relation to the project.

Although members of each group did not all share a single point of view, there were important common tendencies:

- o On-site Land Users: Current land users of the proposed project site were not greatly concerned about relocating their activities. They either expected to resume

operations on the site after redevelopment, or had plans for relocation for other reasons. However, most mentioned that the loss of public parking and the disruption of vehicular and pedestrian traffic during construction would cause problems.

- o Adjacent Land Users: Many thought that construction noise, debris and dust would disrupt current activities. Such impacts may also make it difficult to lease commercial space. Some interviewees expected fewer customers to frequent businesses because of construction and the removal of nearby public parking. Possible structural damage to adjacent buildings due to ground movement was also a concern.

Several informants viewed the public parking supply in the area as already too limited. They thought the situation would worsen with an additional building. Many suggested that more public parking be included in the proposed project.

Several informants thought the proposed project would reduce views and natural light in adjacent sites.

- o Nearby Land Users: The demand for parking was the major issue for this group. Many operate businesses that depend on public parking for their customers. Most suggested that more public parking is needed. Additional Downtown traffic was also a concern stressed during interviews.

Some nearby land users discussed the project as possibly blocking viewplanes. However, others thought the project would improve the area as long as landscaping and design are given close attention.

Some nearby land users raised questions about air pollution and the release of automobile exhaust gases from the parking area. The nearby historic structures were viewed as needing special protection from such gases.

- o Area Residents: Many persons in this group were most concerned with the shortage of public parking Downtown and thought more public parking should be included in the proposed project. Many mentioned that an increase in traffic due to an additional office building was of concern.

An increase in density and traffic congestion in Downtown Honolulu caused by construction were issues for some interviewees. A few persons mentioned that construction noise would be especially damaging to small businesses adjacent and nearby.

Building design and landscaping were seen by some as important because the project site is next to historical buildings and Iolani Palace's open space. Others were concerned that street frontages be on a human scale. Others hoped that the building would not present massive walls, especially as seen from Iolani Palace or the YWCA and King Street.

- o Downtown Business Community: Interviewees from this group generally approved of the project as providing space for both government agencies and private businesses. Some supported it as contributing to orderly growth in Downtown Honolulu.

The complete Social Impact Assessment for the proposed Alakea/Richards Parking Lot Redevelopment Project is contained in this document as Appendix E.



07.08 ECONOMY

Hawaii and the U.S. have experienced moderate inflation and real economic growth throughout much of the 1980's. While Hawaii's economy is still growing, the national economy has shifted to growth recession, or the deceleration of economic growth to a rate slower than that necessary for a stable employment rate.

In recent years a depreciating dollar brought an infusion of Japanese and other foreign capital to Hawaii giving rise to, among other things, growth in real personal income. However, the dollar's recent value rise along with increases in oil prices have slowed down these two sources of real personal income growth since mid-decade. With the exception of 1986, real personal income growth in Hawaii has not exceeded 3.7 percent since 1983, slowing to 3.3 percent in 1987 and 2.7 percent in 1988 (Bank of Hawaii, May/June 1988).

Despite these declines in real growth rates, leading market indicators as well as confidence among Hawaii's firms indicate that Hawaii's economy will be healthy in the near future. Results of the second quarter 1989 Bankoh Business Confidence Survey (Bank of Hawaii, July/August 1989) show a majority of Hawaii's business leaders looking forward to somewhat higher levels of economic activity in both their own industries and in the overall Hawaii economy. Roughly 59 percent of those responding to the quarterly survey expected their own industries

to expand in the next year compared to 57.1 percent in the first quarter survey. Regarding prospects for the overall Hawaii economy, the same percentage of respondents in both surveys expected a somewhat higher level of economic activity, 56.0 percent in the second quarter and 56.6 in the first. In the first quarter, 12.3 percent of the respondents expected much higher levels of overall economic activity in the coming year as compared to only 2.2 percent in the second quarter, indicating that decision-makers foresee a steady growth rate but at a somewhat diminished pace. Most recent Hawaii economic indicators have supported continued optimism about the local economy.

Bank of Hawaii's index of leading economic indicators in June, 1989, rose for the second consecutive month, 3.9 percent, reaching a record 158.7 percent of its 1985 base value (Bank of Hawaii July/August 1989). The June increase followed a 13.2 point rise in May. The largest increase of component indexes occurred in private building permits. Bank of Hawaii's economists summarized that "The index's performance for the first 6 months of 1989 continues to indicate a period of stabilization. Whether that period will soon be followed by a drop in economic activity is doubtful at this stage. Neither can a large increase in economic activity be anticipated because of labor shortages throughout the local economy." (It was recently reported in the Honolulu Advertiser's October 4, 1989, issue that Hawaii's unemployment rate dropped to 1.8 percent in August 1989, the nation's lowest for the third consecutive month.)

## Office Space

According to a semi-annual real estate market review and forecast by Grubb and Ellis, Honolulu's office space vacancy rate is the lowest in the nation. Despite an increase from 4.5% in early 1989 to 6% in mid-1989 the overall rate is still significantly lower than the 18.4% national average. At the end of 1988, there was a total of 4,683,000 square feet of space in the central business district (CBD) with 209,000 square feet vacant.

The completion of two new projects in early 1989, the City Financial Tower in the CBD and the Pacific Park Plaza in the Kapiolani corridor, provided little relief to the tight market. According to the Grubb & Ellis report, the space opened by the relocation of tenants to these new projects has been rapidly absorbed by the expansion of adjacent firms. Often times the space is precommitted to such firms.

No new projects are expected to be completed until the opening of the 487,000 square foot Pan Pacific Plaza in mid-1991. (See section 07.07 for a discussion of new projects.) Thus, tightness in the office space market is expected to worsen at the end of 1989 and continue until mid-1991.

07.09 UTILITIES AND PUBLIC SERVICES

Utilities

Water Supply

The site is currently supplied by the Honolulu Board of Water Supply. Potable water is supplied by one 16-inch and two 8-inch underground water distribution mains. One 8-inch main runs beneath Hotel Street and the other beneath Alakea Street. The 16-inch main runs down Richards Street. These lines currently supply the municipal parking lot and fire hydrants in this area.

Sanitary Sewer

The existing site is currently adjacent to one 10-inch and two 8-inch underground sanitary sewer lines. These underground mains are part of the City and County Department of Public Works sewer collection system. One 8-inch line runs down Richards Street where it joins an 8-inch line running down King Street towards Alakea Street. The other 8-inch line runs down Hotel Street and joins a 10-inch line that runs down Alakea Street. Beneath Alakea past King Street, two lines, one 10-inch and one 12-inch, carry flows to a 32-inch main running along Ala Moana Boulevard

which eventually connects to the Ala Moana pumping station. The pumping station feeds the Sand Island Sewage Treatment Facility.

#### Storm Drainage

Rain water from the existing site flows into an 18-inch storm drain which runs beneath Alakea Street. The drain becomes a 4'x 1' box culvert at the curb inlet along the west property corner. This drains beneath King Street. Other lines from Bishop Street also feed into the Alakea line which eventually discharges to Honolulu Harbor.

#### Natural Gas Service

Natural gas is supplied to the area via an underground 6-inch main running parallel to the center line of Hotel Street. The project site is served by a 1 1/4-inch line which currently has no service connections.

#### Electrical Power Services

Power is supplied to the area from HECO's distribution grid via the Emma substation located across from St. Andrews Cathedral. HECO plans to enlarge the Fort Street substation to accommodate future demand in the downtown area. The site is served by a series of underground distribution lines.

### Telecommunications

The site is currently served by underground communication (telephone) systems. The cable network is owned and maintained by Hawaiian Telephone Company.

### Public Services

Fire protection for the proposed project would be provided by the Kakaako, Central and Pawa Fire Stations. Fire protection is considered adequate.

Healthcare services in the area include The Queen's Medical Center, just two blocks away, and also Straub Clinic and Hospital, four to five blocks away.

Public transit needs are met by TheBus service provided jointly by MTL, Inc. and the City and County of Honolulu. Alakea, Hotel, and Richards Streets each have regular bus service daily.

Child care facilities are available at the YWCA and also at the Early Education Center next to the Honolulu Municipal Building. The City is currently designing a 120-client infant/child care center in its redevelopment of the Smith/Beretania Municipal Parking Lot.

#### 07.10 EXISTING TRAFFIC CONDITIONS

This section presents and discusses the existing traffic conditions and volumes on the roadways in the vicinity of the proposed project, the level-of-service concept, and the results of the level-of-service analysis for existing conditions. The purpose of this analysis is to establish the base conditions for the determination of the project's impacts which will be described in section 10.07. (The complete Traffic Impact Analysis is included as Appendix F to this report.)

The intersections which were analyzed to establish the base conditions were determined based upon the access routes to and departure routes from the project location. The intersections selected for analysis were discussed with the Department of Transportation Services (DTS) of the City and County of Honolulu to insure that the scope of the study would include its areas of concern. The intersections analyzed are listed in Table 11. These intersections and the street network are shown in Figure 10.

#### Existing Peak Hour Traffic Volumes

The existing morning and afternoon peak hour traffic volumes at eight intersections were obtained from field counts conducted during July, 1989. Counts for the remaining intersections were



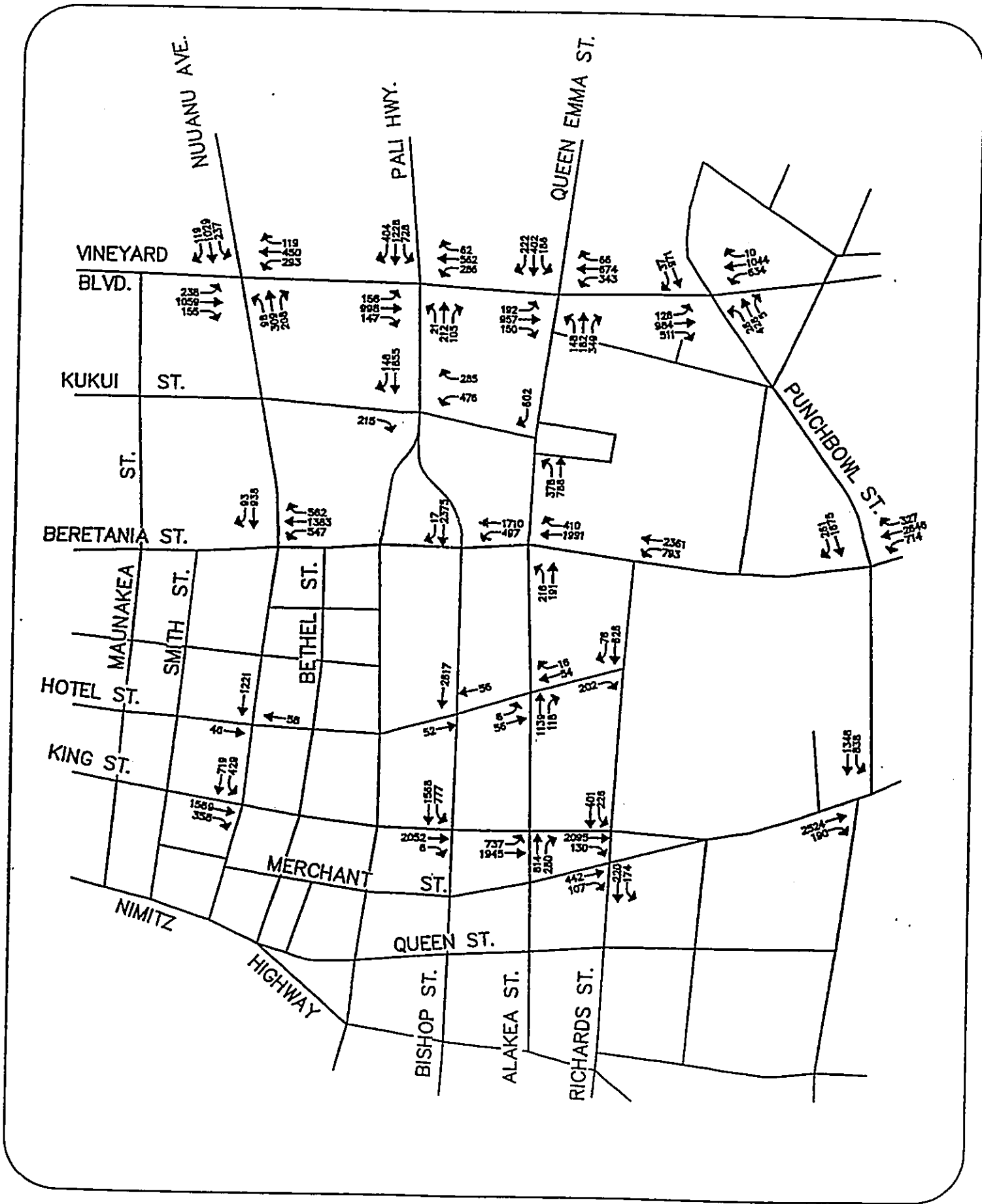


TABLE 11  
INTERSECTIONS ANALYZED IN TRAFFIC STUDY

- 
1. Vineyard Boulevard at Nuuanu Avenue
  2. Vineyard Boulevard at Pali Highway
  3. Vineyard Boulevard at Queen Emma Street
  4. Vineyard Boulevard at Punchbowl Street
  5. Kukui Street at Pali Highway
  6. Kukui Street at Queen Emma Street
  7. Beretania Street at Nuuanu Avenue
  8. Beretania Street at Pali Highway/Bishop Street
  9. Beretania Street at Queen Emma Street/Bishop Street
  10. Beretania Street at Richards Street
  11. Beretania Street at Punchbowl Street
  12. Hotel Street at Nuuanu Avenue
  13. Hotel Street at Bishop Street
  14. Hotel Street at Alakea Street
  15. Hotel Street at Richards Street
  16. King Street at Nuuanu Avenue
  17. King Street at Bishop Street
  18. King Street at Alakea Street
  19. King Street at Richards Street
  20. King Street at Punchbowl Street
  21. Merchant Street at Richards Street
- 

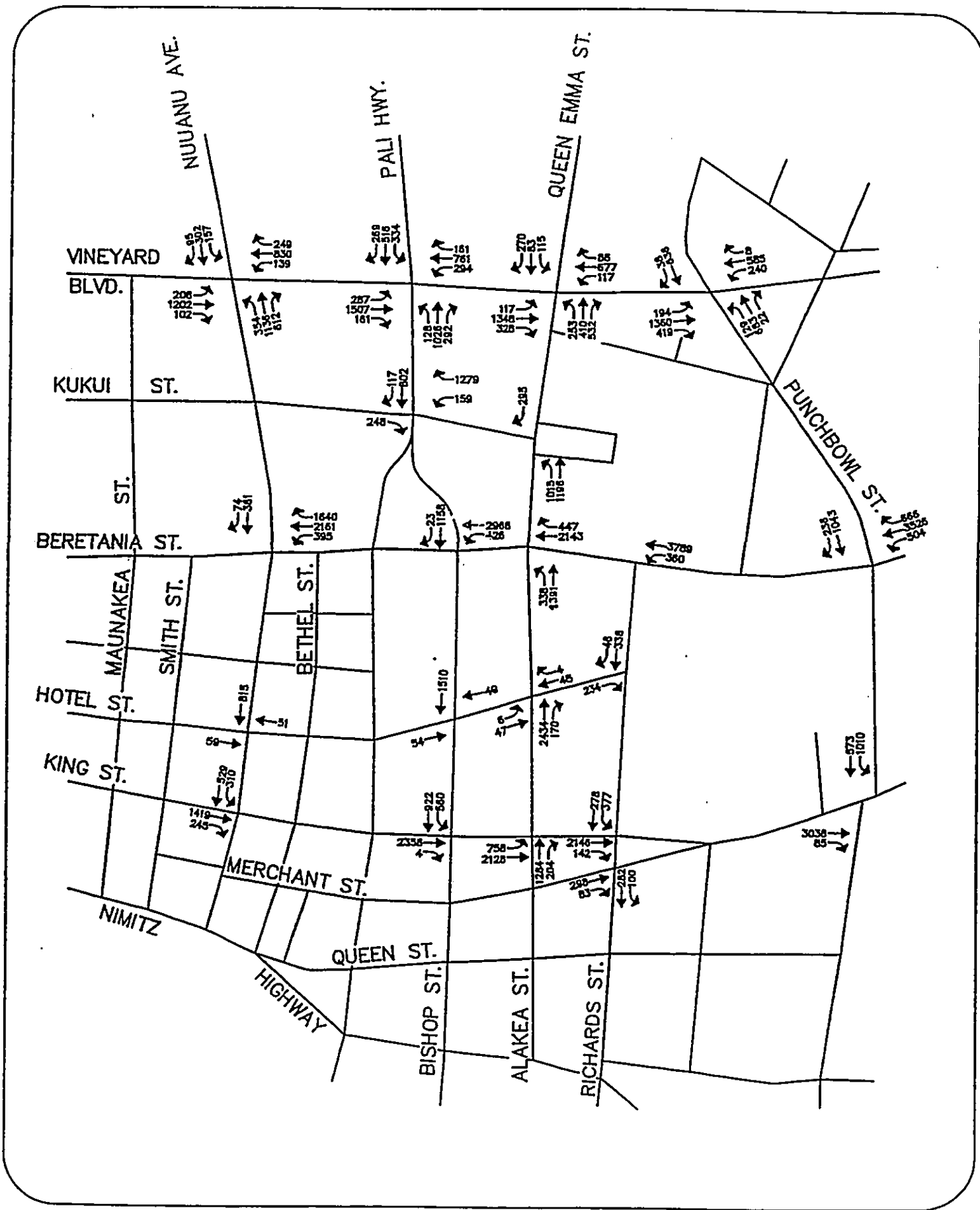
obtained from the Pacific Nations Center Traffic Study completed in October, 1988. Counts were conducted at the intersection of Beretania Street at Bishop Street during September, 1988 and July, 1989 to determine any seasonal variation. The 1989 counts were within 10 percent of the 1988 counts.

The results of the traffic counts are summarized for the morning and afternoon peak hours in Figures 11 and 12, respectively.



EXISTING AM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC. 7-36a

FIGURE  
 11



**EXISTING PM PEAK HOUR TRAFFIC VOLUMES**

BARTON-ASCHMAN ASSOCIATES, INC. 7-36b

ALAKEA RICHARDS OFFICE BUILDING



FIGURE

12

### Level-of-Service Concept

The operational method described in the 1985 Highway Capacity Manual (HCM) was used to analyze the operational efficiency of the intersections adjacent to the study site. This method involves the calculation of a volume/capacity (V/C) ratio which is related to a level-of-service.

"Level-of-Service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-service is a qualitative measure of the effect of a number of factors which include:

- Speed,
- Travel Time,
- Traffic Interruptions,
- Freedom to Maneuver,
- Safety,
- Driving Comfort, and
- Convenience.

There are six (6) levels-of-service, A through F, which relate to the driving conditions from best to worse, respectively. The characteristics of traffic operations for these levels-of-service are summarized in Table 12. In general, Level-of-Service A represents free-flow conditions with no congestion.

TABLE 12

## INTERSECTION LEVEL-OF-SERVICE DEFINITIONS

LEVEL-OF-SERVICE	INTERPRETATION	VOLUME TO CAPACITY RATIO	STOPPED DELAY VEHICLE PER (SECONDS)
A,B	Uncongested operations; all vehicles clear in a single signal cycle.	0.000-0.700	< 15.0
C	Light congestion; occasional backups on critical approaches.	0.701-0.800	15.1-25.0
D	Congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long standing lines formed.	0.801-0.900	25.1-40.0
E	Severe congestion with some longstanding lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.	0.901-1.000	40.1-60.0
F	Total breakdown with stop-and-go operation.	1.001+	> 60.0

Notes: (1) Source: Highway Capacity Manual, 1985.  
(2) Volume/Level-of-Service E Capacity

Level-of-Service F, on the other hand, represents severe congestion with stop-and-go conditions.

Corresponding to each level-of-service shown in the table is a volume/capacity ratio. This is the ratio of either existing or

projected volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be accommodated by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), and the type of traffic using the roadway (trucks, buses, etc.) and turning movements.

#### Existing Level-of-Service Analysis

The results of the level-of-service analysis for existing traffic conditions at the intersections studied are summarized in Table 13. The conclusions are as follows:

1. Except for five (5) intersections, all of the intersections operate at Level-of-Service D or better, which is considered acceptable, during both morning and afternoon peak hours.
2. All intersections along Vineyard Boulevard and Beretania at Punchbowl operate at Level-of-Service F during morning and afternoon peak hours. This indicates that traffic approaching from and departing to the north can expect long delays due to congestion.

TABLE 13

## LEVEL-OF-SERVICE ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	V/C	LOS	V/C	LOS
1. Vineyard at Nuuanu	1.161	F	2.304	F
2. Vineyard at Pali	1.360	F	2.683	F
3. Vineyard at Queen Emma	1.129	F	1.680	F
4. Vineyard at Punchbowl	1.224	F	1.110	F
5. Kukui at Pali	0.767	C	0.309	A
6. Kukui at Queen Emma	0.272	A	0.757	C
7. Beretania at Nuuanu Avenue	0.765	C	0.966	E
8. Beretania at Pali/Bishop	0.893	D	0.744	C
9. Beretania at Queen Emma/Bishop	0.560	A	0.810	D
10. Beretania at Richards	0.712	C	0.683	B
11. Beretania at Punchbowl	1.130	F	1.124	F
12. Hotel at Nuuanu Avenue	0.516	A	0.359	A
13. Hotel at Bishop	0.496	A	0.303	A
14. Hotel at Alakea	0.262	A	0.443	A
15. Hotel at Richards	0.711	C	0.525	A
16. King at Nuuanu Avenue	0.822	D	0.655	B
17. King at Bishop	0.777	C	0.700	C
18. King at Alakea	0.646	B	0.754	C
19. King at Richards	0.564	A	0.578	A
20. King at Punchbowl	0.748	C	0.872	D
21. Merchant at Richards	0.338	A	0.218	A

## 07.11 AIR QUALITY

Data compiled by the Hawaii Department of Health (HDOH) was examined to estimate air quality in the vicinity of the proposed project. The nearest representative monitoring station to the project area is located at the HDOH building at the corner of Punchbowl and Beretania Streets adjacent to downtown Honolulu. Data from the HDOH building monitoring station were characterized for total particulate matter (PM), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), and lead. The nearest representative monitoring station for particulate matter less than 10 microns in diameter (PM<sub>10</sub>) is the Liliha monitoring station at Kauluwela Elementary School. It is located upwind of the project area in a residential-commercial area approximately one and a quarter miles north of downtown Honolulu. The nearest ozone (O<sub>3</sub>) monitoring station is located at the Anuenue Fisheries, Sand Island, Honolulu, Oahu. The area is composed of light industrial, commercial, recreational, and harbor units. This station is located approximately two miles southwest of downtown Honolulu.

Ambient air quality at the project site was characterized using data collected in 1985, 1986, and 1987 (Hawaii Department of Health, 1985-1987). The maximum concentrations measured during that period, along with applicable state and federal ambient air quality standards, are presented in Table 14. All monitored values for SO<sub>2</sub>, TSP, PM<sub>10</sub>, and lead are below the applicable state and federal standards. The 1-hour ozone concentration exceeded the Hawaii standard three times in 1985 but not in 1986 or 1987. The 1-hour carbon monoxide Hawaii standard was exceeded



TABLE 14  
 NUMBER OF DAYS HAWAII AMBIENT AIR QUALITY STANDARDS  
 WERE EXCEEDED AND 1985-1987 MAXIMA FOR OAHU MONITORING STATIONS<sup>1</sup>

Pollutant ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	MAXIMUM MEASURED CONCENTRATION						Air Quality Standards <sup>2</sup>	
		1985		1986		1987		Federal	Hawaii
		Days	Max	Days	Max	Days	Max		
O <sub>3</sub>	1-hour	3	198	0	88	0	84	235	100
CO	8-hour	0	4,400	0	4,700	0	3,900	10,000	5,000
	1-hour	1	10,400	3	13,500	1	11,100	40,000	10,000
NO <sub>2</sub> <sup>3</sup>	Annual	NM	NM	NM	NM	NM	NM	100	70
	1-hour	NM	NM	NM	NM	NM	NM	--	--
SO <sub>2</sub>	Annual	NM	NM	NM	NM	NM	NM	80	20
	24-hour	0	<5	0	6	0	11	365	80
	3-hour	NM	NM	NM	NM	NM	NM	1,300	400
	1-hour	NM	NM	NM	NM	NM	NM	--	--
TSP	Annual	NM	NM	NM	NM	NM	NM	--	55
	24-hour	0	48	0	61	0	59	--	100
PM <sub>10</sub>	Annual	NM	NM	NM	NM	NM	NM	50	--
	24-hour	0	52	0	35	0	33	150	--
Lead	Calendar quarter	0	0.3	0	0.2	0	0.2	1.5	--

7-41a

<sup>1</sup> Total particulate matter (TSP), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), and lead maxima from HDOH building monitoring stations; particulate matter less than ten microns in diameter (PM<sub>10</sub>) maxima from Liliha monitoring station; ozone (O<sub>3</sub>) maxima from Sand Island monitoring station.

<sup>2</sup> When both Hawaii and federal standards are given for a pollutant, the number of days a standard is exceeded refers to the Hawaii standard.

<sup>3</sup> Background NO<sub>2</sub> levels were monitored at the Barbours Point monitoring station from 1971 to 1976, when it was discontinued. The 1976 annual average NO<sub>2</sub> concentration was 15  $\mu\text{g}/\text{m}^3$ . Source: Hawaii Department of Health, Hawaii Air Quality Data, January 1985 - December 1987.

once in 1985, three times in 1986, and once in 1987. The 8-hour standard and the 1-hour federal standard for carbon monoxide were not exceeded in any of the three years.

#### 07.12 NOISE AND VIBRATION

A noise and vibration impacts assessment was conducted by Engineering-Science Inc., and is attached as Appendix H. This section describes baseline noise and vibration levels at and near the project site. Potential impacts and mitigation measures are discussed in Section 10.09.

Figure 13 shows the proposed project site relative to nearby potentially sensitive receptors. The nearest potentially sensitive locations are the Young Women's Christian Association building (YWCA, an historic site) southeast of the proposed project site on Richards Street and the Jury Box office building southwest of the site on Alakea Street. In addition, the Iolani Palace and the barracks building (both historic sites), east of the site and the Hemmeter Corporation Building (formerly the YMCA and an historic site) north of the site and Hotel Street are nearby potentially sensitive receptors. The State Capitol Building northeast of the site also is potentially sensitive to proposed project noise and vibration. Other nearby office buildings west of Alakea Street, the restaurant building (Yong Sing) south of the Jury box office building and the Honolulu District Court Building north of Hotel Street are potentially sensitive locations, as well.

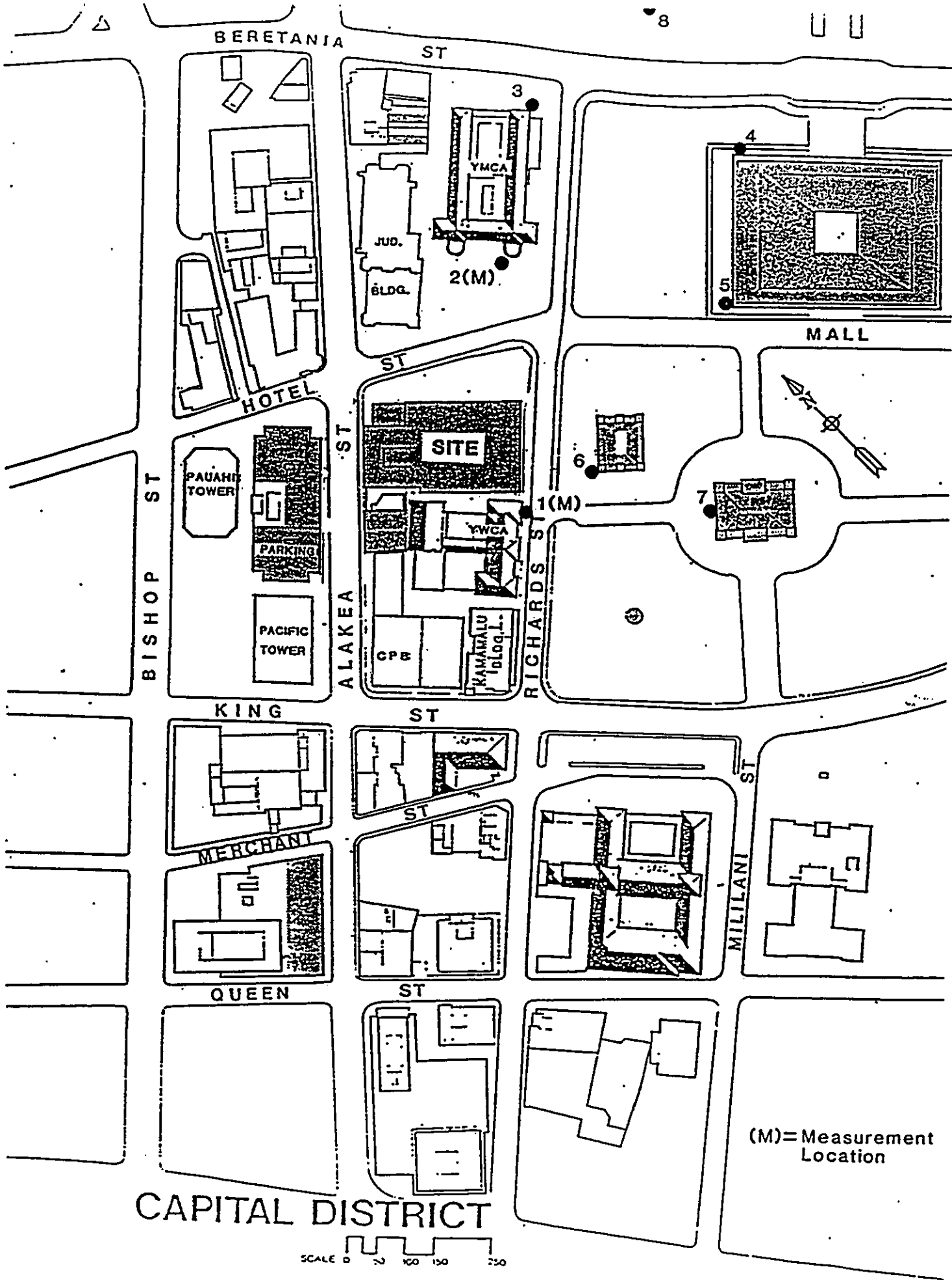


FIGURE 13. MEASUREMENT AND PREDICTION LOCATIONS.

Figure 13 also shows two of three locations where existing noise and or vibration measurements were made. Site 1 is located at the YWCA building immediately south of the proposed project site on Richards Street. Three interior rooms, each on different floors, and the exterior grade level at the northeast corner of the building were monitored. Site 2 is located north of Hotel Street on the grounds of the Hemmeter Corporation Headquarters (formerly the YMCA) to the southeast of the main entrance. Site 9, a construction site where pile driving was underway and far removed from the project site, was chosen to measure the noise and vibration of pile driving. It was one of two sites found with active pile driving underway. Pre-drilling was undertaken at this site prior to the impact driving of piles.

#### Sound Level Descriptors

Sound levels measured were in A-weighted decibels (dBA). The A-weighted scale is the most commonly used method of electronically combining sound levels of different frequencies in a manner similar to the human hearing process. The statistical distribution of overall levels ( $L_{10}$ ,  $L_{50}$ ,  $L_{90}$ ) as well as the energy equivalent sound level ( $L_{eq}$ ) were obtained for a fifteen minute period at each site.

The statistical level  $L_{10}$ , the level exceeded for 10 percent of the measurement period, has been used in the past by the U.S. Department of Housing and Urban Development (HUD) to characterize the noise environment and likely community response. This  $L_{10}$

level is also equivalent to the community noise limits for any 20 minute period, as required by the State of Hawaii Department of Health (Hawaii, 1981).

The statistical level which represents the median level measured during a time period is designated as  $L_{50}$ . Similarly,  $L_{90}$  indicates the level exceeded 90 percent of the time during the measurement period and is generally regarded to be the background noise.

The Energy Equivalent Sound Level ( $L_{eq}$ ) is a descriptor for time varying noise that has the same acoustic energy as a steady noise and is thus the average noise energy measured over any given time period. To characterize the noise environment in a community over a 24-period, the  $L_{eq}$  is computed separately for daytime hours (7 a.m. to 10 p.m.) and nighttime hours (10 p.m. to 7 a.m.). As people are more sensitive to noise during nighttime hours, the subjective perception of nighttime noise levels is greater than that of daytime noise. Equivalent noise levels are generally perceived to be twice as loud at night as they are during the day. To reflect this difference in perception at different hours, 10 dB is added to nighttime noise measurements. The  $L_{eq}$  sound level is used by the U.S. Department of Transportation, Federal Highway Administration to describe transportation noise impacts for various land use categories (FHWA, 1982).

The peak hour traffic noise levels ( $L_{eq}$ ) from the Alakea-Richards project operations were predicted using the FHWA-RD-77-108 Highway Traffic Noise Prediction Model (FHWA, 1978). In this model, sound characteristics are defined by speed-dependent reference noise emission levels and vehicle density by vehicle type. The following assumptions were used for the calculations of noise levels:

- o Non-project traffic on nearby streets consists of 11 percent heavy buses, 0.6 percent medium trucks and 88.4 percent automobiles, based on short term traffic counts conducted during the noise surveys.
  
- o All project construction and site preparation traffic occurs between 7 a.m. and 7 p.m. and consists of heavy trucks.
  
- o The traffic noise model was calibrated using measured noise levels and traffic counts made during noise measurements.

Project generated traffic volumes were obtained from the Traffic Impact Study (Barton-Aschman, 1989).

#### Existing Noise Environment

Table 15 shows the noise levels measured at each of the selected sites. The measured exterior daytime  $L_{eq}$  sound levels for site 1 (67 dBA avg.) and Site 2 (61 dBA) are typical for their respective

TABLE 15  
RESULTS OF DAYTIME NOISE MEASUREMENTS

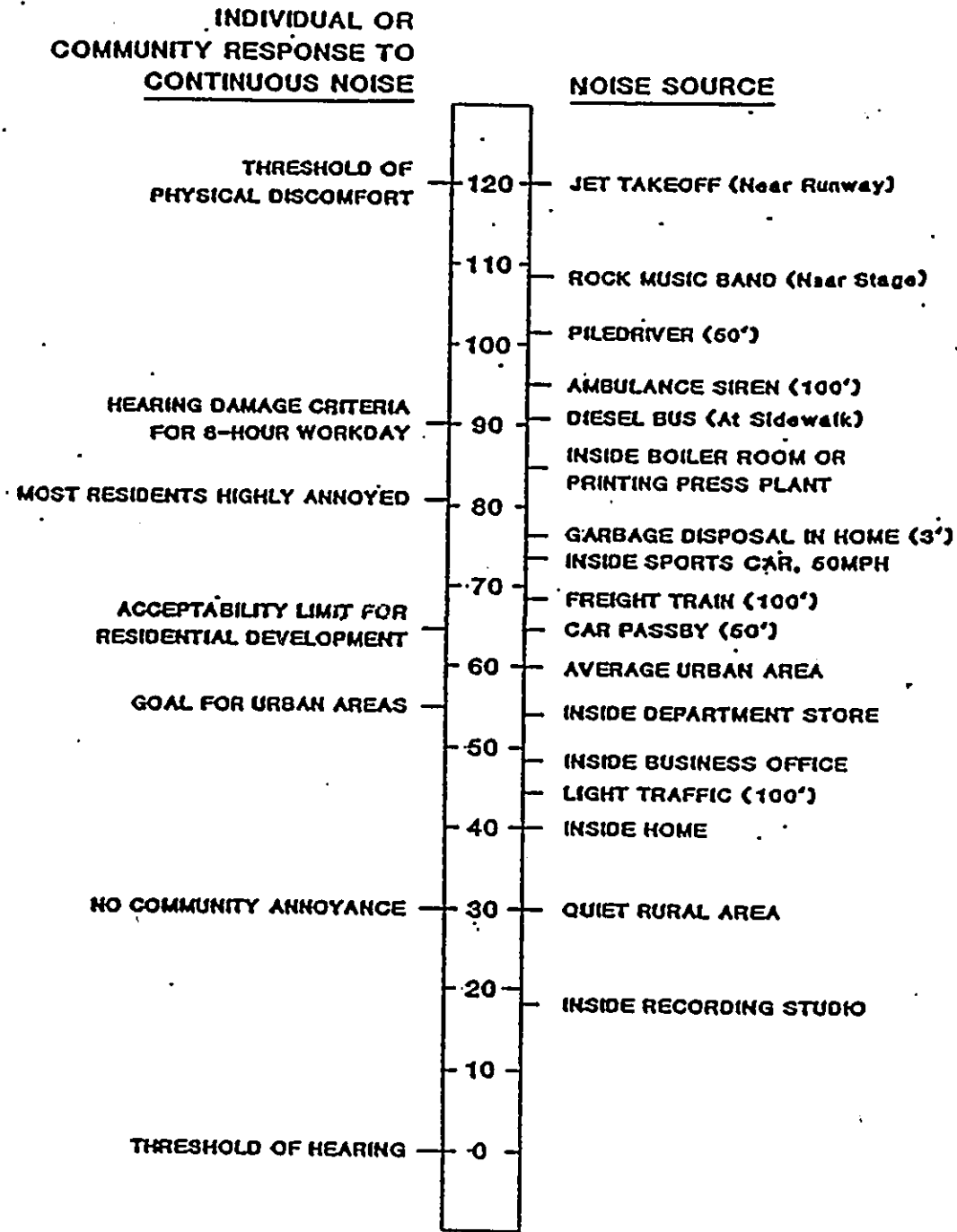
SITE NO.	LOCATION	SOUND LEVELS (dBA)				NOISE SOURCES
		L <sub>eq</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>	
1a	YWCA Exterior	67	70	61	55	Traffic Richards Street
	1st. Floor Int.	49	50	47	46	"
1b	YWCA Exterior	69	75	61	51	Traffic Richards Street
	2nd Floor Int.	51	55	48	46	"
1c	YWCA Exterior	66	68	59	53	Traffic Richards Street
	3rd Floor Int.	46	48	43	41	"
2	Hemmeter corp.	61	63	57	52	Traffic Richards/Hotel
9a	Const. Site	108 Impulse Level				Pile Drive @ 10'
9b	Const. Site	103 Impulse Level				" " @ 50'
9c	Const. Site P/L	75	--	--	--	Traffic-Ala Moana
9c	Const. Site P/L	98 Impulse Level				" " @ 100'
9c	Const. Site P/L	89	92	88	68	" " @ 100'
9d	Adj. Bldg. Walk	95 Impulse Level				" " @ 140'
9e	Bldg. Door Open	76 Impulse Level				" " @ 150'
9e	Door Closed	64 Int. Imp. Level				" " @ 150'

traffic volumes. Measured L<sub>eq</sub> levels for the pile driving at Site 9 (89 dBA) is typical for this construction activity. Figure 14 shows expected responses from people toward various levels of noise, ranging from the threshold of hearing, near 0 dBA, to the threshold of physical discomfort in the ear, at about 120 dBA.

Major intrusive noise sources in the project area are vehicular traffic upon nearby surface streets. Noise contributors at Site 1 are mainly automobiles and buses on Richards Street. Traffic on Hotel Street, Richards Street and Beretania Street are the dominant sources for Site 2.

An estimate of the existing peak hour L<sub>eq</sub> at the noise measurement sites can be made from the above measurements and the traffic volume data provided in the traffic impact study. The estimated

A-WEIGHTED SOUND  
PRESSURE LEVEL, IN DECIBELS (dB)



TYPICAL SOUND LEVELS FROM  
INDOOR AND OUTDOOR NOISE SOURCES  
AND THEIR EFFECT ON PEOPLE



levels for eight receptor locations (including measurements Sites 1 and 2) are summarized in Table 16. Traffic noise estimates for each of the modeled roadway segments are given in Table 17.

TABLE 16  
COMPUTER MODELED TRAFFIC NOISE LEVELS AT SELECTED LOCATIONS

SITE LOCATION NUMBER(1)	AVERAGE NOISE LEVEL (2) FOR THE PEAK HOUR TRAFFIC			PROJECT CONTRIBUTION
	EXISTING	FUTURE	FUT+PROJ	
1(M)	67.4*	68.6	69.2	0.6
2(M)	60.4*	61.7	62.1	0.4
3	70.8	71.9	71.9	0.0
4	69.0	69.8	69.8	0.0
5	60.9	61.9	61.9	0.0
6	62.7	64.3	64.9	0.6
7	57.9	59.0	59.1	0.1
8	68.4	68.9	68.9	0.0

NOTES:

1. Refer to Appendix H for specific locations where traffic noise was modeled.
  2. The average noise level is calculated in  $L_{eq}$  dBA.
- (M) Noise measurement location.
- \* Modeled noise level agrees with measured level.

Existing Vibration Levels

Table 18 shows the vibration levels measured at each of two selected sites. The measured exterior daytime vibration levels for Site 1 are typical for the respective traffic volumes. Measured vibration levels for the pile driving at Site 9 is typical for this construction activity. Figure 15 shows expected

TABLE 17  
COMPUTER MODELED NOISE LEVELS OF SELECTED ROADWAYS

ROADWAY	SEGMENT	AVERAGE NOISE LEVEL(1) FOR THE PEAK HOUR TRAFFIC					
		EXISTING		FUTURE			
		@ 50 ft @100 ft	@ 50 ft @100 ft	@ 50 ft @100 ft	@ 50 ft @100 ft		
Beretania St	East of Richards St	75.9	71.0	76.7	71.8	76.7	71.8
Beretania St	West of Richards St	73.9	69.0	74.9	70.0	74.9	70.0
Hotel St	Alakea to Richards St	58.8	53.6	58.8	53.9	58.8	53.9
King St	Alakea to Richards St	71.0	66.1	72.5	67.6	72.5	67.6
King St	East of Richards St	71.9	67.0	73.1	68.2	73.2	68.3
Alakea St	South of Hotel St	71.6	66.7	71.9	67.0	72.0	67.1
Alakea St	North of Hotel St	71.3	66.4	71.6	66.7	71.7	66.8
Alakea St	North of Hotel St	66.0	61.1	71.1	66.2	71.3	66.4
Queen Emma St	South of Beretania St	68.4	63.5	70.1	65.2	70.2	65.3
Richards St	South of Hotel St	65.4	60.5	66.6	61.7	67.2	62.3
Richards St	North of Hotel St	65.9	61.0	67.2	62.3	67.6	62.7

NOTES: 1. The average noise level is calculated in  $L_{eq}$ , dBA.

responses from people toward various levels of vibration, ranging from the threshold of perception, near 50 dB, to the threshold of physical damage to standard structures, at about 100 dB.

TABLE 18  
RESULTS OF DAYTIME VIBRATION MEASUREMENTS

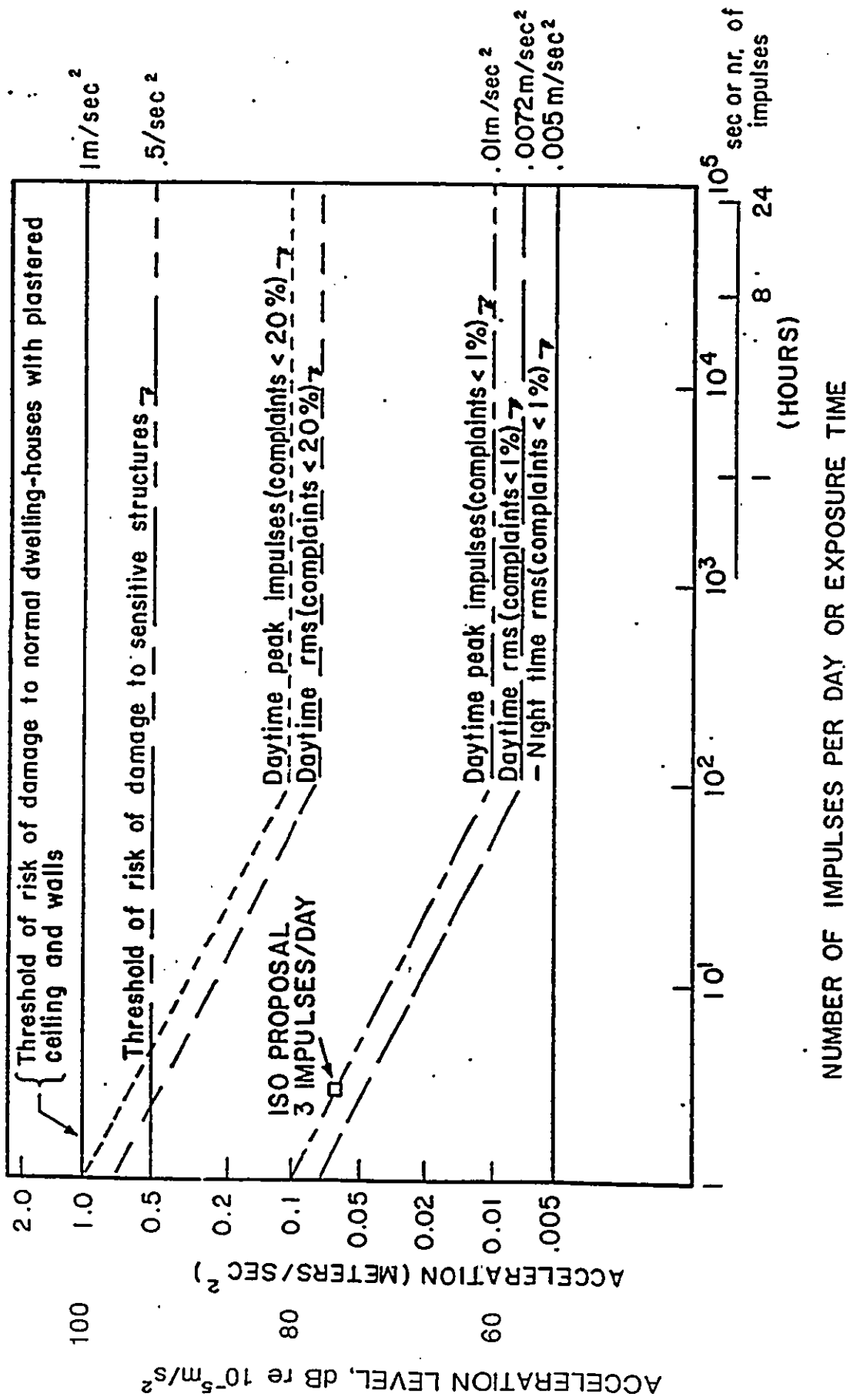
SITE NO.	LOCATION	ACCELERATION LEVEL <sup>1</sup> (DB <sup>2</sup> )				VIBRATION SOURCES
		RMS	MAX	MIN	PEAK	
1a	YWCA Exterior	69	82	68	87	Traffic Richards St
	1st. Floor Ctr.	62	77	61	88	
	YWCA Exterior	--	--	--	--	"
	1st Floor Wall	--	--	--	--	
1b	YWCA Exterior	66	81	64	86	Traffic Richards St
	2nd Floor Ctr.	75	90	74	95	
	YWCA Exterior	73	85	60	90	"
	2nd Floor Wall	65	77	51	82	
1c	YWCA Exterior	64	75	53	80	Traffic Richards St
	3rd Floor Ctr	55	66	54	71	
	YWCA Exterior	66	82	65	87	"
	3rd Floor Wall	55	66	54	71	
9b	Const. Site	80	91	79	96	Traffic Ala Moana
9b	Const. Site	91	102	89	107	File Driver @ 50'
9d	Adj. Bldg. Walk	87	96	82	101	" " @ 140'

1 Unweighted Acceleration Levels.

2 Reference Acceleration Level is  $10^{-5}$  m/s<sup>2</sup>.

#### 07.13 VIEWS

Visual resources from and in the vicinity of the proposed project are primarily those views toward the Ko'olau Mountains, the State Capitol, and Iolani Palace Grounds.



7-48a

FIGURE 15. HUMAN COMPLAINT THRESHOLDS FOR VIBRATION.

The existing Alakea Street view corridor allows a very narrow view of the mountains and sky. Most of this view is obstructed by existing buildings and does not widen or become a visual resource until mauka of Hotel Street.

Punchbowl Crater can be viewed to the Northeast from the Richards Street sidewalk. At street level, this view is restricted by the trees along Richards Street and those in the Capitol grounds. The view of Punchbowl Crater is obstructed along Hotel Street by Hemmeter Corporation Headquarters. Most of the Punchbowl landmark is visible above street level and is considered a visual resource.

The Hotel Street view corridor of the State Capitol and the surrounding park is currently restricted by existing structures on both sides of Hotel Street. Bishop Square parking garage and the existing municipal parking garage, located on the project site, are both set back from Hotel Street to widen this view of the Capitol grounds. The extensive landscaping and trees of Capitol District, along with the Capitol Building and Iolani Palace, provide a valued visual recourse from the proposed project and along the Hotel Street view corridor. This view corridor is shown in perspective renderings with and without the proposed project in Section 10.10.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

**08.0 RELATIONSHIP OF THE PROPOSED ACTION  
TO LAND USE PLANS, POLICIES AND CONTROLS**

08.0 RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS,  
POLICIES AND CONTROLS

08.01 STATE OF HAWAII

The Hawaii State Plan

The Hawaii State plan sets forth goals, objectives and policies which serve to guide the future long-range development of the State to reflect the needs and desires of the people (OSP, 1988). It is a tool for dealing positively with change. Several objectives and policies would be furthered with implementation of the project. They are stated as follows:

"Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii's people."

"Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles."

"Encourage design and construction practices that enhance the physical qualities of Hawaii's communities."

"Promote prudent use of power and fuel supplies through conservation measures including education and energy-efficient practices and technologies."

#### State Land Use District

The State Land Use designation for the project site and the surrounding area is Urban, as shown in Figure 16. The project would be compatible with this designation.

#### State Environmental Policy

As required by Chapter 343, Hawaii Revised Statutes, for projects using state or county lands, or funds early assessment of the project was made, and it was determined that preparation of an EIS would be necessary. This ensures that environmental concerns are being given appropriate consideration in the planning process for the project. Identifying environmental concerns, obtaining various relevant data, conducting necessary studies, receiving public and agency input, evaluating alternatives, and proposing measures for minimizing adverse impacts are all tasks to be accomplished prior to implementation of the project, thus complying with environmental policy.



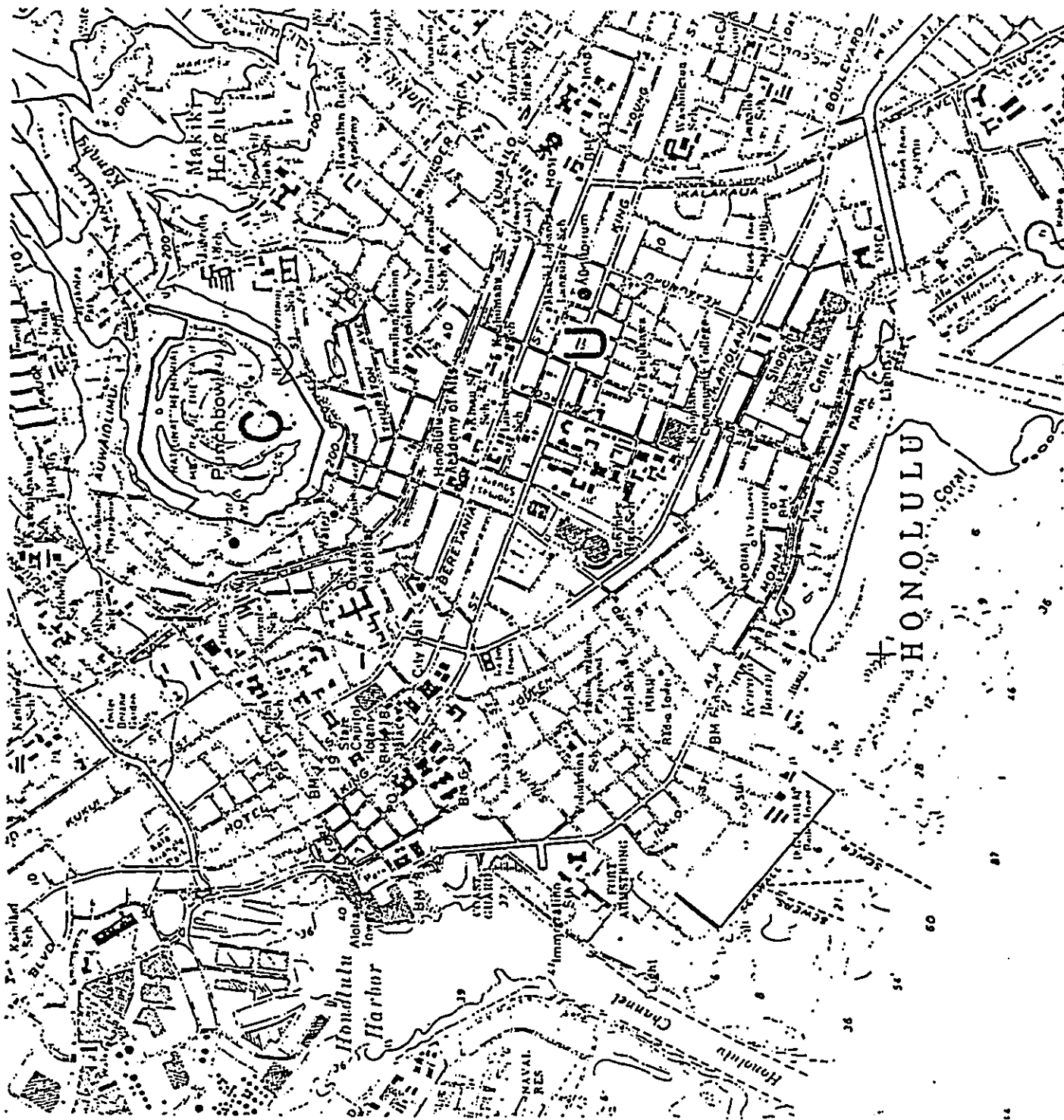


FIGURE 16 - STATE LAND USE DESIGNATION

08.02 CITY AND COUNTY OF HONOLULU

The General Plan

The objectives and policies of The General Plan identify actions and directives for City and County government to take to benefit the people of Oahu as growth and development occur on the island. The proposed facility would conform with the General Plan, especially in the following areas of concern:

"Facilitate the full development of the primary urban center."

"Encourage the establishment of mixed-use districts with appropriate design and development controls to insure an attractive living environment and compatibility with surrounding land uses."

"Protect Oahu's scenic views, especially those seen from highly developed and heavily travelled areas."

"Maintain and improve downtown as the financial and office center of the Island and as a major retail center."

"Provide for the continued viability of the Hawaii Capital District as a center of government activities and as an attractive park-like setting in the heart of the City."

"Encourage distinctive community identities for both new and existing districts and neighborhoods."

"Provide for more compact development and intensive use of urban lands where compatible with the physical and social character of existing communities."

#### Development Plans

The Development Plans help to implement the General Plan by providing relatively detailed schemes for implementing and accomplishing the objectives and policies of the General Plan for geographical regions of the island. The Development Plan Maps depict land use patterns which are consistent with the objectives and policies of the General Plan.

The project site is located within the Primary Urban Center (PUC) Development Plan area. The PUC's Land Use Map and Public Facilities Map designate most of the project site as commercial except for the two parcels fronting Hotel Street. These are designated for park use (Figure 17). The intention of the park designation appears to have been to provide an open space vista to the Capital Complex and to the State Capitol Building.



Designs for the proposed project reflect the intent of the land use patterns shown in the DP maps by keeping the area fronting Hotel Street in open space and providing attractive landscaping and pedestrian circulation.

#### Land Use Ordinance

In 1986, a new Land Use Ordinance (Chapter 21 of the Revised Ordinances of Honolulu) replaced the old Comprehensive Zoning Code. The purpose of the Land Use Ordinance (LUO) is to regulate land use in a manner that will encourage orderly development in accordance with adopted land use policies.

The project area is in the BMX-4 Central Business Mixed Use zoning district, as shown in Figure 18. The intent of the BMX-4 Central Business Mixed Use district is to set apart that portion of Honolulu which forms the City's center for financial, office and government activities and housing. It is intended for the downtown area and not for general application. It provides the highest land use intensity for commerce, business and housing. The proposed project would be compatible with existing commercial and residential uses in the area.

The Land Use Ordinance also regulates Special Districts within the City and County of Honolulu. The purpose of a Special District is to provide a means by which certain areas in the community in need of restoration, preservation, redevelopment or rejuvenation may be designated as Special Districts to guide development to protect and/or enhance the physical and visual

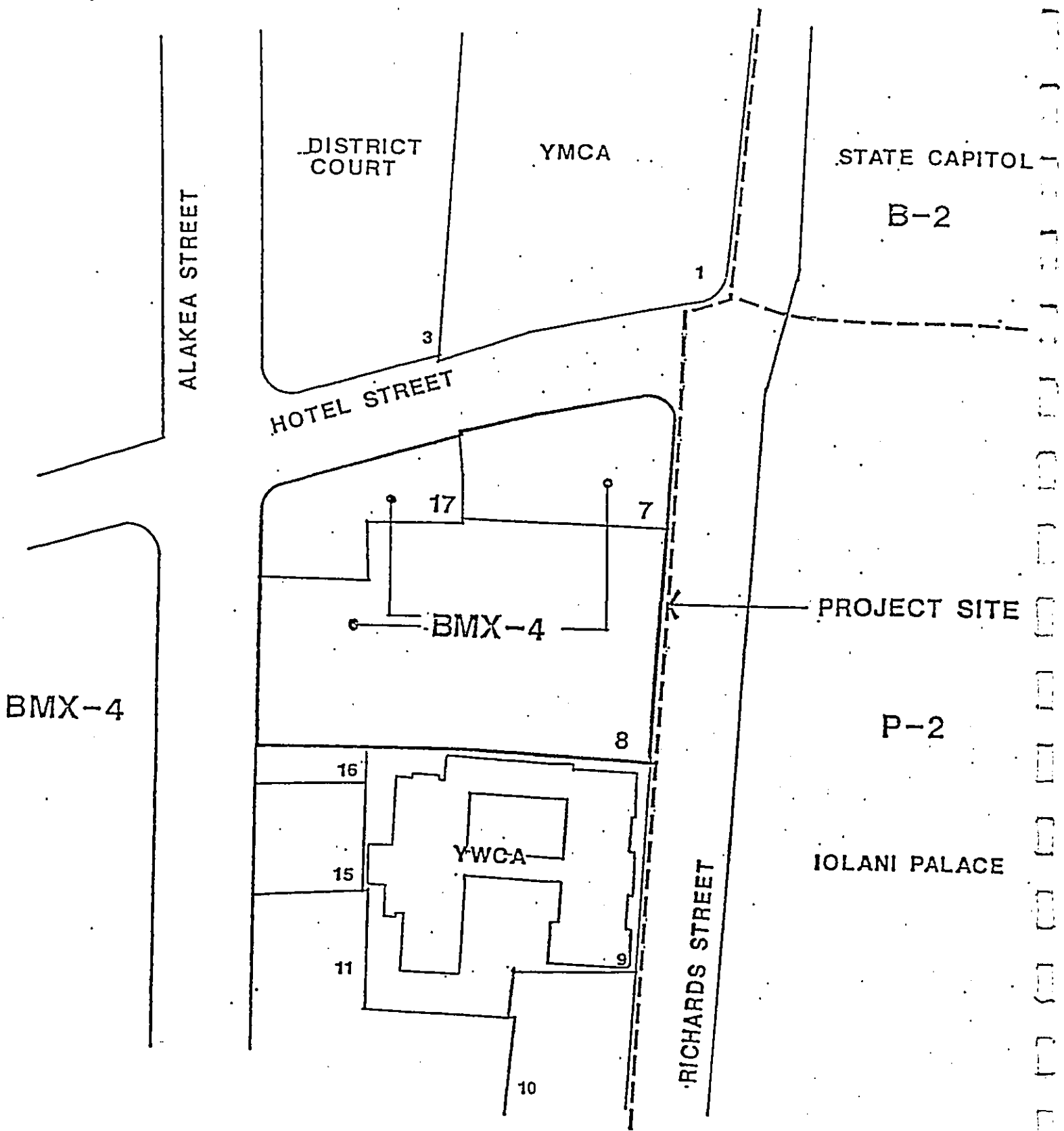
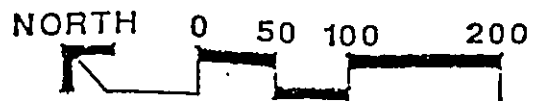


FIGURE 18

ZONING

TAX MAP KEY: 2-1-17: 7, 8 and 17

8-5a



aspects of an area for the benefit of the community as a whole. The project area is in the Hawaii Capital Special District, Alakea/Hotel Street Precinct, and is governed by a 40 percent minimum open space requirement and height regulations as shown in Figure 3 (Ordinance No. 89-52). The proposed structure would exceed the height envelope for the site and, thus, would need to receive a waiver from the Director of the Department of Land Utilization. Government-related facilities in the project contribute significantly to the building's height and footprint. Respect for the Capital District and the nearby historic buildings dictated a sensitive approach to space utilization resulting in terracing back both portions of the project. The parking structure will be about 45 feet in height nearest Richards Street, but will terrace back to about 98 feet high at its interior maximum. Plans currently provide for 37% open space, more than the 34% which presently exists, but below the 40% requirement. In addition to the above space, however, there would be an arcade around the building with a height of approximately 20 feet and a depth ranging between 10 and 20 feet. Including the arcade area, the present plan provides nearly 50% open space.

The waiver would also have to provide for encroachment into the 20-foot setback along Richards Street to allow alignment of the ornamental fence with that of the YWCA. This would preserve the alignment of existing buildings and create continuity along Richards Street. The major portion of the proposed building would be set back 18 feet. The ten foot wide arcade would be set back eight feet to align with the seven foot setback of the YWCA.

The three primary components of the project are integrated into an exterior expression that supports and sustains the architecture of Iolani Palace, the YWCA, the newly remodeled Hemmeter Corporation Headquarters, and other significant historical structures in the Hawaii Capital Special District. Classical design forms including flat arches, railings, ornamental fencing, pedestrian paths and courtyards reinforce the character of the District and create a concept that complements all elements of the neighborhood.





09.0 LIST OF NECESSARY APPROVALS AND THEIR STATUS

Approvals

1. Environmental Impact Statement (EIS)  
Responsible Agency: Department of Housing and Community Development  
Acceptance by: Department of General Planning  
Status: Notice to Prepare EIS published in 7/8/89  
OEQC Bulletin, Draft EIS notice published in  
10/8/89 OEQC Bulletin, Final EIS notice published  
in 1/8/90 OEQC Bulletin - Acceptance pending.
2. Determination by Federal Aviation Administration that  
buildings exceeding 200 feet in height will not be an  
obstruction or hazard to air navigation.  
Responsible Agency: Project Developer  
Acceptance by: Federal Aviation Administration  
Status: no action necessary at this time.

Permits

(Status of all permits pending final design approval.)

City and County of Honolulu

1. Special District Permit  
Law(s): Chapter 46, Hawaii Revised Statutes;  
Revised City Charter, Chapter 9, 1979 Supplement  
Revised Ordinances of Honolulu, 1978, Chapter 21  
(as amended)  
Responsible Agency: Department of Land Utilization
2. Building Permit for Buildings, Electrical, Plumbing,  
Sidewalk/Driveway Work and Demolition.  
Law(s): Revised City Charter, Chapter 14, 1979  
Supplement  
Revised Ordinances of Honolulu. 1978.  
Chapters 16, 17, 18, 19 and 25, (as amended)  
Responsible Agencies: Building Department and review by  
various other City agencies
3. Construction Dewatering Permit (Temporary)  
Law(s): Revised Ordinances of Honolulu, Chapter 16  
Responsible Agency: Department of Public Works
4. Grading, Grubbing and Stockpiling Permit  
Law(s): Chapter 180C, Hawaii Revised Statutes  
Revised Ordinances of Honolulu, Chapter 23  
Responsible Agency: Department of Public Works
5. Sign Permit  
Law(s): Chapter 445, Hawaii Revised Statutes  
Revised City Charter, 1973, Chapter 9, 1979 Suppl.  
Revised Ordinances of Honolulu, Chapter 21  
Responsible Agencies: Building Department and review by  
Department of Land Utilization

6. Certificate of Occupancy  
Law(s): Revised Ordinance of Honolulu. 1978, Chapter 16  
Responsible Agencies: Building Department and review by various other City agencies
7. Water and Water System Requirements for Developments  
Law(s): Chapter 54, Hawaii Revised Statutes  
Revised City Charter, Article VII, 1979  
Supplement  
Responsible Agency: Board of Water Supply
8. Trenching Permit  
Law(s): Revised Ordinances of Honolulu, 1978, Chapter 20  
Responsible Agency: Department of Public Works
9. Street Usage Permit  
Law(s): Chapter 286, Hawaii Revised Statutes;  
City Ordinance No. 4650(76)  
Responsible Agency: Department of Transportation Services
10. Permit to Excavate Public Right-of-Way  
Law(s): Revised Ordinances of Honolulu, Chapter 20  
Responsible Agency: Department of Public Works
11. Sewer Connection Permits  
Law(s): Revised Ordinances of Honolulu, Chapter 11  
Responsible Agency: Department of Public Works
12. Sewer Extension, Oversizing and Relief Sewer Requirements  
Law(s): Revised Ordinances of Honolulu, Chapter 11  
Responsible Agency: Department of Public Works
13. Noise Permit  
Law(s): Chapter 342, Hawaii Revised Statutes  
Responsible Agency: Hawaii Department of Health

**10.0 PROBABLE DIRECT, INDIRECT AND  
CUMULATIVE IMPACTS OF THE PROPOSED  
ACTION ON THE ENVIRONMENT**

10.0 PROBABLE DIRECT, INDIRECT AND CUMULATIVE IMPACTS OF  
PROPOSED ACTION ON THE ENVIRONMENT

10.01 IMPACTS TO WATER QUALITY

Because the proposed structures would cover roughly the same amount of ground space as the existing structure, increased runoff would not occur. During construction, sediment transport in runoff to storm drains could increase because of erosion of exposed land. Adherence to the requirements of the Grading Ordinance should adequately mitigate this potential impact.

10.02 IMPACTS TO FLORA AND FAUNA

Because of the minimal landscaping at the project site and with no rare, threatened or endangered species at the site, no negative impact to flora or fauna would occur with implementation and operation of the proposed action. The three large Monkeypod trees fronting Hotel Street would be saved and re-used.

Positive impacts to flora and fauna would occur with landscaping of the project along Richards and Alakea and also by placing planter boxes on the various levels to provide for additional green spaces. Landscaping would be consistent with the surrounding areas and strive to create a harmonious feeling.

### 10.03 IMPACTS TO HISTORIC SITES AND ARCHAEOLOGICAL RESOURCES

Historic buildings nearest the site are the adjacent YWCA, the Hemmeter Corporation Headquarters (formerly the Armed Services YMCA) and Iolani Barracks. During demolition and construction, vibration, especially that resulting from pile driving, is a concern. These potential impacts are addressed in Section 10.09.

After construction, no impacts to public use and enjoyment of the historic properties are expected. In fact, the aesthetics of the setting in which these historic buildings exist would be significantly improved. As indicated in Section 5.0, the proposed building's architecture incorporates classical design forms including flat arches, railings, ornamental fencing pedestrian paths and courtyards complementary to those of the surrounding historic buildings. In addition, the quality of the open space on the site would be greatly enhanced by the planned landscaping.

On the site itself, impacts of historical or archaeological significance would be limited to subsurface deposits disrupted during excavation. Substantial 19th Century (and possibly earlier) building and occupation activity took place within the project area. Although the top portion of the deposits representing this historic era may have been removed, there is still the potential for buried historic cultural debris; bottles, ceramics, trash pits, building foundations, etc. Of particular interest would be deep, well-defined features which

may intrude into the unconsolidated black volcanic cinder, such as outhouses, wells and trash pits associated with former residences. These features are frequently filled with stratified trash which through the passage of time becomes an impressive archaeological record of early Honolulu. A nearby example of this possibility occurs within the present 'Iolani Palace grounds where in 1986 tree removal and replanting exposed plentiful trash pits associated with the reign of Kalakaua.

Clearly a presentation of potential significance may be far removed from the reality of what survived the most recent demolition and construction of the present parking structure. However, the portion of the project area fronting Hotel Street may have been unaffected by early 1960s construction. With this in mind, the following recommendations are thought to best address the possibility of the presence of intact historic (or prehistoric) deposits at Richards and Alakea, with the least investment of time and expense.

1. Archaeological inspection in final phases of demolition to determine whether historic materials are being exposed.
2. Archaeological test excavations consisting of 4-8 backhoe trenches within the project area following demolition, but preceding construction. Observation and study of the stratigraphy and content of these trenches should provide sufficient information to determine if intact, significant cultural materials are present.

3. If significant cultural materials are found in the backhoe testing, then archaeological monitoring of the excavation of building foundations and utility lines should be required. In other downtown projects, archaeological monitoring has proven to be an effective means of dealing with sporadically occurring cultural deposits. Because of the common practice of mechanical demolition, filling and grading for downtown areas, it is most likely that only partial preservation of former deposits would be found in the block.

#### 10.04 COMMUNITY IMPACTS

Specific impacts of the proposed project include are described in the following subsections.

##### Displacement

Displacement impacts would be limited in scale. Two of the project site's three major uses would in effect not be displaced. The third use would be displaced for the construction period (from demolition of the existing structure to the opening of the project):

- o The City's three wheeled Parking Branch vehicles would be relocated to a new and larger site (on Coral Street) by the end of 1989 to accommodate the expansion of the unit's operations by an additional 18 vehicles.



- o Bus service on Hotel Street would not be interrupted as a result of the project. It may be necessary, depending on construction practices, to temporarily relocate the bus shelter and stop.
  
- o During construction, projected for the period from January 1990 to the end of 1991, use of the 219 public parking stalls would not be possible. However, in March, 1990, 275 stalls in the City-sponsored Chinatown Gateway Plaza, located three blocks from the project site, will be available for rental to the Plaza's 200 tenants and the public at large. After the project is opened, 235 parking stalls would be available for public use at municipal parking rates. The current public parking use would thus continue.

Also, both Honolulu Police Department and Parking Branch personnel use the site as a parking place when they have business at the District Court Building, across the street. The new location for three-wheeled vehicle operations would not be near the court building, so this use would end once the existing facility is closed for demolition.

#### Impacts on Adjacent Land Users

Activities at the YWCA and Jury Box buildings, adjoining the project site, would be affected in different ways from phase to phase of the project's development. To minimize these impacts,

the developer has decided to site the buildings ten feet off the property line. This would provide a construction buffer zone, enhance traffic safety for ingress and egress to the building and minimize impacts to the operations of adjacent land users.

During construction (including demolition of the existing structure), adjacent users may suffer inconvenience and irritation associated with construction work. Noise and dust would be controlled to meet government standards, but will still be irritants for neighbors. Occasional obstructions of pedestrian routes and roadways could dissuade people from coming into the area for the short term. Persons responsible for the adjoining YWCA and Jury Box buildings were concerned that the project could affect their facilities' structural integrity.

Specific activities of these users will likely be affected. At the YWCA:

o Current uses of parts of the project site and some activities within the YWCA building facing the project site would need to be relocated, for all or part of the construction phase:

- The toddler play area, reaching into the area leased from the City and County, would have to be relocated;
- The infant and toddler programs, which are housed in rooms facing the project site, may have to be moved during construction due to noise and possible dust;
- and

- Space now used for parking two vans would be reduced, so only one van could park off the street.

o The right-of-way easement from Alakea Street would be temporary narrowed to about five feet during construction, precluding vehicular entry.

o Construction noise and other impacts would likely deter some persons from participating in programs at the YWCA or eating at the Palace Court restaurant for part or all of the construction period. The consequence would be a loss of revenue for the YWCA.

Major noise impacts of construction would occur for limited periods. The developer is considering possible measures to mitigate effects of construction noise, such as working with the general contractor to devise delivery routes which minimize backing in order to reduce noises from backup alarms. The major mitigation of potential noise impacts is the decision to employ a mat foundation rather than driving foundation piles.

o The loss of public parking in the adjacent structure would make it harder for some persons to attend afternoon, evening, and weekend meetings during the construction period. (YWCA officials see the existing parking supply as a limit on the YWCA's capacity for growth.)

- o Blockages of traffic lanes and relocation of bus stops, if these occur, could also lower attendance at YWCA events and programs.
- o Changes in pedestrian access routes would especially affect persons with partial or no vision. The YWCA hosts a support group for the visually impaired which could be affected.

YWCA officials were further concerned that construction debris could inconvenience or even pose some sort of danger to pool users. However, the pool is over 45 feet from the construction site and standard construction precautions would be taken to avoid such inconvenience and or/danger.

At the Jury Box Building, construction will bring inconvenience, but would not affect activities to the extent described for the YWCA.

When the project is operational, impacts on adjacent sites would be limited, but still distinct from impacts on more distant properties. Positive impacts would include:

- o The new building's increase to the Downtown Honolulu office population may increase membership and demand for services at the YWCA;

- o The change in configuration of public parking to that of a secure, covered lot may increase usage of the YWCA and nearby business;
- o The project would provide a few more public parking stalls than are present in the existing structure;
- o Because there is no restaurant planned on-site, the new building's occupants would likely add appreciably to the clientele of the Palace Court Restaurant, in the YWCA;
- o The Richards and Alakea Street frontages of the building would offer much more pleasing design than the existing structure and may encourage pedestrian traffic to the YWCA; and
- o Redevelopment of the existing, underutilized open space setback on Hotel Street with extensive landscaping and water features may slightly reduce localized temperatures and encourage pedestrian traffic.

#### Impacts on Nearby but Non-Adjacent Land Users

During construction, noise and dust would be an inconvenience for persons in the area. The loss of public parking would be more a serious impact. The loss of public parking spaces could affect the number of visitors to Iolani Palace and customers of nearby businesses. This may be offset to some extent by the Chinatown Gateway Plaza when it opens in March, 1990.

When the project is operational, its impacts on nearby businesses are likely to be positive, as it would house additional customers. The public parking spaces in the project would also be of use to such businesses.

#### Population Impacts

Because the project would not have any residential units, it would have no impact on Oahu's residential population or the housing stock.

De facto population on site would vary from hour to hour and day to day. For the purposes of impact analysis, a maximum de facto population -- assuming all spaces would be used intensively -- was calculated. Table 19 shows a maximum de facto population for the project of about 2,225.

This is a "worst case scenario", an estimate of the highest number of people that might be in the building, not a projection of actual normal usage. It is based on building codes and architectural standards for estimating highest capacity. In all likelihood, the actual population on-site when the building is open would be smaller.

TABLE 19

MAXIMUM DE FACTO POPULATION, ALAKEA/RICHARDS PROJECT

SEGMENT OF THE POPULATION	NUMBER OF PEOPLE
Office Space 1 person per 160 sq. ft. 303,252 sq. ft. of space	1,895
Retail Space 1 person per 30 sq. ft. 9,088 sq. ft. of space	303
Building Employees	12
Persons Parking in Garage	<u>15</u>
TOTAL	2,225 =====

NOTES:

Office and retail space calculations are based on recent and current Downtown Honolulu densities, architectural standards, and the Uniform Building Code. Estimates of building employes and parkers follow from the assumption that office and retail spaces will be most fully occupied during the workday, at a time when relatively little space will be available for parking, and building needs for security and janitorial personnel will be low.

SOURCE: American Institute of Architects and Hoke, 1988.

## 10.05 ECONOMIC AND FISCAL IMPACTS

### Fiscal Impacts

Redevelopment of the site is anticipated to have positive social and economic impacts on the downtown area and the State in general.

The proposed project would help to fill the demand for downtown office space. The current vacancy rate is near five percent, as compared to an average of 18 percent nationwide. Historically, the demand for new office space in Honolulu has been approximately 250,000 square feet per year.

Other economic benefits which would be realized by the City include receipt of annual lease rents from the developer and increased revenues from real property taxes based on a higher and more intensive use of the site. Increased revenues would also be realized from sales taxes generated by the commercial uses on the site and fees from additional public parking stalls. The proposed lease agreement provides for a lease term of 65 years with an option for a 15-year extension. Lease rent for the construction period and the first 30 years after completion is fixed at \$205,613 per year. Lease rents for the two successive ten-year periods, the remaining 15-year period, and the option period would be established by agreement at fair market rents.



The benefits accruing to the City are derived from the following:

1. The receipt of 70,715 square feet of prime downtown office space at no cost. The current market value of the office space is estimated at \$15,910,875, or \$225 per square foot.
2. The receipt of lease rents from BetaWest. The City would receive approximately \$300,000 in lease rents during the initial 18-month construction period and \$205,613 annually for the first 30 years after occupancy. The annual lease rent is projected by the City to increase to \$3,400,000 beginning at the thirty-first year of occupancy.
3. The receipt of real property taxes from BetaWest. The first year's real property tax receipts on the completed development are estimated at \$535,815. The real property taxes are expected to increase by four percent per year.
4. The receipt of an interior preparation office allowance valued at approximately \$990,000, based upon a \$15 per net rentable square foot allowance for approximately 66,000 square feet of office space.

5. The receipt of all parking revenues beginning in the thirty-first year of occupancy. Parking revenues are estimated at \$1,330,000 for Year 31.

In summary, the financial benefits to the City are substantial. For the first 30 years, the City is expected to receive in excess of \$53,000,000 in revenues and property. For years 31 through 40, the City receipts will grow to exceed \$70,000,000 due primarily to the substantial increases in lease rents and real property taxes.

#### Economic Impacts

This section examines economic impacts of the Alakea/Richards project by estimating employment and income effects attributable to the project.

#### Employment Impacts

Employment impacts include:

- o Direct employment -- jobs created on-site and elsewhere as new income attributable to the project is spent;
- o Indirect employment -- jobs created as establishments that receive direct income purchase goods and services; and

- o Induced employment -- jobs created as a result of employee spending in the local economy. Induced employment includes both local jobs in production, sales and distribution, and government jobs supported by the additional income derived from a project through taxes.

The project would generate short-term employment during the construction phase. During the operational phase of the project, minimal employment on-site and off will be generated by the project.

- o Construction Phase

During construction, the project would create direct construction jobs, both on-site and off-site. Construction would further contribute to the State economy, generating indirect and induced employment.

Construction jobs are estimated in Table 20. Construction of the project would be expected to generate a total direct employment of 557 person-years. Based on industry practice, the on-site direct employment would then be estimated as 445 person-years.

BetaWest, Inc. has estimated that demolition and construction would take a total of about 24 months, from February 1990 to the beginning

TABLE 20  
CONSTRUCTION PHASE EMPLOYMENT AND INCOMES

Construction Costs	\$66,000,000	(1)
Average Annual Amount of Construction Spending per Construction Job (Oahu, 1988)	\$118,559	(2)
Direct Construction Job-Years (Annual Construction Costs divided by average annual construction spending per job times construction period)	557	
On-site Direct Construction Job-Years	445	(3)
Industry Employment Multiplier	2.6	(4)
Direct, Indirect and Induced Employment (Job-Years)	1,448	
Direct Construction Job-Years	557	
Average Building Construction Annual Wage (Ah, 1988)	\$33,403	(5)
Direct Income	\$18,605,471	
Industry Income Multiplier	2.3	(6)
Total Income	\$42,792,583	

NOTES:

- (1) Based on estimate provided by Daniel, Mann, Johnson & Mendenhall, project architects.
- (2) Based on unpublished update of State of Hawaii Databook and on Bank of Hawaii, Construction in Hawaii, 1989.
- (3) Based on standard estimate that 80% of construction jobs will be on-site.
- (4) Employment-based model, (No. 20), Hawaii State Department of Planning and Economic Development, 1977.
- (5) Derived from unpublished quarterly data on wages and employment compiled by Hawaii State Department of Labor and Industrial Relations.
- (6) Income model, (No. 18), Hawaii State Department of Planning and Economic Development, 1977.

of 1992. In that case, the average on-site job count would be 223. This figure provides a very rough estimate of workers on site at any time, as the number of workers on-site would vary greatly during the construction phase.

Indirect and induced employment attributable to the project's construction would amount to approximately 1,002 person-years. The total employment impact -- direct, indirect, and induced -- is estimated as 1,448 person-years.

o Operational Phase

New developments such as the project are treated as generating income when they attract capital from outside the State of Hawaii to the State. The project might house offices of firms not now located in Hawaii, but such firms would not move to Hawaii because of the project. Hence, a conservative analysis would be that the project generates no employment during its operational phase, although building staff and some tenants would represent at least a few newly created jobs.

Income Effects

Income effects of new inputs to the economy include:

- o Direct income, sometimes called personal income -- the wages and salaries paid to persons directly employed because of the input to the economy; and
- o Total income, sometimes called household income -- the income generated in the State economy as direct, indirect, and induced jobs which contribute to the circulation of money in the economy.
- o Construction Phase

Direct income impacts of construction are estimated in Table 20 by multiplying the number of construction jobs generated by the project times the most recent average construction wage. The direct income attributable to the project would amount to almost \$1 million.

Total income impacts of the project are estimated by using the State's model of the impact of spending in various industries on the State economy as a whole. The total income impact of the project is estimated to be nearly \$43 million.

o Operational Phase

As the project would have minimal employment impacts during the operational phase, it also would have minimal income impacts, as defined here.

## 10.06 IMPACTS TO UTILITIES AND PUBLIC SERVICES

### Utilities

#### Water Supply

Presently, the existing off-site water system is adequate to serve the proposed development. However, the Board of Water Supply has stated that it needs to make extensive improvements to the downtown distribution system to accommodate additional demands that would occur in the downtown area. The proposed project would contribute to additional demand in the area, however, singularly its impact is not considered to be great. Rather it is seen as one project among the many that would impose additional demands on the system. When the foreseen improvements are undertaken, all developments within specific downtown boundary limits established by the Board may be assessed their proportionate share of the improvements at the time of meter application.

#### Sanitary Sewer

Sewer connections would be made to the 8-inch line on Richards Street. According to the City and County's Division of Wastewater Management, system capacity would be adequate to handle the proposed project as long as the sewer connection is made to the Richards Street line. Currently, the Alakea Street line is near capacity and new developments in the area will



necessitate improvements to the system. The State, in conjunction with the building of the new State Office Tower, will be improving the King Street line to accommodate their development. These improvements and the available capacity on the Richards Street line would accommodate the proposed project.

#### Storm Drainage

There would be no increase in storm runoff from the newly developed site. Landscaping on the new site would cover approximately the same area as is presently landscaped. From preliminary discussions with the Drainage Section of the Division of Engineering it appears that there are no major problems with current storm drainage for the site.

#### Natural Gas Service

At the present time it is uncertain if a natural gas connection to the building would be made. The only foreseeable demand for gas would arise if there is a restaurant with that need to be included in the development. At present, no such restaurant is anticipated. The small retail space on the ground floor is intended to provide only minimal "convenience" service to the facility. In any event, demand for gas service would be very limited at most, and impose no significant impact on the distribution network.

### Electrical Power Service

The total projected electrical load is 3 megawatts (MW). Preliminary discussions with HECO indicate that the existing distribution grid could accommodate this increase in demand. The power would be supplied through the Emma substation or possibly the Fort Street substation when it is enlarged. An energy management system is being planned for the building for conservation purposes.

### Telecommunications

It is anticipated that approximately 1000 additional telephone numbers would be required for the proposed office building. These additional numbers could be accommodated by the existing distribution system which, in the project area, is entirely underground. Preliminary discussions with Hawaiian Telephone indicate that service would likely be supplied from recently installed duct lines beneath Hotel Street.

### Public Services

Existing fire and police protection, health care services, child care services, and the public transportation system are believed to be adequate to meet the needs of the workers and visitors of the project.

## 10.07 TRAFFIC IMPACTS

### 1993 Background Traffic Conditions

Background cumulative traffic conditions are defined as the traffic conditions resulting from background growth and related projects. The following sections discuss the assumptions and data used to estimate 1993 background cumulative traffic conditions.

#### Background Traffic Growth Rate

In order to evaluate the traffic impacts of the proposed project, it is necessary to estimate the future background traffic conditions. This future traffic is typically estimated by applying an annual growth rate to the existing traffic volumes. Based on input from the City and County of Honolulu DTS, it was determined that the background rate may be expected to range from 1 to 1.5 percent per year. Therefore, a growth rate of 1.5 percent per year was used for this study.

#### Related Projects

The second component in estimating future background traffic conditions is the traffic generated by other proposed projects in the vicinity. Related projects are defined as those projects that are under construction or have been approved for construction by

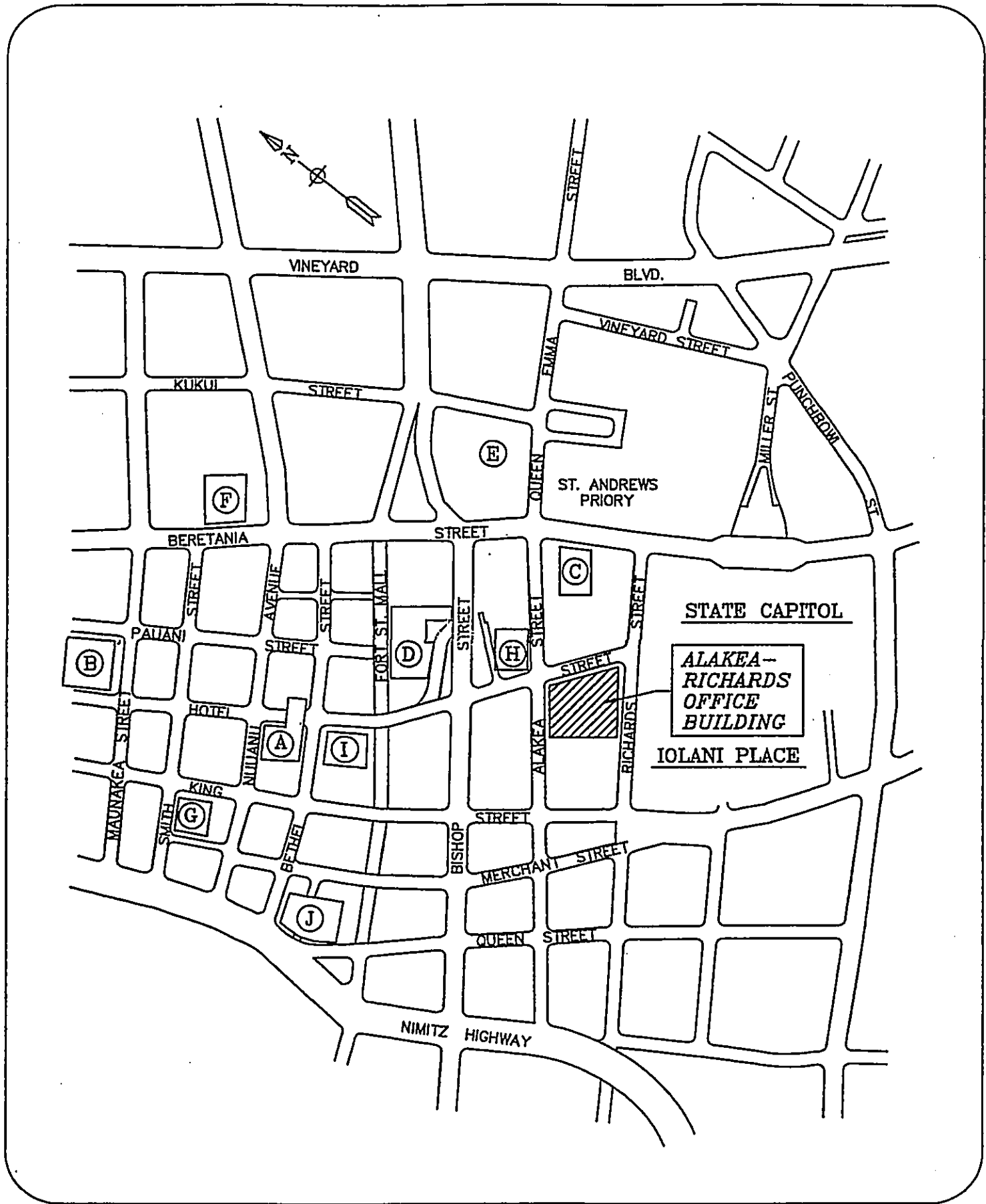
the City and which would significantly impact traffic in the study area.

Based upon the information obtained from the City Department of Housing and Community Development and information from other traffic studies conducted for projects in the vicinity, ten projects were identified that were either under construction or in the final planning stages and would have a potential impact on the intersections under study. These projects are listed in Table 21 and their locations are shown in Figure 19.

TABLE 21  
LISTING OF RELATED PROJECTS

PROJECT	DAILY TOTAL	TRIPS GENERATED			
		AM IN	AM OUT	PM IN	PM OUT
A Chinatown Gateway Plaza	3,916	71	30	202	211
B Maunakea Marketplace	5,839	217	94	297	321
C State Office Tower	1,532	197	29	119	105
D Pan Pacific Plaza	4,246	636	95	110	576
E Pacific Nations Center	17,510	1,373	421	626	1,489
F Honolulu Park Place	4,654	708	106	122	640
G Hawaii Nat'l Bank	1,191	146	22	27	140
H Hotel-Alakea Office Bldg (Merchandise Mart)	2,088	282	42	50	26
I Campbell Estate Office	809	397	59	70	365
J Queen-Bethel Office Bldg (Kaahumanu Redevelopment)	238	636	95	110	576

NOTE: AM and PM figures are for peak hours.



*LOCATIONS OF RELATED PROJECTS*  
 BARTON-ASCHMAN ASSOCIATES, INC. 10-24a  
 ALAKEA-RICHARDS OFFICE BUILDING

### 1993 Cumulative Traffic Volumes

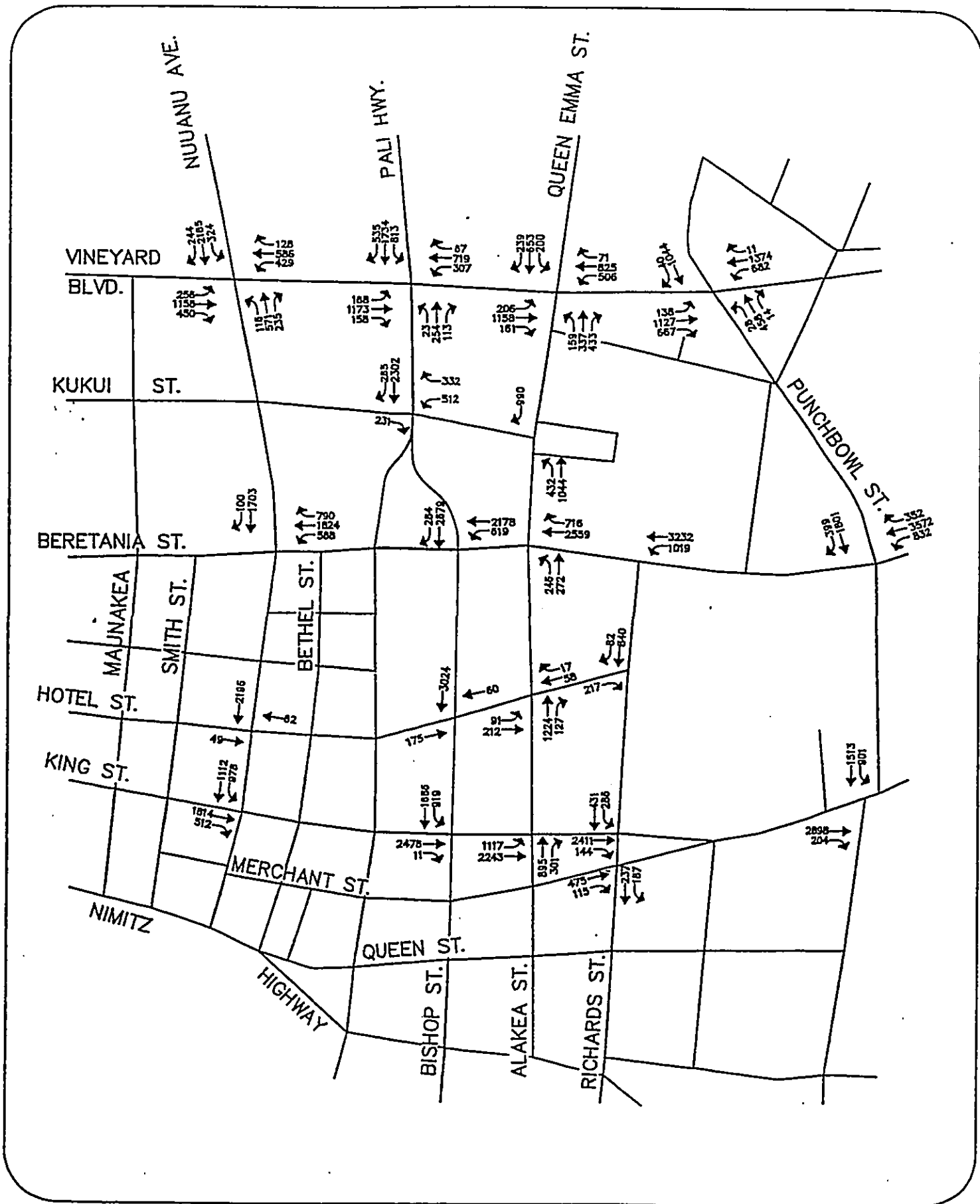
Future traffic volumes are obtained by superimposing background growth and related traffic volumes onto existing traffic volumes. The resulting AM and PM cumulative traffic volumes are presented in Figures 20 and 21, respectively.

### Project-Related Traffic Impacts

This section discusses the methodology used to identify the traffic-related impacts of the proposed project. Generally, the process involves the determination of the weekday and peak-hour trips that would be generated by the proposed project, distribution and assignment of these trips on the approach and departure routes, and finally, determination of the levels-of-service at affected intersections subsequent to implementation of the project.

### Traffic Generation

Future traffic volumes for the proposed project were determined using trip generation equations contained in Trip Generation, An Informational Report (Fourth Edition, 1987) prepared by the ITE. The generation analysis and the resulting daily and peak hour volumes are summarized in Table 22.



1993 CUMULATIVE AM PEAK HOUR TRAFFIC VOLUMES

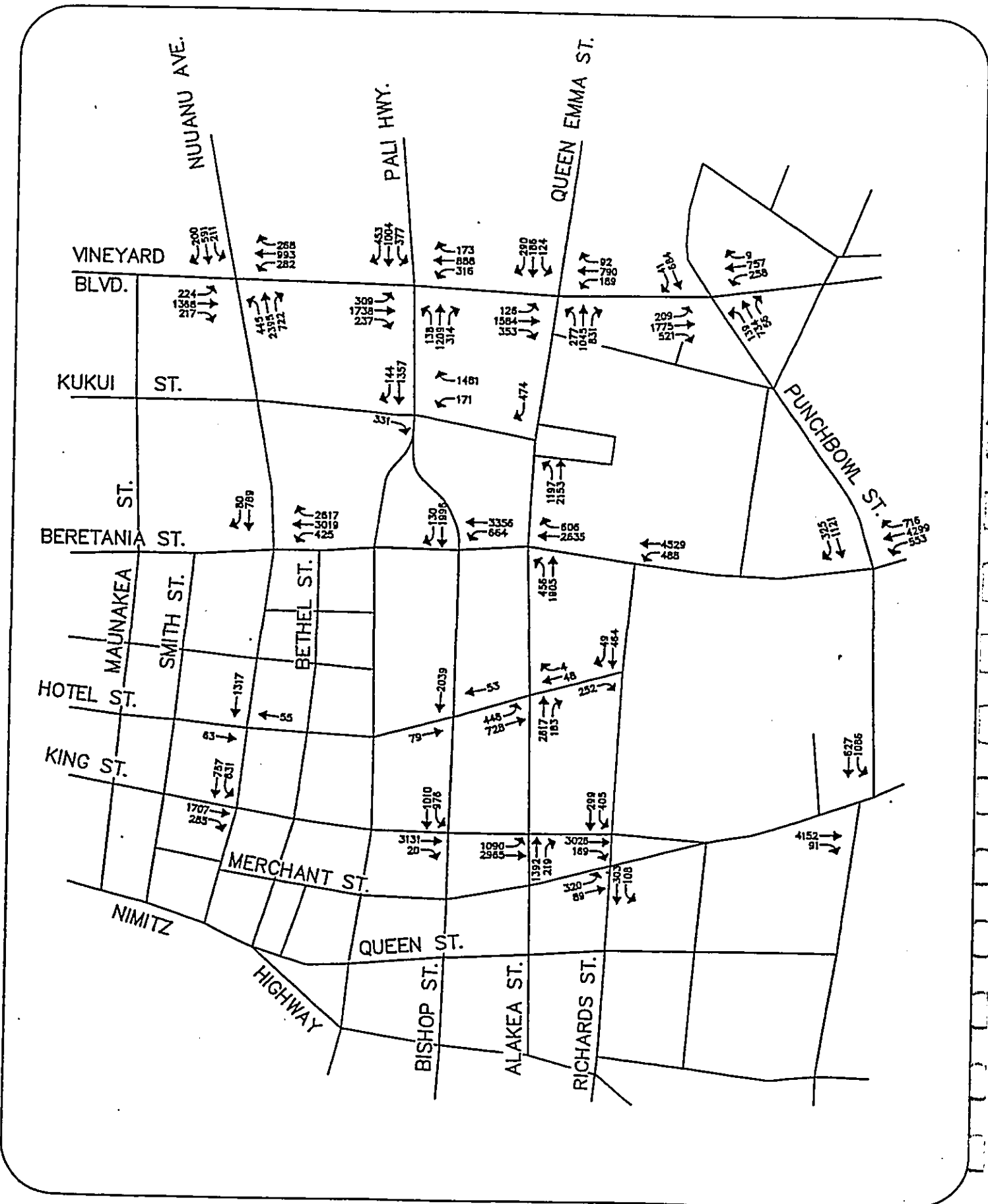
BARTON-ASCHMAN ASSOCIATES, INC. 10-25a

ATAKEA-RICHARDS OFFICE BUILDING



FIGURE

20



1993 CUMULATIVE PM PEAK HOUR TRAFFIC VOLUMES

BARTON-ASCHMAN ASSOCIATES, INC. 10-25b

ALAKEA-RICHARDS OFFICE BUILDING



FIGURE

21



As noted, there is a fifty percent discount applied to the total number of trips. This is to account for the portion of the building that is designated for use as City offices, office support uses, use of other transportation modes, and for drivers that park elsewhere in the downtown area and walk into the office building.

TABLE 22  
PROJECT TRIP GENERATION ANALYSIS

DESCRIPTION	DAILY TOTAL	TRIPS GENERATED					
		AM PEAK HOUR		PM PEAK HOUR			
		TOTAL	IN	OUT	TOTAL	IN	OUT
Office 301,942 SF(1)	3,210	530	462	68	504	81	421
Discount 50.0%(2)	1,605	265	231	34	252	40	210
Net Trips	1,605	265	231	34	252	41	211

NOTES: (1) SF= SQUARE FEET

(2) DISCOUNT CALCULATED AS FOLLOWS:

23% FOR CITY OFFICES

2% FOR OFFICE RELATED RETAIL

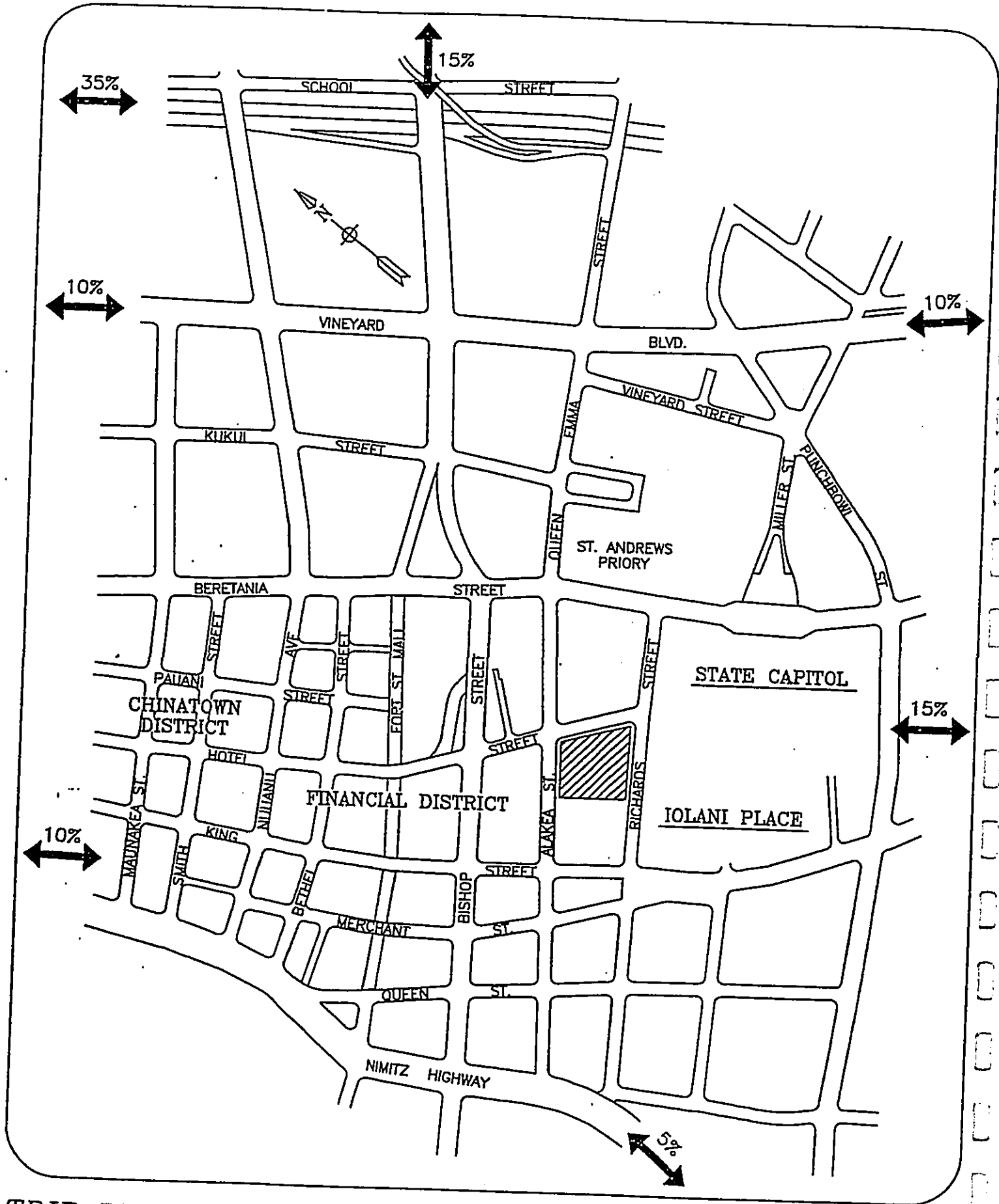
15% FOR RIDE SHARING AND PUBLIC TRANSPORTATION

10% FOR DOWNTOWN MULTI-PURPOSE TRIPS (WALK-IN)

50% TOTAL

#### Trip Distribution

The project-related trips were distributed based on the future distribution of population and the anticipated approach routes to the project site. This information was obtained from previously conducted traffic studies for the area. The approach distribution is shown in Figure 22.



*TRIP DISTRIBUTION*

BARTON-ASCHMAN ASSOCIATES, INC. 10-26a

*ALAKEA-RICHARDS OFFICE BUILDING*

### Trip Assignment

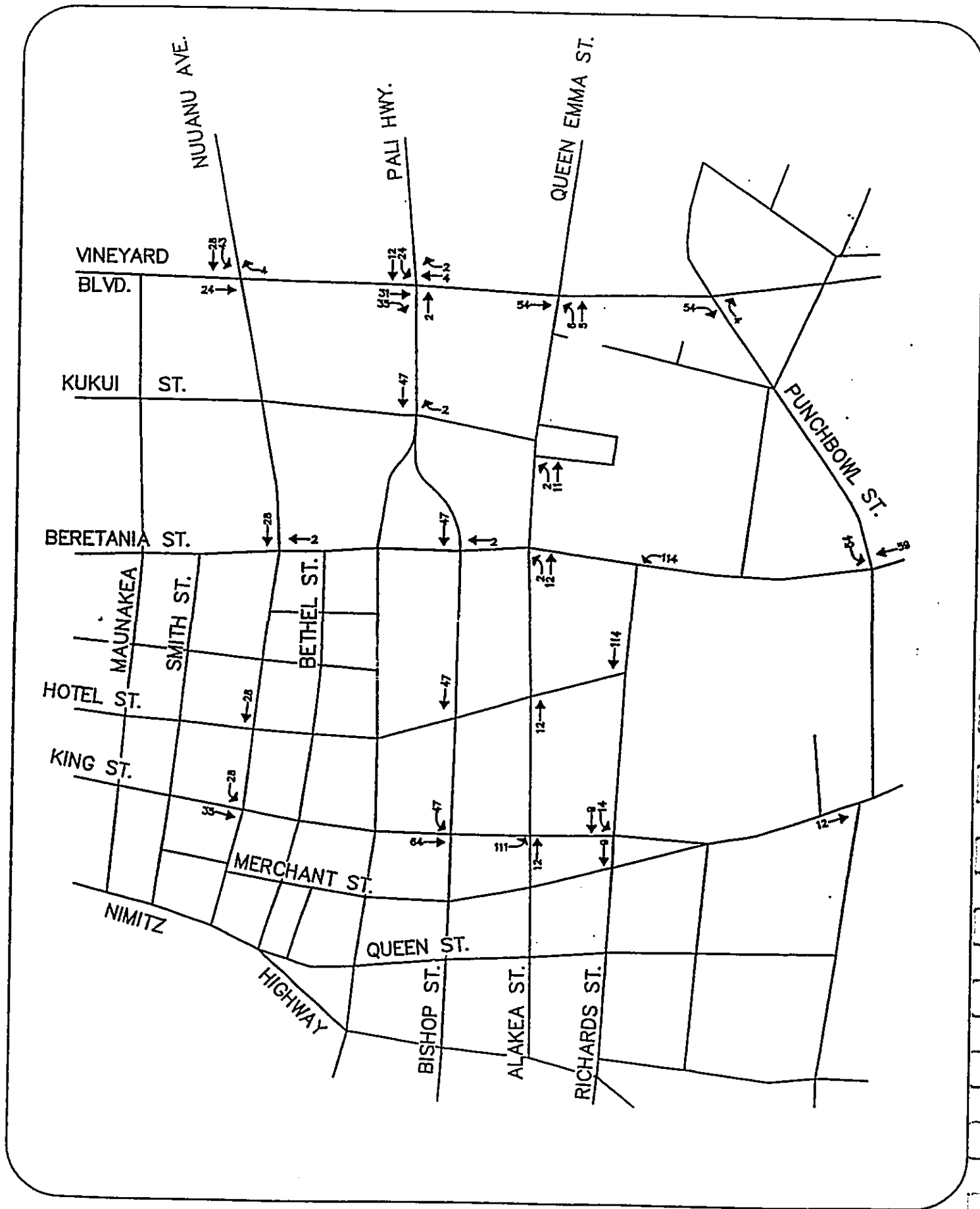
Using the trip generation and trip distribution discussed above, project-related traffic was assigned to the various traffic movements at the intersections studied. The trip assignments for the AM and PM peak hours are shown in Figures 23 and 24, respectively.

### 1993 Cumulative Plus Project Peak Hour Traffic Volumes

Future traffic volumes were determined by superimposing the project-generated traffic on the 1993 cumulative traffic volumes. The resulting traffic volumes are shown for the AM and PM peak hours in Figures 25 and 26, respectively.

### Summary of Impacts

The purpose of this section is to present the results of the level-of-service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and implementable are identified.



1993 AM PEAK HOUR PROJECT TRIPS

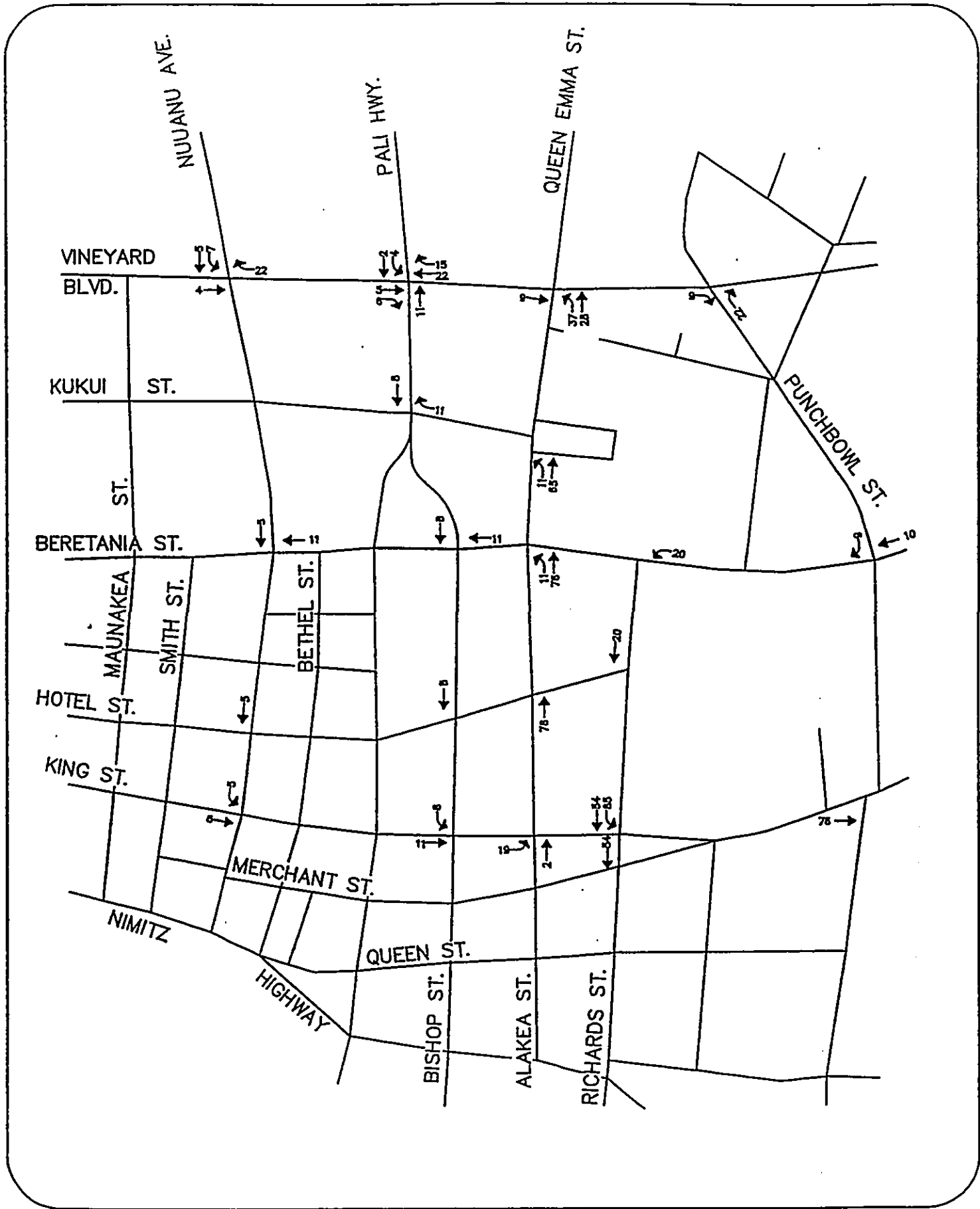
BARTON-ASCHMAN ASSOCIATES, INC. 10-27a

ALAKEA-RICHARDS OFFICE BUILDING



FIGURE

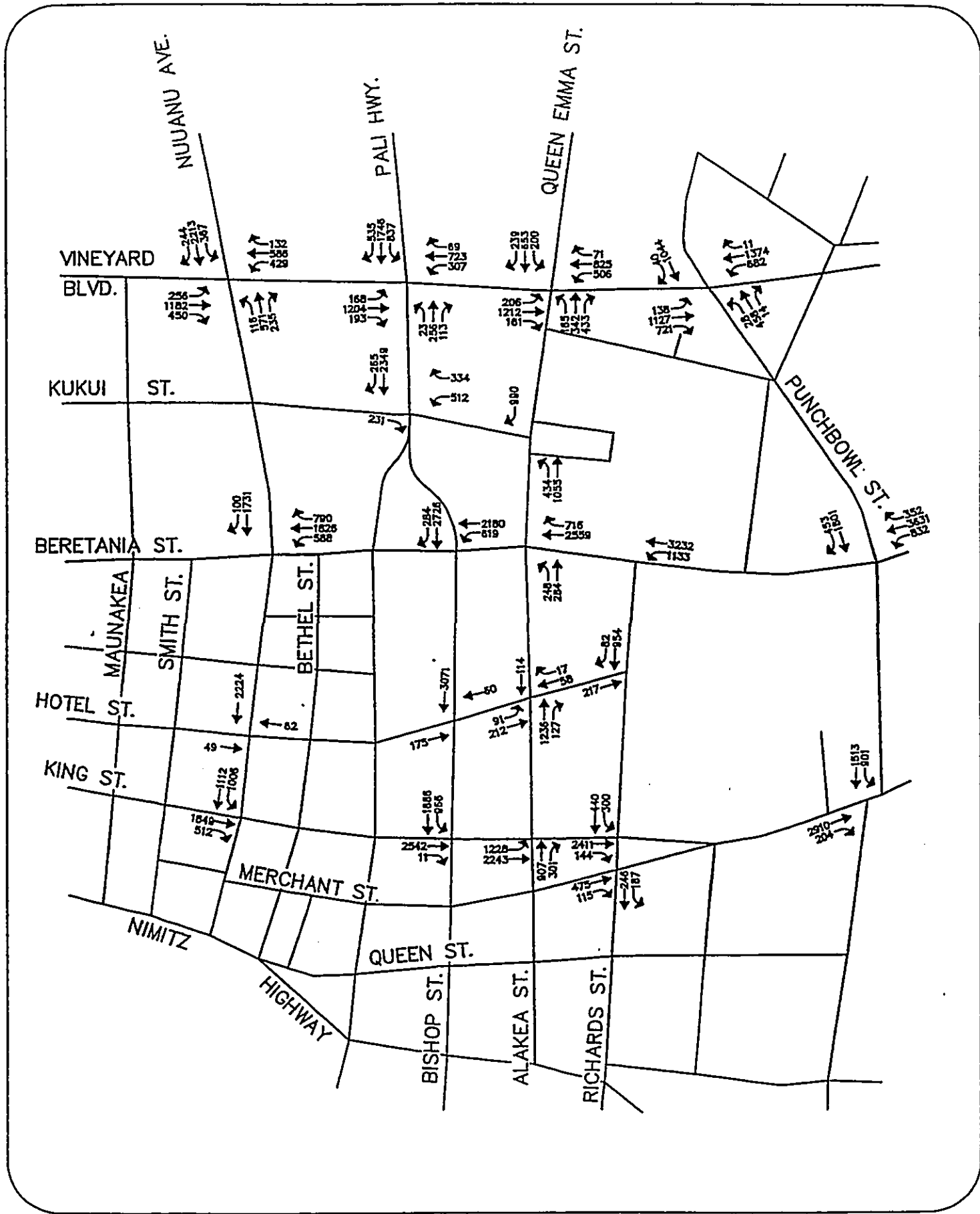
23



**.1993 PM PEAK HOUR PROJECT TRIPS**

BARTON-ASCHMAN ASSOCIATES, INC. 10-27b

ALAKEA-RICHARDS OFFICE BUILDING



1993 CUMULATIVE + PROJECT AM PEAK HOUR TRAFFIC VOLUMES

BARTON-ASCHMAN ASSOCIATES, INC. 10-27c

ALAKEA-RICHARDS OFFICE BUILDING

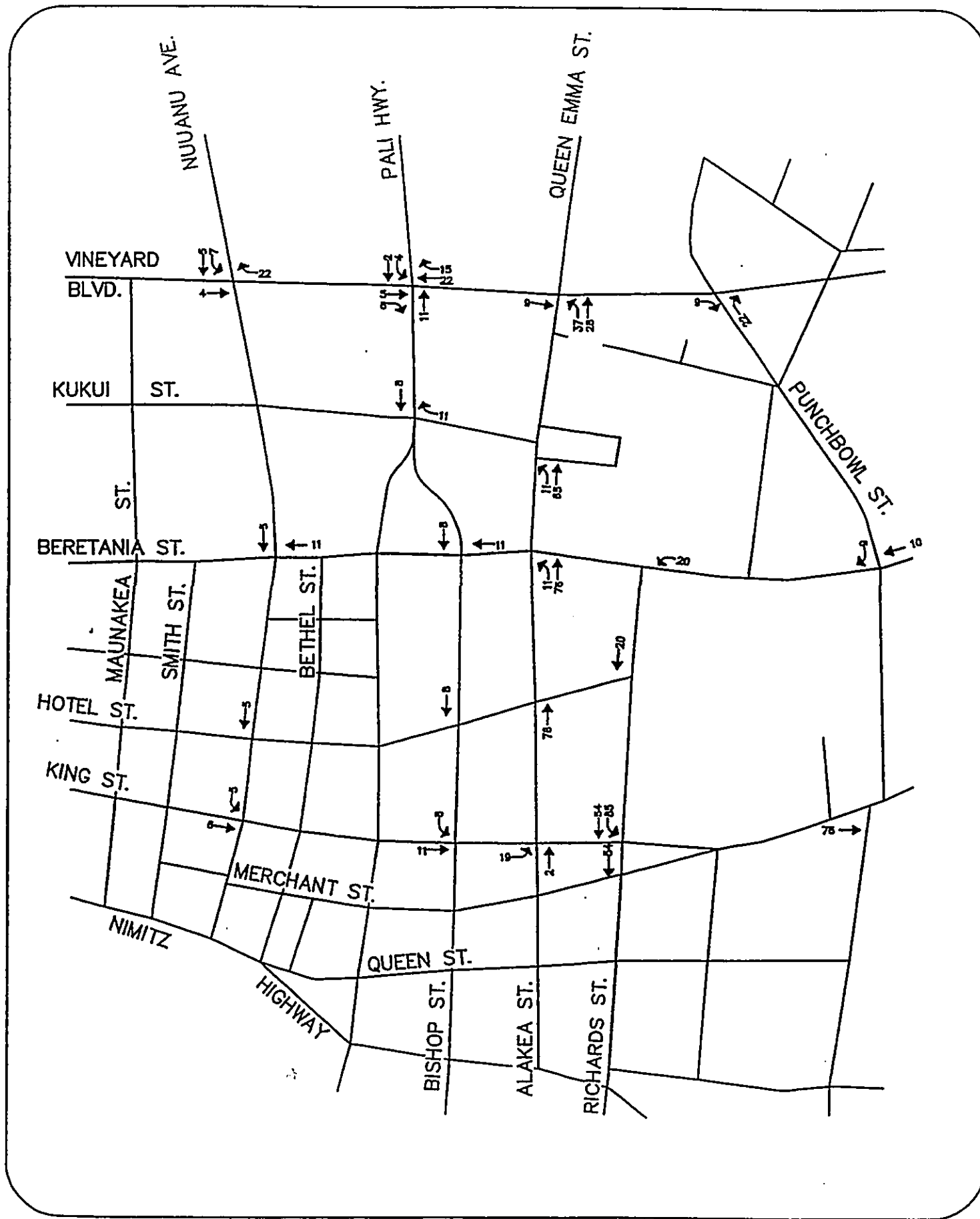


FIGURE

25

# CORRECTION

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



**1993 PM PEAK HOUR PROJECT TRIPS**

BARTON-ASCHMAN ASSOCIATES, INC. 10-27b

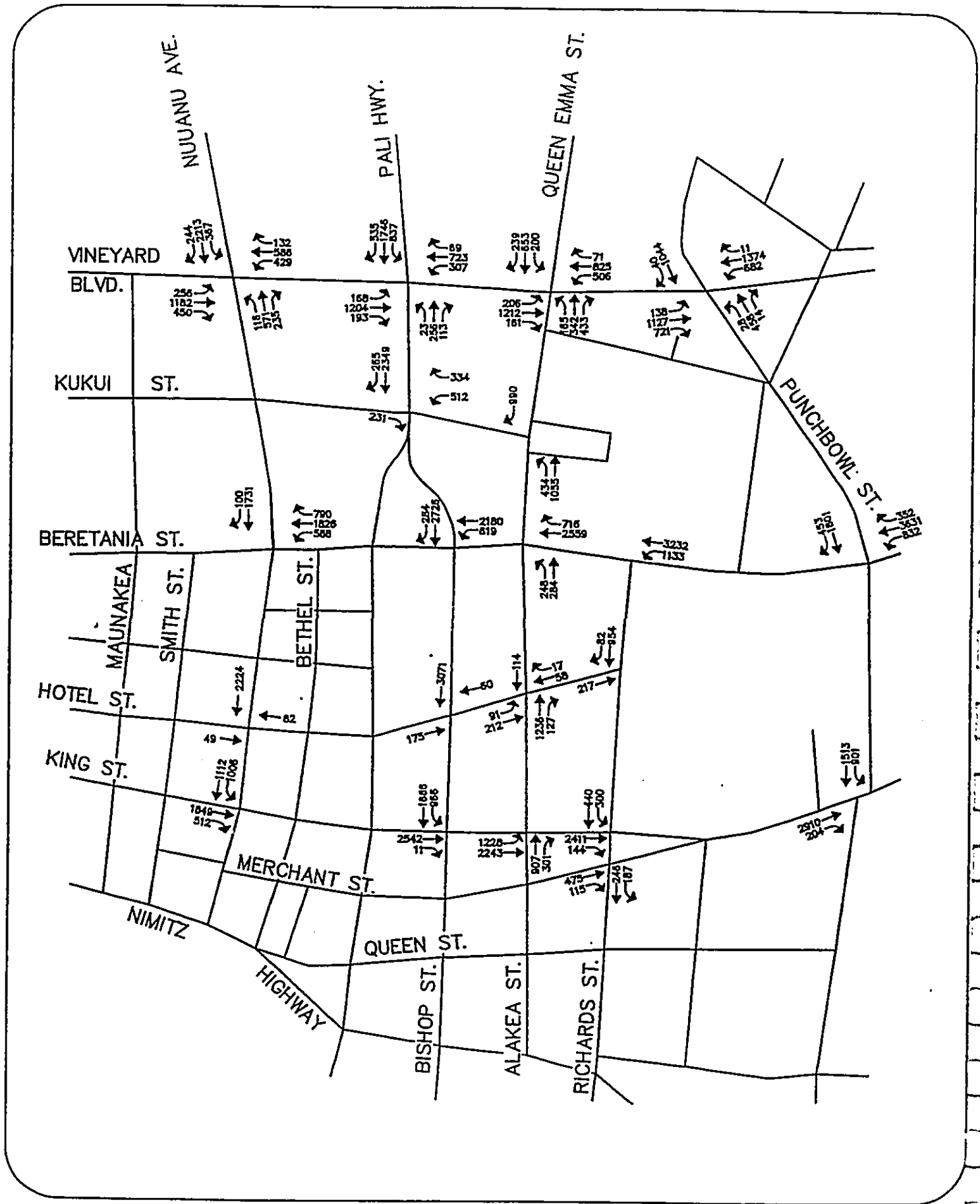
ALAKEA-RICHARDS OFFICE BUILDING



FIGURE

24

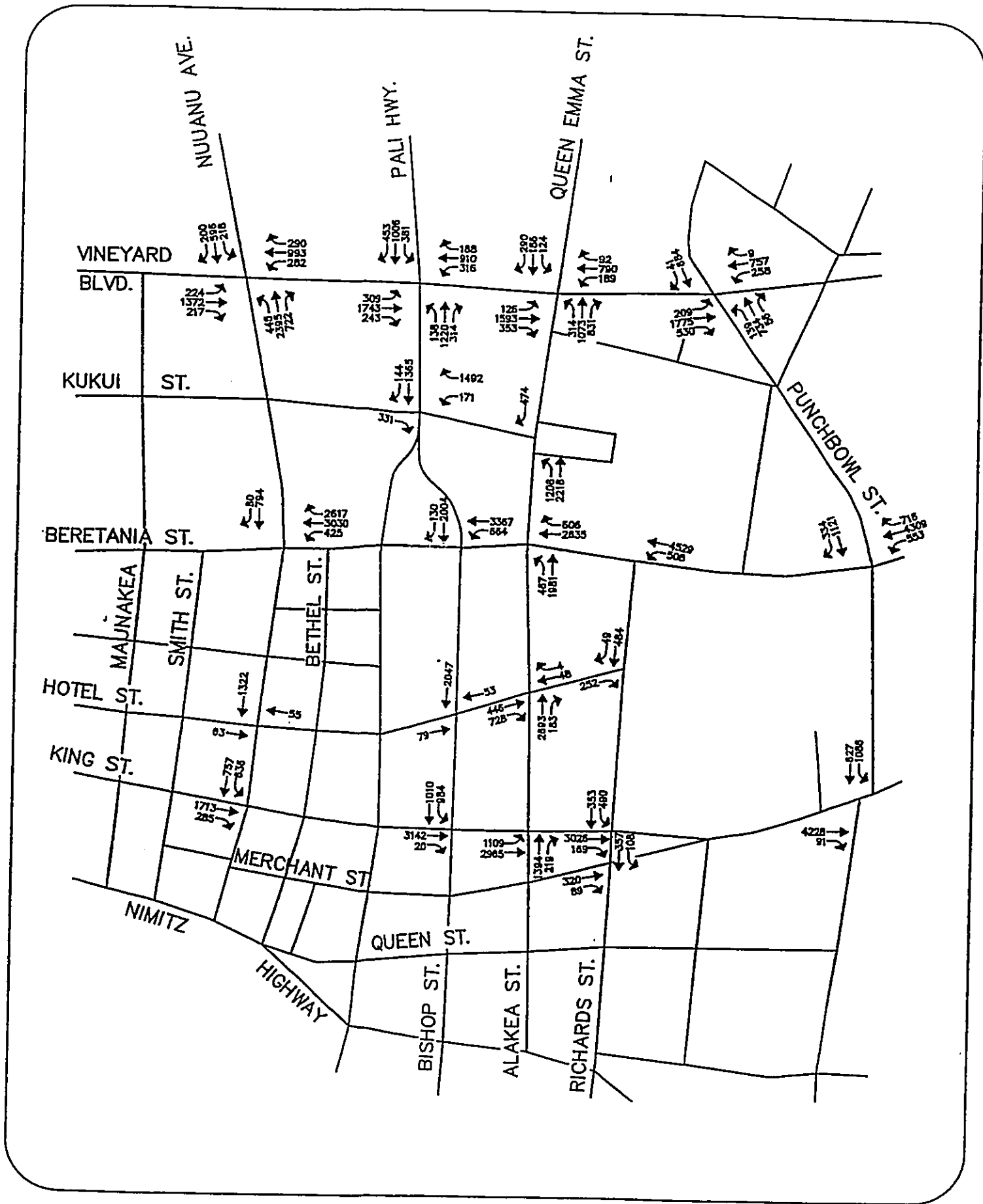




1993 CUMULATIVE + PROJECT AM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC. 10-27c  
 ALAKEA-RICHARDS OFFICE BUILDING



FIGURE  
 25



1993 CUMULATIVE + PROJECT PM PEAK HOUR TRAFFIC VOLUMES

BARTON-ASCHMAN ASSOCIATES, INC. 10-27d

ALAKEA-RICHARDS OFFICE BUILDING



FIGURE

### Definition of Significant Impacts

Criteria for determining if a project has a significant traffic impact which must be mitigated have been established based on traffic impact study guidelines used in various other cities, as Honolulu has not yet established their own. Generally, these criteria are that if the level-of-service without the project is E or F and the volume/capacity (V/C) ratio changes less than 0.030, the project's traffic impacts are considered insignificant. However, if the V/C ratio change is greater than 0.030, then mitigation measures which will reduce the V/C ratio change to less than 0.030 must be identified. For this project, the 0.030 criterion has been used. If the level-of-service with the project is D or better, then no mitigation measures need to be identified.

### Project-related Traffic Impacts

The anticipated traffic impacts are summarized in Table 23. Six (6) intersections require mitigation. These intersections are:

- Vineyard Boulevard at Nuuanu Avenue (No. 1)
- Vineyard Boulevard at Pali Highway (No.2)
- Vineyard Boulevard at Queen Emma Street (No. 3)
- Beretania Street at Richards Street (No. 10)
- Hotel Street at Richards Street (No. 15)
- King Street at Nuuanu Avenue (No. 16)

TABLE 23

## LEVEL OF SERVICE ANALYSIS FOR 1993 CONDITIONS

INTERSECTION	WITHOUT PROJECT				WITH PROJECT			
	AM		PM		AM		PM	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
1. Vineyard at Nuuanu	2.075	F	3.065	F	2.081	F	3.147	F
2. Vineyard at Pali	1.576	F	3.977	F	1.626	F	4.014	F
3. Vineyard at Queen Emma	1.942	F	1.901	F	2.000	F	1.903	F
4. Vineyard at Punchbowl	1.433	F	1.282	F	1.437	F	1.282	F
5. Kukui at Pali	0.932	E	0.487	A	0.942	E	0.499	A
6. Kukui at Queen Emma	0.328	A	0.863	D	0.329	A	0.871	D
7. Beretania at Nuuanu	1.084	F	1.642	F	1.092	F	1.643	F
8. Beretania at Pali/Bishop	1.058	F	0.990	E	1.067	F	0.993	E
9. Beretania at Queen Emma/Alakea	0.954	E	1.119	F	0.955	E	1.132	F
10. Beretania at Richards	0.915	E	0.816	D	1.018	F	0.816	D
11. Beretania at Punchbowl	1.390	F	1.341	F	1.419	F	1.346	F
12. Hotel at Nuuanu	0.899	D	0.557	A	0.910	E	0.559	A
13. Hotel at Bishop	0.652	B	0.413	A	0.661	B	0.414	A
14. Hotel at Alakea	0.470	A	1.443	F	0.472	A	1.455	F
15. Hotel at Richards	0.892	D	0.642	B	0.980	E	0.658	B
16. King at Nuuanu	1.395	F	1.010	F	1.427	F	1.015	F
17. King at Bishop	0.968	E	0.984	E	0.979	E	0.989	E
18. King at Alakea	0.765	C	0.951	E	0.817	D	0.953	E
19. King at Richards	0.634	B	0.745	C	0.639	B	0.784	C
20. King at Punchbowl	0.849	D	1.068	F	0.850	D	1.079	F
21. Merchant at Richards	0.363	A	0.234	A	0.363	A	0.251	A

Access/Egress Impacts

The above analysis assumes that the upper and lower parking levels would be interconnected, and traffic would approach the site along the most direct route. The final access and egress plan for the structure, however, would have 650 vehicles accessing the site via

Alakea Street, and 350 via Richards Street. Finalization of this plan allowed a more precise determination of impacts to intersections surrounding the site (see Addendum to Appendix F). Two additional intersections would require mitigation measures as follows:

- Beretania Street at Alakea Street (No. 9)
- King Street at Alakea Street (No. 18)

#### Mitigation Measures

Recommended mitigation measures are discussed in the following paragraphs.

##### Vineyard Boulevard at Nuuanu Avenue

Separate northbound and southbound left-turn signal phasing should be installed to mitigate the impacts of the related projects and the project under study. However, the improvement would not provide a level-of-service D or better. The level-of-service would still be F, which is undesirable.

##### Vineyard Boulevard at Pali Highway

To mitigate the project's impacts, protected-permissive left-turn phasing should be provided on the north and south approaches and an additional southbound left-turn lane should be installed.

However, it should be noted that the unacceptable level-of-service is the result of background traffic growth. The project's traffic represents only 2 per cent of the growth from existing to cumulative-plus-project conditions. As with the previous intersection, the resulting level-of-service would still be F, but it would be more desirable than conditions without the project and without mitigation.

#### Vineyard Boulevard at Queen Emma Street

The impact of the project-related traffic would be significant during the AM peak hour. Reconfiguration of the lanes to provide separate north and southbound turn lanes and the addition of a separate northbound left-turn phase would mitigate the project's impacts.

#### Beretania Street at Alakea Street

The westbound approach should be restriped to provide an optional through or right-turn lane in addition to the existing right-turn only lane. This will result in an afternoon peak volume-to-capacity ratio of 1.110, which is an improvement from the 1.132 that would occur without the project or any mitigation. There would not be any change in the morning peak hour volume-to-capacity ratio and, therefore, no mitigation is required to accommodate morning peak hour traffic.

Beretania Street at Richards Street

To accommodate the project's impacts, the westbound approach along Beretania should be modified to provide an optional through or left-turn lane in addition to the existing left-turn only lane.

Hotel Street at Richards Street

To accommodate the flow of traffic into the parking garage, a signal should be installed and the intersection reconfigured to provide a separate southbound right-turn lane and two southbound through lanes. This can be accommodated within the existing street width.

King Street at Nuuanu Avenue

At this location, the southbound approach should be modified to provide an optional left-turn or through movement for the middle lane.

King Street at Alakea Street

Retiming of the signals will mitigate the project's afternoon peak hour traffic impacts, however, the level-of-service will be E. No mitigation is required for the morning peak hour traffic.

## 10.08 AIR QUALITY IMPACTS

### Construction

Construction of the project would increase levels of particulate matter and nitrogen oxides ( $\text{NO}_x$ ) and to a lesser extent carbon monoxide (CO), sulfur oxides ( $\text{SO}_x$ ) and hydrocarbons (HC). Particulates are generated primarily during grading and demolishing activities, while nitrogen oxides, sulfur oxides, hydrocarbons, and carbon monoxide are a result of emissions from diesel fuel combustion by construction equipment.

Heavy construction is a source of dust emissions that may have substantial temporary impact on local air quality. Dust emissions vary substantially from day to day depending on the level of activity, the specific operations, and the prevailing weather. Using emission factors of 619 lbs/acre for total suspended particulates (TSP) and 176 lbs/acre for less than 10 micron particulates ( $\text{PM}_{10}$ ), the estimated dust related emissions from construction operations of approximately 1.8 acres are 1,110 pounds of TSP and 317 pounds of  $\text{PM}_{10}$  over the construction period (U.S.EPA, 1988).

In order to quantify construction equipment exhaust emissions, well-defined construction and machinery mobilization schedules are necessary. However, since these items are not yet available,



impacts are evaluated on a unit time basis of one month and an assumed construction machinery composite. An average construction machine composite was assumed to be on site and construction work was assumed to average 8 hours per day, 25 days per month. Monthly emissions are estimated using EPA emission factors and are presented in Table 24 (U.S.EPA,1985).

TABLE 24  
MONTHLY CONSTRUCTION MACHINERY EXHAUST EMISSIONS

EQUIPMENT	NUMBER OF UNITS	EMISSIONS, LBS/MONTH				
		CO	HC	NO <sub>x</sub>	SO <sub>x</sub>	TSP
Motor Grader	1	30	8	11	17	12
Wheeled Bulldozer	1	360	38	833	93	33
Tractor-Loader	2	80	39	331	30	23
Scraper	1	251	56	768	93	81
Wheeled Loader	1	114	50	378	36	34
Forklift	2	270	61	676	57	57
Crane	1	135	30	338	114	114
TOTAL		1,240	282	3,335	440	354

#### Operation

The major air quality impacts from the operational phase of the proposed project would be due to the expected increase in vehicular traffic in the vicinity of the project area. Carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), hydrocarbons (HC), and particulate matter (PM<sub>10</sub>) are products of fossil-fuel combustion and are constituents of vehicular exhaust. Carbon monoxide is selected for modeling because it has a

relatively long half-life in the atmosphere, it comprises the largest fraction of automotive emissions, and it could impact the standards most significantly. Particulate matter emissions are also generated by roadway dust.

EPA's MOBILE 3 emissions model was used to calculate vehicle emission factors for the proposed project. Emission factors for average vehicle speeds of 10 miles per hour and Honolulu's vehicle age distribution were implemented. A CO emission estimate of 65.14 g/mi. was obtained (American Lung Association of Hawaii, 1989).

In accordance with Federal Highway Administration (FHWA) guidelines, the CALINE4 dispersion model was used to assess air quality impacts in the immediate vicinity of the project area for the year 1993. The predictions were based on the worst-case ambient CO concentrations which result from the motor vehicle traffic. The model was run using worst-case meteorology which included a low wind speed (1.0 m/s) and very stable (F) conditions. The wind was varied about the compass at 25 degree increments for a total of 14 wind directions for which concentrations were calculated. The maximum peak hour traffic volume occurred along the Richards Street roadway section between the parking lot exit of the proposed building and the intersection of Richards Street and King Street (see Traffic Report). Six receptors were situated along the maximally impacted roadway section. Two receptors were located on either side of the YWCA, two receptors were located near the intersection of King Street and Richards Street, one receptor was

located in front of Iolani Palace, and one receptor was located near the parking exit of the proposed building. All receptors were located curbside of the roadway section (California Air Resources Board, 1987).

Results of the modeling are given in Table 25. The eight-hour CO impacts were assumed equal to 60 percent of the one-hour impacts (California Department of Transportation, 1988). Maximum project impacts of 695 ug/m<sup>3</sup> and 418 ug/m<sup>3</sup> for 1-hour and 8-hour carbon monoxide averaging periods occurred at the intersection of King Street and Richards Street and in front of the YWCA. Maximum project impacts, along with background and total impacts, are presented. The 1993 project and cumulative plus project PM peak hour traffic volumes at the Nuuanu/Vineyard intersection were used to estimate short-term (1-hour) CO impacts. Ten receptors were situated curbside of the intersection, with five receptors located at the downwind corner of the intersection (California Air Resources Board, 1987).

The intersection modeling analysis and impact assessment provide a conservative estimate of the air impact of the project (i.e., over prediction). Conservative assumptions were applied throughout the modeling analyses to ensure that worst-case concentrations would be predicted. It is likely that concentration levels from the project would be less than predicted by the CALINE4 model. Furthermore, it was assumed that existing background air quality would not change by the year 1993. There is likely to be a decline in CO concentrations through the year 1993. Although the traffic report indicates an

**TABLE 25**

**MAXIMUM CARBON MONOXIDE CONCENTRATIONS  
FOR THE YEAR 1993 ( $\mu\text{g}/\text{m}^3$ )**

Pollutant	Averaging Period	Back-ground	Richards Street Section		Maximum Project Impact Nuuanu/Vineyard		Maximum Cumulative Impact Nuuanu/Vineyard		Maximum Impact Garage		Standards	
			Predicted	Total	Predicted	Total	Predicted	Total	Predicted	Total	Hawaii	Federal
CO	1-hr	13,500	695	14,195	345	13,845	15,600	29,100	1,200	14,700	10,000	40,000
	8-hr	4,700	418	5,118	207	4,907	9,360	14,060	720	5,420	5,000	10,000

overall increase in local traffic, the decline in CO concentration is due to federal emission standards for newly manufactured vehicles and the mandated availability of cleaner burning fuels.

The potential air quality impact due to the idling vehicle emissions on the parking floors was analyzed and the results depicted in Table 25. Basement 2 was chosen as the worst-case parking floor because it has the most stalls (181) and is enclosed. Using a "box model" (1975 Lecture Notes) and a MOBILE3 emission factor of 146.3 grams/mile (5 mph speeds for all cars, 50 percent filled in one-hour), the maximum garage-related 1-hour CO concentration is estimated to be 1,200 ug/m<sup>3</sup>. Using the assumption that the 8-hour CO concentration is 60 percent of the 1-hour CO concentration, a maximum worst-case 8-hour CO garage concentration of 720 ug/m<sup>3</sup> is obtained. Assuming background concentrations of 4,700 ug/m<sup>3</sup> (8-hour) and 13,500 ug/m<sup>3</sup> (1-hour), total garage CO concentrations are found to be 5,420 ug/m<sup>3</sup> for 8-hour and 14,700 ug/m<sup>3</sup> for 1-hour periods. Both the 1-hour and 8-hour predicted CO concentrations exceed the State standards.

Impacts on air quality due to parking ventilation were examined. Ventilation of the parking structure would consist of pulling air in from the Hotel Street side of the building and exhausting the air along the opposite side. Separate vents would exhaust each floor of the parking garage. Two vents would be located on each floor near the building corners at Alakea and Richards. Vent heights would range from 18 to 60 feet in height. The system

avoids pollutant buildup in the parking structure, impacts on pedestrians and impacts on users of neighboring buildings via ventilation intakes.

#### Alternatives

All three of the project alternatives (no action, all parking, and alternative sites) would result in air quality impacts in the vicinity of the proposed site. The "no action" alternative would impact air quality because the state would initiate parking redevelopment of the proposed site if the City of Honolulu refrained from such development. The air impacts associated with any of the alternatives would summarily depend on the number of parking stalls proposed, the size of the development, roadway congestion, and the resulting vehicular traffic in the vicinity. In addition, air quality impacts at an alternative site could be intensified or lessened due to vehicle speeds near the alternative site, existing ambient air quality levels in the area, and the resulting vehicular traffic caused by the alternative site project.

#### Cumulative Impacts

Carbon monoxide (CO) emissions in the vicinity of the proposed project would increase due to traffic generated by the project itself and from other related projects. Related projects are those projects under construction or have been approved for construction by the city that would potentially impact the air

quality in the vicinity. Ten related projects were identified that were either under construction or in the final planning stages.

Results of the cumulative impact modeling are given in Table 25. The eight-hour CO impacts were assumed equal to 60 percent of the one-hour impacts (California Department of Transportation, 1988). A maximum one-hour project impact of 345 ug/m<sup>3</sup> and a maximum one-hour worst-case cumulative project impact of 15,600 ug/m<sup>3</sup> were obtained. Maximum project and cumulative project impacts, along with background and total impacts, are presented. The results show that the 1-hour State standard and both the 8-hour State and Federal standards would be exceeded.

#### Mitigation Measures

Applicable provisions of the State's dust control regulations (Title 11, Department of Health Administrative Rules, Chapter 60, Air Pollution Control, Subsection 5, Fugitive Dust) would be adhered to. To reduce dust during construction, exposed soil surfaces would be watered with water trucks and/or sprinklers as often as necessary. All vehicles leaving the project site would be cleaned to prevent dirt and mud from reaching adjacent streets or, if that is not feasible, roadways would be promptly cleaned. All open-bodied trucks transporting materials likely to give rise to airborne dusts would be covered. Construction equipment would be properly maintained and tuned to minimize exhaust emissions. Equipment idling would be kept to a minimum.

Because the proposed project impacts are significant, measures to reduce emissions are appropriate. CO monitoring inside the garage to obtain actual CO levels is recommended. Most mitigation measures that can be easily incorporated into a project revolve around reducing motor vehicle use by individuals during peak hour traffic flow. Transit amenities and incentives such as increased convenience and attractiveness of transit stops, i.e., telephones, drinking fountains, waiting shelters, etc. could be implemented to partially mitigate peak hour traffic congestion. Another mitigation measure could be the incorporation of alternative work schedules. This would distribute the traffic amounts over a longer period of time, thereby lessening peak hour flow. Bicycle and pedestrian lanes would also partially mitigate the peak hour traffic flows. Actual traffic flow improvements such as the provision of demand-responsive traffic signals with signal splits and phase lengths automatically adjusted to traffic demand on a real time basis, would ease periodic congestion. Development of a vehicle inspection smog check program would reduce vehicle emissions. transportation related management actions such as 1) requiring the developer to reserve a percentage of parking spaces for car/van pool vehicles with discounted rates if a charge is made and 2) employer subsidy to employees using car and van pools, would help to mitigate the impacts.



## 10.09 NOISE AND VIBRATION IMPACTS

### Noise and Vibration Criteria

While a number of noise studies to establish acceptable community noise limits have occurred over the past three decades, the energy equivalent sound level ( $L_{eq}$ ) has become generally accepted by nearly all major federal and state agencies as well as local municipalities throughout the United States.  $L_{eq}$  is the basis for both  $L_{dn}$  and CNEL community noise descriptors. The statistical noise descriptors ( $L_1$  through  $L_{99}$ ) are also used by some agencies and usually are limited to  $L_{10}$  or  $L_{50}$ .

Traffic noise criteria established by the Federal Highway Administration (FHWA, 1982) are used herein to determine project related traffic noise impacts. FHWA Noise Abatement Criteria are given in Table 26. Construction-related noise criteria established by the State of Hawaii, Department of Health (DOH, Chapter 43, 1981) are used herein to determine the project's construction-related noise impacts.

Vibration criteria are also based on numerous studies conducted over the past three decades. While there are many proposed criteria based on the results of the studies, those established by the International Organization for Standardization (ISO, 1976) and the Committee of Hearing, Bioacoustics and Biomechanics (CHABA, 1977) have been used herein. In addition, British

TABLE 26  
CRITERIA FOR NOISE ABATEMENT

ACTIVITY CATEGORY	CRITERIA (dBA) $L_{eq}$	DESCRIPTION OF ACTIVITY CATEGORY
A	57	Lands on which serenity and (Exterior) quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to serve its intended purpose.
B	67	Picnic areas, recreation areas (Exterior) playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72	Developed lands, properties, or (Exterior) activities not included in Categories A or B above.
D	--	Undeveloped lands
E	52	Residences, motels, hotels, (Interior) public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: U.S. Department of Transportation, Federal Highway Administration Federal Aid Program Manual, Volume 7, Chapter 7, Section 3, Procedures for Abatement of Highway Traffic Noise and Construction Noise, Washington D.C., May 14, 1976 (Revised version in Federal Register, Vol. 47, No. 131, p. 29653 Thursday, July 8, 1982)

recommendations for historic buildings have been considered (House 1973). Figure 27 gives the appropriate vibration criteria for sensitive and historic structures.

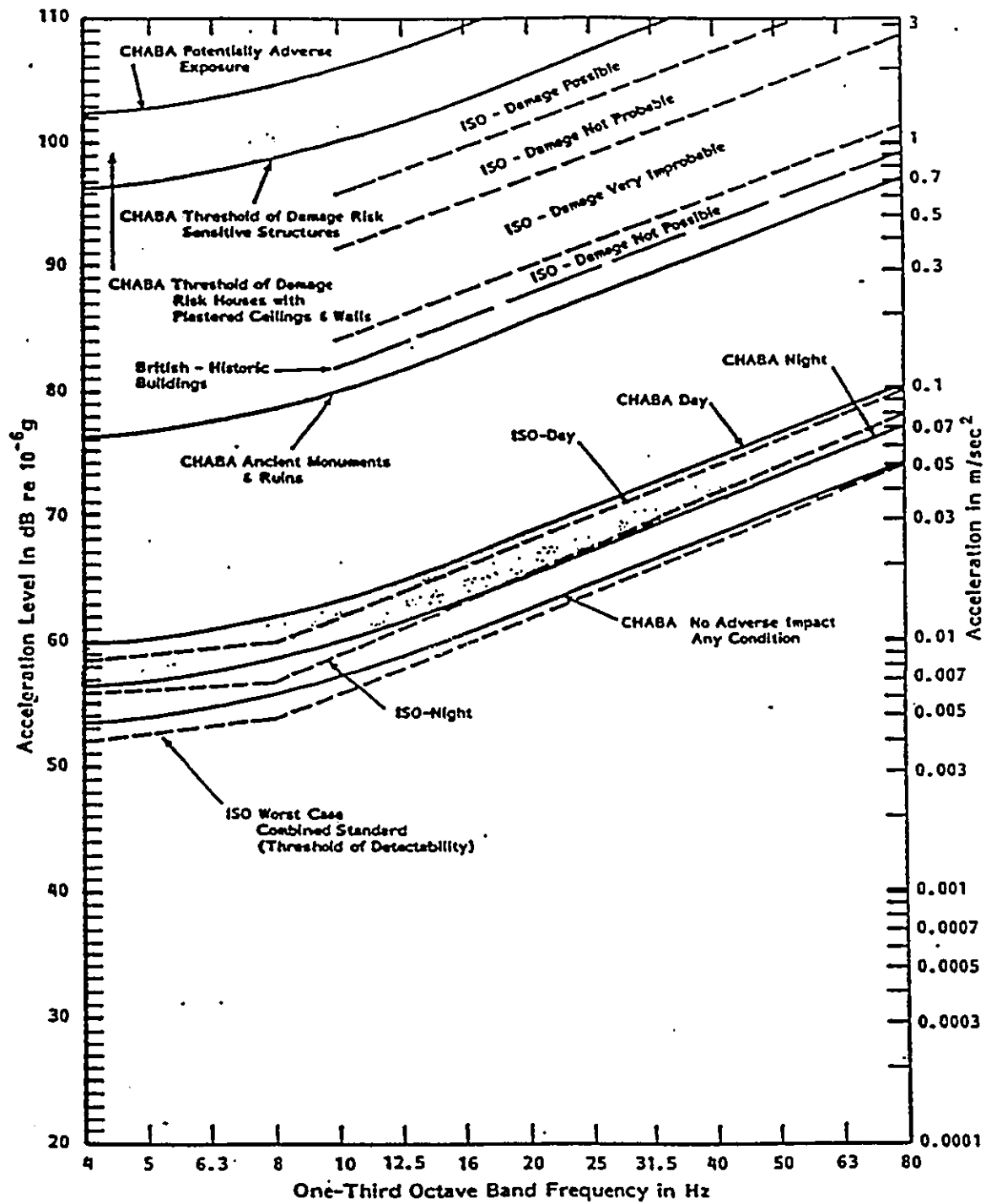


FIGURE 27. COMPARISON OF ISO AND CHABA MAXIMUM RECOMMENDED VIBRATION LEVELS.

## Impacts and Mitigation Measures

### Impact 1 - Demolition, Preparation and Construction

Construction equipment and trucks would generate significant noise during project site demolition, site preparation and construction. Noise levels on-site would depend upon the number and type of equipment used during various phases of the proposed project. Typical noise levels associated with construction equipment as well as the number of units estimated to be present at the site are given in Table 28. The total  $L_{eq}$  at 50 feet for all equipment operating simultaneously in the same location would be as high as 94 dBA, however, this level would not be reached near the project site because equipment would be located in different areas and would not be operating simultaneously. Considering a fifty percent usage factor, which is rather high, a  $L_{eq}$  of 88 dBA at 50 feet would occur if only half of the equipment were operating during the same fifty percent usage time. Eight-hour exposure levels for each piece of equipment are also listed in Table 27. Since there is no operating schedule, these levels were estimated with usage factors from similar construction operations (CERL, 1978).

At the project site, it is expected that construction activity would not take place outside of an 11-hour period between 7 a.m. and 6 p.m., in accordance with the DOH permit requirements. Because there would be minimal nighttime activity, the  $L_{dn}$  from the project could average 3 dBA lower than the daytime  $L_{eq}$ . It

is also expected that the noise generated by project operations would decrease by about 6 dBA with doubling of distance (Harris, 1979) from the project site.

The existing  $L_{eq}$  noise level at the YWCA exterior is 67 dBA. Thus, the construction noise of the proposed site would increase the existing  $L_{eq}$  by 3 to 6 dBA, for a maximum of 73 dBA which would be considered a significant increase. The noise generated by future project operation would be audible, but would not increase noise levels significantly.

#### Construction Noise Mitigation Measures

Construction equipment operating on the site would exceed the allowable noise limits (DOH, Chapter 43, 1981). Thus, a permit would be required from DOH to operate construction equipment, vehicles and power tools which operate in excess of the noise limits. Permitting requirements for construction are as follows:

- o "No permit shall allow construction activities creating excessive noise...before 7:00 a.m. and after 6:00 p.m. of the same day."
- o "No permit shall allow construction activities which emit noise in excess of ninety-five dB(A)...except between 9:00 a.m. and 5:30 p.m. of the same day."

- o "No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on ... [certain] holidays. Activities exceeding ninety-five dB(A) shall [also] be prohibited on Saturdays."

Construction equipment and on-site vehicles or devices requiring an exhaust of gas or air must be equipped with mufflers. In addition, all construction related vehicles traveling upon city streets and roadways must meet the vehicle noise level requirements set by the State (DOH, Chapt. 42, 1981).

Back-up alarms, which are specifically exempted from the DOH noise regulations, are often the cause of significant complaints from nearby office workers and the general public. One measure which could be used to minimize the potential impact on the nearby community by this necessary, but highly audible, safety feature, would be to arrange on-site routing of haul trucks so as to minimize backing operations.

#### Impact 2 - Traffic Noise

The proposed project would generate an insignificant 0.6 dB maximum noise increase due to increased project-related street traffic. The findings are based on the analysis of traffic volumes and speeds with and without the project, described in the Traffic Impact Study (Appendix F). Traffic impact analyses were carried out for existing and projected (year 1993) volumes for Alakea Street, Beretania Street, King Street, Hotel Street and Richards Street.

TABLE 27  
CONSTRUCTION EQUIPMENT NOISE

EQUIPMENT TYPE <sup>1</sup>	SOUND LEVEL @ 50 FEET <sup>2</sup> (dBA)	NUMBER OF PIECES <sup>1</sup>	Leq <sup>2,3</sup> (dBA)	MAX 8-HR EXPOSURE (dBA) <sup>4</sup>
Scraper	87	1	84	101
Grader	85	1	82	99
Dozer	86	1	83	100
Frontend Loader	81	1	78	95
Backhoe	82	1	79	96
compactors	81	2	81	95
Forklifts	81	2	81	95
Dump Trucks	79	3	81	81
Water Truck	79	1	76	81
Crane	78	1	75	92

1 = Estimates

2 = CERL 1978

3 = Noise level with all pieces operating 50% of time.

4 = Estimated Impact on Equipment Operator, 3 feet from engine. Truck operators in closed cab.

Assumptions: a) Machinery not equipped with cabs to shield operators from noise.  
b) All equipment operating within a 400-ft radius.

Leq values at Sites 1 and 2 were calculated for three conditions: existing, 1993 (future) and 1993 (with project). Table 16 summarizes the calculated noise levels.

For the year 1993, project-related traffic would increase the noise levels by a maximum of 0.6 dB, or from 68.6 dBA to 69.2 dBA at Site 1. These are not significant increases, as any change in sound level below 3 dBA is generally inaudible to the human ear. However, the future traffic noise does exceed the FHWA criteria of 67 dBA Leq, with or without the proposed project.

#### Traffic Noise Mitigation Measures

No project-related traffic noise mitigation would be required as project-related noise increases would be less than 1 dB and are considered insignificant.

#### Impact 3 - Operation Noise

Office buildings and garage mechanical and electrical equipment, such as air conditioning system, ventilation system, transformers, and other stationary equipment would be required to meet the allowable noise limits established by state and local regulations. In so doing, these systems would not present an adverse noise impact.



The garage would be enclosed and would thus provide acceptable noise control from typical facility noises, such as screeching tires during turning operations within the garage.

#### Operation Noise Mitigation Measures

The design and planning of the orientation of the office building and parking garage has considered noise mitigation measures relating to the location, orientation and noise control of the air-conditioning system, ventilation system, vehicle entrance and egress, and other potential noise sources, in order to comply with the state and local noise limits (DOH, Chapt. 43, 1981 and City, 1986).

#### Impact 4 - Demolition and Construction Vibrations

The potential for construction-related damage to historic structures adjacent to and nearby the proposed project site are of concern. The resultant building motion caused by vibrations propagating through the soil is a strong function of the type and size of the foundations upon which the building rests, that is, pilings, spread footings or massive concrete mats. In addition, the construction details of the buildings of concern are very important, whether they be masonry walls or framing with plaster on lath or plasterboard.

Numerous studies have been conducted over the past twenty-five years to investigate the levels of vibration associated with the movement and operation of construction vehicles and machinery,

including the driving of load bearing piles. All of the results have shown that for, other than pile driving activities, construction operation related vibrations never reach an intensity necessary to cause building damage in those structures which are safe to be occupied. However, none of the studies were conducted in Hawaii where the soil and "bed rock" differs greatly from that on the mainland. Nonetheless, it is concluded that neither demolition (other than by explosives) nor construction (other than pile driving) will generate vibrations of a building damaging magnitude.

#### Construction Vibration Mitigation Measures

It is recommended that provisions be made to monitor the adjacent YWCA historic structure during the most severe construction activities, such as demolition and excavation, provide vibration monitoring during these worst-case construction periods, and implement means to reduce demolition or construction activities that cause excessive building vibrations, with respect to damage criteria, or due to observations of changes in building flaws. Human perception of vibrations occurs at much lower levels and is not sufficient to warrant cessation of proposed project work.

#### Impact 5 - Traffic Vibrations

No traffic-related vibrations, either current or future (1993) would be of sufficient magnitude to result in direct damage to buildings of any kind of safe construction (Figure 28). The

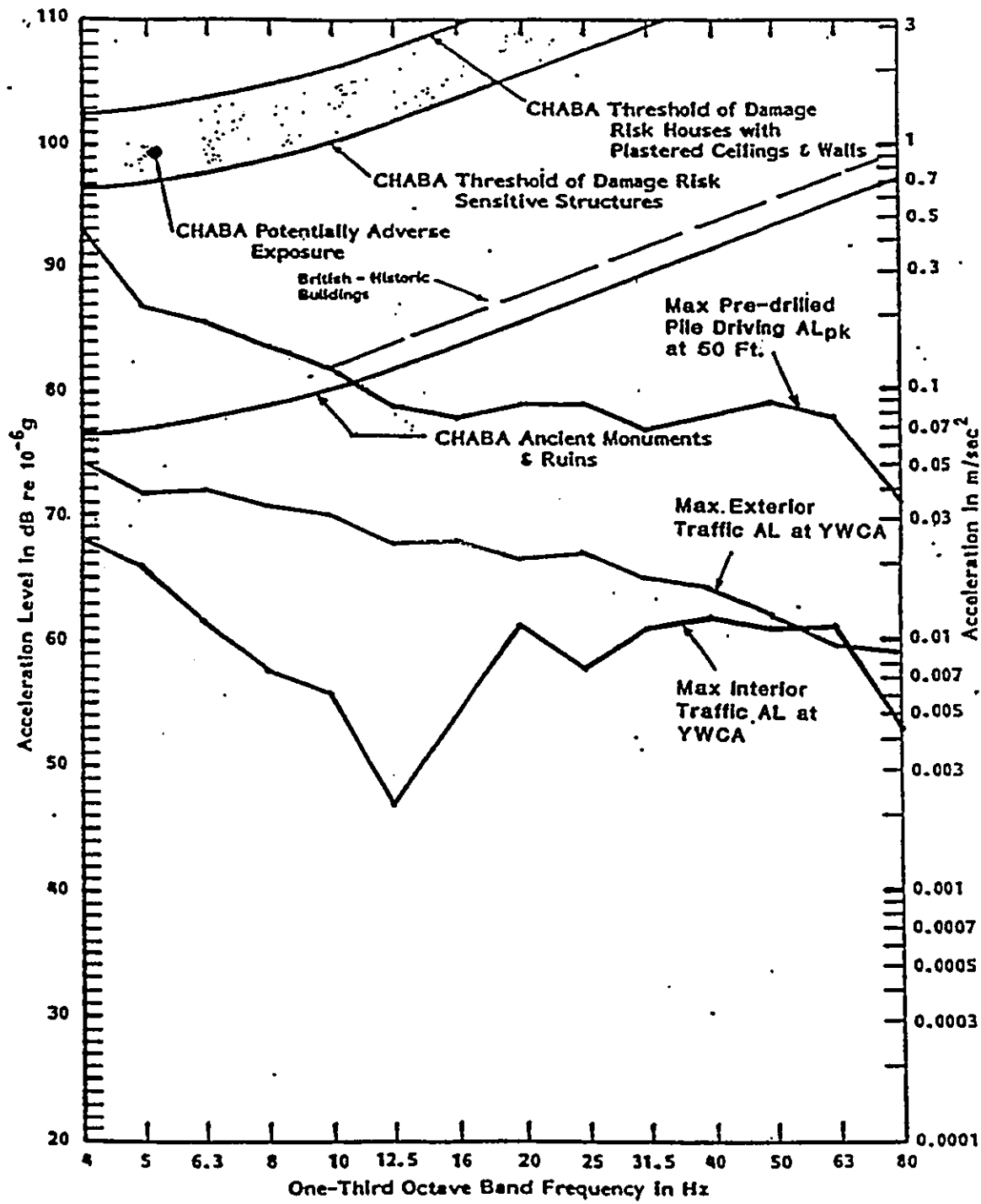


FIGURE 28. MEASURED MAXIMUM VIBRATION LEVELS DUE TO PILE DRIVING AND TRAFFIC.

traffic related vibrations would, however, exceed the CHABA and ISO criteria for detectability by humans. This is not considered to be a significant impact.

#### Traffic Vibration Mitigation Measures

No traffic vibration mitigation measures would be required due to project related traffic increases.

#### Impact 6 - Operations Vibrations

Vibrations due to traffic within a parking structure are known to exceed the threshold of detectability by humans within the same structure. There also exists the strong possibility that these vibrations could propagate into the associated office complex and be of some annoyance to the occupants of the proposed office building.

Vibrations due to mechanical system imbalance and isolation bridging are known to cause annoyance to building occupants and are normally corrected when complaints call attention to such occurrences. These vibrations would not be expected to impact neighboring structures.

No vibration impacts due to project operations would be expected to reach the nearby YWCA or Jury Box office buildings.

### Operations Vibration Mitigation Measures

No operation mitigation measures would be required to control project-related operational vibrations, as the magnitudes of such vibrations would not exceed the building damage threshold. Decoupling of the parking structure from the proposed office building would minimize the propagation of structure-borne noise and vibration into occupied spaces.

#### 10.10 IMPACT ON VIEWS

Character or continuity of a street or view corridor is established by the rhythm of pattern elements and maintenance of visual relationships. Along Richards Street, the Capitol grounds establishes a park-like setting while the opposite side of the street begins to have its character established by the Hawaiian Electric Building, YWCA, and Hemmeter Corporation Headquarters. The existing two-story municipal parking garage, on the project site, is located on the property line and presently disrupts any pattern or character established by the adjacent structures and Iolani Palace. The proposed project would be set back from the property line in order to align with existing structures along Richards Street thereby creating a strong edge. This widening of view corridors along with a four-story height fronting Richards Street, would enhance the character and create continuity along Richards Street. Terracing back eliminates any adverse visual impact that might be caused by the additional height. As can be seen in figures 29, 30, 31 and 32, the Richards Street view corridor would be improved by the proposed project.

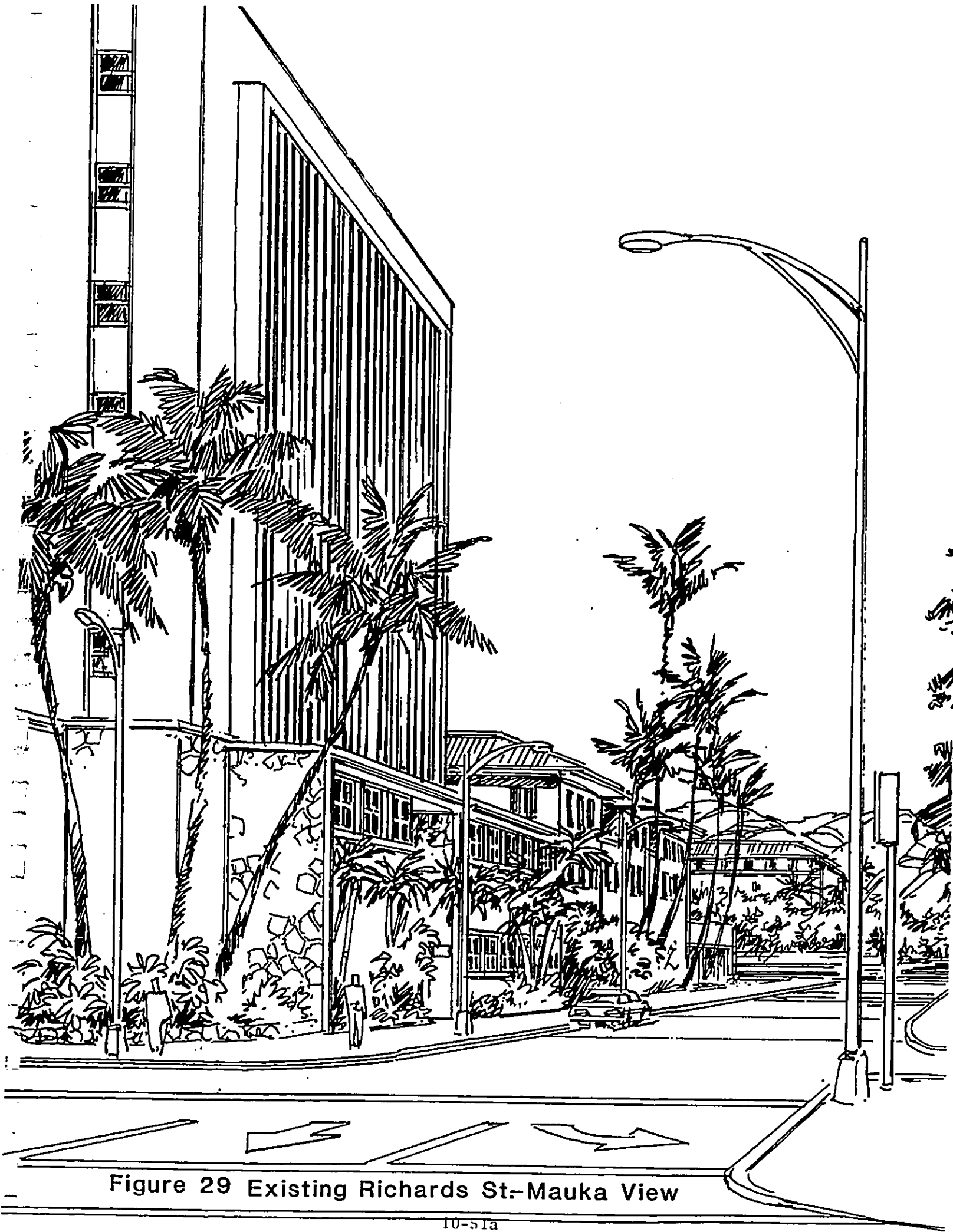


Figure 29 Existing Richards St-Mauka View

10-51a

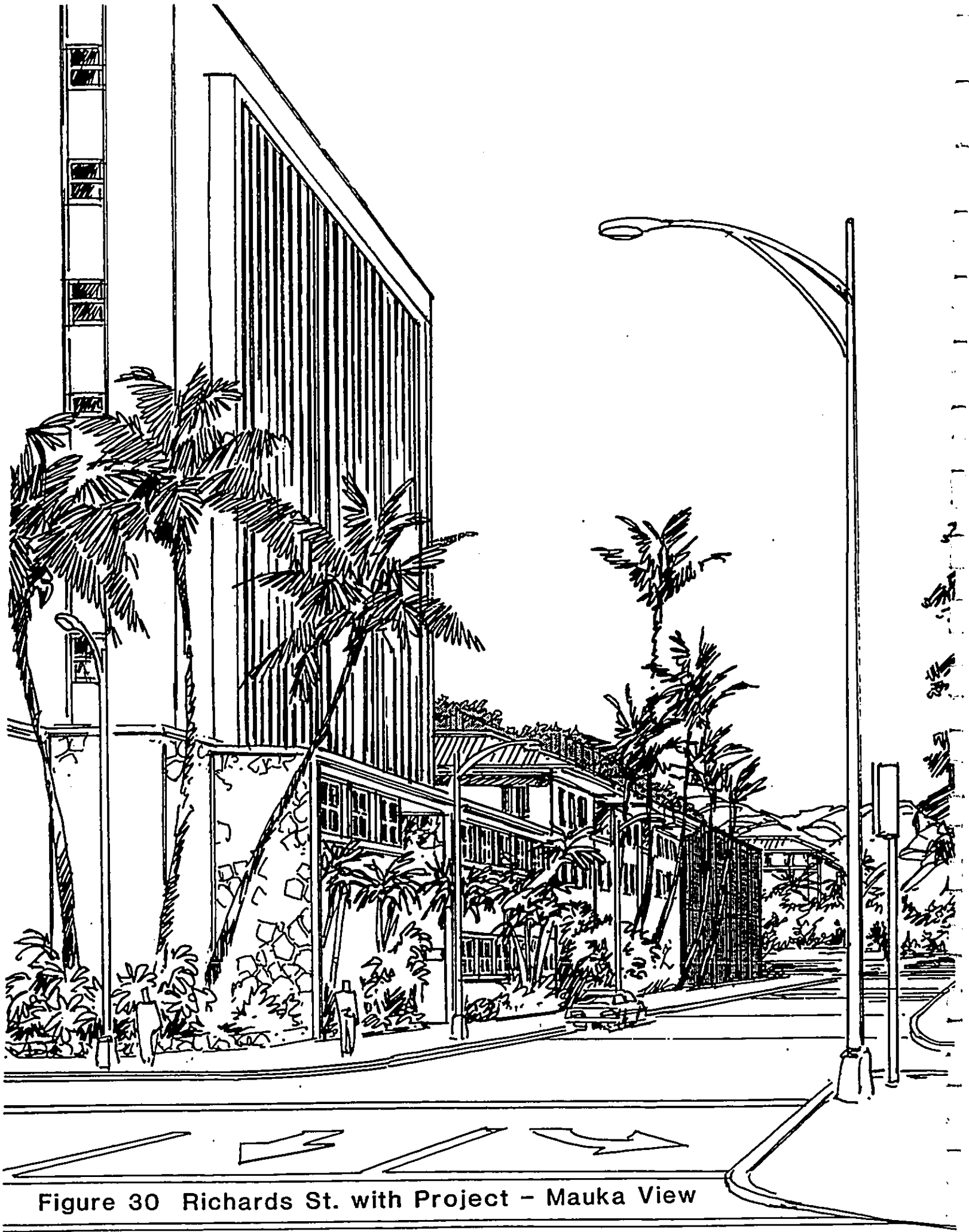


Figure 30 Richards St. with Project - Mauka View

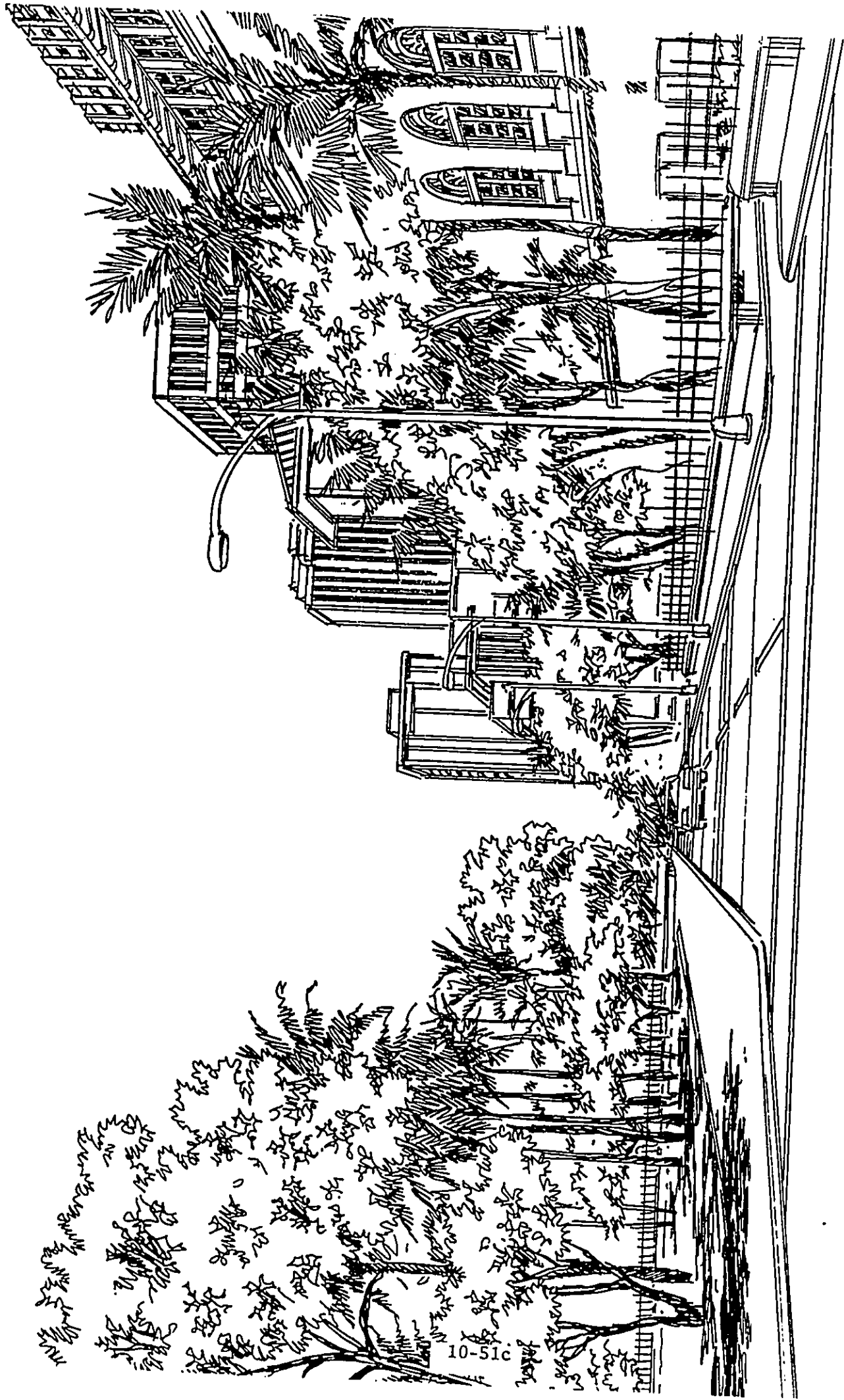


Figure 31 Existing Richards Street Makai View



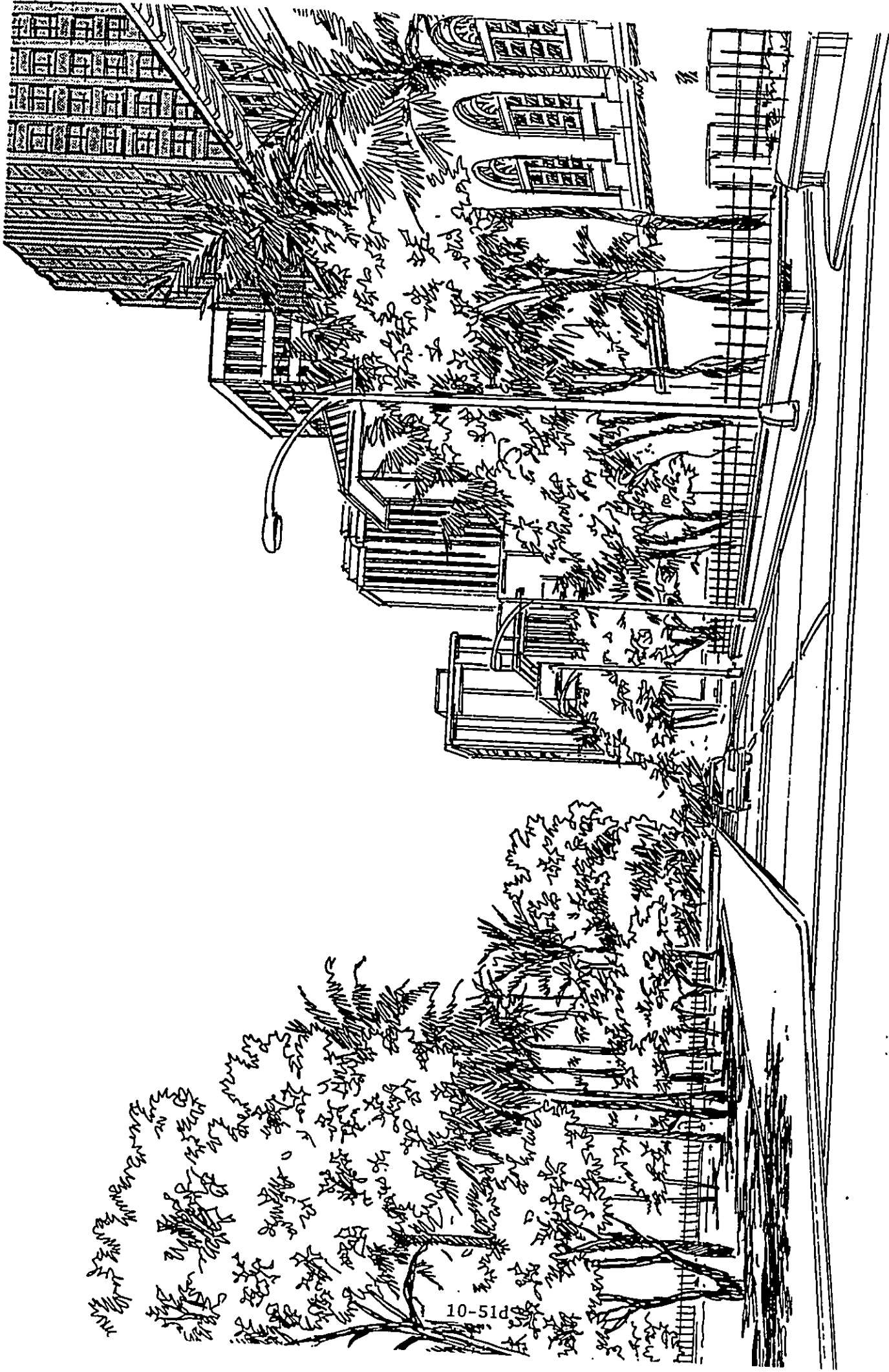


Figure 32 Richards Street with Project Makai View

10-51d

Views from the Capitol grounds are restricted primarily by the tree canopy. The terracing at the lower levels of the proposed project would minimize the effects of its height upon this view. The tower cap would also terrace, reducing its impact upon the skyline. The proposed tower would be set back over 135'-0" from Richards Street which would allow it to fit into the backdrop of the taller high rises in Downtown and create continuity along the Alakea Street commercial corridor (see figures 35 and 36). This setback and terracing would provide a sensitive transition from the Capital District to the downtown commercial district. The visual impact of the proposed project from the Capitol grounds (Hotel Street extension) can be seen in figures 33 and 34.

The Hotel Street view corridor from Downtown towards the Capital District increases in width with closer proximity to the Capitol grounds. The proposed project would be set back from Hotel Street at approximately the same distance from Hotel Street as the existing Municipal Garage. Therefore, the proposed project would have minimal impact upon the Hotel Street view corridor. Existing conditions on the project site, including the maintenance garage, the parking garage and the open space which is poorly maintained, have a negative impact upon the Hotel Street view corridor. The proposed project with its well-manicured lawn and sculptured landscaping would improve this view corridor and provide a transition from downtown to the Capital District.

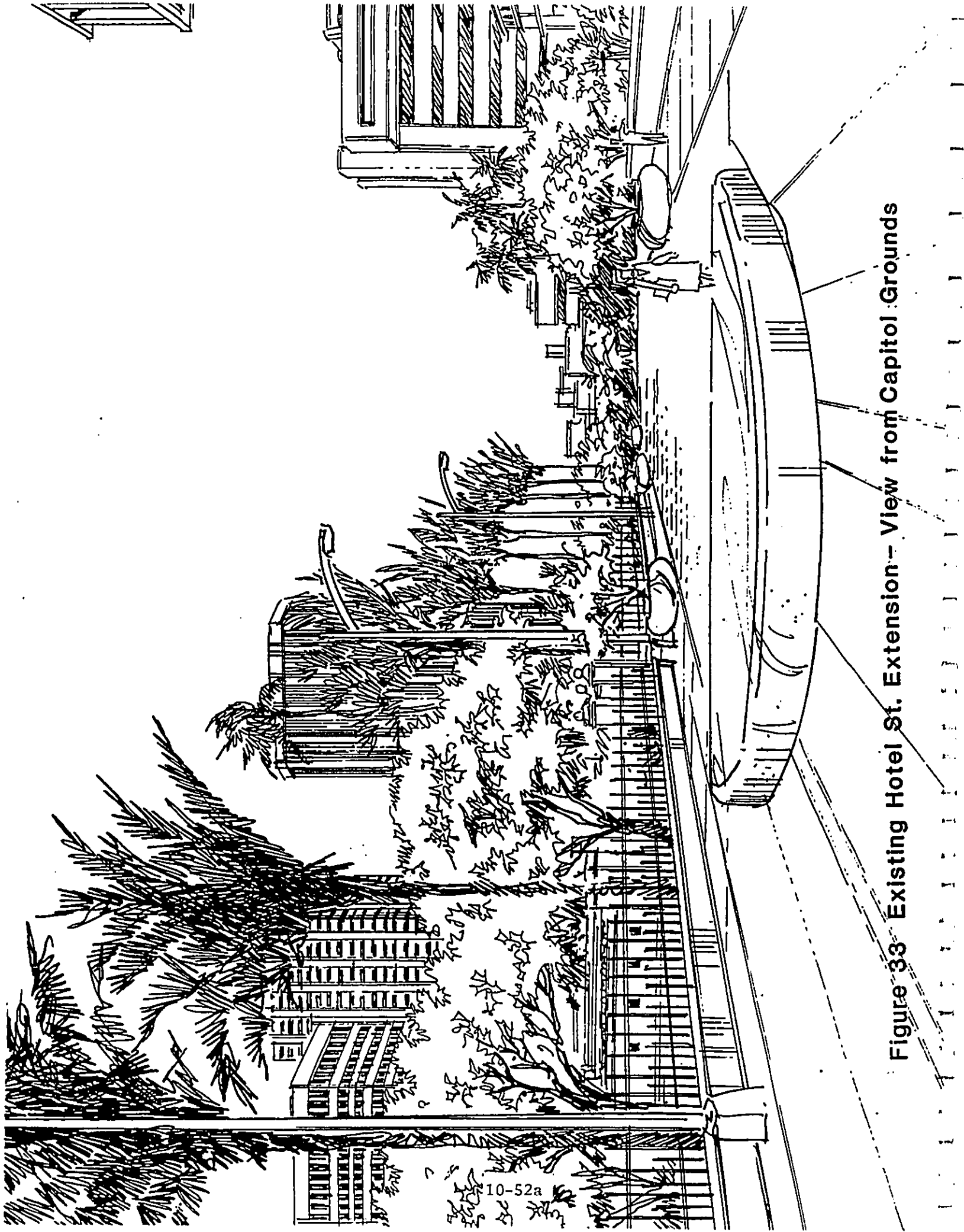


Figure 33 Existing Hotel St. Extension - View from Capitol Grounds

10-52a

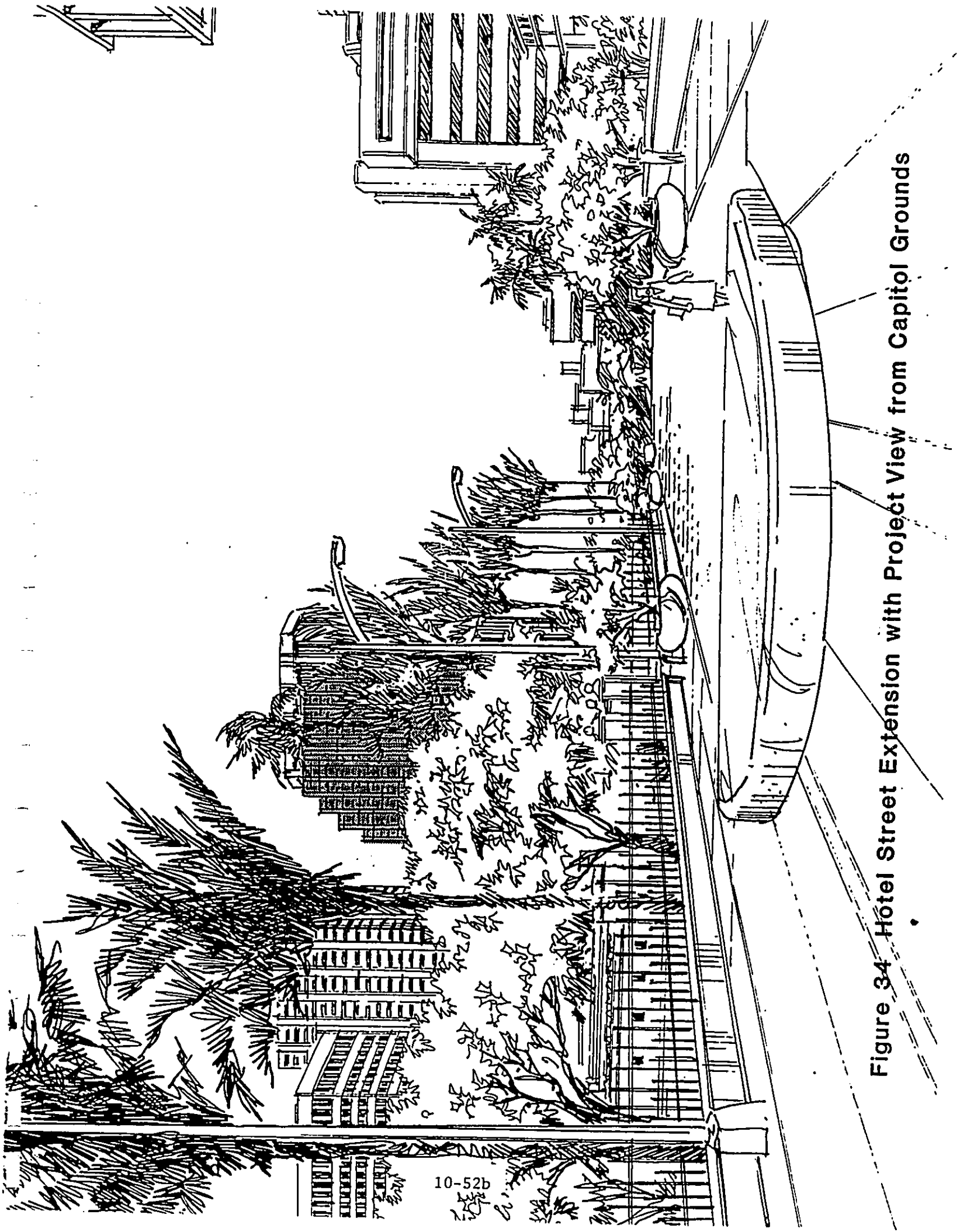


Figure 34 Hotel Street Extension with Project View from Capitol Grounds

10-52b



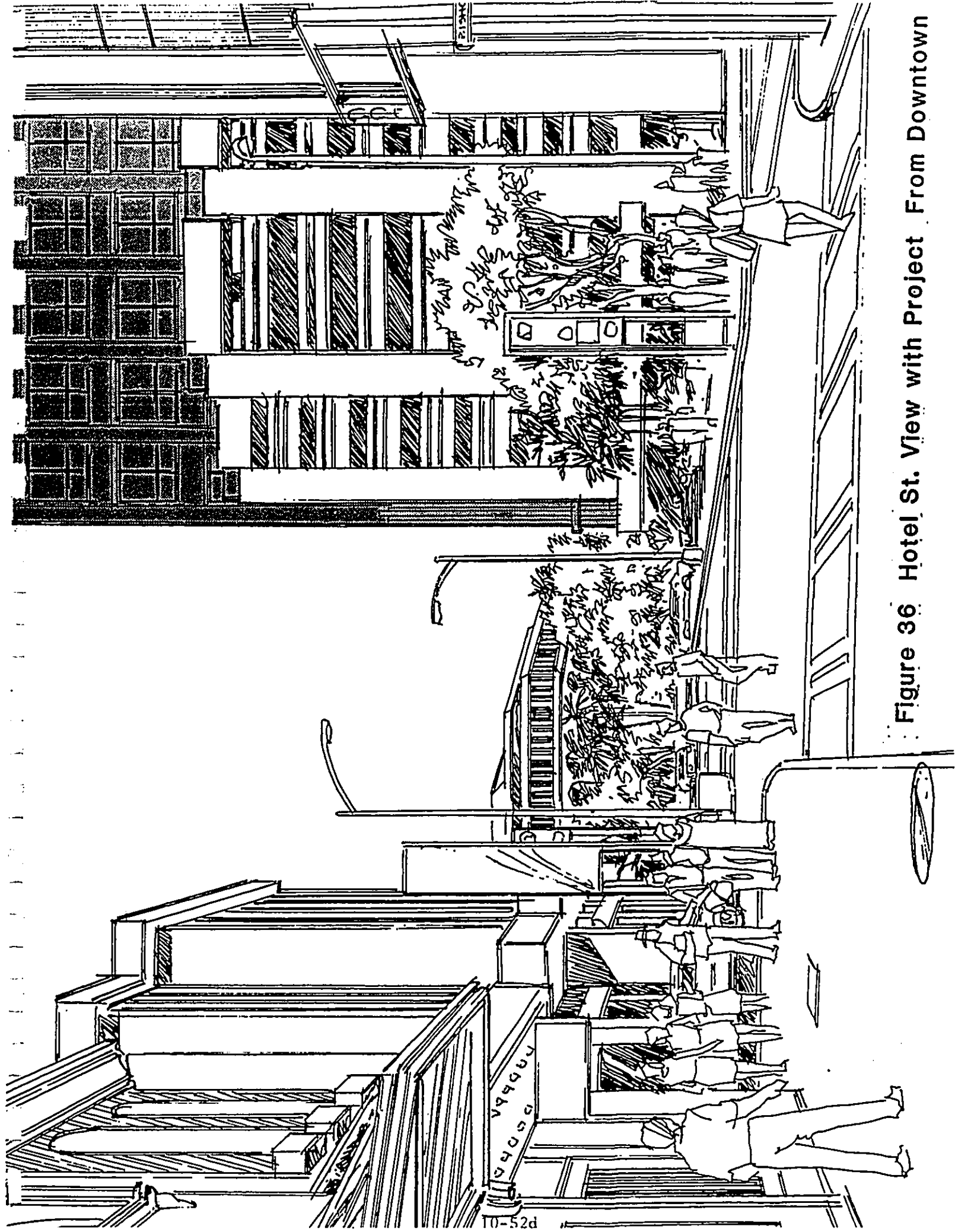


Figure 36 Hotel St. View with Project From Downtown

10-52d

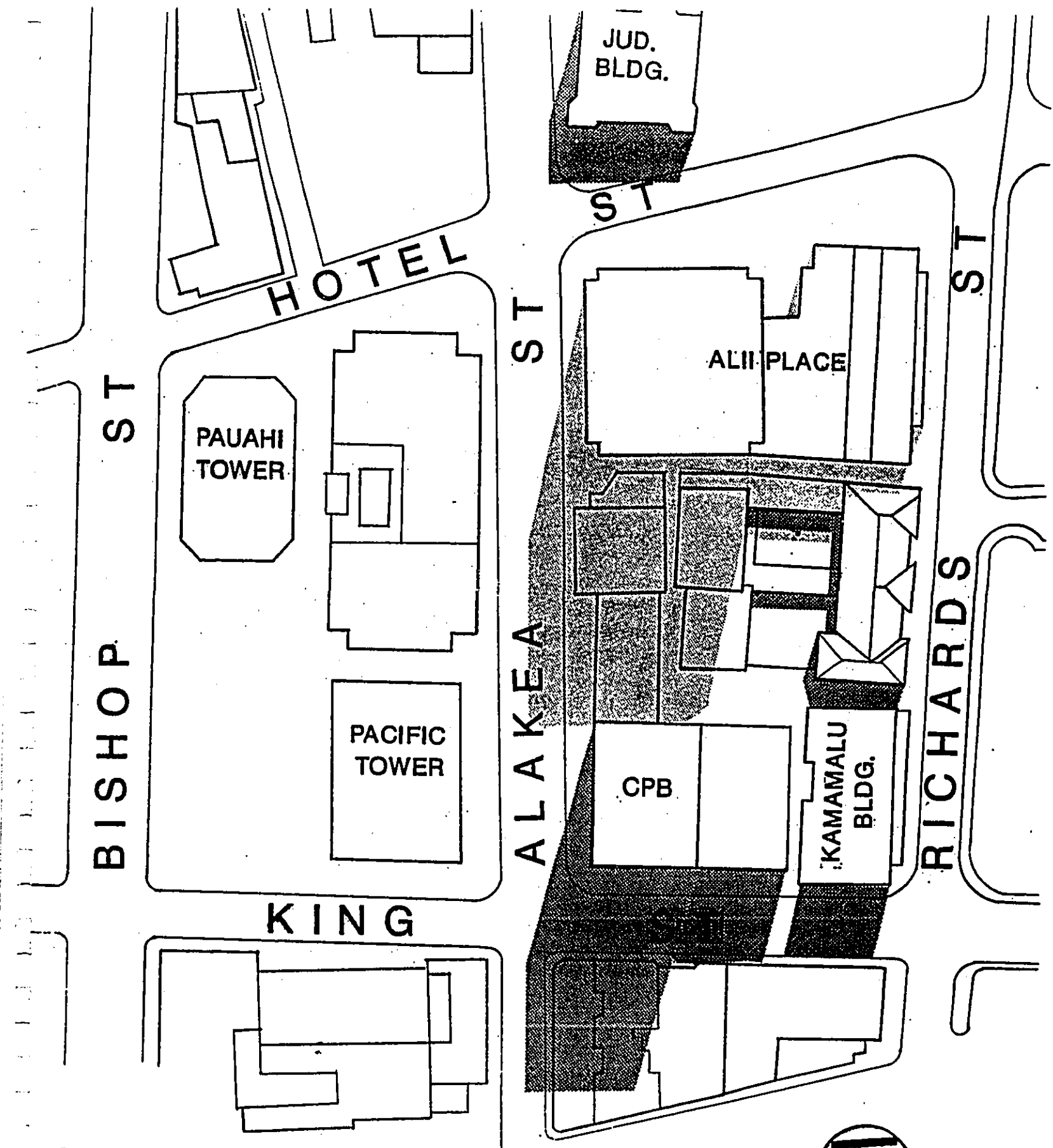
Demolition of existing structures and construction of a first class office building with a well-landscaped plaza would improve the surrounding view corridors. However, views from existing highrises in Downtown, such as Central Pacific Plaza and Pacific Tower, would be altered by construction of the proposed project. Views from windows facing the project in the YWCA and Jury Box buildings would be obstructed.

#### 10.11 SHADOW IMPACT

The project architect, DMJM Hawaii, performed a shadow impact analysis for positions of the sun throughout the year. The analysis indicated that shading impacts on adjacent properties would be minimal due to the location and orientation of the proposed building.

The analysis focused on impacts to the YWCA since properties to the north and east would not be impacted due to the high solar angle and shadows cast by the taller high rises to the west.

The YWCA, to the southwest, would experience minimal shading impact during the months of May, June and July in the first two or three hours of the morning in its pool or courtyard area, but no impacts during the months of August through April. Figure 37 shows the shadow impact during the summer solstice (June 21) at 9:00 a.m. when the sun is at its most northerly position. Due to the low solar angle in the morning, even in summer, pool and courtyard areas will be in the shadow of the YWCA itself. The terracing of the project would almost eliminate any of its



Shadows

-  Alii Place
-  Surrounding Bldgs.

**FIGURE 37**  
**SHADOW DIAGRAM**  
 June 21 9:00am  
 10-532





shadows from being cast beyond the shadows already produced by the YWCA. Some of the upper level YWCA windows facing the project may be shaded on summer mornings, but this may be a positive impact as it reduces the solar heat gain from the sun shining deeply into these rooms.

10-54

**11.0 COMPARISON OF THE IMPACTS OF THE PROPOSED  
ACTION WITH THOSE OF THE ALTERNATIVES**

11.0 COMPARISON OF THE IMPACTS OF THE PROPOSED ACTION  
WITH THOSE OF THE ALTERNATIVES

A description of the preferred action comprises Chapter 05.0. The alternatives are described in Chapter 06.0.

During construction, the preferred alternative could have short-term negative impacts on water quality, access to and use of surrounding areas, traffic, air quality, noise and aesthetics. Even with the various potential mitigation measures, demolition, site preparation and construction do often present an inconvenience to users of surrounding properties. This would not be avoided by any of the alternatives to the proposed action, although in the case of the "alternative sites" alternative, the degree of impact or inconvenience would be site-dependent and therefore could be greater or lesser than at the proposed site. The latter alternative might also have a greater impact on historic sites, depending on the specific location.

The only notable positive impact attributable to construction is economic, arising from employment, lease rents, development royalties, etc. The "alternative sites" alternative would have roughly the same benefits, but the others would each have less benefits, proportional to their scale.

Potential negative impacts associated with operation of the preferred alternative, include increased traffic and reduced air quality. The new office space would generate trips into and out

of the CBD. While mitigation is possible at selected intersections to avoid deterioration of peak hour levels-of-service, undeniably the project would draw traffic into the area. The "reduced scale" alternative would also generate trips, but proportionally fewer. Development at an alternative site would generate the same number of trips, but different intersections would be affected. The "all-parking" alternatives would have the least impact to traffic because they would lack the office space which generates new trips. Their impacts to traffic would result from a redistribution of existing trips, but also, to the extent that there is a net increase in parking downtown, would allow more traffic downtown.

Full occupancy of the preferred alternative would result in maximal economic benefits. These would be approximately matched by development at an alternative site but would be less under the "reduced scale" alternative, and still less for the "all-parking" alternatives. The social and land use benefits of maximal development would be lost in any of the other alternatives, and there might well be lesser benefits in the areas of enhancement of biological habitat, compatibility with surrounding properties and improvement of aesthetic quality of the site, depending on the specific alternative design proposed.

All three of the project alternatives (no action, all parking, and alternative sites) would result in air quality impacts in the vicinity of the proposed site. The "no action" alternative would impact air quality because the state would initiate parking redevelopment of the proposed site if the City of Honolulu

refrained from such development. The air impacts associated with any of the alternatives would summarily depend on the number of parking stalls proposed, the size of the development, roadway congestion, and the resulting vehicular traffic in the vicinity. In addition, air quality impacts at an alternative site could be intensified or lessened due to vehicle speeds near the alternative site, existing ambient air quality levels in the area, and the resulting vehicular traffic caused by the alternatives site project.

**12.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM  
USES OF HUMANITY'S ENVIRONMENT AND  
THE MAINTENANCE AND ENHANCEMENT  
OF LONG-TERM PRODUCTIVITY**

12.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF HUMANITY'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Present uses of the site are public parking, maintenance and storage of three-wheeled police vehicles and open space. Redevelopment would bring the site into conformance with the preferred land use pattern and enhance the property's long-term productivity. Public parking use would be maintained. The police vehicle facility would be relocated to a more appropriate site outside the CBD, and the quality of the open space would be significantly improved. In addition, economic productivity would be increased by the employment opportunities created.

Because the site has been previously developed, the proposed action does not permanently foreclose any existing options for use of the site. While the proposed action represents a sizable commitment of resources, any such structure has a finite life span, and should needs and priorities of the community change, the site could some day be put to different uses.

**13.0 IRREVERSIBLE AND IRRETRIEVABLE  
COMMITMENTS OF RESOURCES**



13.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Should the proposed action be implemented, several types of resources would be committed to use. Redevelopment of the land would represent the use of one resource. This would not, however, become an irreversible commitment.

The commitment of materials, energy and labor are other resources. Some of the building materials could be recycled if necessary at some future date, but others could not, thus becoming an irretrievable commitment. Labor involved to plan, construct and operate the project would be an irretrievable and irreversible commitment of a resource but would be compensated with wages.

The project site, being a part of the Hawaii Capital Special District, represents a valued public resource. Rather than loss or degradation of the resource, redevelopment of the site would both respect the setting and improve the aesthetic character of the neighborhood.

**14.0 UNAVOIDABLE IMPACTS**

#### 14.0 UNAVOIDABLE IMPACTS

The purpose of this section is to address all probable adverse environmental effects which cannot be avoided, discuss the rationale for proceeding and indicate what other interests and considerations of governmental policies are thought to offset the effects.

##### Construction Phase

Construction would have short-term adverse impacts in several areas. Construction machinery and operations would cause noise and vibration as well as dust and localized vehicle emissions. On-site parking would be unavailable during construction, and there may be occasional traffic blockages in adjacent lanes during unloading operations. Users of nearby properties may be inconvenienced by these circumstances, and there may be a consequent short-term loss of business.

Construction impacts cannot be avoided but are controlled by the permitting system. Noise-related impacts and traffic diversions would be allowed by special permit for specified periods of time.

In the construction phase, approximately five feet of the approximately ten feet wide right-of-way easement to Alakea Street running in favor of the adjoining YWCA would be unavailable for YWCA use. On the Richards Street side of the property bordering the YWCA, revocation of a portion of the YWCA's month-to-month lease would eliminate one of two van parking spaces and reduce or require reconfiguration of the existing tot lot. This would be a long-term impact, continuing into the operational phase.

#### Operational Phase

Once the project is completed and operational, the associated traffic would impact the surrounding roadway network, with impacts judged significant at eight intersections.

Mitigation measures would relieve the impacts of this project on these intersections, but the gradual rise in background traffic caused by an increasing population base, other developments in the downtown area and an already crowded roadway network will combine to exacerbate traffic problems. Projected, and in most cases existing, levels-of-service, are poor-in most cases E or F. With delays near maximal levels, additional traffic may act to lengthen the periods of peak traffic flow.

Worst case background air quality (CO levels) downtown are very near (8-hr) or exceed (1-hr) the Hawaii standards. Addition of even a relatively small increment results in projections of future exceedences of both 1-hr and 8-hr Hawaii CO standards. This would be the case for this project, both on adjacent roadways and in the parking garage. Cumulatively, this project along with all the others planned for downtown in the next 3-5 years would elevate CO levels such that at the most impacted intersection (Nuuanu/Vineyard) the 8-hour federal standard would be exceeded in 1993.

Views from windows facing the site from the two adjacent buildings would be obstructed.

There would be a greater demand on some public services and utilities in the downtown area.

**15.0 SUMMARY OF UNRESOLVED ISSUES**

15.0 SUMMARY OF UNRESOLVED ISSUES

A summary of unresolved issues and the means to resolve them prior to initiation of the proposed action or discussion of overriding reasons for proceeding without resolution are presented in this section.

In the absence of due diligence by the City and its chosen developer, BetaWest Properties, Inc., the State would pursue its condemnation of the site to redevelop it into an all-parking facility.

For many years, the site was used for automobile repair and maintenance as well as parking. Disposal of fuels and lubricants onto the ground may have caused soil contamination. The developer is currently performing a study to determine if this is the case and if so, its extent. Results of the study will guide soil disposal operations.

It is as yet unresolved whether or not the Hotel Street bus stop would require relocation during construction.

The federal government is currently reviewing a pre-draft environmental impact statement for the City's proposed light rail rapid transit system. It has yet to be shown that such a system

is environmentally or economically acceptable. At this point, the concept has not been officially approved, funding has not been secured, route selection has not been finalized, and no permits have been issued. For these reasons, its cumulative impacts are too ambiguous to be analyzed in this EIS. The types of environmental impacts which the subject redevelopment and a rapid transit system would have in common potentially included alterations in air quality, noise and vibration and traffic. Implementation of a rapid transit system would presumably decrease downtown traffic and therefore decrease automobile exhaust emissions and noise. The net effect would be to mitigate to some extent the impacts of the redevelopment, and therefore, the analysis in this document is a conservative "worst case."

The City's agreement with the developer requires that provision be made in the design of the building to potentially accommodate a transit station by installing removable exterior wall panels in the second floor.



**APPENDIX A**

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**APPENDIX B**

**Consultation And Review**

B. CONSULTATION AND REVIEW

1. AGENCIES, ORGANIZATIONS AND INDIVIDUALS RESPONDING TO THE  
EIS PREPARATION NOTICE

(See Appendix I for Reproductions of Comments and Responses)

AGENCIES CONSULTED IN PREPARATION OF THE EIS

<u>Federal</u>	<u>Comments Received</u>
U.S. Army Corps of Engineers	7/21/89
U.S. Department of the Interior - Fish and Wildlife Service	7/07/89
U.S. Department of Agriculture - Soil Conservation Service	7/13/89
U.S. Department of Housing and Urban Development Federal Highway Administration	7/26/89
<u>State of Hawaii</u>	
Department of Health	7/17/89
Department of Land and Natural Resources	7/26/89
Department of Business and Economic Development	7/19/89
Office of State Planning	
Department of Transportation, Division of Highways	7/31/89
Environmental Center, University of Hawaii	
Office of Environmental Quality Control	
Department of Agriculture	
Land Use Commission	7/10/89
Department of Accounting and General Services	7/19/89
<u>City and County of Honolulu</u>	
Board of Water Supply	8/09/89
Department of General Planning	7/26/89
Department of Land Utilization	7/21/89
Department of Public Works	
Department of Transportation Services	
Building Department	7/18/89
Department of Parks and Recreation	8/21/89
Fire Department	7/14/89
Police Department	7/24/89
Department of Finance	

Others

Hawaiian Electric Company	8/04/89
Hawaiian Telephone Company	
GASCO, Inc.	
American Lung Association	7/12/89
Downtown Improvement Association	7/20/89
Downtown Neighborhood Board No. 13	
Downtown Business Council	7/28/89
American Institute of Architects	7/12/89
Historic Hawaii'i Foundation	



2. AGENCIES, ORGANIZATIONS AND INDIVIDUALS COMMENTING ON THE DEIS

(See Appendix I for Reproductions of Comments and Responses)

<u>Federal</u>	<u>Date of Letter</u>
U.S. Coast Guard	10/11/89
Department of the Navy	10/12/89
U.S. Department of the Interior - Fish and Wildlife Service	10/16/89
Department of the Army	10/17/89
U.S. Department of Housing and Urban Development	10/24/89
U.S. Department of Agriculture - Soil Conservation Service	11/06/89
<u>State of Hawaii</u>	
Department of Defense	10/13/89
Department of Accounting and General Services - Division of Public Works	11/06/89
Department of Health	11/09/89
Department of Business and Economic Development	11/13/89
Department of Agriculture	11/14/89
Housing Finance and Development Corporation	11/14/89
Environmental Center, University of Hawaii	11/21/89
<u>City and County of Honolulu</u>	
Department of Public Works	10/23/89
Board of Water Supply	10/24/89
Department of Parks and Recreation	10/31/89
Department of Transportation Services	10/31/89
Department of General Planning	11/09/89
Department of Land Utilization	11/13/89
<u>Others</u>	
Downtown Improvement Association	10/16/89
Hawaiian Electric Company	10/31/89
Historic Hawaii Foundation	11/06/89
Bertell Davis	11/13/89
Downtown Neighborhood Board No. 13	11/19/89
League of Women Voters of Honolulu	11/20/89
Conservation Council for Hawaii	11/21/89
American Lung Association of Hawaii	11/21/89
YWCA	11/29/89*
Hawaii Society, The American Institute of Architects	11/30/89*

\* received after 11/21/89 deadline

**APPENDIX C**

**Persons, Firms or Agencies**

**Preparing This Statement**

C. PERSONS, FIRMS OR AGENCIES PREPARING THIS STATEMENT

PARSONS HAWAII

1. George J. Krasnick

Educational Background: Master of Science, Biological Oceanography.

Professional Experience: Over sixteen years experience in project management and technical production of environmental assessments and impact analyses.

Responsibilities: Coordinated efforts with subconsultants on technical environmental support studies; prepared the overall EIS document.

2. Rory Frampton

Educational Background: Master's Degree Candidate, Urban and Regional Planning.

Professional Experience: Over four years experience in the field of Environmental Planning.

Responsibilities: Preparation of the EIS document.

3. Joseph D'Aquila

Educational Background: Bachelor of Science, Mechanical Engineering.

Professional Experience: Over seventeen years mechanical engineering experience involving design of mechanical systems and utilities for a wide variety of projects.

Responsibilities: Assessment of public utilities and infrastructure.

COMMUNITY RESOURCES, INC.

1. John M. Knox

Educational Background: Ph.D. Psychology.

Professional Experience: Over eight years experience in community dialogue and social impact assessment.

Responsibilities: Assessment of impacts of the proposed project to surrounding communities and land uses.

2. John T. Kirkpatrick

Educational Background: Ph.D., Anthropology

Professional Experience: Over 12 years experience teaching and doing research in the areas of sociocultural anthropology, ethnographic studies of ethnic relations and attitudes and social impact assessment.

Responsibilities: Socioeconomic impact assessment.

3. Paula A. Yanagisako

Educational Background: B.A., American Studies

Professional Experience: Three years social research, community dialogue programs, social impact assessment and public opinion research.

Responsibilities: Conducted community interviews.

CULTURAL SURVEYS HAWAII

1. Hallett H. Hammatt

Educational Background: Ph.D., Archaeology

Professional Experience: Twenty-three years experience in archaeology, ten years in Hawaiian archaeology, directed and completed approximately 275 archaeological projects in Hawaii.

Responsibilities: Historical and archaeological assessment

2. Douglas Borthwick

Educational Background: Bachelor of Arts, Archaeology

Professional Experience: Ten years experience in Hawaiian archaeology including work on all major islands. Experienced in site surveys, artifact analysis and historical research.

Responsibilities: Historical research

**ENGINEERING--SCIENCE**

1. **Marlund Hale**

Educational Background: Ph.D., Mechanical Engineering

Professional Experience: Over 20 years experience in acoustical engineering including numerous noise modeling/monitoring studies for impact analysis.

Responsibilities: Field work, modeling and analysis for noise and vibration studies

2. **Thomas A. Peters**

Educational Background: Master of Science, Meteorology

Professional Experience: Over 13 years experience in applied meteorology and air quality impact assessments.

Responsibilities: Assessment of air quality impacts

**DANIEL, MANN, JOHNSON, & MENDENHALL**

1. **James Zemski**

Educational Background: Bachelor of Science, Architecture

Professional Experience: Over seven years architectural experience.

Responsibilities: Preparation of visual impact assessment and shadow studies.

**BARTON-ASCHMAN ASSOCIATES, INC.**

1. **Phillip Rowell**

Educational Background: Master of Science Degree in Civil Engineering.

Professional Experience: Over 16 years experience in traffic impact analysis and transportation planning.

Responsibilities: Prepared traffic impact analysis for project site and surrounding vicinity.

APPENDIX D

Archaeological Impact Analysis

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**ARCHEOLOGICAL and HISTORICAL**  
**ASSESSMENT OF A HONOLULU BLOCK**  
**BETWEEN RICHARDS - ALAKEA AND HOTEL STREETS**

By

Hallett H. Hammatt, Ph.D.  
Douglas Borthwick, B.A.

Prepared for  
Parsons Hawaii

by  
Cultural Surveys Hawaii  
September 1989

## ABSTRACT

The project focuses on historical research and archaeological assessment of a block portion of downtown Honolulu bounded by Alakea, Richards and Hotel Streets. The area was one of the early residential areas of Honolulu and was the location of 6 Land Court Awards in the 1850s. At least 7 residences stood on the parcel during this period, the most prominent owners being Williams-Sumner, a servant of royalty and John Voss, A German businessman who reportedly ground cane for Queen Ka'ahumanu on the property. The residences were strategically located across Richards Street from 'Iolani Palace. The late 19th Century saw greater density of residences with increasing commercial use. The Stable of the Hawaiian Hotel stood at the corner of Richards and Hotel Street. Continued density of commercial use continued into the 20th Century with the establishment of the Royal Hawaiian Garage and later the Van Hamm Young Garage. During World War II the portion fronting Hotel Street became a red-light district. In the late 1950s most buildings were demolished for construction of the present Municipal Parking Garage. The exploratory soil borings show natural cinder deposits 5 feet below the present surface. There is a definite possibility that 19th Century features and deposits may be preserved in the subsurface layers. These deposits may be of archaeological significance. For this reason, subsurface testing following demolition and preceding construction is recommended with possible archaeological monitoring depending on the results of the testing.



## ACKNOWLEDGEMENTS

Mr. Douglas Borthwick performed the historical search for this project which involved research at both the State Archives and the State Survey Office. Mr. Charles Okino kindly provided copies of maps from the Survey Office. Mr. George Krasnick coordinated this project for Parsons Hawaii and kindly provided much useful information. Typing was performed by Dr. Vicki Creed of Windword Processing.

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## I. INTRODUCTION AND SCOPE OF WORK

This project is an evaluation of the archaeological potential of the proposed Alakea and Richards Street Parking Lot Redevelopment, located between Alakea, Richards and Hotel Streets in downtown Honolulu (Fig. 1). The property, TMK 2-1-17:7,8,17, includes an area of 1.58 acres and it currently holds a municipal parking facility, a Honolulu Police Department maintenance facility and a small grassed area. The redevelopment proposes demolition of these structures and construction of a 23-story office and parking building which will include 2 stories below ground level. Clearly, the proposed construction will involve excavation of underlying natural and possibly cultural deposits far below the levels previously penetrated during the construction of the parking facility presently occupying the site. For this reason, there are potential impacts to the possibly surviving remains of historic buildings and their associated deposits which occupied the site through the Nineteenth and early 20th Century. In a more conventional archaeological assessment, the property would simply be subjected to subsurface testing to determine if older historic deposits were extant. However, in this case, as in most urban localities, subsurface testing is not feasible before demolition of the existing buildings takes place. A reasonable assessment must be made without this first hand information. This assessment must be based on a historical reconstruction of the history of the block through collection of

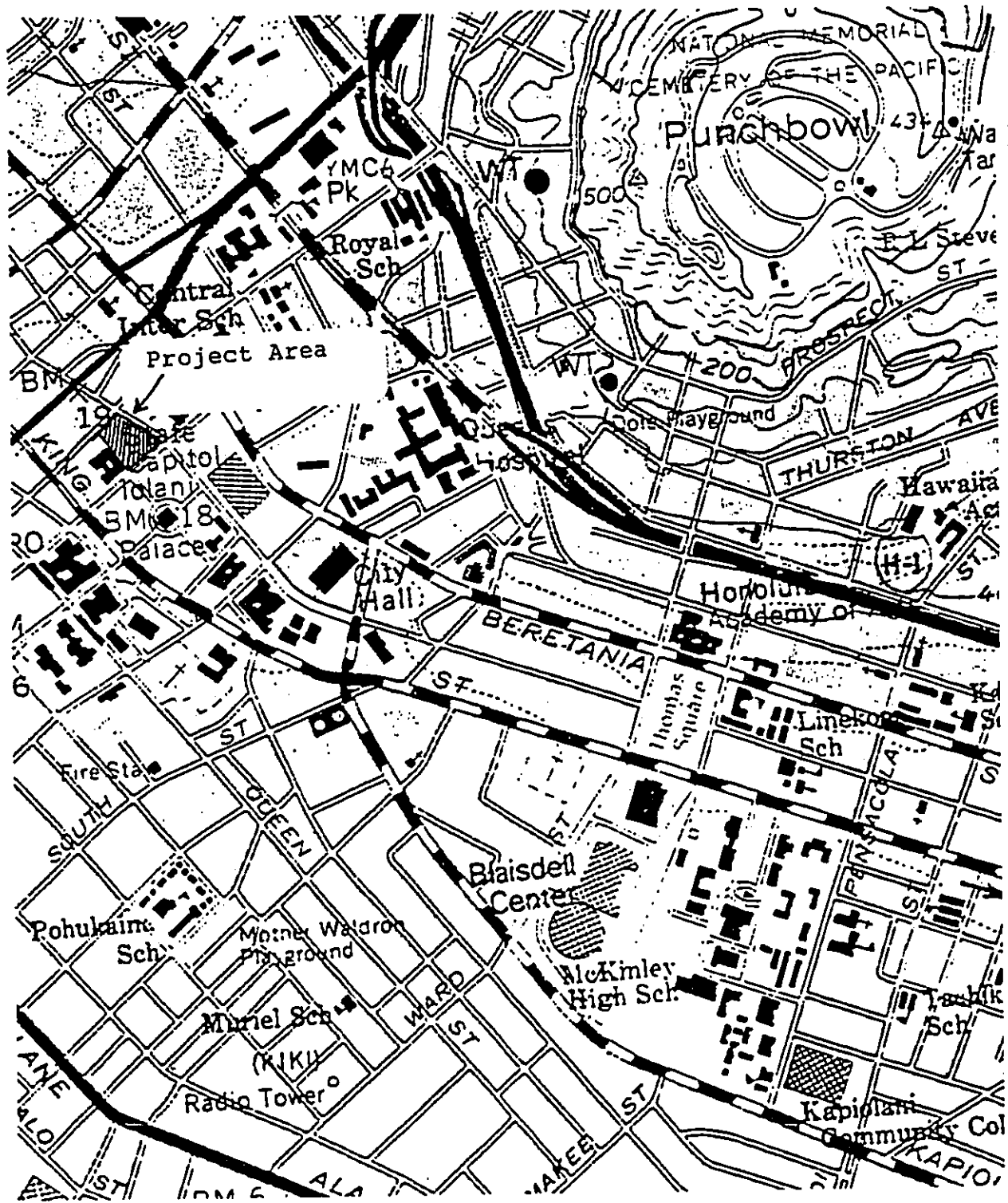


Figure 1 U.S.G.S. Honolulu Quad Showing Project Area (Shaded)

source material from Nineteenth and early 20th Century Land Court Awards, Survey Maps, Fire insurance maps and other documents. Materials in the State Archives, the State Survey Office and the Hamilton Library were examined. Of particular interest are the Fire Insurance maps published between 1879 and 1956.

As with most parcels in downtown Honolulu, this block went through a series of building phases which is reflective of the development of an urban center from a predominantly agricultural Hawaiian ahupua'a surrounding the harbor of Honolulu. As would be expected with a parcel in close proximity to the 'Iolani Palace Complex and other historic buildings (the Hawaii Capitol Special District), it was the location of major activity at an early date in the development of Honolulu and a number of substantial structures occupied the site.

What physical evidence still remains below the present parking structure will have to be determined by archaeological monitoring of excavations following demolition. There have been a number of cases in downtown Honolulu where excavation for new buildings has revealed historic deposits from earlier building phases. Demolition of the Alexander Young Building at Bishop and King Streets revealed pre-1902 artifacts and features which survived the construction work for the original Alexander Young Hotel (Hawaii Bottle Museum, n.d.). Just across the street on the mauka side of the project area 19th Century glass and ceramics were recovered during excavation for the State District Court Building (Hawaii Bottle Museum 1979). Other projects have

demonstrated no surviving archaeological value. A parking structure demolition at the corner of Hotel and Bethel revealed that the entire area had been filled to a depth of 12 feet with trucked-in fill, leaving no archaeological deposits from former occupations (Kennedy 1984).

#### Soil Borings

The environmental assessment for the subject property contains a summary of soil borings. These exploratory borings encountered "highly variable ground conditions beneath the project site." A 5-foot thick deposit of sandy, clayey silt is at the surface with an underlying 4- to 9-foot thick volcanic cinder deposit. This report would appear to indicate that original deposits still occur beneath the site. The volcanic cinder is almost certainly the natural cinder deposit referred to as the "Black Tantalus and Sugar Loaf Ash" described by Stearns (1939:13). The cinder deposit occurs throughout this section of Honolulu and has been observed by the authors in Kawaihae Cemetery, Queen and Punchbowl Streets, and the 'Iolani Palace Grounds. Although these cinder deposits are considered too early to contain human cultural material, cultural features are frequently intrusive into them from above.

## II. HISTORICAL SUMMARY OF RICHARDS AND ALAKEA

### Honolulu: Background

The name Honolulu is derived from the original ahupua'a of that name which included 4 inland valleys as well as the coastal plain and reef of the makai section. The ahupua'a included extensive taro lo'i in Nu'uauu, Pauoa and Makiki Valleys. The original settlement by the natural harbor was the village of Kou. Honolulu was blessed with an abundant reef as well as many fishponds, but the resource which predestined the eventual establishment of the town was the sheltered natural harbor which attracted the ever-increasing numbers of trading and whaling ships in the early 19th Century. In the 1820s there were 6-7,000 residents with a number of merchant businesses and a busy port side (Ellis 1969:18).

By 1850 Honolulu was as described by Charles Wilkes "very conspicuous from the sea and has more the appearance of a civilized land, with its churches and spires, than any other island in Polynesia" (Wilkes 1844, in Fitzpatrick 1986:69). Wilkes' map of Honolulu circa 1850 shows over 20 blocks gridded with streets and dotted with buildings (Fig. 2). In 1846 Honolulu was made the capital of the Hawaiian Kingdom and was well on its way to becoming the commercial and political hub of the Islands.

The following is a summary of the information on the Richards and Alakea parcel from the 1830s onwards.



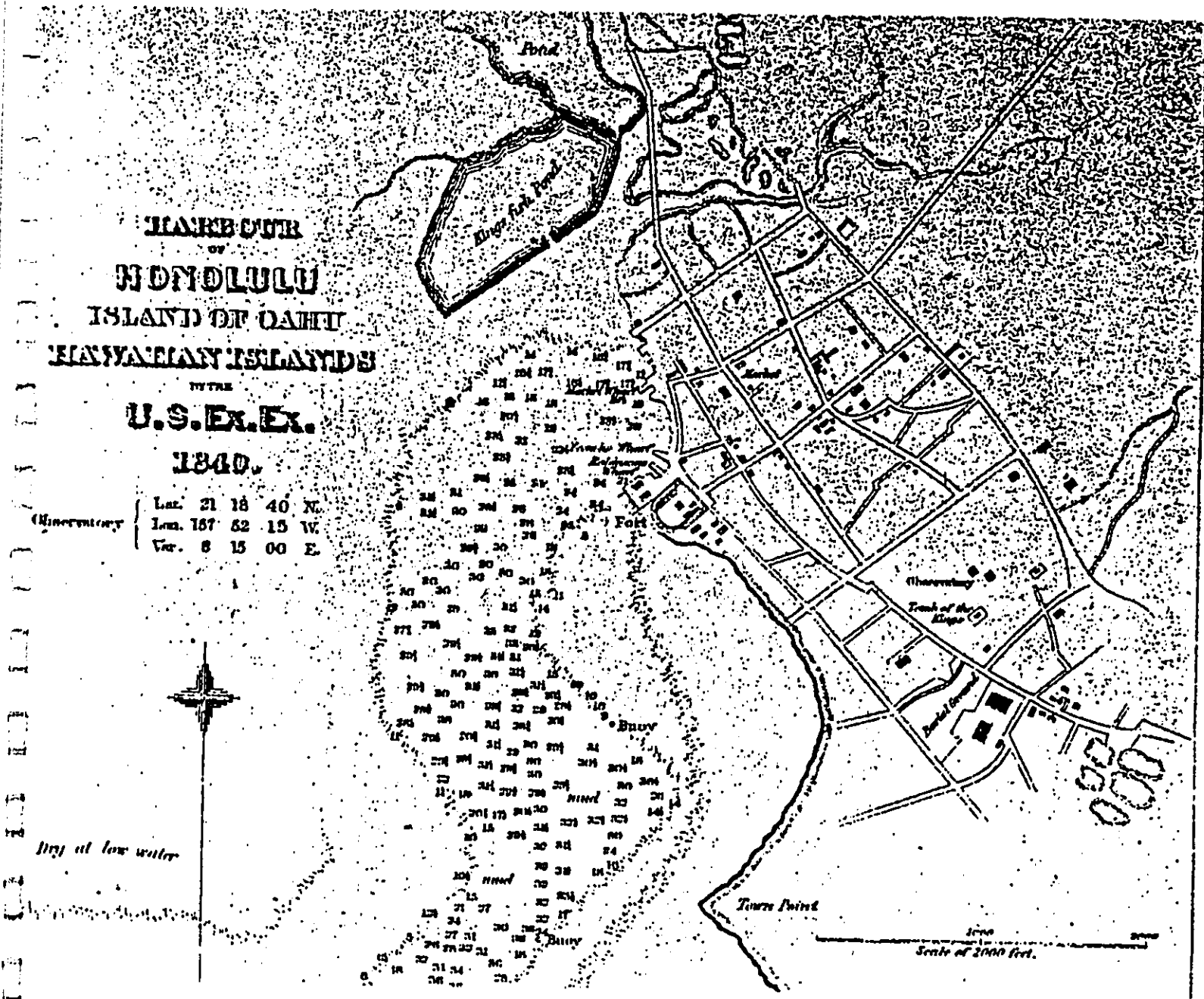


Figure 2 Charles Wilkes 1840 Map of Honolulu, Showing Streets and Blocks

Richards and Alakea 1830s-1850s

The clearest record of the early use of the block is shown on the T. Metcalf map of 1846 on which the various Land Court Awards are marked and the H.W. Laws' map of 1885 which shows actual house lots (Fig. 3) of the 1850s. It is of interest that Hotel, Richards, and Alakea Streets (or their predecessors) were established thoroughfares by the 1840s and appear to have been on roughly the same alignments as they are today.

There were 6 Land Court Awards made within the subject Parcel. In addition, there is listed a sale of governmental land (G2336) to Kekela in 1857. The Land Court Awards are listed and information summarized as follows:

LCA-1

This small parcel on the corner of Alakea and Hotel Streets was granted to John Voss, A German subject. He originally acquired the land from High Chief Kekuaanaoa. Apparently the lot was vacant before a house was built on it by Kekuaanaoa. This house may be one of the 2 shown on the 1840 Wilkes' Map of Honolulu and is probably the first on the property. This 1840s' map shows the rest of the block as vacant land (Fitzpatrick 1986:70). Mr. Voss moved a sugar cane grinder onto the lot from Mānoa Valley. The grinder was said to be for Queen Ka'ahumanu's cane grinding. John Voss had an association with an early brewery business. The name of the business was not given. This same lot apparently also had a Hawaiian Government printing shop for a

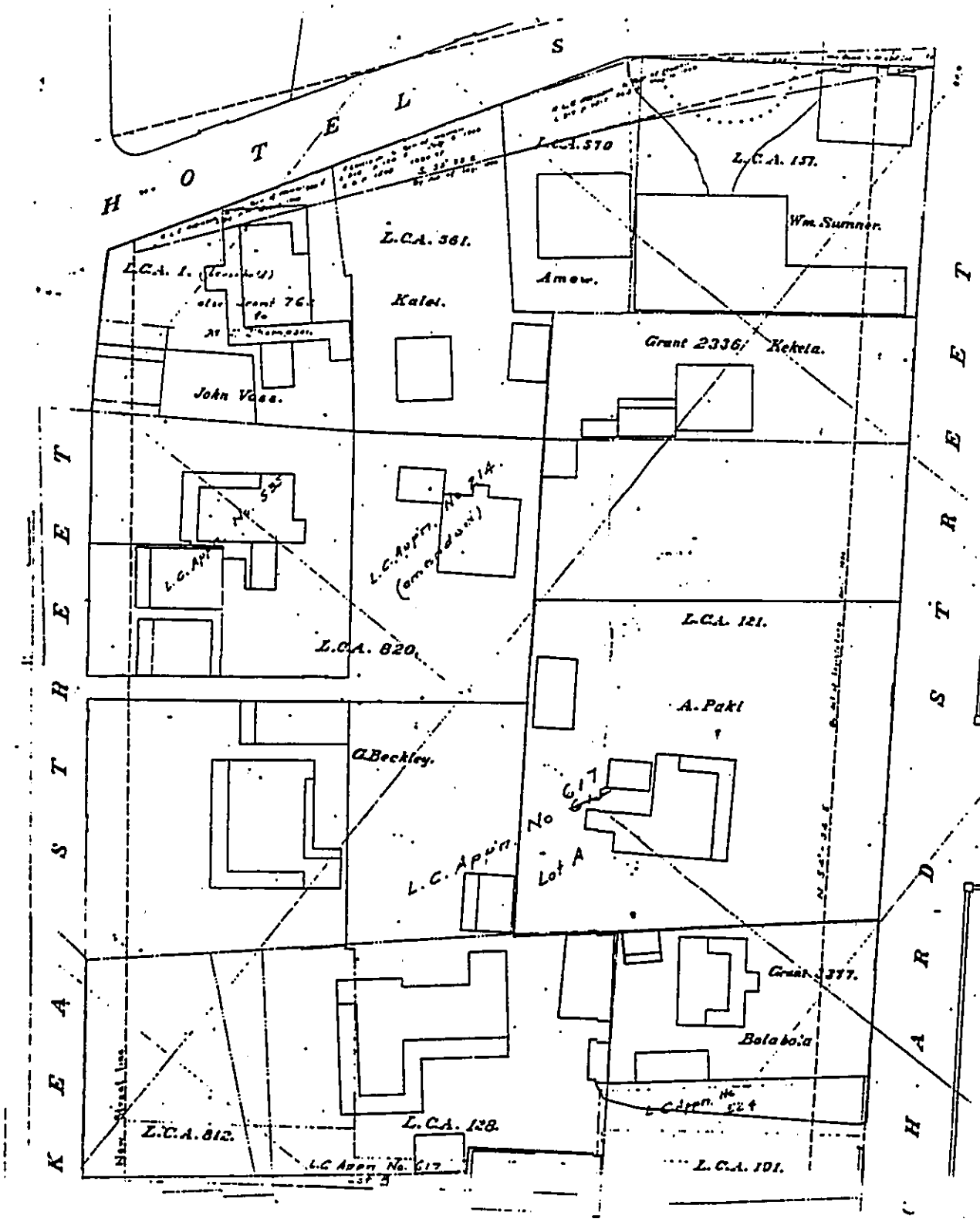


Figure 3 H.W. Laws Map of L.C.A.s circa 1885, Showing Houselots of the 1850s

short time in the mid 1840s.

LCA-561

This lot with frontage on Hotel Street was granted to Kalei as a replacement for his former lot somewhere else on Hotel Street. He reported having lived on this LCA since 1936 where he had 2 houses and a well.

LCA-570

This lot was granted to Amau, a Chinese man who bought the land from another Chinese man named Aiena in exchange for a boat. Aiena had been a watchmaker and carpenter who had a house lot and shop on the property.

LCA-157

This lot, on the corner of Hotel and Richards Streets, was granted to William Sumner. He also occupied adjacent land on the 'Iolani Palace grounds and had resided here since the 1820s. His land was granted by Kamehameha II for services rendered. His most renowned service had been to the Crown in 1831 when he commanded the government ship Waverly on a voyage to California to rid the Islands of "troublesome" Catholic priests (Daws 1968:89). Sumner was well-rewarded for his efforts in other areas. He was also granted seven thousand acres at Moanalua for cattle ranching. In Grant 157 he had a house which he had already occupied for 26 years.

LCA-820

This large parcel was granted to G. Beckley and is assumed to be a residence. However, no further information is available.

LCA-121

This large parcel fronting Richards Street was granted Abner Paki, the father of Princess Bernice Pauahi Bishop. The lot included a residence which was probably a servants quarters. It is unlikely that Chief Paki actually lived in this house. The lot was inherited by his daughter, Princess Bernice Pauahi Bishop. In the original award, the parcel was identified as the "lot of Lonohiwa."

Land Court Awards South of the Project Area in the Same Block

Land Court Award 128 (Fig. 3) was granted to Kahikona who has a historically intriguing story presented in his testimony.

"From the time of my Makuakane, sailed here from Hawaii, at the time of the Russians, for the war. This war, this was the reason he came to Oahu. On arrival, they lived anywhere - there were no houses. When the trouble was ended he sought a place and took this. It was overgrown with vegetation. He built a house and a fence and lived there. This is my claim Kahikona" (Native Testimony Vol.1:174).

Adjacent to this were 2 house lots (LCA 812 and 191) and 2 plots (G3024 and G3377) sold by the government to Kekuanaoa in 1866 and J. Bolabola in 1884 respectively.

### Summary

By the 1840-1850s there were at least 7 houselots on the subject parcel. Some of the residents were high-ranking and highly connected individuals with a mixture of natives and haoles and one Chinese. There was nothing that could be called intense commercial activity although there was apparently a printing house. It appears that the residences of some individuals were located there to be adjacent to 'Iolani Palace, the first building of which was completed in the 1840s. At this time, the block was only sparsely used and there was probably much open space between residences.

### Richards and Alakea 1850s-1900

During this period, there was an obvious increase in density of land use and urbanization. The present 'Iolani Palace was built in the 1880s. By 1885 there were no less than 30 structures within the project area, most of which are unidentified residences (Fig. 4). The largest structure was the stables of the Hawaiian Hotel whose main building stood directly across the street at the mauka corner of Hotel and Richards. This was the central hotel business for all of Honolulu and the stable building itself was quite sizeable.

Besides small restaurants and shops there were residences of predominantly haole families. These were not residences of particularly highly connected or wealthy individuals although there was some status. For example, the residence of F. Wander-

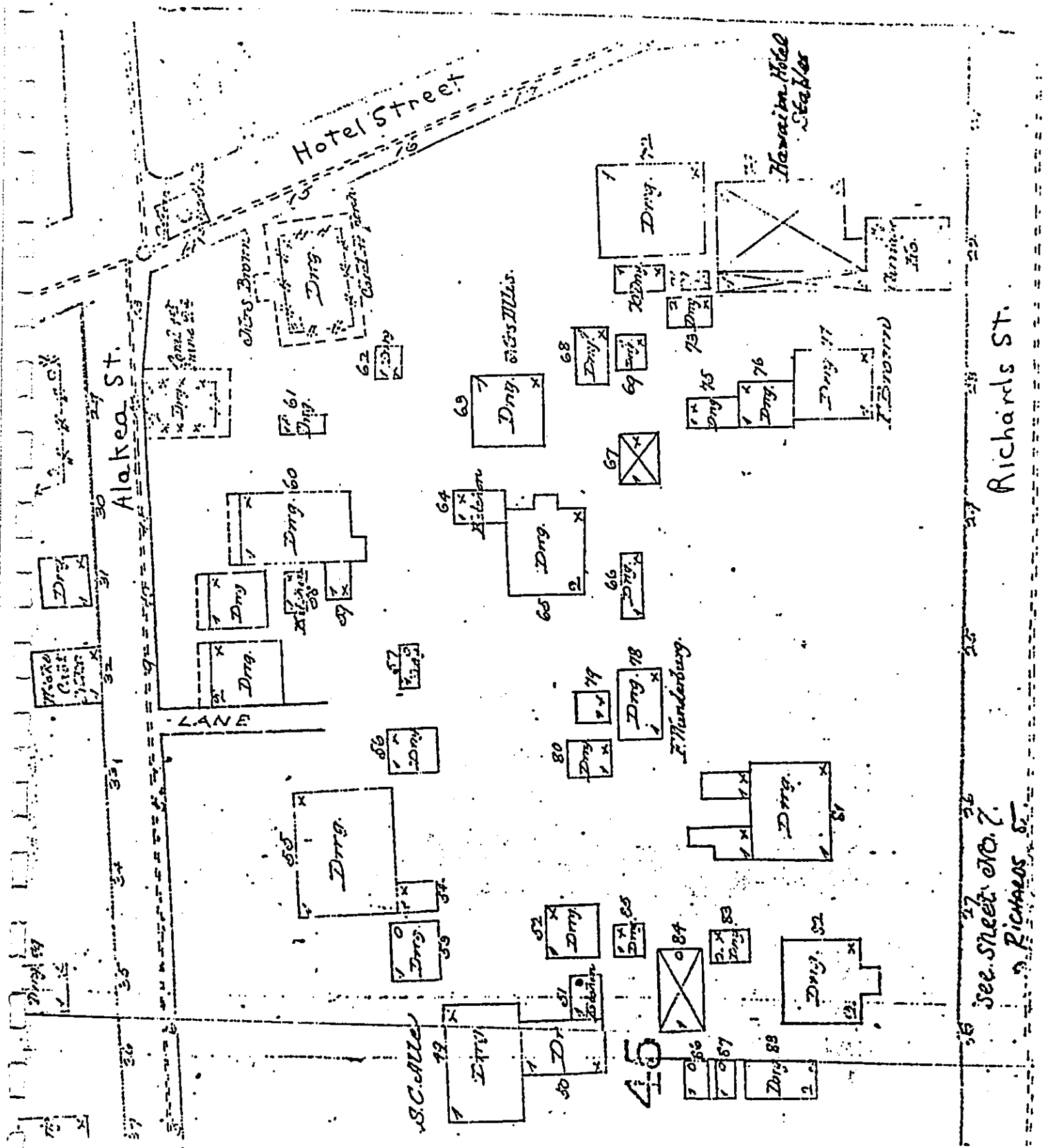


Figure 4 Fire Insurance Map of 1885

see sheet no. 7.  
Richards St.

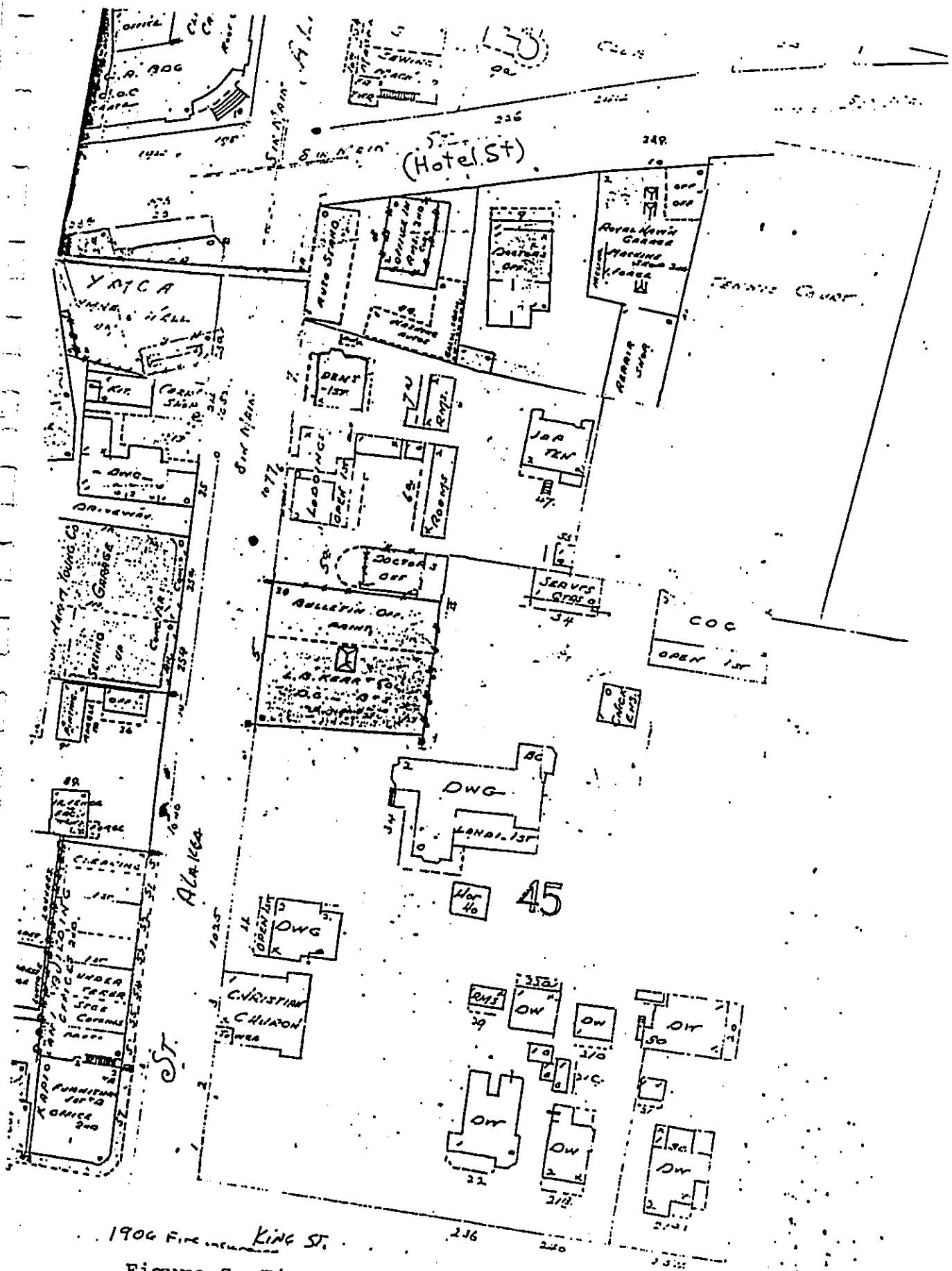
berg which stood directly opposite the Richards Street Palace gate was the home of a man who worked as a clerk for the Theo. H. Davies Company. Other names were Ellis, Brown and Allen. The pattern of building locations shows no large stretches of street side storefronts or commercial complexes and there was still substantial open space between buildings.

#### Richards and Alakea 1900-1930s

This period saw increased density of building on at least a portion of the property. The 1906 Fire Insurance Map (Fig. 5) shows over 10 buildings which are considerably larger than the pre-1900 configurations and only one of which predates 1900. The Hawaiian Hotel stable original structure or a portion thereof was converted to a commercial garage called the Royal Hawaiian Garage. There were Doctors' offices, a Dentist office and auto sheds and Lodging Quarters as well as a Japanese tenement building. The portion of the block fronting 'Iolani Palace was taken up by a large tennis court. By this time (pre-1906) the Hawaiian Hotel had been demolished and the only remaining portion of the original hotel complex was a portion of the stables converted to an automobile garage. It was also in this period that the 'Iolani Palace lost its regal function and became an Executive Building for the Territorial Government.

The late 1920s saw major demolition and construction on the property and in adjacent lots. Both the Army and Navy YMCA and the YWCA (downtown) were built mauka and makai. Sometime in the





1906 Fire Insurance Map of 1906  
 Figure 5 Fire Insurance Map of 1906

1920s the tennis court and many smaller buildings were demolished to make way for the Van Hamm Young Garage, a major downtown Honolulu business.

#### Richards and Alakea 1930s-1960

By 1955, as the Fire Insurance map shows (Fig. 6), the block was a dense commercial area with continuous store fronts bordering Hotel and Alakea Streets. These include taxi stands, restaurants and a bowling alley. It is believed that the bowling alley may have incorporated a portion of the original Hawaiian Hotel stables as passed down by the Royal Hawaiian Garage. If this is true then it would have been the oldest surviving building remnant in the block, dating to the 1880s. The Van Hamm Young Co. Garage dominated the central portion of the property and fronted Alakea and Richards Streets. This building covered almost half of the parcel. Commercial demands of World War II lead to the establishment of a red-light district in the small structures fronting Hotel Street.

#### Richards and Alakea 1960s - Present

The 1968 Fire Insurance Map (Fig.7) shows the survival of only a few of the small buildings fronting Hotel Street with open space at the corner of Alakea and Hotel. The Von Hamm Young Co. Building did not survive the late 1950s when it was demolished for the construction of the present City of Honolulu parking structure. The late 1960s saw the demolition of the remaining

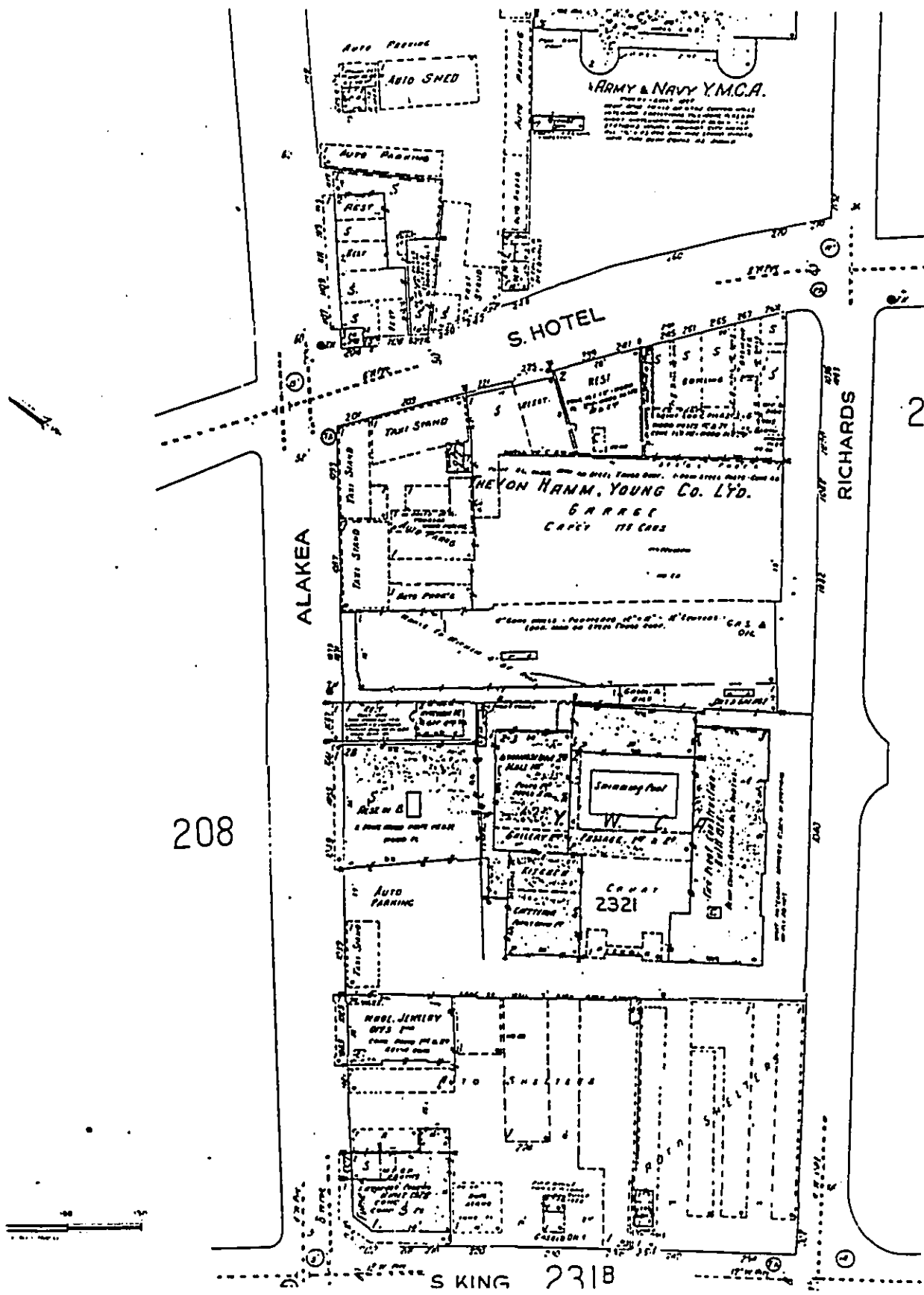


Figure 6 Fire Insurance Map of 1955

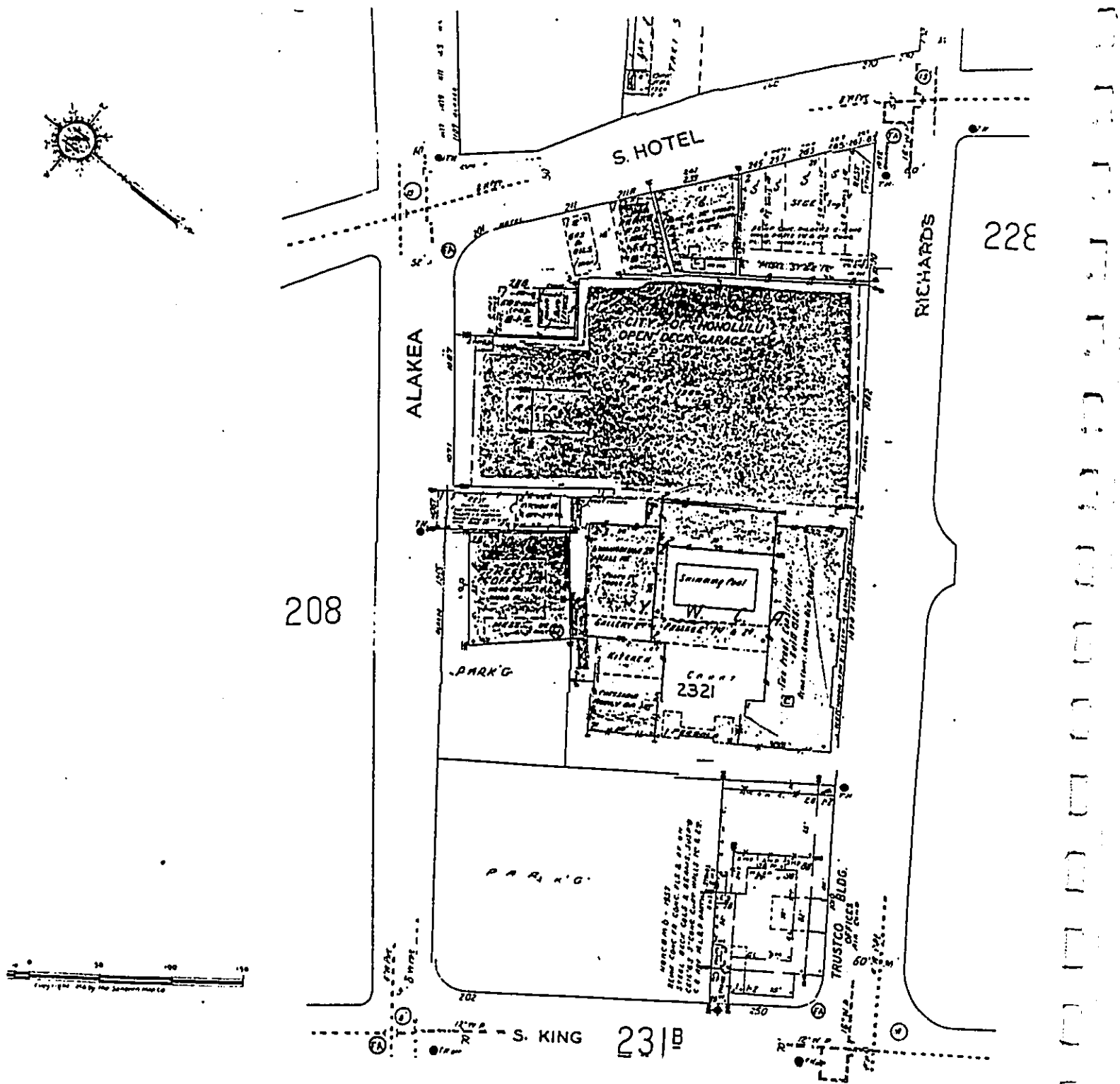


Figure 7 Fire Insurance Map of 1968

portion of the red-light district along Hotel Street and the last tenacious remnant of what was probably a remnant of the Hawaiian Hotel Stables. At present, the parking garage is dominated by larger imposing surrounding buildings including the State Court Building and the newly renovated Armed Forces YMCA (Hemmeter Corporation Headquarters) on the mauka side and the downtown YWCA on the makai side.

### III. UPDATE OF ARCHAEOLOGICAL RESEARCH IN DOWNTOWN HONOLULU

Most of the archaeological research in downtown Honolulu has taken place since 1983 and has involved at least one urban parcel in the neighborhood of Richards and Alakea.

In 1984, Archaeological Consultants of Hawaii's Joseph Kennedy conducted subsurface testing of a parking lot at the corner of Hotel and Bethel Streets for a proposed office tower project. The purpose of the testing was to locate the foundation and basement of the old International Hotel. The discovery of present day trash at the base of the excavations 12 feet below the surface led to the realization that the entire deposit to coral substrate was recently imported fill which was graded into the parcel to create a stable surface for the parking lot. The original deposits representing the historic era had been removed. In this case, although historic research showed significant buildings had been present, no archaeological value remained (Kennedy 1984).

In 1986 Stephen Athens conducted archaeological monitoring for the foundation trenching of the Judiciary Parking Garage at Pohukaina and South Streets in Kaka'ako. He reports that the subsurface deposits consist of a 19th Century mixed trash layer which was apparently dumped to stabilize swampy deposits. The bottle ages were mixed and the trash layer is interpreted as an imported fill. No structural remains or traditional Hawaiian remains were found (Athens 1986).

In 1987 the Bishop Museum performed monitoring and excavation during construction of the makai parking garage on the corner of Punchbowl and Halekauwila Streets. Both prehistoric and historic era uses of the site were indicated. Seven human burials were found--some of which were prehistoric. Prehistoric artifacts were recovered and a buried A-horizon was dated to before 1400 AD. The property was used in the mid- to late-19th Century for trash dumping. Of great interest was the recognition of an old shoreline deposit (Clark 1987).

Starting in 1986, Cultural Surveys Hawaii has been monitoring construction trenching for the Kaka'ako Improvement District. This trenching has been exclusively within Kaka'ako Streets. So far, 2 cemeteries have been discovered; one at South Street and Quinn Lane and the other at Queen and Punchbowl Streets. A major layer of historic fill containing mixed 19th Century artifacts (bottles, metal objects, etc.) has been traced over much of the Kaka'ako area. Underlying this fill are sandy shoreline deposits and gleyed ponded sediments of former fish and salt ponds.

Other projects have been undertaken in downtown Honolulu, but results are not yet available. Griffin et. al. presents a useful summary of archaeological potential for the Kaka'ako area and draws special attention to the likelihood of as yet undiscovered cemeteries, as well as the possibility of intact, prehistoric sites along the old shoreline.

Historical research was conducted to reconstruct past land use and building phases of a parcel called "Block J" between

Kukui and Beretania, Pali Highway and Queen Emma Streets (Tomonari-Tuggle 1983, Hammatt 1988). Block J is proposed for demolition and redevelopment of a large office complex. The determination of whether intact deposits and cultural debris lie under the existing building and parking pavement must await post demolition testing (Hammatt 1988:21).

Some downtown demolitions and redevelopments have taken place without archaeological monitoring. In many of these cases cultural debris has been reported. For example, 19th century bottles, ceramics and even subsurface features (outhouses and trash pits) have been reported during construction excavations at the sites of the Alexander Young Building, The Executive Center and the State District Court Building (Hawaii Bottle Museum 1979, 1982, n.d.)

In 1986, Cultural Surveys Hawaii conducted an extensive archaeological monitoring project on the grounds of 'Iolani Palace directly across Richards Street from the project area. This monitoring was in conjunction with major landscaping which included palm tree removal and replanting and irrigation system installation. Four major trash pits were uncovered and selectively excavated. Bottles, ceramics, buttons, clothing articles, metal pieces, and household items were recovered from the Kala-kaua period, as well as plentiful materials from the construction of the 1880s Palace structure. Much of this material was observed within 1 foot of the present lawn surface and extended 6-8 feet through the volcanic cinder onto the coral substrata. This



material was intact because the lawn area had been open space throughout the development of urban Honolulu. In contrast to other block sections of Honolulu which showed periodic demolition and construction, the 'Iolani lawn provides an ideal environment for preservation of stratified archaeological materials.

In general, the archaeological findings in downtown Honolulu have been highly variable in their distribution and significance. The survival of intact cultural debris and pre-modern features is dependent on the coincidences of modern building techniques and soil engineering requirements. There are cases in which entire deposits are trucked away and replaced with imported fill more suitable for foundation support. In other cases, intact 19th Century features, pre-historic deposits and even undisturbed human burials survive within inches of street pavements and foundation pilings.

Although the occurrence and survival of these remains is difficult to predict, the fact remains that significant archaeological deposits are widespread under the streets and blocks of Honolulu. For these reasons, each urban project must be approached on a case by case basis.

#### IV. ARCHAEOLOGICAL SIGNIFICANCE OF THE PROJECT AREA

##### Summary of Historical and Physical Evidence

1. Between 1820 and the 1840s the port of Honolulu evolved from a haphazard scatter of small houses clustered behind the port and harbor wharf to a town with a gridded pattern of streets and blocks. By the late 1840s, the Richards and Alakea project area contained at least 7 house lots (one of which had a well). Some of these houses belonged to important families who were in some way connected to the activities of the adjacent 'Iolani Palace.
2. From the 1840s to the 1900s the project area continued in residential use with the addition of the stables for the Hawaiian Hotel which stood directly across Hotel Street on the mauka side.
3. Throughout the early 20th Century residential use gave way to professional offices. Boarding houses, shops and an Auto Garage. In the late 1920s, major public buildings were constructed nearby (the YMCA and YWCA) and a major portion of the block was given over to the Van Hamm Young Garage.
4. Throughout the military build up of World War II, the portion fronting Hotel Street became a red-light district with restaurants and a bowling alley. The Van Hamm Young Garage remained until the late 1950s when most of the project area was given over to the present Municipal Parking Garage.

5. Although the information from the initial soil borings is sketchy undisturbed natural deposits (volcanic cinder) could occur as shallow as 4-5 feet below the surface. It is quite possible that intact 19th Century features and deposits associated with early Honolulu could survive as intrusions into this cinder layer.

#### Potential Significance

In view of the above information, it is concluded that substantial 19th Century (and possibly earlier) building and occupation activity took place within the project area. Although the top portion of the deposits representing this historic era may have been removed, there is still excellent potential for buried historic cultural debris; bottles, ceramics, trash pits, building foundations, etc. Of particular interest would be deep, well-defined features which may intrude into the unconsolidated black volcanic cinder, such as outhouses, wells and trash pits associated with former residences. These features are frequently filled with stratified trash which through the passage of time becomes an impressive archaeological record of early Honolulu. A nearby example of this possibility occurs within the present 'Iolani Palace grounds where in 1986 tree removal and replanting exposed plentiful trash pits associated with the reign of Kalakaua.

## V. RECOMMENDATIONS

Clearly a presentation of potential significance may be far removed from the reality of what survived the most recent demolition and construction of the present parking structure. However, the portion of the project area fronting Hotel Street may have been unaffected by early 1960s construction.

With this in mind, the following recommendations are thought to best address the possibility of the presence of intact historic (or prehistoric) deposits at Richards and Alakea, with the least investment of time and expense.

1. Archaeological inspection of site during final phases of demolition to determine whether cultural materials are being exposed.
2. Archaeological test excavations consisting of 4-8 backhoe trenches within the project area following demolition, but preceding construction. Observation and study of the stratigraphy and content of these trenches should provide sufficient information to determine if intact, significant cultural materials are present.
3. If significant cultural materials are found in the backhoe testing, then archaeological monitoring of the excavation of building foundations and utility lines should be required. In other downtown projects, archaeological monitoring has proven to be an effective means of dealing with sporadically occurring cultural deposits. Because of the common practice of mechanical

demolition, filling and grading for downtown areas, it is most likely that only partial preservation of former deposits will be found in the block. The disadvantage of archaeological monitoring of construction is that partial destruction almost always accompanies the discovery of cultural material. The advantage is that the archaeologist can find more in less time and gain a broader stratigraphic and contextual perspective.

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APPENDIX E

Social Impact Assessment



PREFACE TO  
APPENDIX E  
SOCIAL IMPACT ASESMENT

At the time this study was conducted, the assumption was that the City would cancel, by eminent domain, approximately five feet of the ten-foot right-of-way easement on City property (TMK 2-1-17:8) which runs in favor of the YWCA. Subsequently, it was decided by the developer to move the building ten feet off the property line, eliminating the need to cancel any portion of the easement. This eliminates the impact from this action on the YWCA, and should be kept in mind by readers of this appendix.

SOCIAL IMPACT ASSESSMENT

FOR THE PROPOSED

ALII PLACE

(ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT PROJECT)

HONOLULU, HAWAII

Prepared by:

Community Resources, Inc.  
Honolulu, Hawaii

Prepared for:

Parsons Hawaii  
Honolulu, Hawaii

September 1989

Personnel involved in the preparation of this report included John M. Knox, Ph.D., Principal; John T. Kirkpatrick, Ph.D., Project Manager; Paula A. Yanagisako, Research Associate; and Rubina Baseer, Planning Associate.

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## 1.0 INTRODUCTION

### 1.1 PURPOSE AND ORGANIZATION OF THIS REPORT

This report provides an assessment of the social impacts of a proposed office building and parking facility. The project is located at the site, makai of Hotel Street and between Alakea and Richards Streets, now occupied mainly by a City and County of Honolulu parking facility.

This report has been prepared for Parsons Hawaii, for inclusion in the Environmental Impact Statement being written for BetaWest, developer of the project, and for the Department of Housing and Community Development of the City and County of Honolulu.

Social impact assessments are done in order to identify and disclose information of use to decision-makers and citizens evaluating the implications of proposed developments. The impacts of a project must be judged in relation to the state of the surrounding area at the time the project changes that area. Hence a project is considered in relation to probable future conditions, not just the situation existing at the time of writing.

This report has four major sections:

- o This section contains introductory material;
- o The second section describes the existing situation at the project site and in the study area surrounding it;
- o The third section identifies ongoing and probable trends in the study area that form part of the context to the project; and
- o The final section deals with the social impacts of the project, identifying possible changes and, where appropriate, mitigating measures for impacts associated with the project.

### 1.2 THE ALAKEA RICHARDS PARKING LOT REDEVELOPMENT PROJECT

The Department of Housing and Community Development, City and County of Honolulu, is proposing the development of an office-commercial building combined with a seven-story parking structure. BetaWest, Inc. has been selected as developer.

The proposed building is to contain about 301,942 square feet of net office space and 8,525 square feet of retail/commercial space. The parking structure would have room for approximately 1,000 cars.

About 71,250 square feet of office space would be reserved for use by the City and County of Honolulu. The remaining office space would be leased by the developer.

In the parking structure, at least 235 stalls would be designated for public use, replacing the stalls now available in the existing parking facility. The State of Hawaii would purchase 432 stalls, and 333 stalls would be available for lease to building tenants or others.

The State of Hawaii has also proposed to develop the site, but the State's plans concentrated on parking, to the exclusion of office and retail space. The currently proposed project responds to the needs of the State by supplying stalls for the State to use or allocate, as well as the needs of the City and County of Honolulu.

The project site now includes a two-story parking facility, a small maintenance area for three-wheeled vehicles belonging to the City and County of Honolulu Department of Transportation Services Parking Branch, and open space. Seats and notice boards have been placed near Hotel Street by the City and County of Honolulu to serve bus passengers.

Demolition of the existing structure is planned to begin by January 1990. Construction would begin in March 1990. The building is scheduled to open in late 1991 or early 1992.

## 2.0 THE EXISTING COMMUNITY

### 2.1 DEFINITION OF THE STUDY AREA

The project site is within the Central Business District of Honolulu. It adjoins the government center, an area of historic buildings visited by State and City workers, a wide range of Hawaii residents, and visitors. The entire project site was included in the "Alakea/Hotel Street Precinct" of the Capital Special District until April 1989, when much of the site was excluded (by Ordinance No. 89-53).

The primary study area for this report consists of two census tracts:

- o Census Tract 40, including the project; and
- o Census Tract 39, including the State Capitol and Iolani Palace.

These tracts have very small populations. Two apartment buildings -- Harbor Square and Executive Centre -- are within three blocks of the site, but nearby built-up space is overwhelmingly devoted to offices.

To identify a larger resident population affected by development trends in the city center, a secondary study area is also discussed. The Downtown Neighborhood Board (No. 13) area has about 10,000 residents. The Neighborhood Board area includes zones mauka, Ewa and Diamondhead of the primary study area, is identified as the secondary study area.

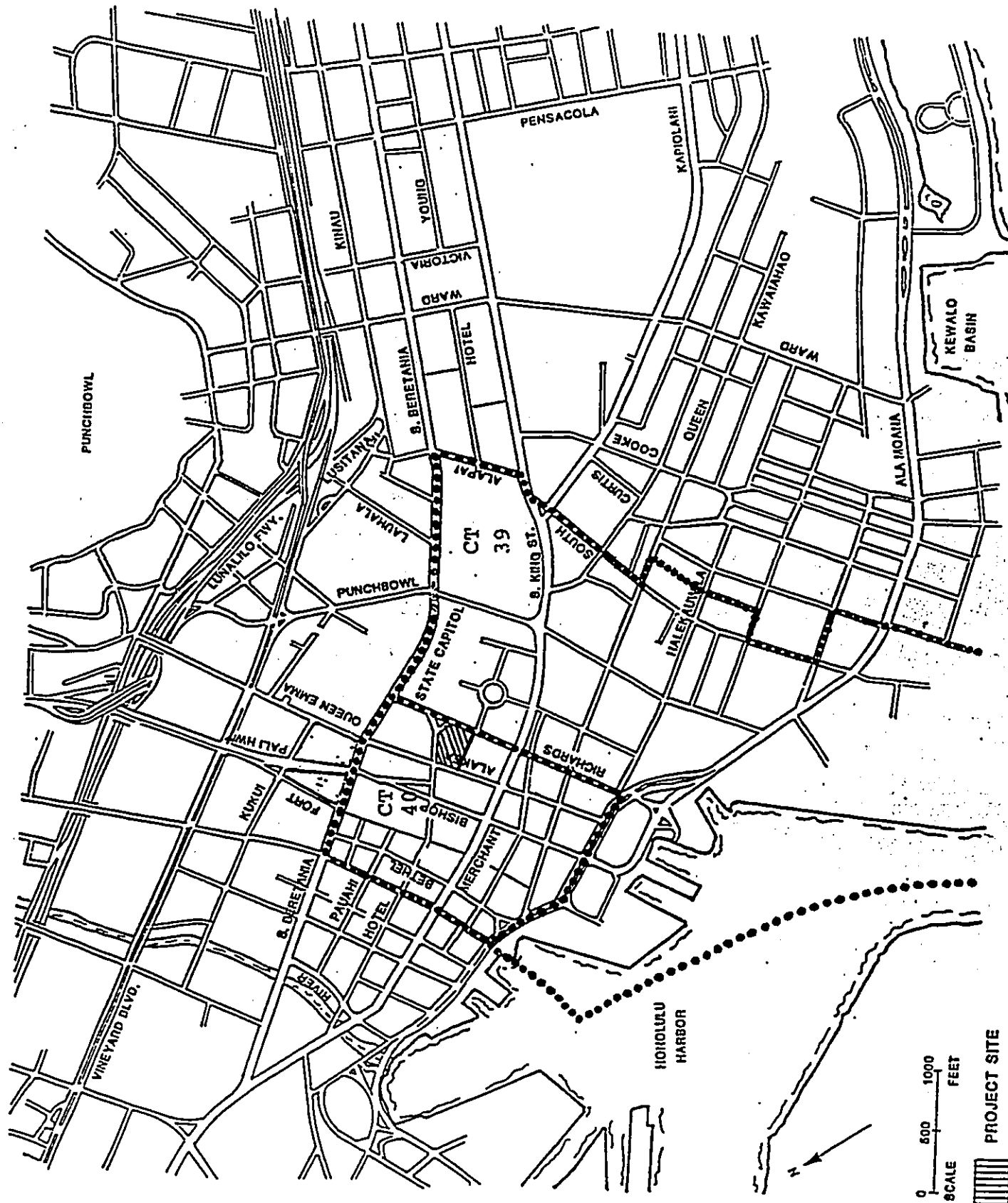
Figure 1 shows the project site in relation to the primary study area. Figure 2 shows the secondary study area, while Figure 3 places the secondary study area in relation to the rest of the urban center of Honolulu.

In this report, "Downtown" refers to the Downtown business district, largely contained in Census Tract 40. "Central Honolulu" will be used for the primary study area, including both Census Tracts 39 and 40. The secondary study area will be termed the Downtown Neighborhood Board area. While the government center (in Tract 39) is often viewed by Honolulu residents as part of Downtown, it will not be so termed in this report.

#### 2.1.1 Historical Background

The site is now occupied by a two-story parking structure, erected by the City and County of Honolulu in 1960. That structure replaced retail shops and a large garage owned by Von Hamm-Young Company, Ltd.



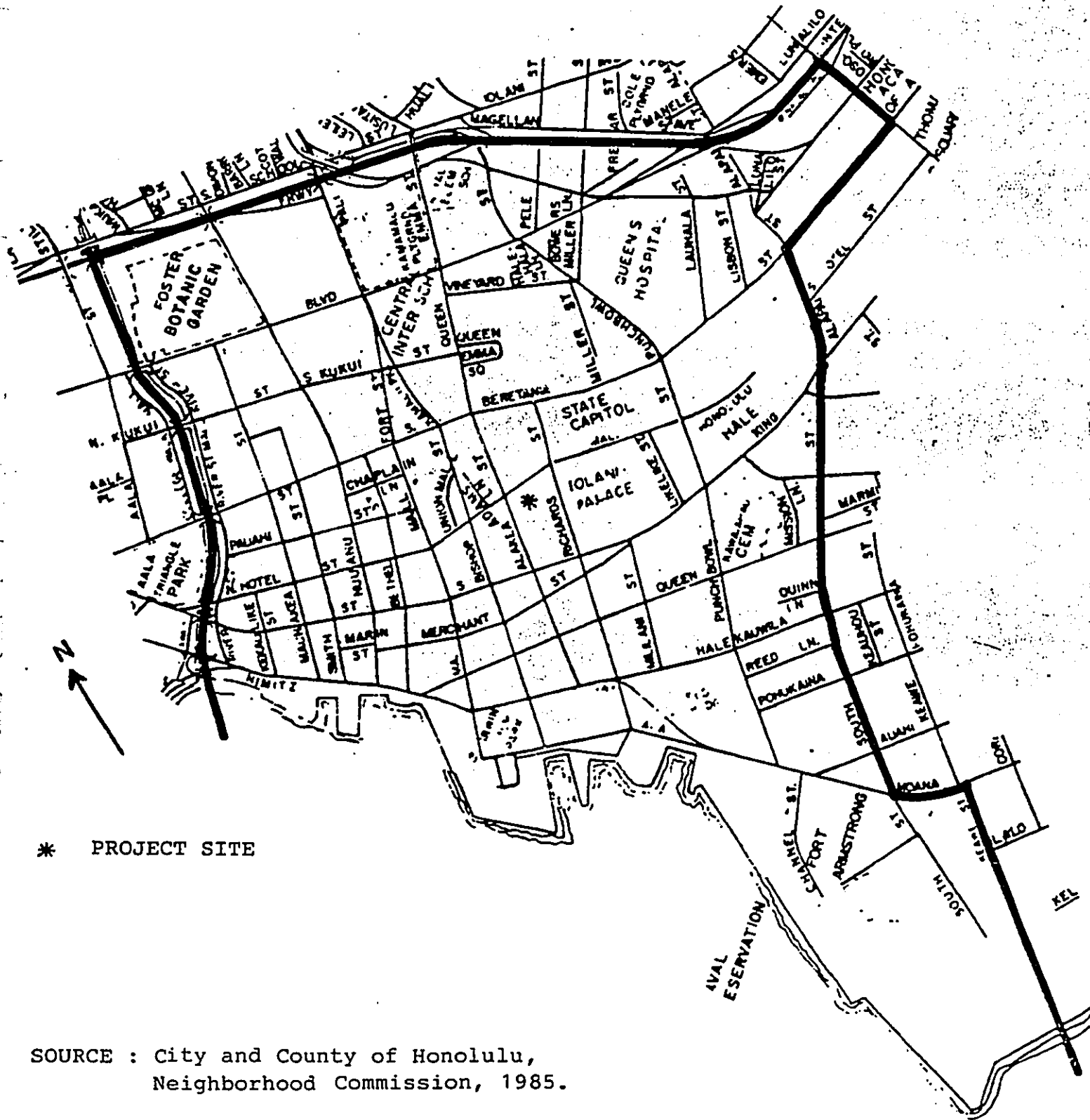


SOURCE: Parsons Hawaii.

FIGURE 1 - PROJECT LOCATION MAP

PROJECT SITE  
 CENSUS TRACT

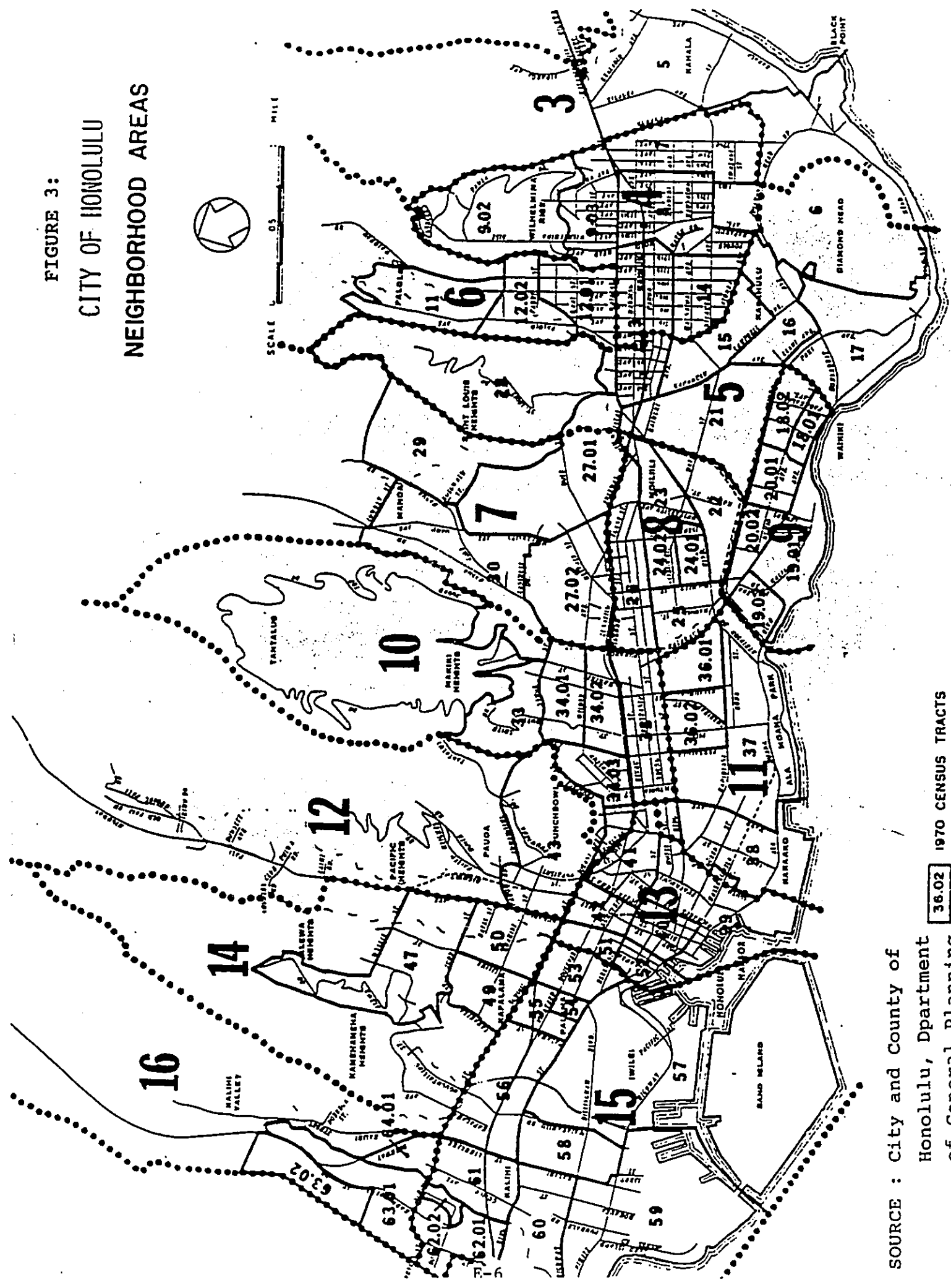
FIGURE 2: SECONDARY STUDY AREA -- DOWNTOWN NEIGHBORHOOD BOARD AREA (NO. 13)



\* PROJECT SITE

SOURCE : City and County of Honolulu, Neighborhood Commission, 1985.

FIGURE 3:  
CITY OF HONOLULU  
NEIGHBORHOOD AREAS



SOURCE : City and County of  
Honolulu, Department  
of General Planning,  
1988

#### 2.1.1.1 Urban Growth

Over the past half-century, central Honolulu has grown and changed, making the project site a point of transition or intersection between well defined zones:

- o The major business district has grown in area and density. Central Honolulu once contained the city's retail center as well as offices. Now, retail activities are concentrated elsewhere. Financial and corporate offices have spread mauka to Beretania Street. Major office buildings are found not only at the heart of the business district (at the intersection of Bishop and King Streets), but also mauka along Bishop Street and Diamondhead, along and makai of King Street.

The business district is bounded by two Special Districts (the Capital District and the Chinatown District). It has grown to fill much of the area between them with buildings taller than allowed in the Special Districts.

- o The government center has grown in size and in visual appeal since Statehood. Its Richards Street edge is now characterized by lawns and ornamental detail -- plantings, wrought iron fences -- behind which stand the State's most historically important structures.

The State Capitol provides offices and chambers for the Legislative and Executive Branches in one of the most successful examples of architectural innovation in Hawaii in recent decades.

Iolani Palace, which was filled with government offices and the legislative chambers during the Territorial period, has been largely refurbished and restored to its dignity as the only royal palace in the United States.

Across King Street, the Kamehameha statue is a tourist attraction in its own right. Its surroundings are now being landscaped in recognition that they form more than the entrance to a State office building.

The blocks between Richards and Alakea Streets, from Beretania to King Street, were dedicated in earlier decades to a mix of uses including public service activities. The Young Women's Christian Association (YWCA) building and the Armed Services Young Men's Christian Association (Armed Services Y) building provided social and recreational programs, as well as some residential space, in an area where all of these were rare. Low-rise private retail and parking facilities, common in these blocks before 1960, have been replaced by taller buildings largely dedicated to office use.

The cost of maintaining older structures and devoting them to less intensive uses in central Honolulu has risen over time. Some have been replaced by new buildings, such as the Central Pacific Plaza office tower, in the same block as the project site. The Armed Services Y has been repaired and restored to a level of elegance that it did not have for decades -- but this has been accomplished by a private owner, who uses the building as a corporate headquarters.

The existing parking structure lacked the architectural grace of the YWCA building and the Armed Services Y. However, like them it provided a service needed and enjoyed by both the business and government sectors.

The larger Neighborhood Board area has also been greatly affected by renovation and population growth. Urban renewal projects brought extensive clearance of land mauka of the business center. In time, tall apartment buildings were built where low wooden structures had clustered. In Chinatown, both public and private initiatives have led to refurbishing of older buildings. The City and County of Honolulu has recently built new apartment buildings in Chinatown. It is also sponsoring projects involving residential, retail, and child-care uses.

#### 2.1.1.2 Parking in the Downtown Area

In the 1950's, much Downtown Honolulu land was devoted to open parking lots. A need for more dense parking facilities was recognized. A Downtown Parking Improvement District (No. 80) was created by City ordinance (No. 1301, enacted August 7, 1952). In effect, the City and County administration assumed leadership in providing parking for Downtown Honolulu.

The Parking Improvement District included the Downtown business district (from Halekauwila Street to Beretania Street, and Richards Street to Nuuanu Avenue), Chinatown (from Queen Street to Beretania, and Nuuanu Avenue to River Street), and parts of the blocks immediately mauka of Downtown and Chinatown, between Beretania Street and Kukui Street, from Emma Street to River Street. The original definition of the makai edge of the Parking Improvement District has been superceded, since Nimitz Highway now runs along the edge of the District.

Six parking facilities were created for the Improvement District, for a total cost of about \$2.4 million. The Alakea Richards structure cost \$310,000 -- 13.1 percent of the total cost of the parking improvements.

In the last two decades, new office buildings have come to tower over older structures. With increased density has come a corresponding increase in demand for parking. In nearly all cases, the new buildings have included parking for tenants and some visitors. Over time, the City and County lots have become less important as parking locations for Downtown Honolulu.

Currently, the City and County lots provide about 15 percent of the off-street parking available Downtown and in the adjacent area (Downtown Improvement Association, July, 1989).

## 2.1.2 Current Land Uses

### 2.1.2.1 Project Site and Other Structures in the Same Block

The project site now contains a two-story City and County of Honolulu parking structure, built in 1960. It has approximately 235 stalls for public use. It is heavily used. Cars waiting to park in the full parking structure are commonly lined up on Richards Street and on Alakea Street during weekdays.

A small enclosure within the parking structure provides an administrative office for City and County parking meter regulators and parking for their 3-wheeled vehicles. Honolulu Police also park on-site when they have business at the District Court, across Hotel Street from the project site, and on-street space reserved for them is full.

Along Hotel Street, the City and County has provided sheltered seats and information kiosks for bus passengers on site. These facilities were part of the Hotel Street improvements, completed in 1988.

Adjoining the project site on the makai side are the Richards Street YWCA and 1067 Alakea Street, sometimes known as the "Jury Box" Building.

The Richards Street YWCA is a three-story building built in 1927. Its facilities include classrooms, exercise rooms, a heated pool, an open patio area and restaurant (space leased by Palace Court Restaurant).

The mission of the YWCA is to improve conditions affecting women and children and assist them in periods of transition. Membership to the organization is open to both women and men. YWCA facilities and programs are available to non-members as well.

YWCA staff and members of the Board of Directors provided information about current uses of the Richards Street facility. (See the Appendix for listing.)

YWCA estimates of their membership and facility users (YWCA of Oahu, 1989) are:

<u>Member Type</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
<b>A. Paying Members</b>			
Members (girls/women 12 yrs.+)	3,253	4,489	5,231
Associate Girls (below 12 yrs.)	1,083	1,308	1,499
Associate Boys/Men	1,032	1,253	1,503
<b>B. Attendees at Events</b>			
Other Registered Non-Members (female and male)	381	557	885
<b>C. Head Counts at Various Events (Including Swimming Periods at the Two YWCA Pools)</b>			
Estimated Users Not Registered by Name	900	6,681	18,854

(The lettered headings above follow explanations of the estimates, provided by Harriet Yamahira, Director of Human Resources, Richards Street YWCA (Personal communication, September 29, 1989). The YWCA sums the annual columns to provide totals for the Association and for Richards Street. Usage at Richards Street is estimated as 75% of the YWCA total, since 75% of members are registered at that facility. In this report, the columns are not summed. We cannot control for double-counting of persons in various categories. Nor can the relation between head counts (for two YWCA pools) and the number of persons who use the Richards Street pool annually be inferred. No independent counts were made for this report to confirm the above figures.)

Many Downtown workers enroll in the YWCA programs and use its facilities because of its convenient location. Also, about 90% of the children enrolled in the infant/toddler program have parents that work Downtown (Personal communication, Terry Applegate, Children's Program Administrator, Richards Street YWCA, August 3, 1989).

The Richard Street YWCA offers programs from early morning to late evening, including:

- o The pool, used from 7:30 a.m. to 7:00 p.m. The pool is of special value to handicapped swimmers and the arthritis exercise program because it is one of the few heated pools in the area.
- o Children's and Infant/Toddler Programs. The YWCA offers daycare for about 20 preschoolers, after-school care for 120 school children, and summer programs with a 1989 total enrollment of about 300. All these activities are

housed at the Richards Street building, on the side nearest the project site.

- o The Single Parent Family Advocacy Network (SPAN), a counseling, centralized information and referral service designed to assist welfare recipients. SPAN offers support groups and pre-employment training for single parents and produces a bimonthly newsletter with a circulation of 2,000. The program operates in six-week sessions with an average of about 33 participants per session. A new job training program is currently being designed. SPAN is on contract with the State Department of Human Services.
- o "Brown Bag" lunchtime lectures on topics ranging from personal finances to local theatre productions.
- o Space for meetings of other groups or classes. The Richards Street YWCA is one of the few Downtown Honolulu sites with meeting space. Regular meetings are held at the YWCA by groups ranging from the American Planners Association, Hawaii Chapter to a support group for the visually-impaired.

The YWCA provides the most accessible public restroom facilities near Iolani Palace. YWCA officials note that they thus offer a service to visitors and to the elderly.

The YWCA has a right-of-way easement on City and County land in the project site. The easement is located mauka of the Jury Box building, and stretches from Alakea Street about 100 feet, the length of the Jury Box building and a short distance alongside the YWCA. The easement's width is about 10 feet -- it appears to be somewhat more narrow at the Alakea Street end. The easement is used in several ways, including:

- o Access to the boiler room by fuel trucks;
- o Emergency access and egress from the boiler room.

The YWCA also leases from the City and County, on a month to month basis, an area about five feet in width between the project site property line and the City parking garage, extending from Richards Street to the point where the YWCA building reaches the boundary of the project site. This area is used for van parking (near the street) and for a play yard in the area further from Richards Street.

The "Jury Box" Building is a five-story office building. It has retail space on the ground floor and offices on upper floors. The office space is currently used by the lessor of the property,



a real estate appraisal firm. Officers of that firm have emphasized that their building is of value to them both as an office and as potentially leasable space (Personal communication, Robert Hastings, Alan Conboy, and Robert Braig, Hastings, Conboy, Braig & Associates, Ltd., July 26, 1989).

Other structures in the block bounded by Alakea Street, Hotel Street, Richards Street and King Street are:

- o The State of Hawaii's Kamamalu Building. The Kamamalu Building is an nine-story structure that houses the offices of several State departments. Some offices, including the Department of Commerce and Consumer Affairs and Hawaii Paroling Authority, are regularly visited by members of the public.
- o Central Pacific Plaza is a 22-story office building on the corner of Alakea Street and South King Street. The structure includes a seven-story parking garage with 255 parking spaces. Included in this building are two ground floor commercial spaces currently occupied by a stationer's, Fisher Hawaii, and a convenience store.
- o Yong Sing Restaurant, on Alakea Street, makai of the Jury Box building. The restaurant is two stories tall. It is much used by Downtown and government area workers during the day, and is also open in the evening. The restaurant has a capacity of 280 people (according to Fire Department regulations).

#### 2.1.2.2 Primary Study Area

The project site stands at the meeting point of the business and government zones of Central Honolulu. The surrounding area now includes:

- o The densely developed urban core: The Central Business District has half the state's office space (Grubb and Ellis, 1989). In recent decades, demand for additional office space has been steady. New office buildings have been built regularly during the last decade.

The most recently completed structure, City Financial Tower, opened in 1989. Construction of a larger building, Pan Pacific Plaza, is scheduled to start immediately. Plans for other projects have been announced. (See Section 3.3 for further details.)

- o The government zone: This includes historic structures and low-rise office buildings, all surrounded by relatively large open spaces.

Well over 50,000 people are estimated to travel to Central Honolulu daily. Downtown attracts office workers and customers or clients. Also, many people transfer from one bus line to another in Downtown Honolulu, and hence are counted in the above estimate. (Major bus lines run along Hotel Street and Alakea Street, next to the project site.) The government area attracts government workers, citizens conducting business with the government, and tourists.

Historic sites of interest to visitors and on the State and/or National Registers of Historic Sites, and hence deemed worthy of preservation, include:

- o Iolani Palace and its grounds;
- o Iolani Barracks (directly across Richards Street from the project);
- o The Coronation Band Stand, also on the Palace Grounds;
- o The U.S. Post Office and, in front of it, the Kamehameha Statue; and
- o The State Capitol and its grounds.

Additionally, both the YWCA and the Armed Services Y are registered. These, along with other older buildings, such as the Hawaiian Electric Building (Richards and King Streets), bring historic and visual appeal to the Downtown area.

In two areas, the business and government zones overlap. The blocks between Alakea and Richards include government offices (in the Kamamalu Building, at Richards and King Streets, and in the new State Office Tower, under construction on Beretania Street) as well as other uses. In Census Tract 39, the area makai of King Street has long been devoted to government offices, but both government and commercial buildings have been added. (New private office buildings include Ocean View Center and the Haseko Building).

New office and commercial developments have been built in Kakaako, adjacent to the study area. The success of these complexes (Waterfront Plaza and Pacific Park Plaza) as office sites has suggested to some that Central Honolulu is growing beyond its recognized limits. (The major occupants of office space in these new buildings did not, however, move from Downtown Honolulu spaces. Accordingly, the success of these projects need not indicate a shift away from Downtown as a major office venue (personal communication, William A. Grant, AIA, Executive Director, Downtown Improvement Association, July 20, 1989).

### 2.1.2.3 Secondary Study Area

The Downtown Neighborhood Board area contains several land uses in addition to the zones described above:

- o An area of residential apartment buildings is mainly mauka of Downtown and Chinatown, between Beretania Street and Vineyard Boulevard. Many of these are located in the Kukui and Queen Emma Urban Redevelopment Areas, and were built with government support.

Construction of new apartment buildings continues. Development is now fueled by City and County initiative, in the cases of Hale Pauahi in Chinatown and the Chinatown Gateway Plaza project (now under construction, in Census Tract 40), and private demand, in the case of Honolulu Park Place, now being built at Beretania Street and Nuuanu Avenue.

- o Chinatown contains a mix of commercial and residential structures, mostly in low-rise buildings. Redevelopment in this area has included renovation and refurbishing of older structures, notably along Nuuanu Avenue, and the construction of new commercial and residential projects.

In the past, Chinatown served as home to relatively new immigrants, and as a retail center. Chinatown merchants largely failed to compete with shopping centers, for retail business (Peat, Marwick, Mitchell & Co., 1981). Some multifamily buildings and most of the rooming houses of Chinatown have been replaced by non-residential construction or by residential projects.

City and County redevelopment projects in Chinatown addressed the need for housing above all until recently. New City or City-sponsored projects, however, provide mixed uses and are less dense, and thus closer to the scale of the older buildings in the area.

Hotel Street in Chinatown was Honolulu's adult entertainment center through the 1970's. After the end of the Vietnam War, the demand for such entertainment diminished. Also, a competing bar district has developed in the Ala Moana area. While bars and other attractions continue to do business along Hotel Street, the area is much less busy than in earlier decades.

- o Other land uses in the area include major transportation arteries (H-1 Freeway and Nimitz Highway) and docks used by the Coast Guard and by ships offering interisland pleasure cruises.

Mauka of the primary study area are schools, a major hospital complex (Queens Medical Center), and private and

public recreational facilities (the Nuuanu YMCA; Foster Botanical Garden; Kamamalu Park).

## 2.2 DEMOGRAPHIC AND ECONOMIC CONDITIONS OF STUDY AREA RESIDENTS

The Primary Study Area has a fairly small population; compared to nearby areas. Census data from 1980 showed Downtown residents as relatively prosperous and living in small households. In Census Tract 39, which is mostly filled by government buildings, the resident population was even smaller in 1980. At that time, the median income of resident families was very low.

The population of the Secondary Study Area (Downtown Neighborhood Board area) has increased rapidly in recent years. In 1980, most household units in the area had been built since 1970. Household size was small, as in other urban districts of Honolulu, and median family income was below the island median.

### 2.2.1 Population Trends

The population of the City and County of Honolulu has grown regularly since 1950, but the rate of increase has been steadily slowing. The primary study area has seen a net loss of population over the long term. (See Table 1.) However, the secondary study area population has grown in recent years. However, the population of the area still has not reached the level of the early 1950's, before urban redevelopment.

Primary Study Area. About a thousand people lived in Downtown Honolulu (Census Tract 40) in 1985. The population of Census Tract 39 had declined to less than 100 persons by that date.

Table 1 shows that the population of Tract 39, the government center, has been declining since the 1950's. In Downtown proper, population decline was reversed by 1980. Modest growth has occurred since 1980.

The residential population of Tracts 39 and 40 is a very small proportion of the number of people -- office workers, students, customers, and others -- who visit the area regularly.

Secondary Study Area. In 1985, the Downtown Neighborhood Board area contained an estimated 9,813 residents. This figure represented an increase of 13.1 percent over 1980. Population growth has been strong in the area mauka of Chinatown.

Table 1 shows overall population counts for an area similar to, but not identical with the Downtown Neighborhood Board area. This area of less than 500 acres contained 6.1 percent of the

TABLE 1: POPULATION TRENDS, CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1950 TO 1985 (ESTIMATED)

	April 1, 1950	April 1, 1960	April 1, 1970	April 1, 1980	July 1, 1985
City and County of Honolulu	248,034	500,409	630,528	762,565	811,096
Approximate Downtown Neighborhood Board Area*	15,152	10,080	7,027	10,361	11,562
Census Tract 40		288	100	820	1,066
Census Tract 39	2,051	751	263	115	68

AVERAGE ANNUAL RATE OF GROWTH

	1950-60	1960-70	1970-80	1980-85	, 1950-85
City and County of Honolulu	7.3%	2.3%	1.9%	1.2%	3.4%
Approximate Downtown Neighborhood Board Area*	-4.0%	-3.5%	4.0%	2.1%	-0.8%
Census Tract 40		-10.0%	23.4%	5.1%	
Census Tract 39	-6.6%	-10.0%	-7.9%	-9.5%	-1.7%

NOTE:

\* The "Approximate Downtown Neighborhood Board Area" is made up of Census Tracts 39, 40, 41, 42, 51, and 52. It is not identical with the Downtown Neighborhood Board area, but is a similar area in which long-term trends can be studied.

SOURCES: U.S. Bureau of the Census, 1972, 1981a; Hawaii State Department of Planning and Economic Development, 1973; Hawaii State Department of Business and Economic Development, 1988.

total City and County population in 1950. While the population of this area now comes close to its 1950 size, the 1985 population accounts for a smaller fraction -- 1.4 percent -- of the islandwide total.

### 2.2.2 Characteristics of the 1980 Population

Detailed census data indicate distinctive characteristics of the residents of the study areas, as shown in Tables 2 and 3.

In the Primary Study Area, the people of the two census tracts differed in age, background, residential history, and education in 1980:

- o The median age of Census Tract 40 residents was well above the islandwide average (Table 2). Caucasians formed the majority of the population. Slightly under half the population was Hawaii-born, and a third of the population had lived in another state five years previously. Nearly a third of the Census Tract's adults had finished college -- a fraction well above the islandwide average.
- o Census Tract 39 residents in 1980 were preponderantly Hawaii-born. Only a fifth had lived in the same residence five years before -- most of this small population was relatively transient. In terms of education, the high proportion of residents with less than a high school education was noteworthy.

The Secondary Study Area population was somewhat older, on average, than the islandwide population. It resembled other urban districts in this respect, as Table 3 shows. Less than half the 1980 population was Hawaii-born, and only 22.1 percent of the people had lived in the same house five years before (as shown in Table 2). These figures are below islandwide averages, but not exceptional for urban Honolulu. The low percentage of residents who had been in the same house in 1975 must in part be ascribed to growth in the population and housing stock.

(The Neighborhood Board areas listed in Table 3 are shown in Figure 3. They are situated to the east, and include part of the dense urban residential zone of Honolulu.)

### 2.2.3 Family Characteristics

In both tracts of the Primary Study Area, just under half the 1980 population lived in family units. (See Table 4.) In both tracts, a notable minority of families were headed by women. The

TABLE 2: TOTAL POPULATION AND DEMOGRAPHIC BREAKDOWNS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		DOWNTOWN NEIGHBORHOOD BOARD AREA		CENSUS TRACT 40		CENSUS TRACT 39	
	1970	1980	1970	1980	1970	1980	1970	1980
TOTAL POPULATION	630,528	762,565	NC	8,674	100	820	263	115
Ethnicity								
Caucasian	41.2%	33.1%	N/A	32.3%	N/A	63.0%	N/A	20.9%
Japanese	26.8%	24.9%	N/A	N/A	N/A	12.8%	N/A	27.0%
Chinese	7.7%	6.9%	N/A	N/A	N/A	2.4%	N/A	6.1%
Filipino	10.4%	12.8%	N/A	N/A	N/A	7.2%	N/A	15.7%
Hawaiian	8.5%	10.5%	N/A	N/A	N/A	3.7%	N/A	13.9%
Other	5.5%	11.8%	N/A	N/A	N/A	10.9%	N/A	16.5%
Age								
Less than 5 yr.	9.3%	7.9%	N/A	6.5%	0.0%	2.3%	9.1%	2.6%
5 to 17 yr.	26.2%	20.2%	N/A	9.8%***	1.0%	4.9%	14.1%	7.0%
18 to 64 yr.	59.5%	64.6%	N/A	64.0%***	76.0%	81.0%	65.4%	73.0%
65 or more yr.	5.0%	7.3%	N/A	19.8%	23.0%	11.8%	11.4%	17.4%
Median age (yrs.)	24.6	28.1	N/A	34.4	N/A	42.6	N/A	34.8
Place of Birth†								
Hawaii	56.1%	55.1%	N/A	45.4%	N/A	44.7%	N/A	72.5%
Other U.S.**	NC	30.1%	N/A	27.9%	N/A	42.8%	N/A	10.8%
Foreign	NC	14.8%	N/A	26.7%	N/A	12.5%	N/A	16.7%
Residence 5 Yrs. Before† (people aged 5 or more)								
Same house	42.5%	48.2%	N/A	22.1%	23.0%	31.9%	33.3%	19.0%
Same county	23.9%	25.5%	N/A	52.6%	N/A	31.2%	N/A	48.1%
Other county	1.2%	1.3%	N/A	2.2%	N/A	3.4%	N/A	16.5%
Other state	20.9%	18.4%	N/A	11.7%	N/A	33.5%	N/A	16.5%
Other country	11.6%	6.6%	N/A	11.4%	17.5%	0.0%	4.3%	0.0%
Education† (people aged 25 or more)								
Less than H.S.	20.8%	14.4%	N/A	20.5%	39.8%	4.3%	26.6%	26.7%
H.S. graduate only	37.5%	35.5%	N/A	28.9%	9.3%	39.5%	9.2%	32.0%
Some post H.S.	12.9%	18.3%	N/A	18.7%	9.3%	19.8%	20.2%	16.0%
College, 4+ yr.	15.5%	21.7%	N/A	22.6%	21.3%	31.5%	19.3%	16.0%

NOTES:  
 † Figures based on 15 percent sample; numbers hence represent estimates.  
 \*\* Includes persons born in U.S. territories, or born abroad or at sea to U.S. parents.  
 \*\*\* Estimate derived partly by dividing numbers reported for the 15-19 cohort.  
 "NC": 1970 categories not comparable to 1980 ones.  
 "N/A": Not Available.

SOURCES: U.S. Bureau of Census, 1972, 1981a, 1981b, 1981c; Hawaii State Department of Planning and Economic Development, 1972; City and County of Honolulu, Department of General Planning, 1982.

TABLE 3: 1980 CENSUS INFORMATION ON NEIGHBORHOOD BOARD AREAS

Population	City and County of Honolulu	Downtown Board 13	Ala Moana/ Kakaako Board 11	Makiki Board 10
Number of Residents	762,534	8,674	10,032	28,695
Age				
Median (yrs.)	28.1	34.4	40.1	32.3
% under 5	7.9%	6.5%	3.7%	4.7%
% under 15	23.0%	13.7%	9.0%	11.7%
% over 65	7.3%	13.7%	17.1%	11.3%
Percentage below Poverty Line	9.5%	18.6%	13.1%	10.3%
Labor Force				
% Unemployed	4.6%	5.3%	4.7%	3.7%
Household and Family				
Number of Households	230,214	4,406	5,505	14,050
Persons per Household	3.15	1.85	1.8	2.01
Number of Families	176,916	1,968	2,373	6,816
Median Family Income	\$23,554	\$17,870	\$20,962	\$21,379
Housing				
% rented	50.1%	79.2%	68.7%	65.7%
% of Households in Same Unit				
10 years	26.8%	5.5%	14.9%	15.7%
% in units built before 1940	8.4%	8.4%	3.5%	9.4%
% in units built after 1970	35.2%	58.3%	35.4%	35.8%
% of owner-occupied units vacant	1.1%	0.3%	0.7%	2.5%
% of rental units vacant	7.8%	4.4%	9.0%	4.4%
Median Rent	\$279	\$262	\$289	\$593

SOURCE: 1980 U.S. Census, as summarized in City and County of Honolulu, Department of General Planning, 1988.



TABLE 4: FAMILY CHARACTERISTICS AND INCOME LEVELS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		DOWNTOWN NEIGHBORHOOD BOARD AREA		CENSUS TRACT 40		CENSUS TRACT 39	
	1970	1980	1970	1980	1970	1980	1970	1980
POPULATION IN FAMILIES	N/A	653,118	N/A	7,691	N/A	404	N/A	57
as percentage of total population	N/A	85.6%	N/A	88.7%	N/A	49.3%	N/A	49.6%
NUMBER OF FAMILIES	138,277	178,516	N/A	1,968	2	190	52	20
HEAD								
Husband/Wife	86.7%	82.8%	N/A	68.3%	50.0%	63.2%	69.2%	70.0%
Male only	3.6%	4.5%	N/A	8.0%	50.0%	12.6%	21.2%	0.0%
Female only	9.8%	12.7%	N/A	23.7%	0.0%	24.2%	9.6%	30.0%
WITH OWN CHILDREN UNDER 18	63.4%	54.9%	N/A	41.1%	0.0%	40.0%	50.0%	55.0%
Female head	6.2%	7.5%	N/A	15.4%	0.0%	17.4%	5.8%	30.0%
BELOW POVERTY LEVEL	7.2%	7.5%	N/A	14.6%	0.0%	3.2%	0.0%	75.0%
MEDIAN FAMILY INCOME	\$12,035	\$23,554	N/A	\$17,870	N/A	\$32,004	N/A	\$4,167
NON-FAMILY HOUSEHOLDS	N/A	53,298	N/A	2,497	N/A	326	N/A	51
percentage below poverty level	N/A	15.7%	N/A	N/A	N/A	12.6%	N/A	N/A

NOTES: All figures (except "Population in Families" and "Non-Family Households") based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.  
 "N/A": Not Available.

SOURCES: U.S. Bureau of Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1972; City and County of Honolulu, Department of General Planning, 1983.

two populations differed greatly, however, in terms of income and poverty status. Downtown residents' family incomes averaged well over the islandwide median. Most families in Census Tract 39 were poor, and the median family income was less than a quarter of the islandwide median.

In the Downtown Neighborhood Board area, the proportion of the population in families was higher, and slightly above the islandwide proportion in 1980. Family incomes averaged well below the islandwide median, and the percentage of families below the poverty level was relatively high.

#### 2.2.4 Housing Characteristics

In Honolulu's urban districts, a high proportion of rental housing is common, while household sizes below 2 persons/unit are common. (See Table 3). Both the Primary Study Area census tracts and the Secondary Study Area (Downtown Neighborhood Board area) had these characteristics in 1980, as shown in Table 5.

In the Downtown area, much housing had been densely populated and lacking amenities in 1970. By 1980, conditions had improved greatly. Still, many units lacked separate plumbing at that time. The vacancy rate was high, probably because some units were held for transient use, while other apartments had been rented to visitors during the preceding vacation season, but stood empty at the date of the census.

In Census Tract 39, many units were still densely populated in 1980. While rents were relatively low, they demanded a large part of the family incomes disclosed to the census.

In 1980, housing characteristics in the Downtown Neighborhood Board area (Secondary Study Area) were far better than in the Primary Study Area. Occupancy and rental figures were more closely in line with islandwide and urban averages. Table 3 shows that over half the units in the area had been built since 1970.

For 1985, the number of occupied housing units in the Downtown Neighborhood Board area has been estimated at 4,899 (City and County of Honolulu, Department of General Planning, 1987). This amounts to an increase of 11.1 percent over the 1980 figure.

#### 2.2.5 Labor Force Characteristics

Primary Study Area. In 1980, the participation of Downtown residents in the civilian labor force was high even in comparison to other Oahu areas, as Table 6 indicates. Unemployment, too, was well above the island average. The proportion of Downtown workers in managerial, professional, technical, sales, and administrative jobs was above the average

TABLE 5: HOUSING STOCK AND CHARACTERISTICS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		DOWNTOWN NEIGHBORHOOD BOARD AREA		CENSUS TRACT 40		CENSUS TRACT 39	
	1970	1980	1970	1980	1970	1980	1970	1980
TOTAL, YEAR-ROUND HOUSING UNITS	174,107	250,866	NC	4,706	53	608	119	80
vacant (total)	5.4%	8.2%	N/A	6.4%	1.9%	18.1%	5.0%	8.8%
vacant for sale	0.6%	0.5%	N/A	0.1%	0.0%	0.0%	0.0%	0.0%
vacant for rent held for occns. use	2.5%	3.6%	N/A	3.4%	0.0%	9.4%	4.2%	6.3%
other	N/A	0.9%	N/A	0.6%	N/A	3.8%	N/A	0.0%
	N/A	3.2%	N/A	2.3%	N/A	4.9%	N/A	2.5%
TOTAL, YEAR-ROUND OCCUPIED UNITS	164,763	228,656	N/A	4,406	52	498	113	73
TENURE								
owner-occupied	45.0%	49.5%	N/A	20.8%	0.0%	35.1%	3.5%	9.6%
renter-occupied	55.0%	50.5%	N/A	79.2%	100.0%	64.9%	96.5%	90.4%
SELECTED CONDITIONS								
lacking some or all plumbing	3.5%	1.5%	N/A	8.9%	82.7%	30.9%	23.0%	21.9%
1.51 or more persons/room	6.9%	7.4%	N/A	10.6%	11.5%	3.8%	24.8%	27.4%
PERSONS PER HOUSEHOLD	3.60	3.15	N/A	1.85	1.19	1.57	2.21	1.58
MEDIAN CASH RENT (renter-occ'd)	\$130	\$279	N/A	\$262	\$58	\$250	\$93	\$215
as % of median family income**	13.0%	14.2%	N/A	17.6%	N/A	9.4%	N/A	61.9%
MEDIAN VALUE* (owner-occ'd)	\$38,100	\$130,400	N/A	\$90,000	N/A	N/A	N/A	N/A
MEDIAN MONTHLY MORTGAGE* (owner-occ'd)**	N/A	\$494	N/A	N/A	N/A	N/A	N/A	N/A
as % of median family income:	N/A	25.2%	N/A	N/A	N/A	N/A	N/A	N/A

NOTES: \* For 1980, median values are for non-condominium housing units.  
 \*\* Figures based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.  
 "N/A": Not Available.

SOURCES: U.S. Bureau of Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1972; City and County of Honolulu, Department of General Planning, 1983.

TABLE 6: LABOR FORCE SIZE AND CHARACTERISTICS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		DOWNTOWN NEIGHBORHOOD BOARD AREA		CENSUS TRACT 40		CENSUS TRACT 39	
	1970	1980	1970	1980	1970	1980	1970	1980
POTENTIAL LABOR FORCE (Aged 16+)	427,601	574,903	N/A	7,384	100	738	124	81
not in labor force	33.0%	30.8%	N/A	29.4%	13.3%	17.6%	22.6%	33.3%
armed forces	11.5%	10.1%	N/A	0.0%	0.0%	2.2%	0.0%	0.0%
civil. labor force	55.6%	59.1%	N/A	70.6%	86.7%	80.2%	77.4%	66.7%
CIVILIAN LABOR FORCE	237,338	339,863	N/A	5,211	98	592	96	54
unemployed	3.0%	4.6%	N/A	5.3%	6.1%	9.0%	0.0%	0.0%
TOTAL EMPLOYED, CIVILIAN LABOR FORCE	230,252	324,113	N/A	4,935	92	539	96	54
OCCUPATION:								
service	15.0%	17.6%	N/A	20.9%	58.7%	14.8%	16.7%	0.0%
manage./profes.	NC	24.7%	NC	27.3%	NC	28.9%	NC	13.0%
technical, sales & adminis.	NC	33.8%	NC	33.5%	NC	42.9%	NC	44.4%
farm/fish/forest	NC	1.8%	NC	1.3%	NC	2.6%	NC	11.1%
precision/craft/repair	NC	11.3%	NC	7.8%	NC	4.3%	NC	14.8%
operators/fabricators/laborers	NC	10.9%	NC	9.4%	NC	6.5%	NC	16.7%
INDUSTRY (selected):								
construction	9.5%	6.6%	N/A	3.7%	0.0%	8.2%	16.7%	13.0%
manufacturing	10.3%	7.7%	N/A	7.9%	12.0%	8.9%	10.4%	0.0%
retail trade	18.0%	20.5%	N/A	18.2%	21.7%	12.2%	20.8%	13.0%
financial, insur., real estate	5.6%	8.1%	N/A	9.8%	0.0%	25.8%	3.1%	11.1%
personal, entertain. & recreat. services	7.6%	8.1%	N/A	7.7%	N/A	4.3%	N/A	0.0%
health, educ., & professional	18.1%	18.5%	N/A	17.2%	18.5%	13.9%	11.5%	31.5%
public admin.	12.6%	10.9%	N/A	5.2%	12.0%	6.9%	0.0%	9.3%
COMMUTE TO WORK								
45 minutes or more	N/A	13.4%	N/A	N/A	N/A	13.4%	N/A	0.0%
less than 45 mins.	N/A	22.6%	N/A	N/A	N/A	18.8%	N/A	9.0%

NOTES: All figures based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.

"N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1972; City and County of Honolulu, Department of General Planning, 1983.

for Honolulu. The participation of a quarter the district's workers in the financial/real estate/insurance sector was highly distinctive.

The smaller pool of workers living in Census Tract 39 was more evenly dispersed according to occupation and industry. They were fully employed. A high proportion of residents were in the health/education/professional sector. The average commuting time for workers from this census tract was very short by Honolulu standards.

Only about a third (32.3%) of the workers living in the Primary Study Area also worked there in 1980. Of the rest, 61% worked elsewhere in Honolulu, and 6.7% worked in other Oahu locations (calculations based on the Urban Transportation Planning Package, unpublished materials from the Hawaii State Department of Transportation, based on the 1980 U.S. Census.)

Secondary Study Area. Labor force participation by Downtown Neighborhood Board area residents in 1980 was somewhat higher than for all Oahu residents. The distribution of residents by occupation and industry was generally similar to the islandwide distribution.

## 2.3 ISSUES AND CONCERNS INDEPENDENT OF THE PROJECT

This section identifies major concerns voiced by members of the community. These issues form part of the social context of development, and are considered as potentially relevant to the project. The focus is on general issues in this section -- the particular concerns that are clearly linked with the project in the judgement of members of the community will be discussed in section 4.5.

### 2.3.1 Islandwide Issues and Concerns

Recent concerns of Oahu residents can be identified from opinion polls. Major issues include housing, education, and traffic congestion or transportation:

- o The 900 residents surveyed in late February and early March, 1989 for SMS Research and Marketing Services, Inc.'s Quarterly Consumer Study identified housing, education and transportation as major issues (personal communication, James Dannemiller, SMS Research and Marketing Services, Inc., May 4, 1989).

Concerns related to tourism have lessened somewhat, while no change was found in concern about development in Hawaii. Land use issues have been important to increasing numbers of respondents in recent years, but these are still not major issues.

- o Respondents to a February 1988 poll mentioned traffic most often as a problem "that government should do something about" (Keir, 1988a). The cost of housing, the quality of public education, and crime were mentioned less often, but by at least a fifth of the sample.
- o Jobs, crime, traffic, education, and housing were priorities for Oahu residents according to earlier surveys (Aloha United Way and the Health and Community Services Council, 1987). Concern over traffic increased markedly during the 1980's, to emerge as the major issue by 1987.

Foreign investment has been much discussed by community groups, local government leaders, and the media. When polled in 1988, most of the 701 persons surveyed opposed the purchase of land in Hawaii by foreign investors for several different purposes (Keir, 1988b, 1988c). However, in response to open-ended questions, Oahu residents have not identified foreign investment as an issue of major concern.

### 2.3.2 Issues and Concerns of Study Area Residents

The Downtown Neighborhood Board (No. 13) minutes and newsletter indicate some of the concerns of the residents of the study area.

The Downtown Neighborhood Board represents residents of an area with diverse uses. The concerns expressed at Board meetings often reflect the difficulty of assuring peace and security for residents of an district heavily used by others, ranging from poor transients to commuters.

The minutes of Downtown Neighborhood Board No. 13 for the period of September 1986 through May 1989 were reviewed to identify major issues of concern to study area residents. During that time, 24 residents served on the Board. The Board members attended closely to several issues, notably:

- o **Street People and the Homeless.** Members of the Board expressed a strong interest in meeting the needs of these people.

Board members supported a fundraiser for the homeless and a proposal to provide an emergency shelter. A presentation concerning a mental health center, to be operated by the State Department of Health, was greeted with some skepticism. Some considered it possible that a facility at another location, or vans parked in public spaces such as Wilcox Park or Fort Street Mall, might serve the needs of the mentally ill better.

The Hawaii Ecumenical Housing Corporation presented its proposal for a shelter for the homeless and abused families, to be located on Beretania Street. At the meeting, questions were raised concerning facilities for children, the feasibility and operation of a restaurant on-site, parking and vehicle access, and possible impacts of the shelter's clients on neighboring properties.

- o **Parking and Traffic Congestion.** Board members raised questions about parking in Fort Street Mall, Union Mall, and sidewalks -- areas normally reserved for pedestrians. Even plans to establish a "Mayor's Performance Hotline" at Iolani Palace prompted questions from the Board regarding the parking needs of the service.

In discussions, residents showed some tolerance for congestion on roads and sidewalks. The Board supported efforts to alleviate rush-hour traffic by staggering work hours and favored a legislative bill to encourage ride-sharing. Board members have identified congestion due to commuter traffic as a concern.

- o **Noise.** Residents objected to noise from several sources, notably Hotel Street bars at night and garbage pick-ups early in the morning.
- o **Safety and Security.** Board members were generally favorable to the Police Department's foot patrols, although one resident hoped to see more patrols. One resident reported that he felt unsafe on foot at night.

Others discussed prostitutes in Aala Park and residential areas as a problem. Graffiti, loitering youths, and drunk driving were also discussed.

- o **Beautification and Sanitation.** The Board planned to organize a volunteer clean-up of parts of the financial district and Chinatown, but cancelled the project as the property in the area of concern is mainly private. The absence of public rest rooms Downtown has been discussed at length.
- o **Proposed Projects in the Downtown Neighborhood Board area.** The Board discussed plans for several structures, including the River/Nimitz building, the commercial area at Hale Pauahi, the Pacific Nations Center, the Pan Pacific Plaza, and the Alakea/Richards Redevelopment project. (Board members' comments about the project are discussed in Section 4.5.) In these discussions, Board members and other residents expressed concern with:

- The preservation of open space;
- Encouraging residential development, especially for families with children, in the city center;

- Traffic and parking problems during and after construction; and
- Design aesthetics.

The Board voted unanimously that parking facilities should not be displaced due to new residential or commercial developments. The Board also expressed concern for the ability of the zoning system to meet the transportation, utility and recreational needs of proposed Downtown developments which increase in density and heights.

The Board accepted a Downtown Improvement Association study showing that more office and parking space is needed Downtown.

A mail-out survey to Downtown Neighborhood Board area residents in 1986 gathered only 166 responses -- three percent of the households surveyed (Honolulu City and County Neighborhood Commission, 1987). A survey with such a low response rate can indicate some of the opinions held by residents, but not the whole range of views. Respondents mostly rated public services -- the bus system, police, sanitation, and "health and safety" -- as "Excellent" or "Good." In written comments, some residents stressed concerns with pedestrian safety and noise.

### 2.3.3 Concerns of the Downtown Business Community

Some of the concerns of Downtown business interests have been expressed by the Downtown Improvement Association (DIA) of Honolulu and the Chamber of Commerce of Hawaii. The DIA was founded in 1958 to work for Downtown redevelopment. It originally urged development of business, government, and retail activities in the Central Honolulu area (Downtown Improvement Association, February, 1988). As retail trade has moved away from Central Honolulu, the DIA has come to support separate development for the Downtown business district and the government center.

The DIA views steady growth of office space and parking in Downtown Honolulu as a priority. It supports orderly growth to allow decision makers to plan for expansion, and to minimize risks in development.

The association has repeatedly urged that land use regulations for Downtown Honolulu be changed to increase allowable density by 20 percent and to raise building heights from 350 to 500 feet (Downtown Improvement Association, August, 1986, June, 1989).

A majority of delegates to a September 1984 convention of the Chamber of Commerce of Hawaii voted in favor of private redevelopment of Downtown Honolulu, and in support of government





### 3.0 FORCES FOR CHANGE INDEPENDENT OF THE PROJECT

Major forces for changes in Central Honolulu involve plans and proposals which are likely to increase both the density of office development in the Downtown area and the appeal of adjoining areas to the general public. The result is likely to be increasing activity in Central Honolulu. The largest projects under consideration, which would extend the borders of Downtown Honolulu and greatly increase the supply of offices and parking, are scheduled to be completed after the project opens.

Plans to deal with the traffic and parking issues raised by existing and projected developments are not as far advanced as plans for new buildings and other activities.

Major forces for change include:

- o Attempts to co-ordinate development of several sites in the study area in a single plan or program;
- o Changes in the activities and land-use patterns of non-profit organizations;
- o The development of specific projects in the near term; and
- o Developments in transportation, traffic patterns, and parking.

Major development programs of the State of Hawaii and the City and County of Honolulu are expected to result in increased office density, parking availability, and traffic in Central Honolulu within ten years, and over the longer term. For the short term, plans to minimize construction impacts on parking have been announced.

With new development of areas at the margins of Downtown Honolulu, the boundary between a Central Business District and peripheral areas will become increasingly unclear. Private office block developments will intensify these general trends.

Changes in the government zone of Central Honolulu could increase short-term traffic and parking problems, by reducing parking availability and encouraging increased visitor traffic in Central Honolulu.

### 3.1 GOVERNMENT PROGRAMS FOR CENTRAL HONOLULU DEVELOPMENT

Both the State of Hawaii and the City and County of Honolulu are planning to redevelop sites in Central Honolulu. The State's major effort has been to develop the waterfront, while the City

has identified underutilized parcels it controls and has sought to redevelop these.

In both cases, Downtown Honolulu redevelopment is a secondary goal. The State's planning process deals with about six miles of waterfront land, not just the Downtown area. The City and County's plans usually identify preferred developments for Chinatown as well as Downtown, or for all the people of Oahu.

The State's plans for the Aloha Tower area, on the Downtown Honolulu waterfront, include a new high-rise office structure and a mid-rise hotel (Helber, Hastert & Kimura and R.M. Towill, 1988). The adjoining HECO site is identified as a potential office tower and site for parking. An interisland ferry terminal is also proposed for the Downtown waterfront.

Various developers are now preparing bids for the Aloha Tower Redevelopment. One would include development of the HECO site as part of the project (Kresnak, 1989a). The redevelopment could hence bring a substantial expansion of Downtown office space and parking by the mid-1990's.

The State's planners view the Aloha Tower site as providing "a unique identity and environment that incorporates the historical maritime aspects of the waterfront with the modern central business district of Honolulu" (Helber, Hastert & Kimura and R.M. Towill, 1989). The historical emphasis links this area with both the Chinatown waterfront and the Kakaako waterfront, where two museum sites are designated in addition to the existing Hawaii Maritime Center (within the primary study area).

The City and County of Honolulu has not issued comprehensive plans but has enunciated and pursued a policy of redevelopment in Central Honolulu. Honolulu's Mayor (Fasi, 1988) has identified several aims:

- o providing housing;
- o encouraging retail and recreational development in Chinatown;
- o beautification;
- o countering impressions that the urban core is not a safe area, and thereby encouraging evening and night activity; and
- o promoting employment.

Projects to achieve these aims include:

- o The completed Hale Pauahi, a mixed residential project in Chinatown;
- o Chinatown Gateway Plaza, a residential project to be built by mid-1990, with some retail elements and open space situated so as to be an amenity for the adjacent Hawaii Theater (in Census Tract 40);
- o Maunakea Marketplace, a retail project in Chinatown;
- o Harbor Court, a mixed use development on the site of existing parking facilities on Nimitz Highway and Bethel Street, to combine 170 condominium units, 200,000 square feet of office space in a second tower, and a 1,000-stall garage, according to the description of the winning proposal accepted by the City and County (Kresnak, 1989b);
- o Pacific Nations Center, a mixed-use development in which up to 1.6 million square feet of space would be allotted to office, condominium, and hotel uses, and 2,500 parking stalls would be provided (Parsons Hawaii, 1989); and
- o The currently proposed project.

The City and County projects have tended to implement the notion of the urban center as a mixed-use area, encouraging residential, retail, and office development together.

### 3.2 NEW LAND USES AND ACTIVITIES OF NON-PROFITS

The YWCA, adjacent to the project site, and Iolani Palace, across the street, could implement plans in the near future affecting their own land use and that of adjacent landowners and users.

The YWCA has contracted R.M. Towill Corp. to review its facilities and develop plans for their highest and best use. In order to insure that the YWCA continue its programs to serve a growing population, those plans could include the development of sites adjacent to the Richards Street YWCA, and/or possible structural changes to the YWCA. The R.M. Towill report is to be finished in October 1989 (personal communication, Beadie Dawson, Chair, Long Range Planning Committee, YWCA of Oahu, August 1, 1989). (The alternatives mentioned above could involve acquisition of sites now owned by others. Neither YWCA officials nor owners of nearby properties discussed that possibility in any detail.)

Renovation of several areas and facilities of the YWCA will be needed in the next few years. Basement areas and the boiler room have been mentioned as candidates for renovation.

The State and the Friends of Iolani Palace have been renovating the Palace and its grounds for years. The overall aim of the Master Plan is to restore the Palace and its grounds to a state much like that of King Kalakaua's time. Phase 14 of the plan calls for the replacement of the blacktop areas on the palace ground with landscaping and carriage paths (personal communication, Alice Guild, Managing Director, Friends of Iolani Palace, July 19, 1989). When that phase is complete, no parking stalls will exist in the Palace area. Phase 14 will only be implemented when an alternate parking site is found, replacing the 224 stalls now on the Palace grounds (mostly reserved for State employees).

The Friends of Iolani Palace are also planning to shorten the length of tours, and to admit more visitors to the palace. This move will tend to increase the number of tourists visiting the Central Honolulu area.

### 3.3 SPECIFIC PROJECTS IN PROGRESS OR PLANNED FOR CENTRAL HONOLULU

By the time the project is scheduled to open, other buildings now under construction or planned for Downtown Honolulu would be completed:

- o The State Office Tower on Beretania Street is planned for 1990. (This building will not add to the available inventory of office space until 1995 or later, as it will house State offices displaced from other sites by asbestos removal.)
- o The Chinatown Gateway Plaza residential project (described in Section 3.1).
- o Pan Pacific Plaza, a 495,000 square foot office building with 800 parking stalls, expected to open in 1991.

On the Ewa side of Nuuanu Avenue, new projects include the Hawaii National Bank Building (140,000 square feet of office space, to open in 1990), the City's River-Nimitz residential project, the Honolulu Park Place condominium.

In the short term, new office space in Downtown Honolulu is not expected to expand greatly until Pan Pacific Plaza is open. Afterwards -- at the time the project opens or in the next few years -- substantial increases in the inventory are possible but by no means certain:

- o A 31-story building with nearly 200,000 square feet of space has been planned for the Merchandise Mart site, across the intersection of Alakea and Hotel Streets from

the project site (Sylvester, 1989). No dates for construction have been announced.

- o The Pacific Nations Center, Aloha Tower, and Harbor Court projects could add up to 2,000,000 square feet of office/commercial space.

One analyst has suggested that, with the opening of Pan Pacific Plaza, the Downtown Honolulu office supply will shift from a "landlord's market" to a "tenant's market" (F. Veregge, in Forest, 1989). However, given a range of rule-of-thumb estimates of demand for office space in Honolulu, it is also possible that Pan Pacific Plaza will simply meet pent-up demand, and the vacancy rate will remain relatively low until after the project is completed (Parsons Hawaii, 1989).

Extensive renovations and an addition to the State Library are planned for the immediate future. During the renovation, books will be moved to another site, outside the Primary Study Area, so demand for parking by library users is expected to lessen. After the renovation is completed, however, that demand is expected to return. (The timing of the renovation depends on relocation plans. The Board of Education only recently decided on a site (Brislin, 1989).)

In interviews with Community Resources, Inc., owners, operators and managers of other buildings in the blocks adjacent to the project site did not discuss plans for expansion or major changes in land use other than those noted above. (For four nearby sites -- Bishop Square, Merchandise Mart, Yong Sing, and First Hawaiian Bank -- owners or their representatives would not discuss their plans. This account draws on newspaper reports of plans for those properties.)

### 3.4 TRANSPORTATION, TRAFFIC, AND PARKING

Traffic congestion has been identified as a problem in Downtown Honolulu (see Section 2.3.2). State initiatives to improve matters include plans to encourage staggered-hours commuting, a demonstration telecommuting project, and the use of contra-flow lanes on major highways. The City and County has expanded its bus fleet and is developing plans for a Rapid Transit system.

Plans to remove the Liberty Theater building, providing space for 100 new parking stalls for the next two years, have been announced (Smith, 1989).

Business interests and residents have noted that by actively redeveloping several sites now used for parking lots, the City and County may reduce the Downtown parking supply during the construction period (Downtown Improvement Association, July,

1989). The Director of the Department of Housing and Community Development identified steps to be taken to mitigate the problem:

- o Parking facilities at sites now under construction could be opened as soon as possible;
- o The scheduling of some projects could be slowed to avoid a sudden withdrawal of many stalls from the Downtown inventory;
- o Additional stalls outside Central Honolulu could be made available to the public (at the Alapai Street site for a future city office building, and at Neil Blaisdell Center; and
- o New parking facilities can be developed.

The State has been criticized with regard to parking facilities. Asbestos removal at the State Capitol will necessitate closing some stalls. The State has identified lots at which additional parking spaces can be created. Near the project site, the State has suggested that an additional ten spaces could be created mauka of Iolani Palace, and that other spaces could be made on the State Capitol Lawn.

According to announced plans, little change in the parking inventory is likely in the next two years. By mid-1992, however, the supply of off-street parking stalls is expected to increase by at least 11% of the current amount. That increase will, however, partly be due to housing project which could have little or no public space available. Consequently, the increase in parking spaces for public and commuter use is likely to be below 10%.

The overall increase in office space by mid-1992, including the project, is expected to amount to about 20% of existing inventory. The increase in parking spaces will be about half the increase in office space. Consequently, the supply of parking is likely to become even tighter in the near future.

#### 4.0 SOCIAL IMPACTS

This section identifies potential social impacts of the project. Major topics include:

- o Displacement of current on-site activities;
- o Population impacts of the project;
- o Impacts on adjacent and nearby land users;
- o Impacts on the wider community;
- o Issues identified by members of the community in relation to the project; and
- o Mitigating measures for possible adverse impacts or problems identified by members of the community.

Employment and income impacts are separately discussed in the Environmental Impact Statement. The discussion of population in this report follows assumptions about operational employment developed for the Environmental Impact Statement.

The project's social impacts include contributions to the development of Honolulu's urban center and impacts on adjacent users. Adverse impacts will be most felt by the operators of the YWCA and Jury Box building, which now enjoy light, air, and space because the project site is not fully developed.

#### 4.1 DISPLACEMENT OF EXISTING ACTIVITIES

The project site is now used for public parking, for City three-wheel vehicles, and as a bus stop. "Displacement" does not refer in this case to residents, but to activities of persons who use the site for various purposes.

Displacement impacts will be limited in scale. Two of the project site's three major uses will in effect not be displaced for any period. The third use will be displaced for the construction period (from demolition of the existing structure to the opening of the project):

- o The City's parking regulation three-wheeled vehicles will be relocated to a new site (on Coral Street) by the end of 1989. This move was needed because the unit's operations are expanding, and 18 new vehicles will be added (personal communication, David Asato, Parking Branch Manager, Traffic Engineering Division, City and County of Honolulu Department of Transportation Services, July 31, 1989).



- o Bus service will not be interrupted as a result of the project. It may be necessary, depending on construction practices, to relocate the bus stop for a time. That decision will be taken in response to or after the Environmental Impact Statement review stage (personal communication, Glen Moir, Transportation Planner, Bus Systems Division, City and County of Honolulu Department of Transportation Services, August 8, 1989).

Project plans indicate that space along Hotel Street will be allocated for a bus shelter when the project is operational.

- o After the project is opened, 235 parking stalls will be available for public use at municipal parking rates. The current public parking use will thus be continued.

During construction -- projected for the period from January 1990 to the end of 1991 -- public parking will not be possible on-site.

Also, both Honolulu Police Department and Parking Branch personnel use the site as a parking place when they have business at the District Court Building, across the street. The new location for three-wheeled vehicle operations will not be near the court building, so this use will end once the existing facility is closed for demolition.

#### 4.2 POPULATION IMPACTS

Two types of population are often calculated for new developments -- residential population and de facto population. The former involves people living at the project site or in a study area. The latter involves people present at any given time, including, for example, workers and customers.

The project will not have any residential units, so it will have no impact on the residential population or the housing stock.

As indicated in the Environmental Impact Statement, no income impacts are attributable to the project's operational phase, since the project will not bring new income from outside Hawaii into the State. As a result, no increase in the resident population of Oahu can be identified as an indirect effect of the project.

De facto population on site will vary from hour to hour and day to day. For the purposes of social impact analysis, a maximum de facto population -- assuming that all spaces will be used intensively -- is calculated. Table 7 shows a maximum de facto population for the project of about 2,200.

TABLE 7: MAXIMUM DE FACTO POPULATION, ALAKEA/RICHARDS PROJECT

<u>Segment of the Population</u>	<u>Number of People</u>
Office Space 1 person per 160 sq. ft. 301,942 sq. ft. of space	1,887
Retail Space 1 person per 30 sq. ft. 8,525 sq. ft. of space	284
Building Employees	12
Persons Parking in Garage	15
	-----
TOTAL	2,198

NOTES:

Office and retail space calculations are based on recent and current Downtown Honolulu densities, architectural standards, and the Uniform Building Code. Estimates of building employees and parkers follow from the assumption that office and retail spaces will be most fully occupied during the workday, at a time when relatively little space will be available for parking, and building needs for security and janitorial personnel will be low.

SOURCE: American Institute of Architects and Hoke, 1988.

It should be stressed that this is a "worst case scenario," an estimate of the highest number of people that might, under credible but unusual circumstances, be in the building, not a projection of actual normal usage. It is based on building codes and architectural standards for estimating highest capacity. In all likelihood, the actual population on-site when the building is open will be smaller.

#### 4.3 IMPACTS ON ADJACENT AND NEARBY LAND USERS

The project's social impacts on users of the immediately adjacent properties will differ in intensity from impacts on other properties in the area. Accordingly, impacts on the two adjacent buildings are discussed in Section 4.3.1, and impacts on others in the area are identified in Section 4.3.2.

##### 4.3.1 Impacts on Adjacent Land Users

Activities at the YWCA and Jury Box buildings, adjoining the project site, will be affected in different ways from phase to phase of the project's development.

Some of the potential changes listed in this section would occur in any event. The State of Hawaii filed an action in eminent domain for the project site, so the default alternative to the project is the State's proposal for a parking garage, not continuation of the existing situation. Accordingly, expected effects of construction are not project-specific impacts.

Representatives of the developer and the City and County have sought to minimize adverse impacts on adjacent structures and land users in several ways (discussed in Section 4.6).

During the planning phase, decision-makers for both the YWCA and the other adjacent building have reviewed plans and considered alternatives in the light of the project's existence.

The YWCA's own planning process was not timed to fit with the City and the State proposals for development of the project site. The City's Request for Proposals for redevelopment of the project site was published in August 1988. The Hawaii State Legislature appropriated funds for acquisition of the site in 1987. However, the YWCA's consultant is not scheduled to finish an analysis of alternative future uses for the Richards Street site until late 1989.

During construction (including demolition of the existing structure), adjacent users will suffer inconveniences and irritations associated with construction work. Noise and dust will be controlled to meet government standards but

will still be irritants for some neighbors. Occasional obstructions of pedestrian routes and roadways could dissuade people from coming into the area for the short term.

Persons responsible for both adjoining buildings were concerned that the project could affect their structures' integrity.

Specific activities of these users will likely be affected. (However, the project's developer has sought to minimize adverse impacts on adjacent land users by situating the building five feet away from the makai property line.) At the YWCA:

- o Current uses of parts of the project site and some activities within the YWCA building facing the project site will need to be relocated, for all or part of the construction phase:
  - The toddler play area, reaching into the area leased from the City and County, will have to be relocated;
  - The infant and toddler programs, which are housed in rooms facing the project site, may have to be moved during construction due to noise and possible dust; and
  - Space now used for parking two vans will be reduced, so only one van can park off the street.
- o The right-of-way easement from Alakea Street will be narrowed to about five feet, precluding vehicular entry. Trucks will no longer be able to deliver fuel oil by this route. The project's developer proposes to mitigate this effect on the YWCA. (See Section 4.6.)
- o Construction noise and other impacts will likely deter some persons from participating in programs at the YWCA or eating at the Palace Court restaurant for part or all of the construction period. The consequence would be a loss of revenue for the YWCA.

Major noise impacts of construction would occur for limited periods. Pile driving, if needed, is expected to take no more than 12 weeks. The developer is considering possible measures to mitigate effects of construction noise. (See Section 4.6.)

- o The loss of public parking in the adjacent structure will make it harder for some persons to attend afternoon, evening, and weekend meetings during the construction period. (YWCA officials see the existing parking supply as a limit on the YWCA's capacity for growth.)
- o Blockages of traffic lanes and relocation of bus stops, if these occur, could also lower attendance at YWCA

events and programs.

- o Changes in pedestrian access routes will especially affect persons with partial or no vision. The YWCA hosts a support group for the visually impaired which could be affected.

YWCA officials were further concerned that construction debris could inconvenience or even pose some sort of danger to pool users. However, the pool is over 40 feet from the construction site and standard construction precautions would be taken to avoid such inconvenience and/or danger.

At the Jury Box Building, construction will bring inconvenience, but will not affect activities to the extent described for the YWCA.

When the project is operational, impacts on adjacent sites will be limited, but still distinct from impacts on more distant properties. Some impacts will be positive:

- o Increases in the Downtown Honolulu office population bring increased membership and demand for services at the YWCA;
- o The new building's occupants will likely add appreciably to the clientele of the Palace Court Restaurant, in the YWCA;
- o The project will provide a few more public parking stalls than the existing structure (and many more than during the construction phase); and
- o The Richards and Alakea Street frontages of the building will offer much more pleasing design than the existing structure, and may encourage pedestrian traffic to the YWCA.

In the operational phase, the inconveniences and irritations associated with the construction period will end. The project will provide landscaping and amenities absent in the existing structure.

The current project plans, siting the building five feet away from the makai property line, address concerns of adjacent land users over potential adverse impacts. Ventilation and lighting for both the YWCA and the Jury Box buildings will not be affected as seriously as they would if the project were built to the property line. Most or all rooms facing the project site could be used as they are at present. (Still, the project will have visual impacts and will reduce easement access to the YWCA.)

#### 4.3.2 Impacts on Nearby Land Users

Nearby but non-adjacent land users (in the blocks bounded by Beretania Street, Bishop Street, King Street,, and Punchbowl Street, and the makai side of King Street between Bishop Street and Punchbowl Street) would be much less affected by the project than adjacent land users.

No planning phase impacts on nearby users are evident.

During construction, noise and dust will be an inconvenience for persons in the area. The loss of public parking will be a more serious impact. The loss of public spaces could affect the number of visitors to Iolani Palace and customers of nearby businesses.

Persons driving into Central Honolulu to attend events at the Capitol are likely to be inconvenienced. (Other changes unrelated to the current project -- the transfer of State business to a new site (the State Office Tower) and the withdrawal of parking stalls at the State Capitol -- are likely to affect citizen participation in government more seriously than construction-phase impacts of the project.)

When the project is operational, its impacts on nearby businesses are likely to be positive, since it will house additional customers. The public parking spaces in the project will also be of use to such businesses. It is possible that the users of State spaces in the building will free up public, and other spaces in the area, easing the parking problem slightly.

#### 4.4 IMPACTS ON THE WIDER COMMUNITY

The project will contribute to the orderly growth of Central Honolulu in two major ways:

- o It will do much to redefine the blocks between Richards Street, King Street, Alakea Street, and Beretania Street, which now form an amorphous transitional area between the financial and government districts, into a zone with distinctive character and uses.

The line of buildings along Richards Street will be characterized by attention to design and a scale between that of the low buildings of the government area and the 350 foot height limit allowed in the BMX-4 mixed business district.

While the project building will be a commercial office building, it will hold some government offices and it could well attract tenants involved with both government and business.

- o It will provide additional office space to a district now characterized by extremely low vacancy rates. At the time the building opens, however, demand will be less than at present, due to the space made available in Pan Pacific Plaza. The project is likely to meet demand arising in 1992 and later years.

Nearly all the persons interviewed for the study were concerned with traffic and parking. Traffic impacts of the project are being evaluated by an independent consultant. In this report, comments can be made concerning impacts of the project on social perceptions of traffic flow and on felt inconvenience due to limited parking in the Secondary Study Area:

- o During construction, the closing of parking facilities at the project site will add to the general problem of limited parking in Honolulu.

However, the existing parking facility generates traffic problems due to cars lined up on Richards Street and Alakea Street, waiting to enter the parking structure. With the closing of the structure, traffic on both these streets should flow more smoothly.

- o When the project is operational, it may be possible for cars waiting for public spaces to wait on entry ramps, not on the streets. Hence the adverse traffic impact of the current parking structure may be avoided in future.
- o The project will draw more vehicles into Downtown Honolulu, adding to rush-hour congestion. In other words, the general problems associated with growth of the business district are present in this case, as in the case of all other office projects.
- o Still, the provision of new parking spaces on-site will not greatly ease the imbalance between demand and supply of parking in Central Honolulu.

Two cumulative impacts of the construction period are of concern:

- o Public parking in Central Honolulu will be reduced during the construction period, causing inconvenience above all for those who do not park in Central Honolulu daily. Occasional users of Central Honolulu parking tend to know of fewer parking sites than regular commuters do, and hence are more affected by a shortage when the better-known parking areas are no longer available.

The City and County of Honolulu's Director of Housing and Community Development has acknowledged the possibility that public parking could be significantly reduced, and has identified mitigating measures. (See Section 3.4)

The public and private spaces at sites to be redeveloped amount to about six percent of the parking inventory in and near Central Honolulu -- not all of which would be withdrawn at one time -- while the spaces to be developed on those sites will total nearly 25 percent of the 1989 inventory.

- o The impact of several construction projects in the Downtown area on traffic may increase noticeably at the end of the project's construction period if larger projects on Nimitz and Pali Highways reduce traffic flow on those roads. However, by the time construction is well under way on those projects (Aloha Tower Redevelopment and Pacific Nations Center), construction of the Alakea/Richards project should have minimal impact on traffic.

It is possible that, since large projects on the margins of Downtown Honolulu are likely to affect traffic during construction adversely, cumulative traffic impacts may be avoided by building the Alakea/Richards projects quickly.

#### 4.5 ISSUES AND CONCERNS OF THE COMMUNITY WITH REGARD TO THE PROJECT

##### 4.5.1 Interviewing Process

Informal interviews were held in July and August 1989 with some 50 persons to identify issues and concerns of community members regarding the proposed project. (Interviewees are listed in the Appendix.) Persons knowledgeable about five broad groups were interviewed:

- o On-Site -- persons currently using the project site;
- o Adjacent -- property owners, property managers and land users of properties contiguous with the project site;
- o Nearby -- property owners and land users of properties located on blocks adjoining the project site;
- o Residents of the Study Area; and
- o The Downtown business community.



In the interviews, key informants were asked to comment on the impact the project would have on themselves and others they knew. They were not asked to take a position for or against the project. Nor were they asked to provide the perspective of the organizations they represented.

The persons interviewed were told that their views would be summarized in this social impact assessment and that individual conversations would remain confidential. For some, the project needed no introduction. Others discussed the project after information in the EIS Preparation Notice for the project was summarized.

#### 4.5.2 Overview of Community Issues and Concerns

Interviews of the type conducted for this project are always preliminary, showing how a sample of the community viewed a project at a given time.

The interviews were conducted to identify issues, not to establish the extent of support or opposition in the community. (Quantitative information about support for the project or issues of concern to the community at large would be best gathered through a formal polling process.)

Informants representing adjacent properties raised specific concerns, most of which would apply to any major new construction on the project site. Nearly all other persons interviewed saw the project as an acceptable addition to Downtown Honolulu.

Two concerns were widely shared:

- o **Parking:** Concern was expressed for the loss of public parking during construction and the amount of public parking included in the project. Most interviewees considered Downtown public parking inadequate.
- o **Traffic:** Increased traffic due to an additional building Downtown was a concern for many. Some thought that traffic patterns would change for the worse if entrances and exits of the proposed parking facility differ from those of the existing garage. (See Section 4.6 for a mitigation of this concern.) The blockage of street lanes and traffic disruption during the construction were also frequently discussed.

In both cases, many key informants expressed concern because they saw existing conditions as causing problems. Any impact attributable to the project would then exacerbate a bad situation. Some did not necessarily see the project as having major traffic or parking impacts in itself.

Persons involved in enterprises without parking were most concerned with the supply of public parking. They were likely to mention their customers' need for public parking. Informants in businesses that have parking tended to express less concern with parking and to see it as one issue among many, not the central issue to discuss in relation to the project.

Table 8 summarizes much of the interview data by identifying, for each set of interviewees, how often different issues were mentioned or found to be important. (All the issues listed were of concern to more than one person in each group. The distinction between primary, additional and occasional concerns is based on analysis by Community Resources, Inc. of the strength of different concerns at the time of interviewing.)

Members of each group did not all share a single point of view, but there were important common tendencies in each group:

On-Site Land Users: Current land users of the proposed project site were not greatly concerned about relocating their activities. They either expected to resume operations on the site after redevelopment, or had plans for relocation for other reasons. However, most mentioned that the loss of public parking and the disruption of vehicular and pedestrian traffic during construction would cause problems.

Adjacent Land Users: Many thought that construction noise, debris and dust would disrupt current activities. Such impacts may also make it difficult to lease commercial space. Some interviewees expected fewer customers to patronize their businesses because of construction and the removal of nearby public parking. Possible structural damage to adjacent buildings due to ground movement was also a concern.

Several informants viewed the public parking supply in the project area as already too limited. They thought the situation would worsen with an additional building. Many suggested that more public parking be included in the project.

Several informants thought the project would reduce views and natural light in adjacent sites. They thought such a reduction would be serious.

Nearby Land Users: The demand for parking was the major issue for this group. Many operate businesses that depend on public parking for their customers. Most suggested that more public parking is needed in the project. Some discussed the existing parking structure as a resource for persons who park Downtown only occasionally, including citizens with business at the State Capitol.

Downtown traffic was also a concern of several interviewees.

TABLE 8: ISSUES MENTIONED IN INTERVIEWS

The issues listed in this table are explained in the accompanying text. This table shows topics mentioned relatively often in the interviews. It is not a list of all the issues discussed, but of issues that emerged as important for members of the groups identified below.

Different groups sometimes approached the same issue with different concerns, so the listing of an issue in two rows does not mean that two groups agree on that issue.

Groups of Persons Interviewed	Primary Concerns	Additional Concerns	Occasional Concerns
On-Site (City and parking management contractor)	Loss of public parking during construction	Vehicular and pedestrian traffic disruption	Loss of space for police going to courts
Adjacent	Construction impacts Traffic Parking space Damage to adjacent buildings	Views, light, and air Loss of income	Loss of ability to develop new uses of their space
Nearby	Parking for customers, citizens visit-government buildings Traffic	Viewplanes	Building design
Area Residents	Parking space Traffic	Downtown density Construction impacts	Impacts on small businesses
Downtown Business Community	Office/retail space		

Some nearby land users discussed the project as possibly blocking viewplanes. However, others thought the project would improve the area as long as landscaping and design are given close attention.

Some nearby land users raised questions about air pollution and the release of automobile exhaust gasses from the parking area. The nearby historic structures were viewed as needing special protection from such gasses. (The air quality impacts of the project are assessed in a separate technical study.)

Area Residents: Many persons in this group were most concerned with the shortage of public parking Downtown and thought more public parking should be included in the project. Many mentioned that an increase in traffic due to an additional office building was of concern.

An increase in density and traffic congestion in Downtown Honolulu due to new development caused by construction were issues for some interviewees. A few persons mentioned that construction noise would be especially damaging to small businesses adjacent and nearby.

Building design and landscaping were seen by some as important because the project site is next to historical buildings and Iolani Palace's open space.

Building design and landscaping were viewed as important. Some informants were concerned that street frontages be on a human scale. Others hoped that the building would not present massive walls, especially as seen from Iolani Palace or the YWCA and King Street.

Downtown Business Community: Interviewees from this group generally approved of the project as providing space for both of government agencies and private businesses. Some supported it as contributing to orderly growth in Downtown Honolulu.

#### 4.5.3 Additional Concerns of Key Informants

The persons interviewed for the project largely discussed the issues identified above -- the need for public parking during construction and afterwards, traffic, construction-phase irritants, and project design.

Most of the concerns raised have been discussed above, either in Section 4.5.2 or in the analysis of impacts on adjacent and nearby land users. Design issues have not been covered as yet in depth. Among the concerns mentioned were:

- o Many informants wanted the project to conform to the spirit of the Capitol District Ordinance. Most were less interested in specific regulations than in its goodness of fit with the low-rise buildings nearby. They asked whether it would have architectural features similar to those found at the YWCA or whether it would overshadow the YWCA and the Armed Forces Y. Some commented that the project seemed architecturally better than most Honolulu office buildings.
- o Several people emphasised that open space should be provided, and that it should be inviting to pedestrians. The building's arcades were viewed by some informants as positive features, contributing to pedestrian involvement with the building.
- o The building's design on the makai side was of concern to some informants, either because it will be visible from the YWCA or because the non-street sides of other Honolulu buildings are thought not to be architecturally interesting.

#### 4.6 POSSIBLE MITIGATION MEASURES

The developer has made extensive efforts to design the project in order to achieve positive aesthetic impacts and to minimize possible adverse impacts of the building:

- o The building's design is intended to complement nearby historic structures;
- o Public parking will continue to be provided on-site, and the number of public spaces will be slightly larger than the number currently available on-site;
- o Parking entries and exits will be located further from street intersections than some of the existing entries and exits on the project site -- leading to less chance in the future that vehicles entering and leaving the project will contribute to traffic congestion;
- o Although about 1,000 parking stalls will be provided, passersby will not be confronted with the sight of these cars; and
- o Landscaping, fountains, and street level arcades will provide amenities for pedestrians.

The developer is considering ways to limit noise impacts during construction. The impact of construction noise is greatest when and if pile driving occurs. Impacts on nearby restaurants (notably in the YWCA, but also Yong Sing) would be considerably

lessened if (a) pile driving is suspended for an hour from noon to 1 PM; or (b) a mat foundation, rather than piles, can be used. Information needed to decide on construction techniques and cost is not yet available, so no final decision has been made.

The project's developers and architects, along with City and County staff, have conducted discussions with representatives of adjacent land users. Three formal meetings were held with the Highest and Best Use Committee of the YWCA. Repeated conversations and less formal meetings occurred between YWCA and BetaWest executives. The developer's project staff have heard the concerns of the YWCA and explored ways to minimize or alleviate anticipated impacts. The developer plans

- o To locate the building about five feet mauka of the property line, thereby assuring both the YWCA and the Jury Box Building light, ventilation, non-automotive delivery access, and a fire exit; and
- o To install an underground fuel oil line for the YWCA, running to the Alakea Street sidewalk, thus mitigating the impact on the YWCA of the loss of vehicular access in the right-of-way easement.

The widespread concern with public parking during the construction phase cannot be addressed on-site. Alternate public parking sites are being developed by the City and County of Honolulu, as indicated in Section 3.4. Additional steps to develop new or alternate parking are being made by the State and the owners of the Liberty Theater site.

APPENDIX  
LIST OF PEOPLE INTERVIEWED

(NOTE: Persons interviewed to learn of community issues and concerns provided their comments as individuals and were not speaking on behalf of their organizations. Organizational affiliations are provided only to indicate the interest and networks of those interviewed.)

<u>Name</u>	<u>Organization/Affiliation</u>
Sister Agnes	Sister in Charge, St. Paul Book and Media Center, Daughters of St. Paul
Bob Alamillo	Manager, Technical Sales, GTE Hawaiian Tel
Jeff Angel	Head of Tenant Improvements, Urban Management Corp. (property manager of the Arcade Building)
Terry Applegate	Administrator, Children's Programs, Richard Street Young Women's Christian Association
Shelly Asao	Administrator, Constituency Services, Richard Street Young Women's Christian Association
David Asato	Parking Branch Manager, Traffic Engineering Division, Parking Branch, Department of Transportation Services, City and County of Honolulu
Robert R. Braig	Partner, Hastings, Conboy, Braig & Associates, Ltd.
Berna Cabacungan	Downtown Resident Principal, Earthplan Member, Board of Directors, Health and Community Services Council of Hawaii
Sherman Chan	Member, Downtown Neighborhood Board #13 Officer, Honolulu Police Department

(CONTINUED)

APPENDIX (CONT.):

Marge Chatterly	Secretary, Exercise, Sports and Dance Program, Richard Street Young Women's Christian Association
Craig Clissold	Day Watch Sergeant, Chinatown Substation, Honolulu Police Department
Wayne Cober	Operations Manager, APCOA, Inc.
Alan J. Conboy	Partner, Hastings, Conboy, Braig & Associates, Ltd.
Beadie Dawson	Chair, Committee on Property Use, Board of Directors, Board of Directors, Young Women's Christian Association
Peter Estomago	Administrator, Exercise, Sports and Dance Program, Richard Street Young Women's Christian Association
Nani Fife	Administrator, Single Parent Advocacy Network, Richard Street Young Women's Christian Association
Gary Gill	Chair, Economic and Development and transportation Committee, Honolulu City Council, District 6 (including Downtown)
William A. Grant	Executive Director, Downtown Improvement Association
Howard Green	Trustee, James Austin Estate (owner of building at 223 S. King Street)
Alice Guild	Managing Director, Friends of Iolani Palace
Linda Hart	Owner, Mosaic Designs (Hawaii), Ltd.

(CONTINUED)



APPENDIX (CONT.):

Robert Hastings, Jr.	President, Hastings, Conboy, Braig & Associates, Ltd.
David Hedden	Station Manager, Downtown Postal Station, U.S. Postal Service
Kenneth T. Hiraki	State House of Representa- tives, House District 35 (Downtown)
Tommy Kakesako	Owner, Kakesako Brothers Jewelers Manager, Wolter Building
Frances Mao	Senior Engineer, Outside Plant Engineering, GTE Hawaiian Tel
Patrick Mao	Administrator, Exchange Planning, GTE Hawaiian Tel
Anne Mapes	Member, Board of Directors, Young Women's Christian Association
Lynne Matusow	Head of Planning Committee, Downtown Neighborhood Board #13
Jim Merrel	Senior Engineer, Land and Buildings, GTE Hawaiian Telephone
Donald Miranda	Manager, Station Installation, GTE Hawaiian Tel
Glen Moir	Transportation Planner, Bus Systems Division, Department of Transportation Services, City and County of Honolulu
Linda Morton	Program Director, Exercise, Sports and Dance Program, Richard Street Young Women's Christian Association
Sarah Richards	Executive Director, State of Hawaii, Foundation on Culture and the Arts

(CONTINUED)

APPENDIX (CONT.):

Robert B. Robinson	President, The Chamber of Commerce of Hawaii
Andrew Rothstein	Chair, Downtown Neighborhood Board #13
Michael Schochet	General Manager, Magoon Estate
Marion Shim	Director, Richard Street Young Women's Christian Associa- tion
Stanley Shin	Branch Chief, Planning Branch, State of Hawaii, Department of Accounting and General Services, Division of Public Works
Judy Sobin	Chair, Program Committee, Board of Directors, Young Women's Christian Associa- tion
Stanley Tano	Manager of Facilities, Hawaiian Electric Company
Robert Umemura	Executive Vice-President, Operations, Hemmeter Corporation
Chuck Wall	Director, Information Management, GTE Hawaiian Tel
Jack Warner	Director of Marketing, Finance Factors
Ken Wedel	Director of Property Management and Development, Reynolds Shidler
Joyce Wright	Senior Property Manager, Monroe & Friendlander (property manager for Central Pacific Plaza)
Harriet Yamahira	Director, Human Resources, Richard Street Young Women's Christian Associa- tion

(CONTINUED)

APPENDIX (CONT.):

Glenn H. Yamasaki

President, Downtown Business  
Council

Nancy Yamasaki

Supervisor, Parking Meters,  
Parking Branch, Department  
of Transportation Services,  
City and County of Honolulu

Tenney Yogi

Owner, Tenney's Service and  
Repair, Union 76

Gary Yoshimoto

Property Manager, Monroe &  
Friedlander (property  
manager of International  
Savings and Loan Building)

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**APPENDIX F**

**Traffic Impact Analysis**

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TRAFFIC STUDY  
A PROPOSED OFFICE BUILDING  
ON HOTEL STREET  
BETWEEN RICHARDS AND ALAKEA STREETS  
IN HONOLULU, HAWAII

Prepared For  
BETAWEST DEVELOPMENT

Prepared By  
BARTON-ASCHMAN ASSOCIATES, INC.

In Association With  
PARSONS HAWAII  
HONOLULU, HAWAII

July, 1989



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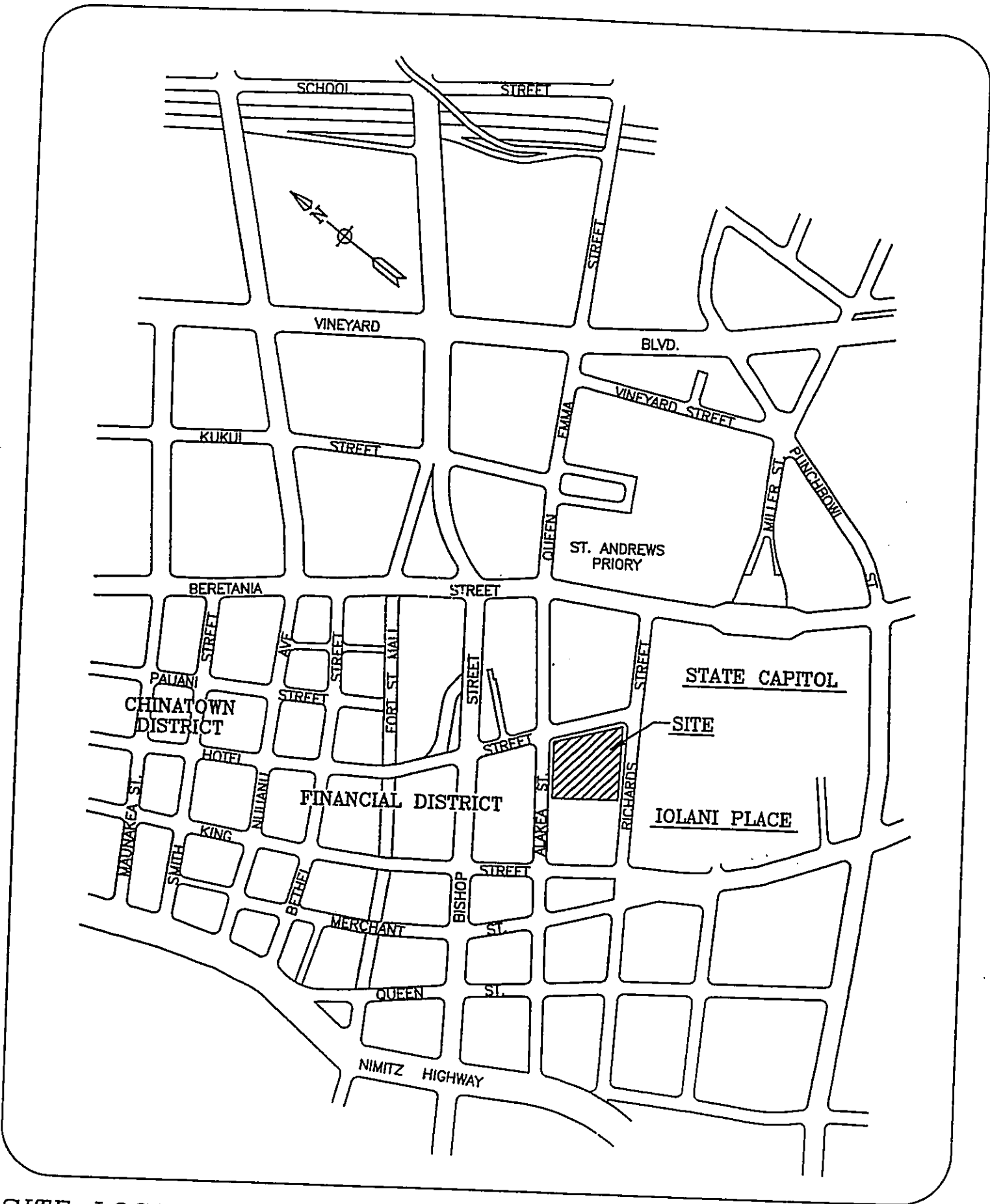
### INTRODUCTION

Barton-Aschman Associates Inc. has been retained by Parsons Hawaii to conduct a traffic study for the proposed office building and parking structure to be located on the south side of Hotel Street between Alakea and Richards Streets in Honolulu, Hawaii.

The following report has been prepared to describe the traffic characteristics of the project and likely impacts to the adjacent roadway network. This introductory chapter discusses the location of the project, the proposed development, and the study methodology.

### PROJECT LOCATION AND DESCRIPTION

The location of the proposed project is shown in Figure 1. The project site is bounded by Hotel Street on the north, Richards Street on the east, and Alakea Street on the west.

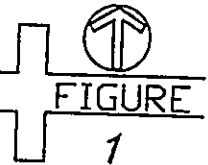


**SITE LOCATION**

BARTON-ASCHMAN ASSOCIATES, INC.

ALAKEA-RICHARDS OFFICE BUILDING

F-2



The proposed office building is to consist of 310,467 gross square feet of office space. Of this area, 71,250 square feet (or 22% of the floor area) is to be used as City offices and is not to be considered in the trip generation and parking analysis per the developer's agreement with the City. The rationale for this is that City parking will be located elsewhere in the area.

The site is currently a City-owned parking structure of 235 spaces.

The proposed parking structure will consist of 1,000 spaces, of which 235 spaces are to replace the existing facility that will be demolished. Another 432 spaces are to be controlled by the State as parking for their employees and the Hemmeter Corporation Building. This leaves a balance of 333 spaces for the office-related uses of the proposed building. This factor has a significant impact on the trip generation analysis of the building.

The current plan is to provide 650 spaces on the above-grade parking levels and 350 spaces on the below grade levels. Access to and egress from the above grade levels would be located along Richards Street. The access to and egress from the 350 below-grade spaces would be along Alakea Street. A design year of 1993 has been used in this study.

#### STUDY METHODOLOGY

In order to conduct this traffic study, a number of tasks were performed, which are discussed in the following paragraphs.

##### 1. Data Collection

Prior to collection of any data, the Department of Transportation Services (DTS) for the City and County of Honolulu was contacted to determine the

A substantial amount of traffic-related information was collected in order to analyze the existing traffic conditions and to estimate the future traffic volumes on the roadways adjacent to the study site. The data collected included the following:

- development plan data;
- roadway network;
- existing morning and afternoon peak hour traffic volumes;
- other planned developments in the area;
- traffic information for other planned projects; and
- previous traffic studies conducted for the adjacent area.

## 2. Analysis of Existing Traffic Conditions

Using the data collected, the existing traffic conditions in the vicinity of the project were determined. The operational method described in the 1985 Highway Capacity Manual (HCM) was used to determine the level-of-service at the intersections that would be impacted by the proposed project. The level-of-service concept and the results of the analyses are presented in Chapter 2 of this report.

## 3. Determination of 1993 Background Traffic Projections

As previously noted, 1993 was assumed as the design year. This does not necessarily represent the project completion date. It represents occupancy for purposes of conducting the impact analysis.

Future background traffic has two components. The first is background growth. The second is traffic generated by other planned projects in the vicinity and is referred to as "related project trips." Projects which would impact the same intersections were identified and discussed with the Department of Housing and Community Development. The total future

background traffic is the sum of existing plus background growth plus related project trips and is referred to as "cumulative trips."

The assumptions used to estimate the 1993 cumulative trips and the resulting traffic projections are presented in Chapter 3 of this report.

#### 4. Analysis of Project-Related Traffic Impacts

The next step in the traffic analysis of the project was to estimate the daily and peak-hour (morning and afternoon) traffic that would be generated by the proposed development. This was done using trip generation rates from Trip Generation (Fourth Edition, 1987), an informational report prepared by the Institute of Transportation Engineers (ITE).

These trips were distributed and assigned to the various traffic movements at the adjacent intersections. The project-related traffic was then superimposed on 1993 background traffic volumes at the subject intersections. The HCM method was then used again to conduct a level-of-service analysis for this condition which was compared to 1993 cumulative conditions in order to determine the impact of this project. The resulting traffic projections are presented in Chapter 4.

The analysis of the project-related impacts and the conclusions of the analyses are presented in Chapter 5.

2.

ANALYSIS OF EXISTING CONDITIONS

This chapter presents and discusses the existing traffic conditions and volumes on the roadways in the vicinity of the proposed project, the level-of-service concept, and the results of the level-of-service analysis for existing conditions. The purpose of this analysis is to establish the base conditions for the determination of the project's impacts which will be described in a subsequent chapter.

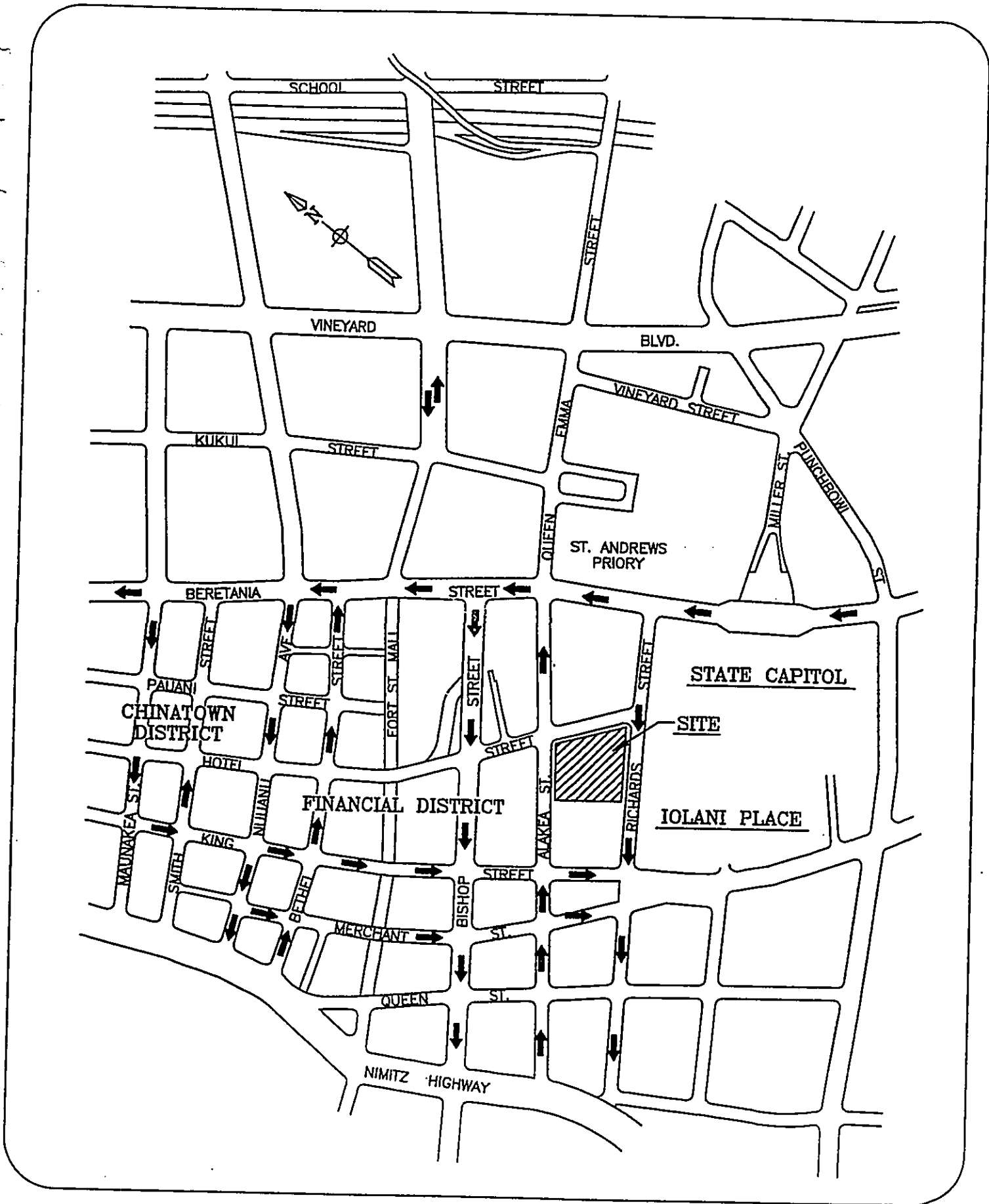
The intersections which were analyzed to establish the base conditions were determined based upon the access routes to and departure routes from the project location. The intersections selected for analysis were discussed with DTS to insure that the scope of the study would include the areas they wanted in the study. The intersections analyzed are listed in Table 1. These intersections and the street network are shown in Figure 2.



TABLE 1  
LIST OF INTERSECTIONS STUDIED  
TRAFFIC STUDY FOR ALAKEA-RICHARDS OFFICE BUILDING  
JULY, 1989


=====

1. Vineyard Boulevard at Nuuanu Avenue
2. Vineyard Boulevard at Pali Highway
3. Vineyard Boulevard at Queen Emma Street
4. Vineyard Boulevard at Punchbowl Street
5. Kukui Street at Pali Highway
6. Kukui Street at Queen Emma Street
7. Beretania Street at Nuuanu Avenue
8. Beretania Street at Pali Highway/Bishop Street
9. Beretania Street at Queen Emma Street/Bishop Street
10. Beretania Street at Richards Street
11. Beretania Street at Punchbowl Street
12. Hotel Street at Nuuanu Avenue
13. Hotel Street at Bishop Street
14. Hotel Street at Alakea Street
15. Hotel Street at Richards Street
16. King Street at Nuuanu Avenue
17. King Street at Bishop Street
18. King Street at Alakea Street
19. King Street at Richards Street
20. King Street at Punchbowl Street
21. Merchant Street at Richards Street



*CURRENT TRAFFIC CIRCULATION PLAN*  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 ALAKEA-RICHARDS OFFICE BUILDING

F-8

  
 FIGURE  
 2

#### EXISTING PEAK HOUR TRAFFIC VOLUMES

The existing morning and afternoon peak hour traffic volumes at eight intersections were obtained from field counts conducted during July, 1989. Counts for the remaining intersections were obtained from the Pacific Nations Center Traffic Study completed in October, 1988. Counts were conducted at the intersection of Beretania Street at Bishop Street during September, 1988 and July, 1989 to determine any seasonal variation. The 1989 counts were within 10 per cent of the 1988 counts.

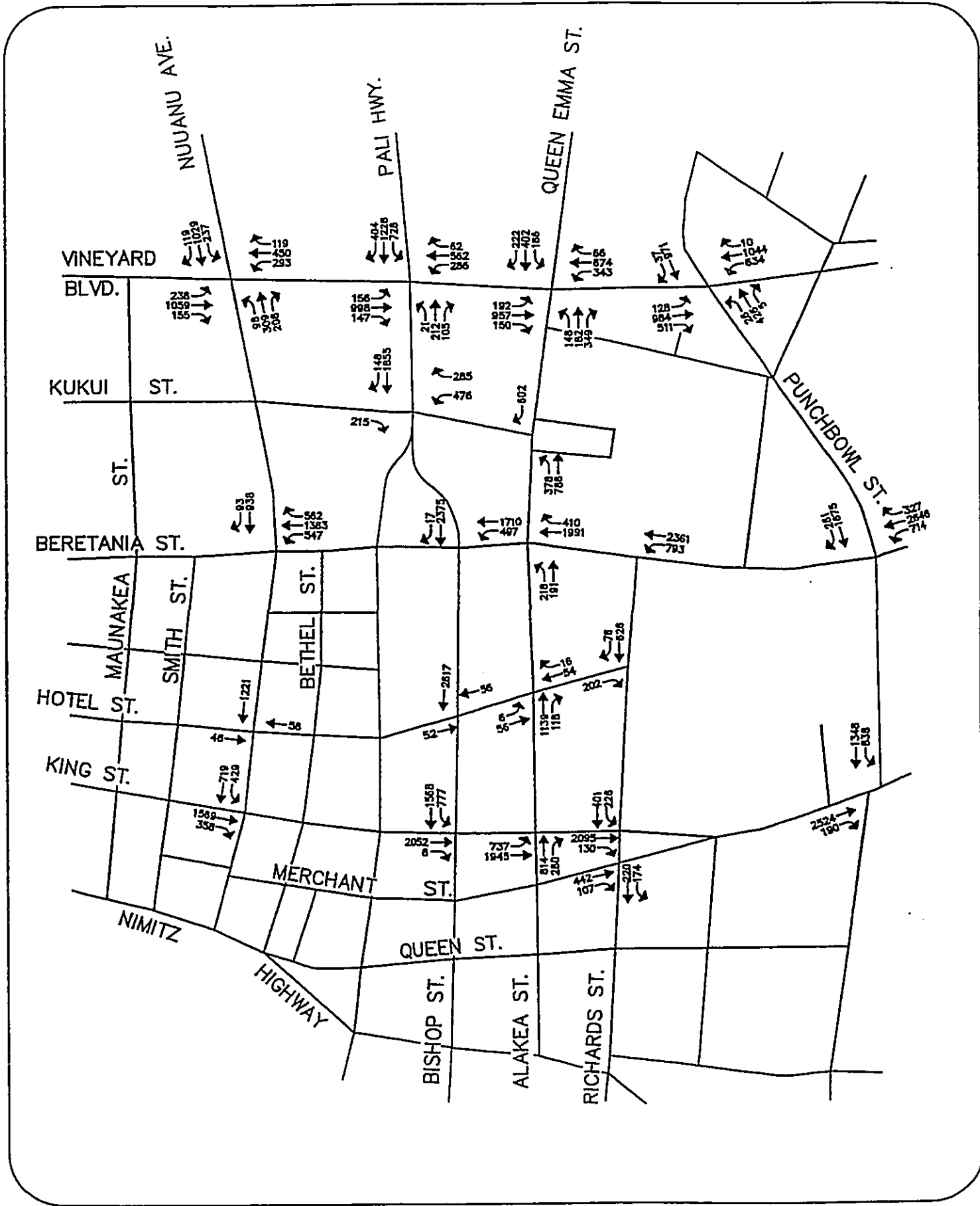
The results of the traffic counts are summarized for the morning and afternoon peak hours in Figures 3 and 4, respectively.

#### LEVEL OF SERVICE CONCEPT

The operational method described in the 1985 Highway Capacity Manual (HCM) was used to analyze the operational efficiency of the intersections adjacent to the study site. This method involves the calculation of a volume/capacity (V/C) ratio which is related to a level-of-service.

"Level of Service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level of service is a qualitative measure of the effect of a number of factors which include:

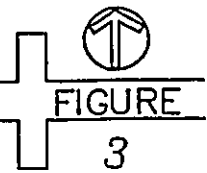
- Speed,
- Travel Time,
- Traffic Interruptions,
- Freedom to Maneuver,
- Safety,
- Driving Comfort, and
- Convenience



**EXISTING AM PEAK HOUR TRAFFIC VOLUMES**

BARTON-ASCHMAN ASSOCIATES, INC. F-10

ALAKEA-RICHARDS OFFICE BUILDING





There are six (6) levels of service, A through F, which relate to the driving conditions from best to worse, respectively. The characteristics of traffic operations for these levels of service are summarized in Table 2. In general, Level of Service A represents free-flow conditions with no congestion. Level of Service F, on the other hand, represents severe congestion with stop-and-go conditions.

Corresponding to each level of service shown in the table is a volume/capacity ratio. This is the ratio of either existing or projected traffic volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be accommodated by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), and the type of traffic using the roadway (trucks, buses, etc.) and turning movements.

#### EXISTING LEVEL OF SERVICE ANALYSIS

The results of the level of service analysis for existing traffic conditions at the intersections studied are summarized in Table 3. The conclusions are as follows:

1. Except for five (5) intersections, all of the intersections operate at Level of Service D or better, which is considered acceptable, during both morning and afternoon peak hours.
2. All intersections along Vineyard Boulevard operate at Level of Service F during morning and afternoon peak hours. This indicates that traffic approaching from and departing to the north can expect long delays due to congestion.

TABLE 2  
 INTERSECTION LEVEL OF SERVICE DEFINITIONS  
 TRAFFIC STUDY FOR ALAKEA-RICHARDS OFFICE BUILDING  
 JULY, 1989

Level of Service	Interpretation	Volume to Capacity Ratio	Stopped Delay Per Vehicle (Seconds)
A,B	Uncongested operations; all vehicles clear in a single signal cycle.	0.000-0.700	< 15.0
C	Light congestion; occasional backups on critical approaches.	0.701-0.800	15.1-25.0
D	Congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long standing lines formed.	0.801-0.900	25.1-40.0
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.	0.901-1.000	40.1-60.0
F	Total breakdown with stop-and-go operation.	1.001+	>60.0

Notes:

- (1) Source: Highway Capacity Manual, 1985.
- (2) Volume/Level of Service E Capacity.

TABLE 3  
 LEVEL OF SERVICE ANALYSIS FOR EXISTING CONDITION  
 TRAFFIC STUDY FOR ALAKEA-RICHARDS OFFICE BUILDING  
 JULY, 1989

=====

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	V/C	LOS	V/C	LOS
1. VINEYARD AT NUUANU	1.161	F	2.304	F
2. VINEYARD AT PALI	1.360	F	2.683	F
3. VINEYARD AT QUEEN EMMA	1.129	F	1.680	F
4. VINEYARD AT PUNCHBOWL	1.224	F	1.110	F
5. KUKUI AT PALI	0.767	C	0.309	A
6. KUKUI AT QUEEN EMMA	0.272	A	0.757	C
7. BERETANIA AT NUUANU	0.765	C	0.966	E
8. BERETANIA AT PALI/BISHOP	0.893	D	0.744	C
9. BERETANIA AT QUEEN EMMA/ALAKEA	0.560	A	0.810	D
10. BERETANIA AT RICHARDS	0.712	C	0.683	B
11. BERETANIA AT PUNCHBOWL	1.130	F	1.124	F
12. HOTEL AT NUUANU	0.516	A	0.359	A
13. HOTEL AT BISHOP	0.496	A	0.303	A
14. HOTEL AT ALAKEA	0.262	A	0.443	A
15. HOTEL AT RICHARDS	0.711	C	0.525	A
16. KING AT NUUANU	0.822	D	0.655	B
17. KING AT BISHOP	0.777	C	0.700	C
18. KING AT ALAKEA	0.646	B	0.754	C
19. KING AT RICHARDS	0.564	A	0.578	A
20. KING AT PUNCHBOWL	0.748	C	0.872	D
21. MERCHANT AT RICHARDS	0.338	A	0.218	A



3.

1993 BACKGROUND TRAFFIC CONDITIONS

Background cumulative traffic conditions are defined as the traffic conditions resulting from background growth and related projects. The purpose of this chapter is to discuss the assumptions and data used to estimate 1993 background cumulative traffic conditions.

**BACKGROUND TRAFFIC GROWTH RATE**

In order to evaluate the traffic impacts of the proposed project, it is necessary to estimate the future background traffic conditions. This future traffic is typically estimated by applying an annual growth rate to the existing traffic volumes.

Based on input from the City and County of Honolulu DTS, it was determined that the background rate may be expected to range from 1 to 1.5 percent per year. Therefore, a growth rate of 1.5 percent per year was used for this study.

#### RELATED PROJECTS

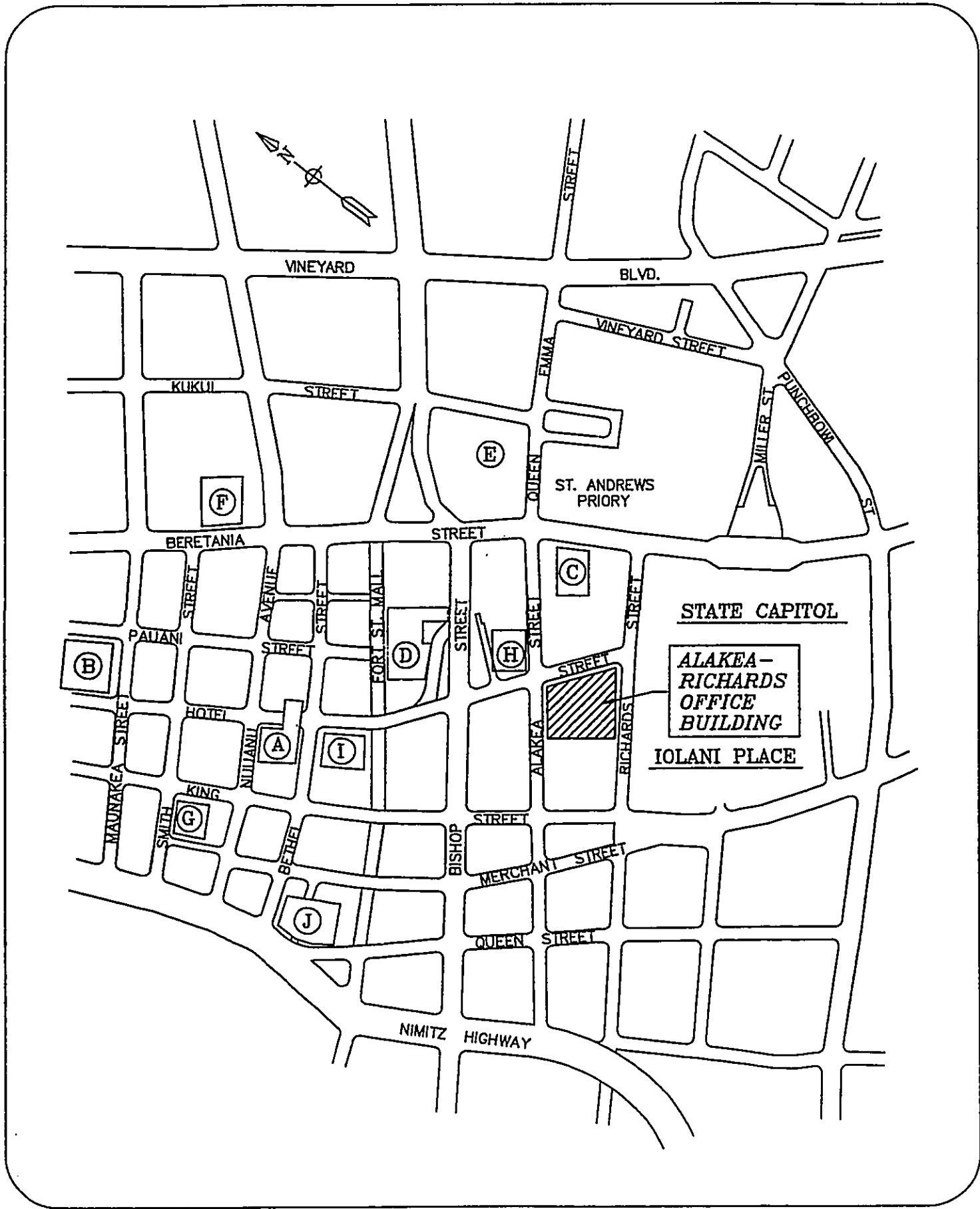
The second component in estimating future background traffic conditions is the traffic generated by other proposed projects in the vicinity. Related projects are defined as those projects that are under construction or have been approved for construction by the City and which would significantly impact traffic in the study area.

Based upon the information obtained from the City Department of Housing and Community Development and information from other traffic studies conducted for projects in the vicinity, ten projects were identified that were either under construction or in the final planning stages and would have a potential impact on the intersections under study. These projects are listed in Table 4 and their locations are shown in Figure 5.

#### 1993 CUMULATIVE TRAFFIC VOLUMES

Future traffic volumes are obtained by superimposing background growth and related traffic volumes onto existing traffic volumes. The resulting AM and PM cumulative traffic volumes are presented in Figures 6 and 7, respectively.

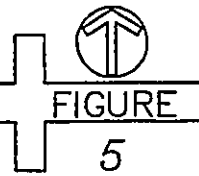




*LOCATIONS OF RELATED PROJECTS*

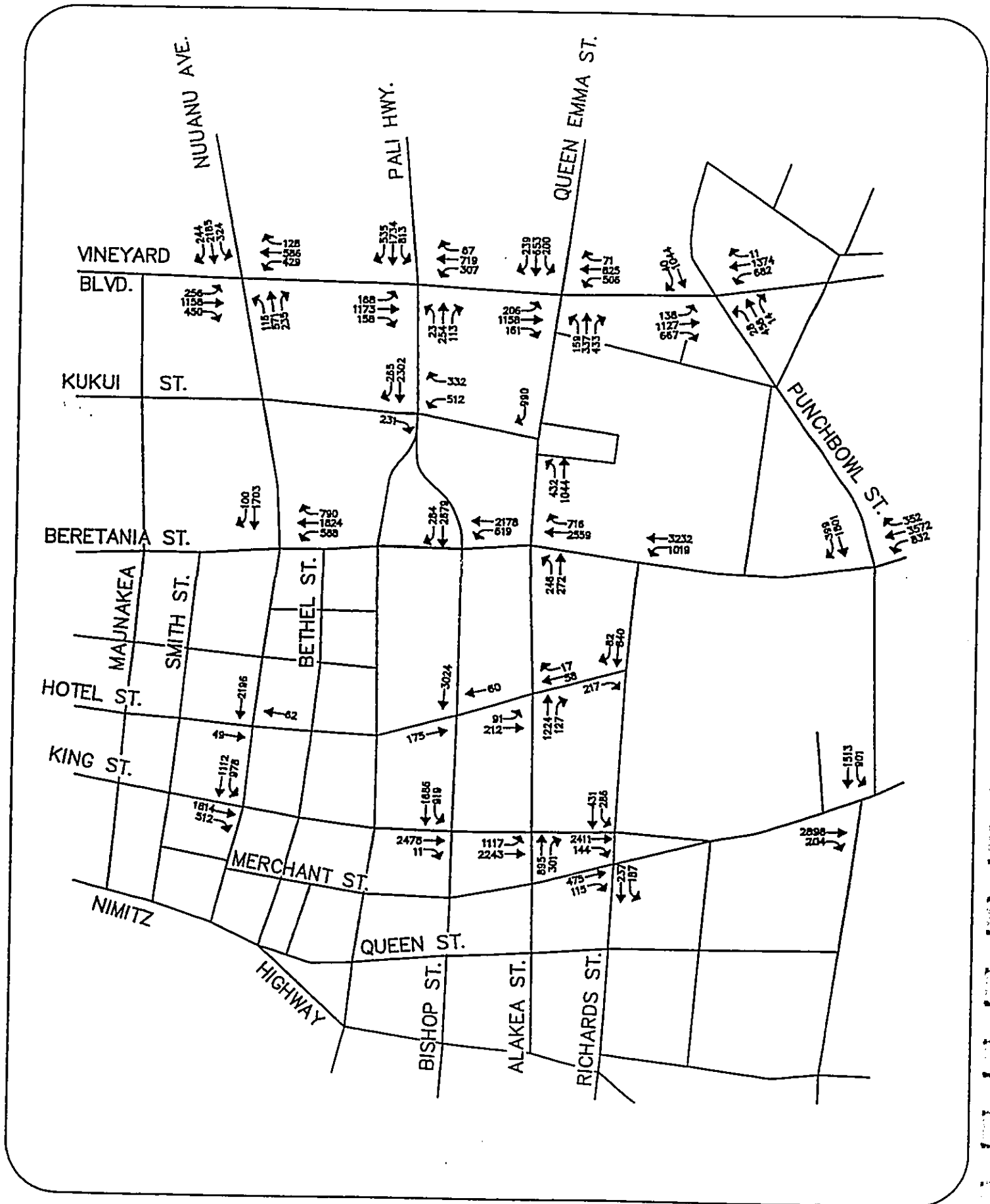
BARTON-ASCHMAN ASSOCIATES, INC. F-18

*ALAKEA-RICHARDS OFFICE BUILDING*



FIGURE

5



1993 CUMULATIVE AM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC. F-19  
 ALAKEA-RICHARDS OFFICE BUILDING



FIGURE



4.

PROJECT-RELATED TRAFFIC IMPACTS

This chapter discusses the methodology used to identify the traffic-related impacts of the proposed project. Generally, the process involves the determination of weekday and peak-hour trips that would be generated by the proposed project, distribution and assignment of these trips on the approach and departure routes, and finally, determination of the levels of service at affected intersections subsequent to implementation of the project.

**TRAFFIC GENERATION**

Future traffic volumes for the proposed project were determined using trip generation equations contained in Trip Generation, An Informational Report (Fourth Edition, 1987) prepared by the ITE. The generation analysis and the resulting daily and peak hour volumes are summarized in Table 5.

TABLE 5  
 PROJECT TRIP GENERATION ANALYSIS  
 TRAFFIC STUDY FOR ALAKEA-RICHARDS OFFICE BUILDING  
 JULY, 1989

DESCRIPTION	TRIPS GENERATED						
	DAILY TOTAL	AM PEAK HOUR		PM PEAK HOUR			
		TOTAL	IN	OUT	TOTAL	IN	OUT
OFFICE 301,942 SF(1)	3,210	530	462	68	504	81	421
DISCOUNT 50.0%(2)	1,605	265	231	34	252	40	210
NET TRIPS	1,605	265	231	34	252	41	211

NOTES: (1) SF = SQUARE FEET GROSS FLOOR AREA  
 (2) DISCOUNT CALCULATED AS FOLLOWS:  
 23% FOR CITY OFFICES  
 2% FOR OFFICE RELATED RETAIL  
 15% FOR RIDE SHARING AND PUBLIC TRANSPORTATION  
 10% FOR DOWNTOWN MULTI-PURPOSE TRIPS (WALK-INS)  
 -----  
 50% TOTAL



As noted, there is a fifty percent discount applied to the total number of trips. This is to account for the portion of the building that is designated for use as City offices, office support uses, use of other transportation modes, and for drivers that park elsewhere in the downtown area and walk into the office building.

#### TRIP DISTRIBUTION

The project-related trips were distributed based on the future distribution of population and the anticipated approach routes to the project site. This information was obtained from previously conducted traffic studies for the area.

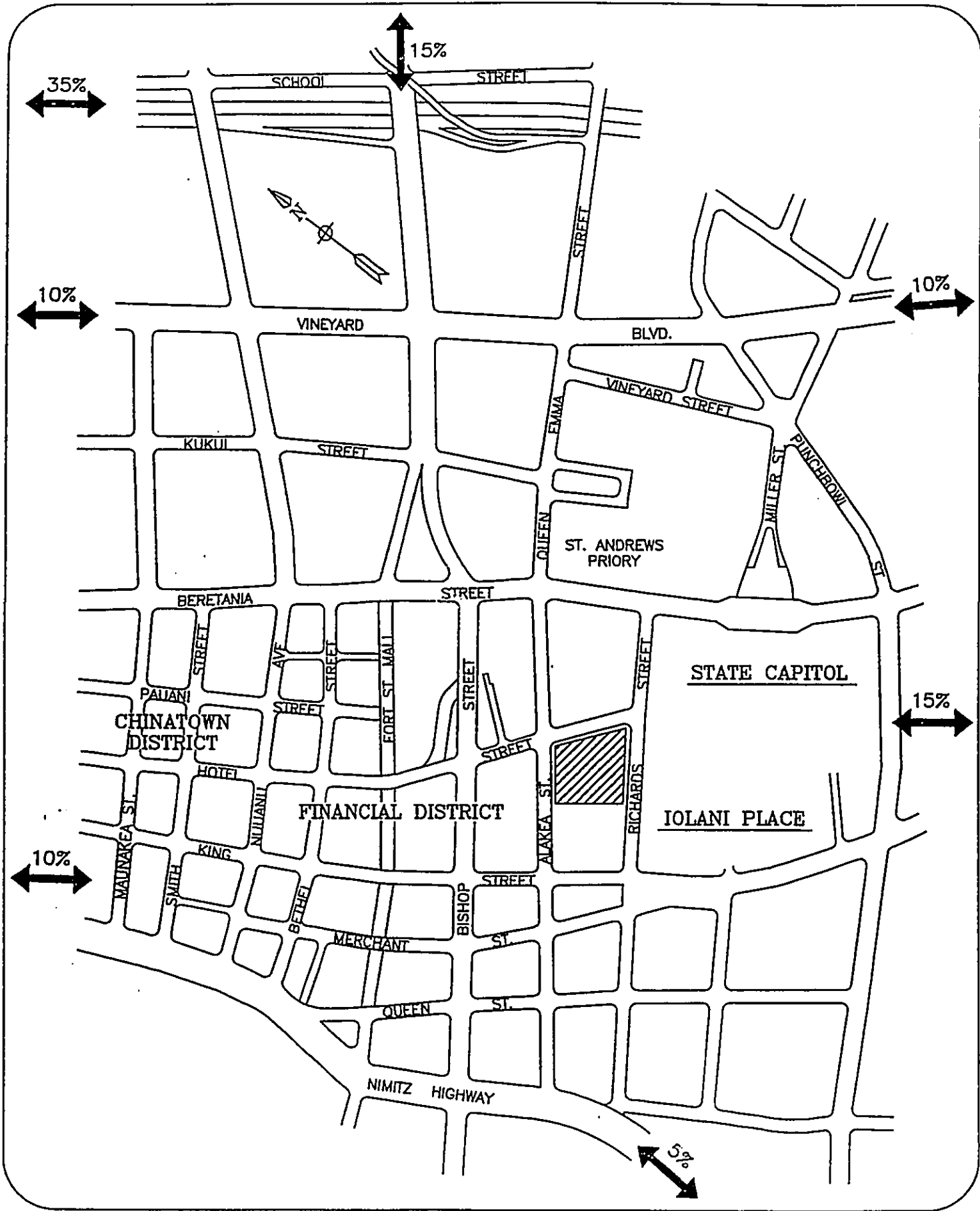
The approach distribution is shown in Figure 8.

#### TRIP ASSIGNMENT

Using the trip generation and trip distribution previously discussed, project-related traffic was assigned to the various traffic movements at the intersections studied. The trip assignments for the AM and PM peak hours are shown in Figures 9 and 10, respectively.

#### 1993 CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES


Future traffic volumes were determined by superimposing the project-generated traffic on the 1993 cumulative traffic volumes presented in the previous chapter. The resulting traffic volumes are shown for the AM and PM peak hours in Figures 11 and 12, respectively.



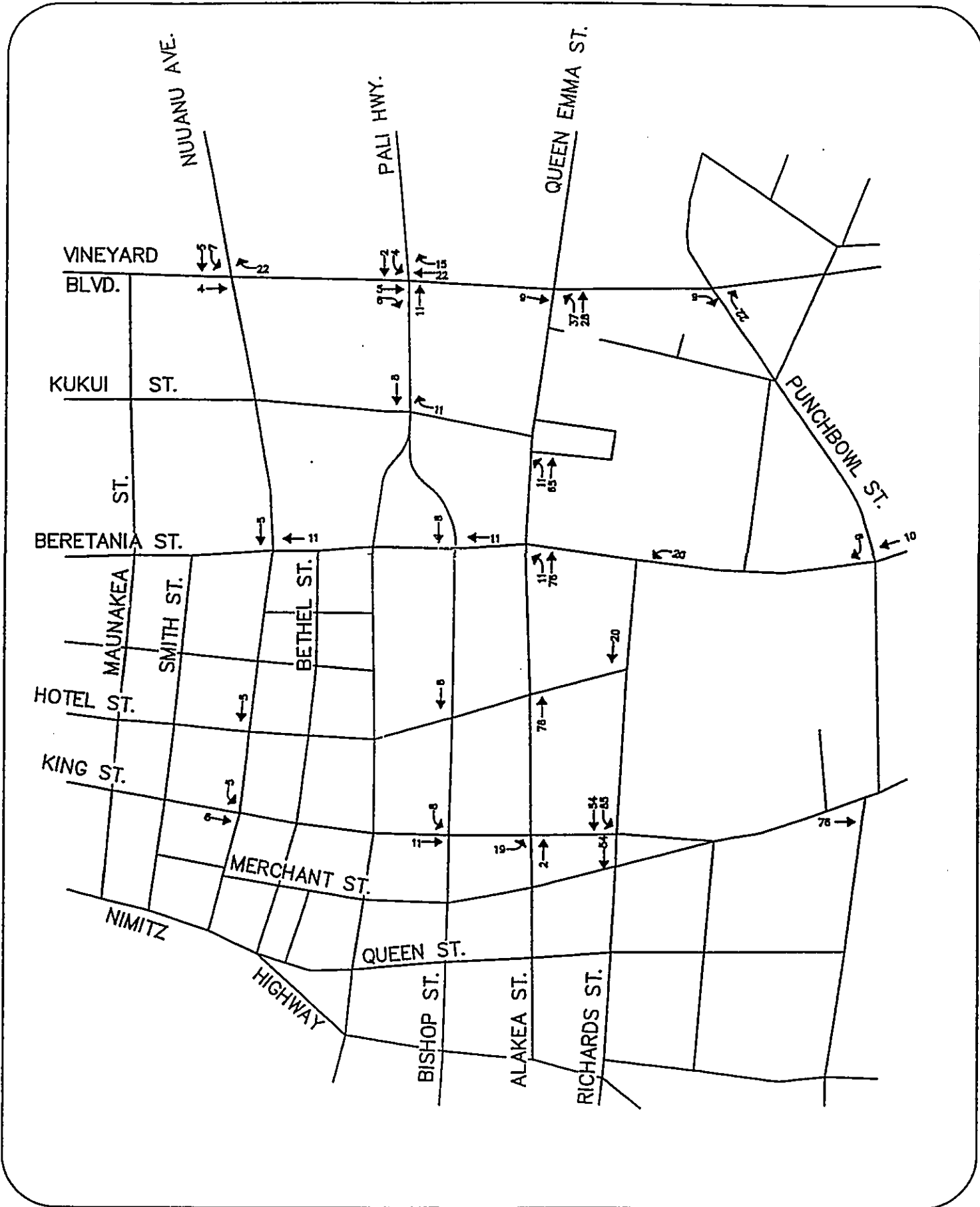
*TRIP DISTRIBUTION*

BARTON-ASCHMAN ASSOCIATES, INC. F-24

*ALAKEA-RICHARDS OFFICE BUILDING*

  
 FIGURE  
 8

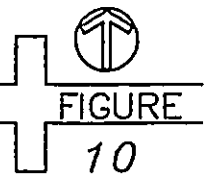


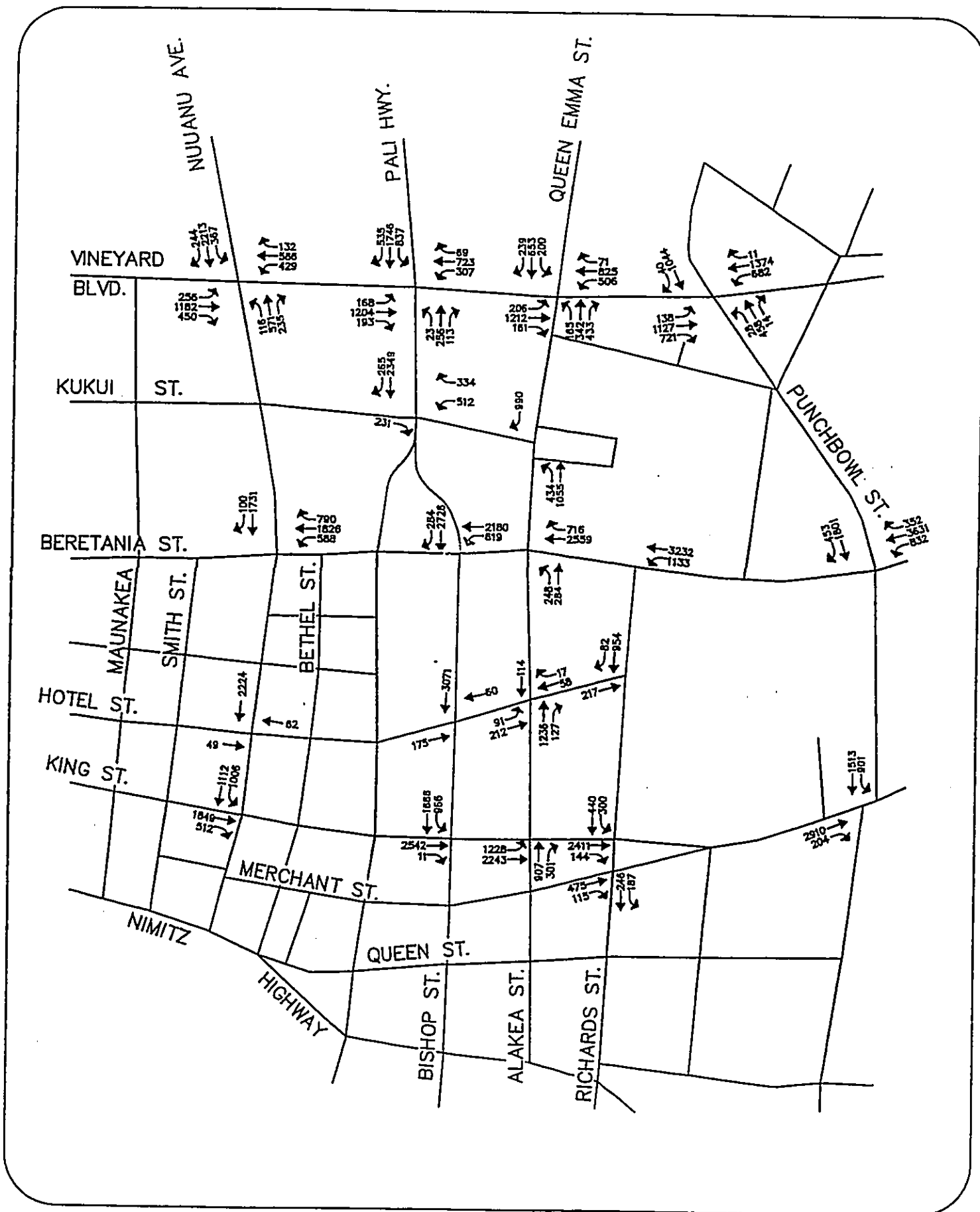


1993 PM PEAK HOUR PROJECT TRIPS

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ALAKEA-RICHARDS OFFICE BUILDING





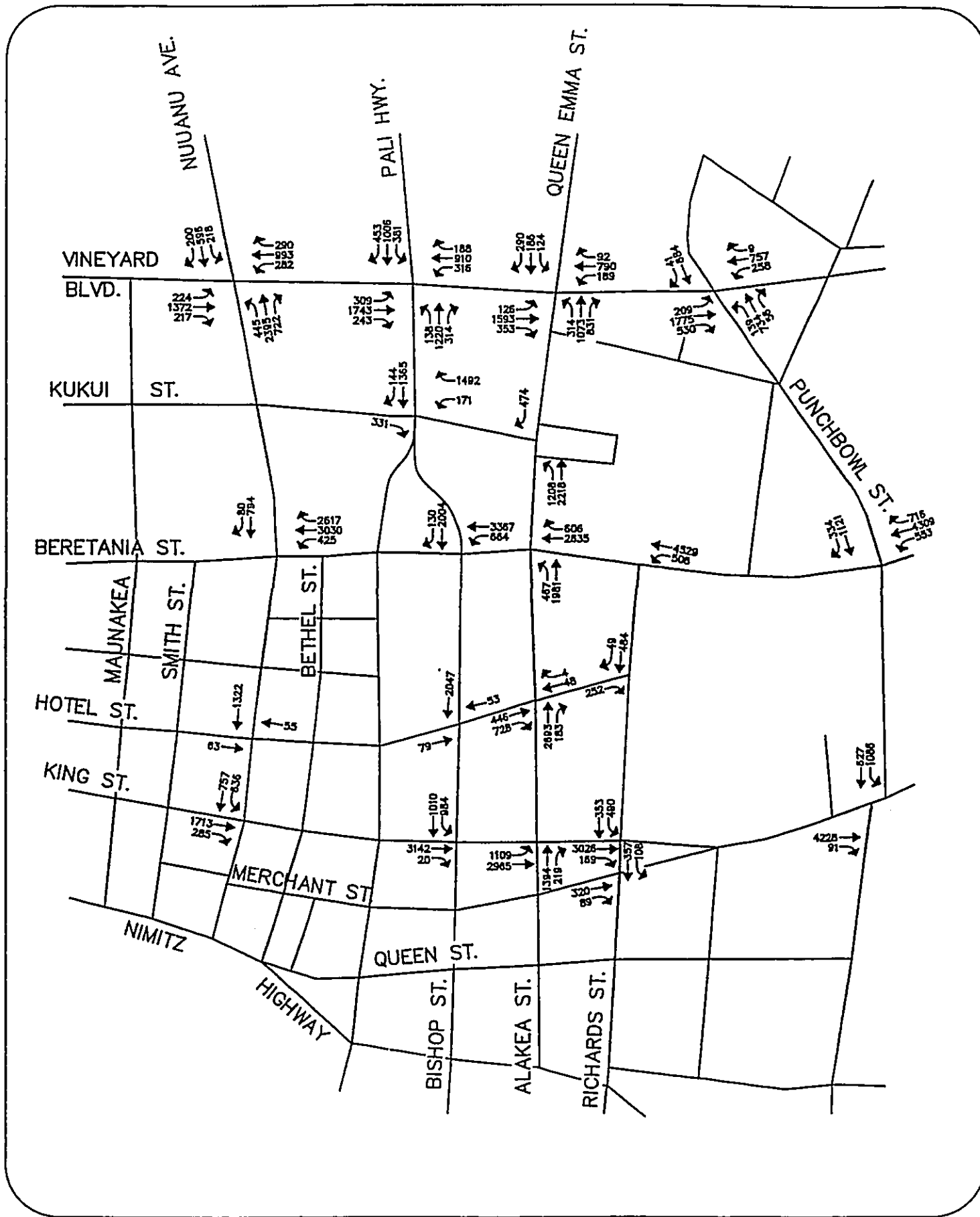
1993 CUMULATIVE + PROJECT AM PEAK HOUR TRAFFIC VOLUMES

BARTON-ASCHMAN ASSOCIATES, INC. F-27

ALAKEA-RICHARDS OFFICE BUILDING



FIGURE



1993 CUMULATIVE + PROJECT PM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC. F-28  
 ALAKEA-RICHARDS OFFICE BUILDING



FIGURE  
 12

5.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

The purpose of this chapter is to present the results of the level of service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and implementable are identified.

DEFINITION OF SIGNIFICANT IMPACTS

Criteria for determining if a project has a significant traffic impact which must be mitigated have been established based on traffic impact study guidelines used in various other cities as Honolulu has not established their own as yet. Generally, these criteria are that if the level of service without the project is E or F and the volume/capacity (V/C) ratio changes less than 0.030, the project's traffic impacts are considered insignificant. However, if the V/C ratio change is greater than 0.030, then mitigation measures which will reduce the V/C ratio change to less than 0.030 must be identified. For this project, the 0.030 criterion has been used. If the level of service with the project is D or better, then no mitigation measures need to be identified.

## PROJECT-RELATED TRAFFIC IMPACTS

The anticipated traffic impacts are summarized in Table 6. Six (6) intersections require mitigation. These intersections are:

- Vineyard Boulevard at Nuuanu Avenue (No. 1)
- Vineyard Boulevard at Pali Highway (No. 2)
- Vineyard Boulevard at Queen Emma Street (No. 3)
- Beretania Street at Richards Street (No. 10)
- Hotel Street at Richards Street (No. 15)
- King Street at Nuuanu Avenue (No. 16)

The mitigation measures required are discussed separately in the following paragraphs.

### Vineyard Boulevard at Nuuanu Avenue

Separate northbound and southbound left turn signal phasing should be installed to mitigate the impacts of the related projects and the project under study. However, the improvement would not provide a level of service D or better. The level of service would still be F, which is undesirable.

### Vineyard Boulevard at Pali Highway

To mitigate the project impacts, protected-permissive left turn phasing should be provided on the north and south approaches and an additional southbound left turn lane should be installed. However, it should be noted that the unacceptable level of service is the result of background traffic growth. The project's traffic represents only 2 per cent of the growth from existing to cumulative plus project conditions. As with the previous



TABLE 6  
 LEVEL OF SERVICE ANALYSIS FOR 1993 CONDITIONS  
 RICHARDS/ALAKEA OFFICE BUILDING TRAFFIC STUDY  
 JULY, 1989

INTERSECTION	WITHOUT PROJECT				WITH PROJECT			
	AM		PM		AM		PM	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
1. VINEYARD AT NUUANU	2.075	F	3.065	F	2.081	F	3.147	F
2. VINEYARD AT PALI	1.576	F	3.977	F	1.626	F	4.014	F
3. VINEYARD AT QUEEN EMMA	1.942	F	1.901	F	2.000	F	1.903	F
4. VINEYARD AT PUNCHBOWL	1.433	F	1.282	F	1.437	F	1.282	F
5. KUKUI AT PALI	0.932	E	0.487	A	0.942	E	0.499	A
6. KUKUI AT QUEEN EMMA	0.328	A	0.863	D	0.329	A	0.871	D
7. BERETANIA AT NUUANU	1.084	F	1.642	F	1.092	F	1.643	F
8. BERETANIA AT PALI/BISHOP	1.058	F	0.990	E	1.067	F	0.993	E
9. BERETANIA AT QUEEN EMMA/ALAKEA	0.954	E	1.119	F	0.955	E	1.132	F
10. BERETANIA AT RICHARDS	0.915	E	0.816	D	1.018	F	0.816	D
11. BERETANIA AT PUNCHBOWL	1.390	F	1.341	F	1.419	F	1.346	F
12. HOTEL AT NUUANU	0.899	D	0.557	A	0.910	E	0.559	A
13. HOTEL AT BISHOP	0.652	B	0.413	A	0.661	B	0.414	A
14. HOTEL AT ALAKEA	0.470	A	1.443	F	0.472	A	1.455	F
15. HOTEL AT RICHARDS	0.892	D	0.642	B	0.980	E	0.658	B
16. KING AT NUUANU	1.395	F	1.010	F	1.427	F	1.015	F
17. KING AT BISHOP	0.968	E	0.984	E	0.979	E	0.989	E
18. KING AT ALAKEA	0.765	C	0.951	E	0.817	D	0.953	E
19. KING AT RICHARDS	0.634	B	0.745	C	0.639	B	0.784	C
20. KING AT PUNCHBOWL	0.849	D	1.068	F	0.850	D	1.079	F
21. MERCHANT AT RICHARDS	0.363	A	0.234	A	0.363	A	0.251	A

intersection, the resulting level of service will still be F, but it will be more desirable than conditions without the project and without mitigation.

Vineyard Boulevard at Queen Emma Street

The impact of the project-related traffic is significant during the AM peak hour. Reconfiguration of the lanes to provide separate north and southbound turn lanes and the addition of a separate northbound left-turn phase would mitigate the project's impacts.

Beretania Street at Richards Street

To accommodate the project's impacts, the westbound approach along Beretania should be modified to provide an optional through or left-turn lane in addition to the existing left-turn only lane.

Hotel Street at Richards Street

To accommodate the flow of traffic into the parking garage, a signal should be installed and the intersection reconfigured to provide a separate southbound right-turn lane and two southbound through lanes. This can be accommodated within the existing street width.

King Street at Nuuanu Avenue

At this location, the southbound approach should be modified to provide an optional left-turn or through movement for the middle lane.

**Barton-Aschman Associates, Inc.**

567 South King Street, Suite 105  
Honolulu, Hawaii 96813  
USA

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Telex: RCA 8627  
Fax: (808) 545-7837

December 28, 1989

Mr. George Krasnick  
Parsons Hawaii  
567 South King Street, Suite 105  
Honolulu, Hawaii 96813

Re: Addendum to Traffic Impact Study for Richards-Alakea  
Office Building and Parking Structure  
BA Project Number 1389.01.1

Dear George:

This addendum has been prepared per to your direction following the decision by Beta-West relative to an access and egress plan for the parking structure of the project. When the traffic study was prepared in August of 1989, a decision had not yet been made regarding the internal circulation of the parking structure. The assumption made for the study was that the upper and lower levels of the structure would be interconnected allowing traffic from either Alakea Street or Richards Street to park on either level. This obviously allows traffic to approach the site along the most direct route and therefore minimizes the traffic impacts of the project on the intersections analyzed for the study.

It should also be noted that the purpose of the traffic impact study was to examine the impacts of the project. Thus, the total number of trips used in the impact study is less than the number of trips assigned to the parking structure because a significant percentage of the trips generated by the building (50%) are already being generated by the existing parking structure and office uses within the immediate area of the project. This is pointed out so that the trips assignments used in this addendum are not confused with the assignments in the traffic impact study.

In September 1989, BA was asked to examine several access/egress scenarios to provide input for a decision by Beta-West relative to an access and egress scheme for the parking garage. The decision was that 650 vehicles would have access from and egress to Alakea Street and that the remaining 350 parking spaces would use entrance/exit along Richards Street. The upper and lower levels would not be interconnected. This access/egress scheme results in approach and departure distributions different than the one used in the report.

The purpose of this addendum is to document the impacts of the revised traffic assignments and identify any additional traffic mitigation measures needed. In addition, preparation of the addendum has provided the opportunity to respond to several comments for the Department of Transportation Services (DTS).



**Barton-Aschman Associates, Inc.**

Mr. George Krasnick

December 28, 1989

Page 2

It is not the intent of this addendum to rewrite the report. The assumptions and methodology presented in the report were used in preparation of this addendum. The calculations are attached as back-up and are self-explanatory.

A separate trips generation analysis was conducted for the upper and lower levels of the parking using the percentage of parking spaces of each to estimate the total trips in and out of each level during the morning and afternoon peak hours. In this case, no discount was made for the government office spaces or the existing parking garage. The assignment of peak hour trips using each access/egress location is as follows:

<u>Access Street</u>	<u>Spaces</u>	<u>%</u>	<u>AM Peak Hour</u>			<u>PM Peak Hour</u>		
			<u>Total</u>	<u>In</u>	<u>Out</u>	<u>Total</u>	<u>In</u>	<u>Out</u>
A. Richards St.	350	35	186	162	24	176	28	148
B. Alakea St.	<u>650</u>	<u>65</u>	<u>345</u>	<u>300</u>	<u>45</u>	<u>328</u>	<u>53</u>	<u>275</u>
Total	1,000	100	531	462	69	504	81	423

Using the above trip generation data and the trip distribution presented in the report, the traffic assignments were revised. It was determined that the level-of-service analysis for six intersections would be affected. This intersections were:

- Beretania Street at Alakea Street
- Beretania Street at Richards Street
- Hotel Street at Alakea Street
- Hotel Street at Richards Street
- King Street at Alakea Street
- King Street at Richards Street

The results of the level-of-service analysis using the revised traffic assignments are presented as Exhibit A, which corresponds to Table 6 of the report. As shown, three on the intersections will require mitigation. These intersections are:

- Beretania Street at Alakea Street
- Hotel Street at Richards Street
- King Street at Alakea Street

At the intersection of Beretania at Alakea Street, the westbound approach should be restriped to provide as optional through or right-turn lane in addition to the existing right-turn only lane. This will result in an afternoon peak volume-to-capacity ratio of 1.110, which is an improvement from the 1.132 that would occur without the project or any

**Barton-Aschman Associates, Inc.**

Mr. George Krasnick  
December 28, 1989  
Page 3

mitigation. There would not be any change in the morning peak hour volume-to-capacity ratio and therefore no mitigation is required to accommodate morning peak hour traffic.

At the intersection of Hotel Street at Richards Street, the mitigation measure recommended in the report is sufficient to accommodate morning and afternoon traffic. The mitigation measure recommended is restriping of the southbound approach to provide two through lanes and one right-turn lane within the existing roadway width and signalization of the intersection.

At the intersection of King Street at Alakea Street, retiming of the signals will mitigate the project's afternoon peak hour traffic impacts. However, the level-of-service will be E. No mitigation is required for the morning peak hour traffic.

We were also directed to tabulate the observed level-of-services at the intersection analyzed along with the calculated level-of-service. This information is presented on Exhibit B, which is a modification of Table 3 of the report.

If you require any additional information, please contact me.

Very truly yours,  
BARTON-ASCHMAN ASSOCIATES, INC.

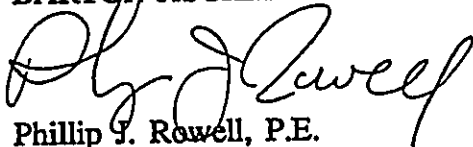
  
Phillip J. Rowell, P.E.  
Senior Associate

EXHIBIT A  
 LEVEL OF SERVICE ANALYSIS FOR 1991 CONDITIONS  
 RICHARDS/ALAKEA OFFICE BUILDING TRAFFIC STUDY  
 DECEMBER, 1989

<u>INTERSECTION</u>	<u>V/C</u>	<u>WITHOUT PROJECT</u>				<u>WITH PROJECT</u>			
		<u>AM</u>		<u>PM</u>		<u>AM</u>		<u>PM</u>	
		<u>LOS</u>	<u>V/C</u>	<u>LOS</u>	<u>V/C</u>	<u>LOS</u>	<u>V/C</u>	<u>LOS</u>	<u>V/C</u>
9. BERETANIA AT ALAKEA	0.954	E	1.119	F	0.956	E	1.172	F	
10. BERETANIA AT RICHARDS	0.915	E	0.816	D	0.985	F	0.821	D	
14. HOTEL AT ALAKEA	0.281	A	0.476	A	0.305	A	0.518	A	
15. HOTEL AT RICHARDS	0.892	D	0.642	B	1.131	F	0.879	D	
18. KING AT ALAKEA	0.765	C	0.951	E	0.900	D	1.011	F	
19. KING AT RICHARDS	0.634	B	0.745	C	0.651	B	0.844	D	

EXHIBIT B  
 LEVEL OF SERVICE ANALYSIS FOR EXISTING CONDITION  
 TRAFFIC STUDY FOR ALAKEA-RICHARDS OFFICE BUILDING  
 DECEMBER, 1989

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR		OBSERVED LOS <sup>(2)</sup>	
	V/C <sup>(1)</sup>	LOS <sup>(2)</sup>	V/C <sup>(1)</sup>	LOS <sup>(2)</sup>	AM	PM
1. VINEYARD AT NUUANU	1.161	F	2.304	F	E	E
2. VINEYARD AT PALI	1.360	F	2.683	F	E	E
3. VINEYARD AT QUEEN EMMA	1.129	F	1.680	F	E	E
4. VINEYARD AT PUNCHBOWL	1.224	F	1.110	F	E	E
5. KUKUI AT PALI	0.767	C	0.309	A	C	D
6. KUKUI AT QUEEN EMMA	0.272	A	0.757	C	A/B	D
7. BERETANIA AT NUUANU	0.765	C	0.966	E	C	D
8. BERETANIA AT PALI/BISHOP	0.893	D	0.744	C	C	D
9. BERETANIA AT QUEEN EMMA/ALAKEA	0.560	A	0.810	D	A/B	D
10. BERETANIA AT RICHARDS	0.712	C	0.683	B	C	C
11. BERETANIA AT PUNCHBOWL	1.130	F	1.124	F	E	E
12. HOTEL AT NUUANU	0.516	A	0.359	A	C	A/B
13. HOTEL AT BISHOP	0.496	A	0.303	A	C	A/B
14. HOTEL AT ALAKEA	0.262	A	0.443	A	C	A/B
15. HOTEL AT RICHARDS	0.711	C	0.525	A	C	A/B
16. KING AT NUUANU	0.822	D	0.655	B	C	A/B
17. KING AT BISHOP	0.777	C	0.700	C	C	C
18. KING AT ALAKEA	0.646	B	0.754	C	C	C
19. KING AT RICHARDS	0.564	A	0.578	A	C	C
20. KING AT PUNCHBOWL	0.748	C	0.872	D	C	C
21. MERCHANT AT RICHARDS	0.338	A	0.218	A	A/B	A/B

Notes:

(1) V/C = Volume to Capacity Ratio

(2) LOS = Level of Service





**FINAL AIR QUALITY REPORT FOR  
PROPOSED OFFICE BUILDING ON HOTEL STREET  
BETWEEN RICHARDS AND ALAKEA STREETS  
HONOLULU, HAWAII**

**DECEMBER 1989**

**Prepared for  
BETA WEST DEVELOPMENT**

**Prepared by  
ENGINEERING-SCIENCE, INC.  
600 Bancroft Way  
Berkeley, California 94710**

**In Association With  
PARSONS HAWAII  
Honolulu, Hawaii**

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## INTRODUCTION

### PROJECT DESCRIPTION

The proposed project would include the development of an office-commercial project and seven-story parking structure on the site of the existing city-owned parking garage at Richards and Alakea Streets in Honolulu's central business district. The 24-story office building would contain approximately 310,467 square feet of office space, approximately 8,525 square feet of retail commercial space and approximately 1,000 parking stalls. Approximately 71,250 square feet of office space would be allocated to the city. The 217 existing stalls would be replaced with 235 public parking stalls. The state would purchase 432 stalls and 333 stalls would be available for private use.

The proposed project is contained within the Hawaii Capital Special District, and comprises the Alakea Hotel Street Precinct. It lies within a three-block radius of government offices, the financial district, and commercial and retail areas. The project will overlook the State Capitol and Iolani Palace.

### EXISTING SETTING

#### Climatic Setting

Oahu, on which Honolulu is located, is the third largest of the Hawaiian islands, and is marked by two important mountain ranges. The Koolau Range, at an average elevation of 2,000 feet, parallels the northeastern coast. Honolulu airport, the business and Waikiki districts, and a number of the city's residential areas lie along the coastal plain leeward (relative to the trade winds) of the Koolaus.

The climate of Hawaii is usually pleasant for the tropics. The outstanding features are (1) the persistence of the trade winds, where not disrupted by high mountains; (2) the remarkable variability in rainfall over short distances; (3) the sunniness of

the leeward lowlands, in contrast to the persistent cloudiness over nearby mountain crests; (4) the equable temperature from day to day and season to season; and (5) the infrequency of severe storms.

Hawaii's equable temperatures are associated with the small seasonal variation in the amount of energy received from the sun and the tempering effect of the surrounding ocean. The range in temperature averages only 7 degrees between the warmest months (August and September) and the coldest months (January and February) and about 12 degrees between day and night. Daily maximums run from the high 70's in winter to the mid 80's in the summer, and the daily minimums from the mid 60's to the low 70's.

Annual rainfall averages 24 inches in the downtown Honolulu area and increases inland at about 30 inches a mile. Parts of the Koolau Range average 300 inches or more a year. This heavy mountain rainfall sustains extensive irrigation of the cane fields and water supply at Honolulu. East (windward) of the Koolaus, coastal areas receive 30 to 50 inches annually; cane and pineapple fields in central Oahu get about 35 to 40 inches. Oahu is the driest along the coast west of the Waianaes where rainfall drops to about 20 inches a year. However, variations from month to month and year to year are considerable; more so during the cooler season, when occasional major storms provide much of the rain, than in the summer, when rain occurs primarily as showers that form within the moist trade winds as they override the mountains. Thus, March rainfall at Honolulu airport has ranged from more than 20 inches to as little as one-one-hundredth of an inch. In the mean, about half of the airport's annual total occurs during the three wettest months, December through February. Trade wind rainfall is more frequent at night. Daytime showers, usually light, often occur while the sun continues to shine -- a phenomenon referred to as "liquid sunshine".

The prevailing wind throughout the year is the northeasterly trade wind, although its average frequency varies from more than 90 percent during the summer to only 50 percent during January. Honolulu's average windspeed for the month of January is 9.3 miles per hour, and it reaches 12.8 miles per hour in July. Through the months of October to April, Kona storms with southerly winds may be experienced. Relative humidity for Honolulu remains between 60 and 80 percent on a year-round average (University of Hawaii; 1984).

### Existing Air Quality

Data compiled by the Hawaii Department of Health (HDOH) was examined to estimate air quality in the vicinity of the proposed project. The nearest representative long-term data monitoring station to the project area is located at the HDOH building at the corner of Punchbowl and Beretania Streets adjacent to downtown Honolulu. It is an EPA approved monitoring station that provides "background" air quality measurements. Data from the HDOH building monitoring station was characterized for total particulate matter (PM) carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), and lead. The nearest representative monitoring station for particulate matter less than 10 microns in diameter (PM<sub>10</sub>) is the Liliha monitoring station at Kauluwela Elementary School. It is located upwind of the project area in a residential-commercial area approximately one and a quarter miles north of downtown Honolulu. The nearest ozone (O<sub>3</sub>) monitoring station is located at the Anuenue Fisheries, Sand Island, Honolulu, Oahu. The area is composed of light industrial, commercial, recreational, and harbor units. This station is located approximately two miles southwest of downtown Honolulu.

Ambient air quality data levels at the project site were characterized using data collected in 1985, 1986, and 1987 (Hawaii Department of Health, 1985-1987). The maximum concentrations measured during that period, along with applicable state and federal ambient air quality standards, are presented in Table 1. All monitored values for SO<sub>2</sub>, TSP, PM<sub>10</sub>, and lead are below the applicable state and federal standards. The 1-hour ozone exceeded the Hawaii standard three times in 1985 but not in 1986 or 1987. The 1-hour carbon monoxide Hawaii standard was exceeded once in 1985, three times in 1986, and once in 1987. The 8-hour standard and the 1-hour federal standard for carbon monoxide were not exceeded in any of the three years.

The HDOH is responsible for regulating the emissions in the project area. As a result, all phases of the proposed project would be required to comply with all of the applicable HDOH rules and regulations. Additionally, project development activities would be required to comply with all applicable rules and regulations of the U.S. Environmental Protection Agency (EPA).

TABLE 1  
 NUMBER OF DAYS HAWAII AMBIENT AIR QUALITY STANDARDS  
 WERE EXCEEDED AND 1985-1987 MAXIMA FOR OAHU MONITORING STATIONS<sup>1</sup>

Pollutant ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	MAXIMUM MEASURED CONCENTRATION						Air Quality Standards <sup>2</sup>	
		1985		1986		1987		Federal	Hawaii
		Days	Max	Days	Max	Days	Max		
O <sub>3</sub>	1-hour	3	198	0	88	0	84	235	100
CO	8-hour	0	4,400	0	4,700	0	3,900	10,000	5,000
	1-hour	1	10,400	3	13,500	1	11,100	40,000	10,000
NO <sub>2</sub> <sup>3</sup>	Annual	NM	NM	NM	NM	NM	NM	100	70
	1-hour	NM	NM	NM	NM	NM	NM	--	--
SO <sub>2</sub>	Annual	NM	NM	NM	NM	NM	NM	80	20
	24-hour	0	<5	0	6	0	11	365	80
	3-hour	NM	NM	NM	NM	NM	NM	1,300	400
	1-hour	NM	NM	NM	NM	NM	NM	--	--
TSP	Annual	NM	NM	NM	NM	NM	NM	--	55
	24-hour	0	48	0	61	0	59	--	100
PM <sub>10</sub>	Annual	NM	NM	NM	NM	NM	NM	50	--
	24-hour	0	52	0	35	0	33	150	--
Lead	Calendar quarter	0	0.3	0	0.2	0	0.2	1.5	--

<sup>1</sup> Total particulate matter (TSP), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), and lead maxima from HDOH building monitoring station; particulate matter less than ten microns in diameter (PM<sub>10</sub>) maxima from Liliha monitoring station; ozone (O<sub>3</sub>) maxima from Sand Island monitoring station.

<sup>2</sup> When both Hawaii and federal standards are given for a pollutant, the number of days a standard is exceeded refers to the Hawaii standard.

<sup>3</sup> Background NO<sub>2</sub> levels were monitored at the Barbers Point monitoring station from 1971 to 1976, when it was discontinued. The 1976 annual average NO<sub>2</sub> concentration was 15  $\mu\text{g}/\text{m}^3$ .  
 Source: Hawaii Department of Health, Hawaii Air Quality Data, January 1985 - December 1987.

## AIR QUALITY ANALYSIS

### Proposed Project

#### Construction

Impacts. Construction of the project would increase levels of particulate matter and nitrogen oxides (NO<sub>x</sub>) and to a lesser extent carbon monoxide (CO), sulfur oxides (SO<sub>x</sub>), and hydrocarbons (HC). Particulates are generated primarily during grading and demolishing activities, while nitrogen oxides, sulfur oxides, hydrocarbons, and carbon monoxide are a result of emissions from diesel fuel combustion by construction equipment.

Heavy construction is a source of dust emissions that may have substantial temporary impact on local air quality. Dust emissions vary substantially from day to day depending on the level of activity, the specific operations, and the prevailing weather. Using emission factors of 619 lbs/acre for total suspended particulates (TSP) and 176 lbs/acre for less than 10 micron particulates (PM<sub>10</sub>), the estimated dust related emissions from construction operations of approximately 1.8 acres are 1,110 pounds of TSP and 317 pounds of PM<sub>10</sub> (U.S. EPA, 1988).

In order to quantify construction equipment exhaust emissions, well-defined construction and machinery mobilization schedules are necessary. However, since these items are not yet available, impacts are evaluated on a unit time basis of one month and an assumed construction machinery composite. An average construction machine composite was assumed to be on site and construction work was assumed to average 8 hours per day, 25 days per month. Monthly emissions are estimated using EPA emission factors and are presented in Table 2 (U.S. EPA, 1985).

**TABLE 2**  
**MONTHLY CONSTRUCTION MACHINERY EXHAUST EMISSIONS**

Equipment	Number of Units	Emissions, lbs/month				
		CO	HC	NO <sub>x</sub>	SO <sub>x</sub>	TSP
Motor Grader	1	30	8	11	17	12
Wheeled Bulldozer	1	360	38	833	93	33
Tractor-Loader	2	80	39	331	30	23
Scraper	1	251	56	768	93	81
Wheeled Loader	1	114	50	378	36	34
Forklift	2	270	61	676	57	57
Crane	1	135	30	338	114	114
<b>TOTAL</b>		<b>1,240</b>	<b>282</b>	<b>3,335</b>	<b>440</b>	<b>354</b>

Mitigation Measures. To reduce dust during construction, exposed soil surfaces should be watered with water trucks and/or sprinklers as often as necessary. All vehicles leaving the project site should be cleaned to prevent dirt and mud from reaching adjacent streets. Streets should be kept free of dust and dirt. All trucks should be covered. Construction equipment should be properly maintained and tuned to minimize exhaust emissions. Equipment idling should be kept to a minimum when not in use.

**Operation**

Impacts. The major air quality impacts from the operational phase of the proposed project would be due to the expected increase in vehicular traffic in the vicinity of the project area. Carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), hydrocarbons (HC), and particulate matter (PM<sub>10</sub>) are products of fossil-fuel combustion and are constituents of vehicular exhaust. Carbon monoxide is selected for modeling because it has a relatively long half-life in the atmosphere, it comprises the largest fraction of automotive emissions, and it could impact the standards most significantly. Particulate matter emissions are also generated by roadway dust.

EPA's MOBILE 3 emissions model was used to calculate vehicle emission factors for the proposed project. Emission factors for average vehicle speeds of 10 miles per



hour and Honolulu's vehicle age distribution were implemented. A CO emission estimate of 65.14 g/mi. was obtained (American Lung Association of Hawaii, 1989).

In accordance with Federal Highway Administration (FHWA) guidelines, the CALINE4 dispersion model was used to assess air quality impacts in the immediate vicinity of the project area for the year 1993. The predictions were based on the worst-case ambient CO concentrations which would result from the motor vehicle traffic. The model was run using worst-case meteorology which included a low wind speed (1.0 m/s) and very stable (F) conditions. The wind was varied about the compass at 25 degree increments for a total of 14 wind directions for which concentrations were calculated. The maximum peak hour traffic volume occurred along the Richards Street roadway section between the parking lot exit of the proposed building and the intersection of Richards Street and King Street (see Traffic Report). Six receptors were situated along the maximally impacted roadway section. Two receptors were located on either side of the YWCA, two receptors were located near the intersection of King Street and Richards Street, one receptor was located in front of Iolani Place, and one receptor was located near the parking exit of the proposed building. All receptors were located curbside of the roadway section (California Air Resources Board, 1987).

Results of the modeling are given in Table 3. The eight-hour CO impacts were assumed equal to 60 percent of the one-hour impacts (California Department of Transportation, 1988). Maximum project impacts of 695  $\mu\text{g}/\text{m}^3$  and 418  $\mu\text{g}/\text{m}^3$  for 1-hour and 8-hour carbon monoxide averaging periods occurred at the intersection of King Street and Richards Street and in front of the YWCA. Maximum project impacts, along with background and total impacts, are presented. The 1993 project and cumulative plus project PM peak hour traffic volumes at the Nuuanu/Vineyard intersection were used to estimate short-term (1-hour) CO impacts. Ten receptors were situated curbside of the intersection, with five receptors located at the downwind corner of the intersection (California Air Resources Board, 1987).

Results of the cumulative impact modeling are given in Table 3. The eight-hour CO impacts were assumed equal to 60 percent of the one-hour impacts (California Department of Transportation, 1988). A maximum one-hour project impact of 345  $\mu\text{g}/\text{m}^3$  and a maximum one-hour worst-case cumulative project impact of 15,600  $\mu\text{g}/\text{m}^3$  were obtained. Maximum project and cumulative project impacts, along with

TABLE 3

CUMULATIVE PROJECT  
 MAXIMUM CARBON MONOXIDE CONCENTRATIONS  
 FOR THE YEAR 1993 ( $\mu\text{g}/\text{m}^3$ )

Pollutant	Averaging Period	Back-ground	Richards Street Section		Maximum Project Impact Nuuuanu/Vineyard		Maximum Cumulative Impact Nuuuanu/Vineyard		Maximum Impact Garage		Standards	
			Predicted	Total	Predicted	Total	Predicted	Total	Predicted	Total	Hawaii	Federal
CO	1-hr	13,500	695	14,195	345	13,845	15,600	29,100	1,200	14,700	10,000	40,000
	8-hr	4,700	418	5,118	207	4,907	9,360	14,060	720	5,420	5,000	10,000

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background and total impacts, are presented. The results show that the 1-hour State standard and both the 8-hour State and Federal standards are exceeded. These exceedances are significant and necessitate mitigation.

The intersection modeling analysis and impact assessment provide a conservative estimate of the air impact of the project (i.e., over prediction). Conservative assumptions were applied throughout the modeling analyses to ensure that worst-case concentrations would be predicted. It is likely that concentration levels from the project would be less than predicted by the CALINE4 model. Furthermore, it was assumed that existing background air quality would not change by the year 1993. There is likely to be a decline in CO concentrations through the year 1993. Although the traffic report indicates an overall increase in local traffic, the decline in CO concentration is due to federal emission standards for newly manufactured vehicles and the mandated availability of cleaner burning fuels.

The potential air quality impact due to the idling vehicle emissions on the parking floors was analyzed and the results depicted in Table 3. Basement 2 was chosen as the worst-case parking floor because it has the most stalls (181) and is enclosed. Using a "box model" (1975 Lecture Notes) and a MOBILE3 emission factor of 146.3 grams/mile (5 mph speeds for all cars, 50 percent filled in one-hour), the maximum garage-related 1-hour CO concentration is estimated to be 1,200  $\mu\text{g}/\text{m}^3$ . Using the assumption that the 8-hour CO concentration is 60 percent of the 1-hour CO concentration, a maximum worst-case 8-hour CO garage concentration of 720  $\mu\text{g}/\text{m}^3$  is obtained. Assuming background concentrations of 4,700  $\mu\text{g}/\text{m}^3$  (8-hour) and 13,500  $\mu\text{g}/\text{m}^3$  (1-hour) (Table 1), total garage CO concentrations are found to be 5,420  $\mu\text{g}/\text{m}^3$  for 8-hour and 14,700  $\mu\text{g}/\text{m}^3$  for 1-hour periods. Because both the 1-hour and 8-hour predicted CO concentrations exceed the State standards, mitigation is necessary.

Impacts on air quality due to parking ventilation was examined. Ventilation of the parking structure consists of pulling air in from the Hotel Street side of the building and exhausting the air along the opposite side. Separate vents would exhaust each floor of the parking garage. Two vents would be located on each floor near the building corners at Alakea and Richards. Vent heights would range from 18 to 60 feet in height. Because the system avoids pollutant buildup in the parking structure, ventilation impacts are not significant.

Mitigation Measures. Because the proposed project impacts (Nuuanu/Vineyard intersection and parking garage) are significant, measures to reduce emissions are necessary. CO monitoring inside the garage to obtain actual CO levels would be mitigation. Other mitigation measures that can be easily incorporated into a project revolve around reducing motor vehicle use by individuals during peak hour traffic flow. Transit amenities and incentives such as increased convenience and attractiveness of transit stops, i.e., telephones, drinking fountains, waiting shelters, etc. could be implemented to partially mitigate peak hour traffic congestion. Another mitigation measure could be the incorporation of alternative work schedules. This would distribute the traffic amounts over a longer period of time, thereby lessening peak hour flow. Bicycle and pedestrian lanes would also partially mitigate the peak hour traffic flows. Actual traffic flow improvements such as the provision of demand-responsive traffic signals with signal splits and phase lengths automatically adjusted to traffic demand on a real time basis, would ease periodic congestion. Development of a vehicle inspection smog check program would reduce vehicle emissions. Transportation related management actions such as 1) requiring the developer to reserve a percentage of parking spaces for car/van pool vehicles with discounted rates if a charge is made and 2) employer subsidy to employees using car and van pools, would help to mitigate the impacts.

#### **PROJECT ALTERNATIVES**

All three of the ~~project alternatives (no action, all parking, and alternative sites)~~ would result in air quality impacts in the vicinity of the proposed site. The "no action" alternative would impact air quality because the state would initiate parking redevelopment of the proposed site if the City of Honolulu refrained from such development. The air impacts associated with any of the alternatives would summarily depend on the number of parking stalls proposed, the size of the development, roadway congestion, and the resulting vehicular traffic in the vicinity. In addition, air quality impacts at an alternative site could be intensified or lessened due to vehicle speeds near the alternative site, existing ambient air quality levels in the area, and the resulting vehicular traffic caused by the alternative site project.

## CUMULATIVE AIR QUALITY ANALYSIS

Carbon monoxide (CO) emissions in the vicinity of the proposed project would increase due to traffic generated by the project itself and from other related projects. Related projects are those projects under construction or have been approved for construction by the city that would potentially impact the air quality in the vicinity. Ten related projects were identified that were either under construction or in the final planning stages. The previous modeling analysis (Air Quality Analysis section) for the project addressed the ten related projects to show a worst-case air quality scenario.

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APPENDIX H

Noise and Vibration Impacts Assessment

PREFACE TO  
APPENDIX H  
NOISE AND VIBRATION IMPACTS ANALYSIS

At the time this study was conducted, it had yet to be determined whether foundation piles or a mat foundation would be employed for the project. It was subsequently decided by the developer to use the mat-type foundation, eliminating the need to drive foundation piles. This eliminates a major source of potential impacts of the development, and should be kept in mind by readers of this appendix.



**NOISE AND VIBRATION STUDY FOR**  
**ALAKEA - RICHARDS**  
**OFFICE BUILDING**  
**AND**  
**PARKING STRUCTURE**

HAWAII CAPITAL DISTRICT

SEPTEMBER 1989

Prepared For  
**BETA-WEST CORPORATION**

Prepared by  
**ENGINEERING-SCIENCE, INC.**

In Association with  
PARSONS-HAWAII

PS198  
PSR49

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## **NOISE AND VIBRATION IMPACT STUDY**

### **Introduction**

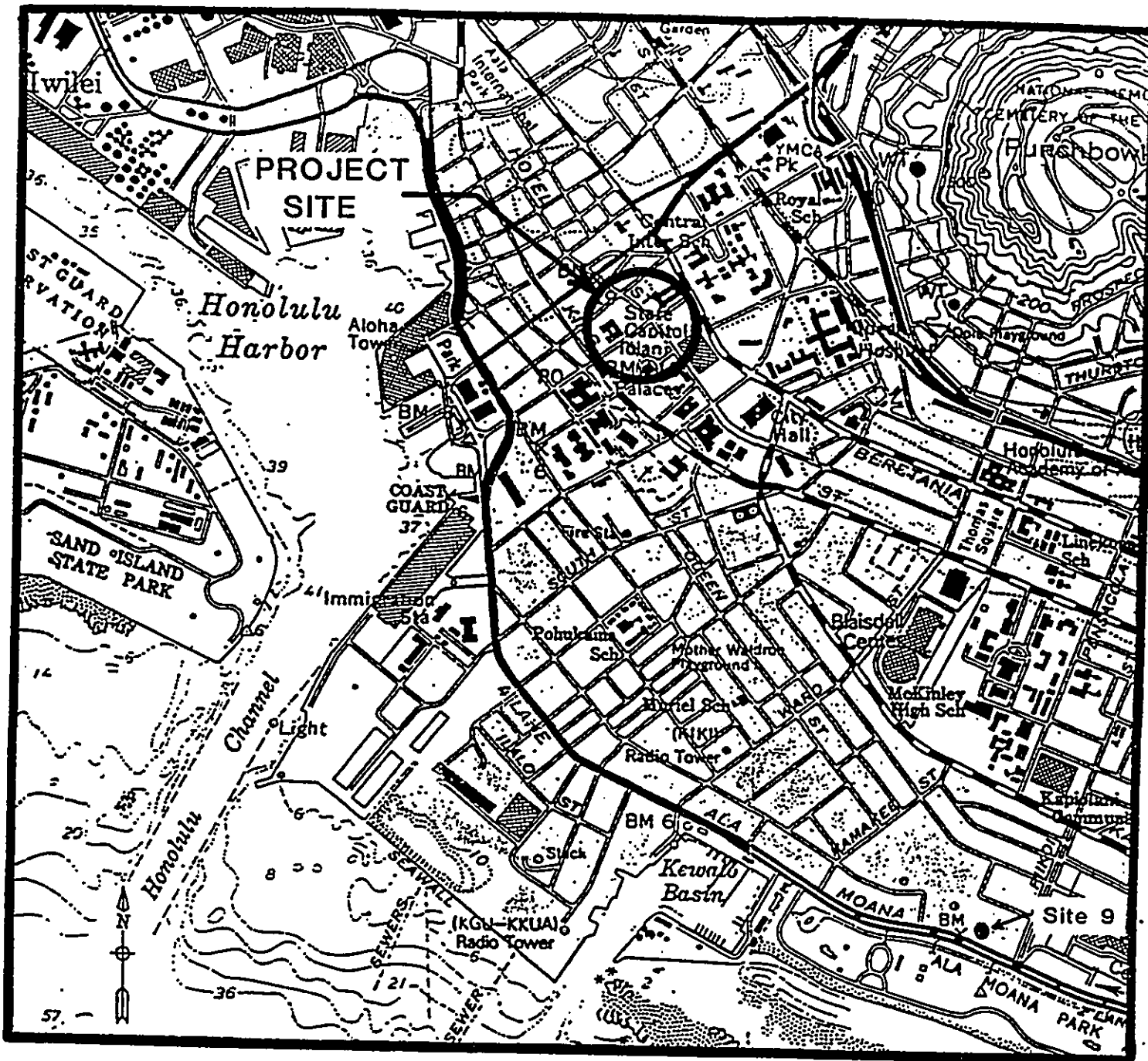
Engineering-Science, Inc. has been retained by Parsons-Hawaii to undertake the noise and vibration analysis and impact study for the proposed office building and parking structure in the Capitol District of Honolulu. This report describes the existing setting and potential future impacts due to noise and vibration arising from additional project related traffic, demolition, site preparation, construction and operation of the proposed facilities.

### **Setting**

The proposed project site is located in the Capitol District of Honolulu immediately south of Hotel Street between Alakea and Richards Streets. Figure 1 shows the project site location. Vehicular traffic on the adjacent and nearby streets is the major contributor to the existing noise and vibration environment. Aircraft flyovers and human activity occasionally raise the existing noise levels.

### **Potential Noise and Vibration Sensitive Locations**

Figure 2 shows the proposed project site relative to nearby potentially sensitive receptors. The nearest potentially sensitive locations are the Young Women's Christian Association building (YWCA, an historic site) southeast of the proposed project site on Richards Street and the Jury Box office building southwest of the site on Alakea Street. In addition, the Iolani Palace and the barracks building (both historic sites), east of the site and the Hemmeter Corporation Building (formerly the YMCA and an historic site) north of the site and Hotel Street are nearby and potentially sensitive receptors. The State Capitol Building northeast of the site also is potentially sensitive to proposed project noise and vibration. Other nearby office buildings west of Alakea Street, the restaurant building south of the Jury Box office building and the Honolulu District Court Building north of Hotel Street are potentially sensitive locations, as well.



# MAP OF AREA

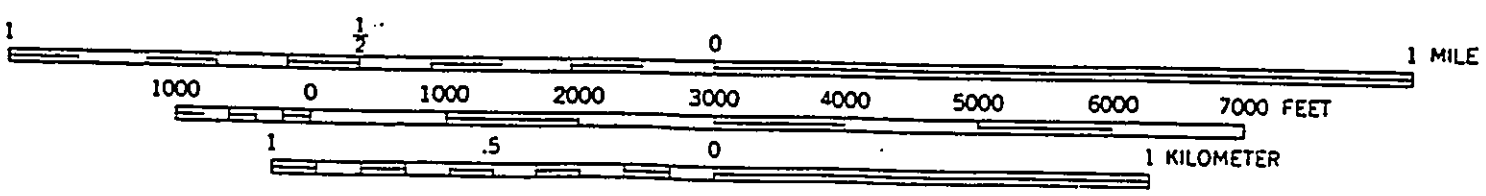


FIGURE 1. PROJECT SITE LOCATION

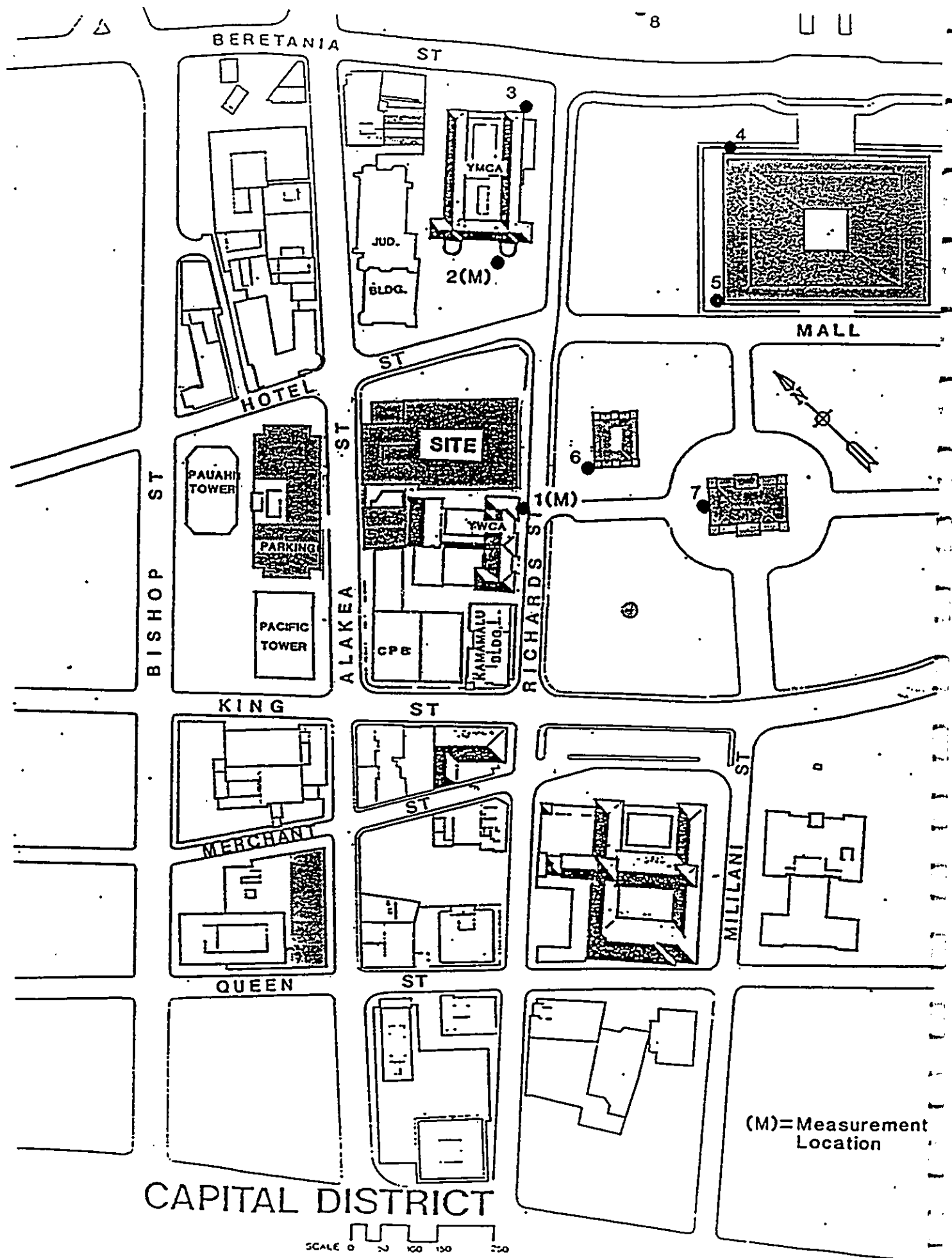


FIGURE 2. MEASUREMENT AND PREDICTION LOCATIONS.

## Methodology

### Field Measurements

Noise and/or vibration measurements were conducted by Engineering-Science staff from August 30 to September 1, 1989 at three locations (refer to Figure 2), using the following instruments:

Larson Davis Real Time Analyzer RTA 3100  
Larson Davis 870 Sound Level Meter  
Larson Davis Half-Inch Microphone with Windscreen  
Larson Davis 800 Sound Level Meter, Computer Controlled  
Larson Davis One Inch Microphone w/ RI Correcter & WS  
Larson Davis Acoustic Calibrator  
Teac R-71 Data Recorder  
Endevco Accelerometer, Type 2219E, S/N NA08  
Endevco Accelerometer, Type 2219E, S/N NA21  
Endevco Charge Amplifier, Model 2735, S/N GB81  
Endevco Charge Amplifier, Model 2735, S/N GZ33  
General Radio Vibration Calibrator, Type 1557A, S/N 207

The measurement instruments were calibrated before and after the measurements were performed. Microphone heights were set at 5 feet above grade or floor. Vibration transducers were at grade or on floor slabs.

Figure 2 shows two of three locations where existing noise and/or vibration measurements were made. Site 1 is located at the YWCA building immediately south of the proposed project site on Richards Street. Three interior rooms, each on different floors, and the exterior grade level at the northeast corner of the building were monitored. Site 2 is located north of Hotel Street on the grounds of the Hemmeter Corporation (formerly the YMCA) to the southeast of the main entrance. Site 9, a construction site where pile driving was underway and far removed from the project site, was chosen to measure the noise and vibration of pile driving. It was one of two sites found with active pile driving underway. Pre-drilling was undertaken at this site prior to the impact driving of piles.

### Sound Level Descriptors

Sound levels measured were in A-weighted decibels (dBA). The A-weighted scale is the most commonly used method of electronically combining sound levels of different frequencies in a manner similar to the human hearing process. The

statistical distribution of overall levels ( $L_{10}$ ,  $L_{50}$ ,  $L_{90}$ ) as well as the energy equivalent sound level ( $L_{eq}$ ) were obtained for a fifteen minute period at each site.

The statistical level  $L_{10}$ , the level exceeded for 10 percent of the measurement period, has been used in the past by the U.S. Department of Housing and Urban Development (HUD) to characterize the noise environment and likely community response. This  $L_{10}$  level is also equivalent to the community noise limits for any 20 minute period, as required by the State of Hawaii Department of Health (Hawaii 1981).

The statistical level which represents the median level measured during a time period is designated as  $L_{50}$ . Similarly,  $L_{90}$  indicates the level exceeded 90 percent of the time during the measurement period and is generally regarded to be the background noise.

The Energy Equivalent Sound Level ( $L_{eq}$ ) is a descriptor for time varying noise that has the same acoustic energy as a steady noise and is thus the average noise energy measured over any given time period. To characterize the noise environment in a community over a 24-hour period, the  $L_{eq}$  is computed separately for daytime hours (7 a.m. to 10 p.m.) and nighttime hours (10 p.m. to 7 a.m.). Since people are more sensitive to noise during nighttime hours, the subjective perception of nighttime noise levels is greater than that of daytime noise. Equivalent noise levels are generally perceived to be twice as loud at night as they are during the day. To reflect this difference in perception at different hours, 10 dB is added to nighttime noise measurements. The  $L_{eq}$  sound level descriptor is used by the U.S. Department of Transportation, Federal Highway Administration to describe transportation noise impacts for various land use categories (FHWA 1982).

The peak hour traffic noise levels ( $L_{eq}$ ) from the Alakea-Richards project operations were predicted using the FHWA-RD-77-108 Highway Traffic Noise Prediction Model (FHWA 1978). In this model, sound characteristics are defined by speed-dependent reference noise emission levels and vehicle density by vehicle type. The following assumptions were used for the calculations of noise levels:

- o Non-project traffic on nearby streets consists of 11 percent heavy buses, 0.6 percent medium trucks and 88.4 percent automobiles based on short term traffic counts conducted during the noise surveys.



- o All project construction and site preparation traffic occurs between 7 a.m. and 7 p.m. and consists of heavy trucks.
- o The traffic noise model was calibrated using measured noise levels and traffic counts made during noise measurements.

Project-generated traffic volumes were obtained from the Traffic Impact Study (Barton-Aschman 1989). The traffic information is given in Table I.

#### Existing Noise Environment

Table II shows the noise levels measured at each of the selected sites. The measured exterior daytime  $L_{eq}$  sound levels for Site 1 (67 dBA avg.) and Site 2 (61 dBA) are typical for their respective traffic volumes. Measured  $L_{eq}$  levels for the pile driving at Site 9 (89 dBA) is typical for this construction activity. Figure 3 shows expected responses from people toward various levels of noise, ranging from the threshold of hearing, near 0 dBA, to the threshold of physical discomfort in the ear, at about 120 dBA.

Major intrusive noise sources in the project area are vehicular traffic upon nearby surface streets. Noise contributors at Site 1 are mainly automobiles and busses on Richards Street. Traffic on Hotel Street, Richards Street and Beretania Street are the dominant sources for Site 2.

An estimate of the existing peak hour  $L_{eq}$  at the noise measurement sites can be made from the above measurements and the traffic volume data provided in the traffic impact study. The estimated levels for eight receptor locations (including measurement Sites 1 and 2) are summarized in Table III. Traffic noise estimates for each of the modeled roadway segments are given in Table IV.

#### Existing Vibration Levels

Table V shows the vibration levels measured at each of two selected sites. The measured exterior daytime vibration levels for Site 1 (95 dB Peak avg.) are typical for the respective traffic volumes. Measured vibration levels for the pile driving at Site 9 (99 and 93 dB Peak) is typical for this construction activity. Figure 4 shows expected responses from people toward various levels of vibration, ranging from the threshold of perception, near 50 dB, to the threshold of physical damage to standard structures, at about 100 dB.

TABLE I  
ROADWAYS ANALYZED IN THE TRAFFIC NOISE ASSESSMENT

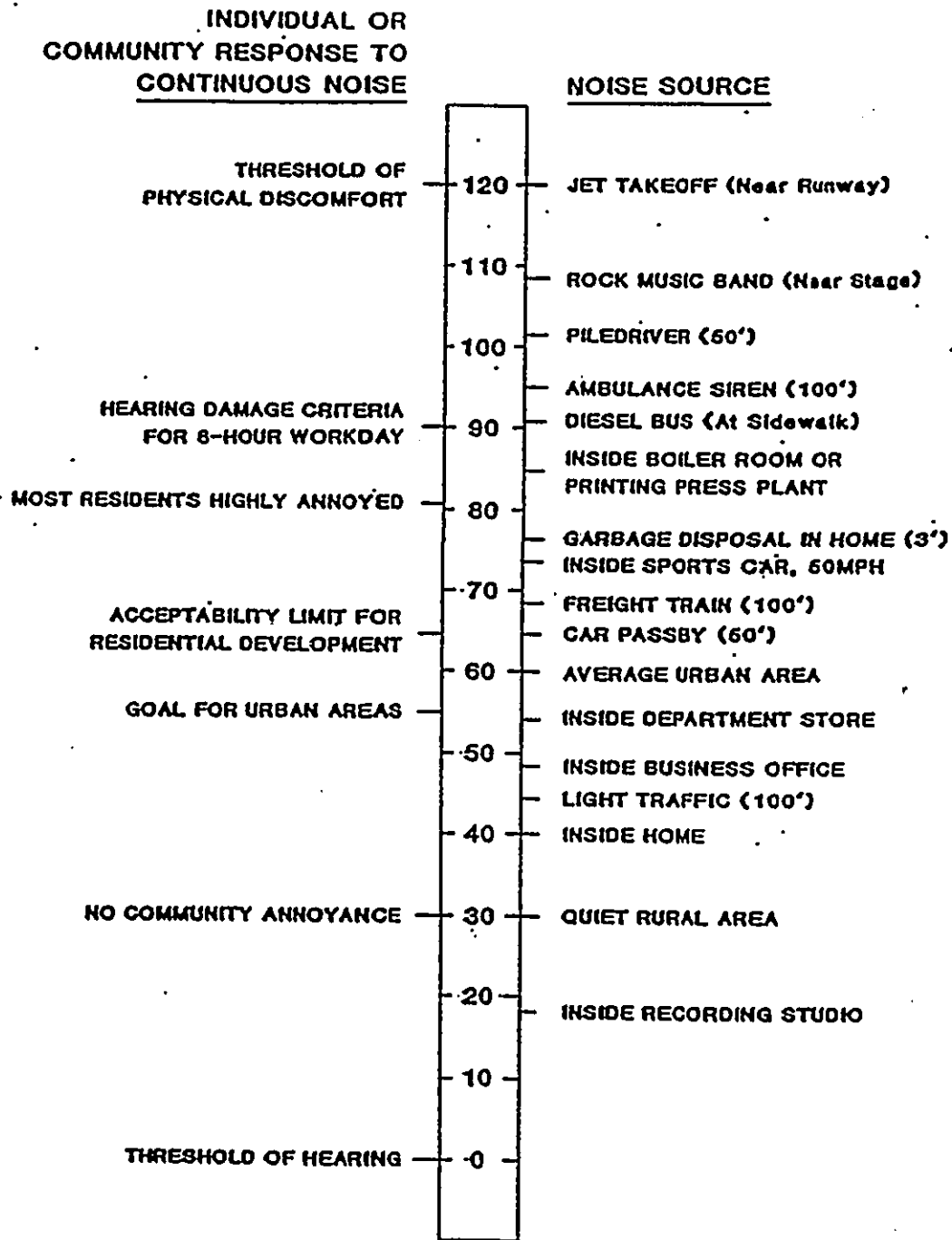
ROADWAY	SEGMENT	SPEED	PK.HR.TRAFFIC VOLUMES		
			EXIST'G	FUTURE	FUT+PROJ
Beretania St.	East of Richards St.	35	4149	5017	5037
Beretania St.	West of Richards St.	35	2590	3275	3275
Hotel St.	Alakea to Richards	15	283	304	304
King St.	Alakea to Richards	25	2288	3195	3195
King St.	East of Richards St.	25	2821	3751	3836
Alakea St.	South of Hotel St.	25	2604	2800	2876
Alakea St.	North of Hotel St.	25	2438	2621	2697
Alakea St.	South of Beretania St.	25	729	2361	2448
Queen Emma St.	North of Beretania St.	25	1250	1863	1891
Richards St.	South of Hotel St.	25	626	840	954
Richards St.	North of Hotel St.	25	702	961	1036

TABLE II  
Results of Daytime Noise Measurements

Site No.	Location	Sound Levels (dBA)				Noise Sources
		L <sub>eq</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>	
1a	YWCA Exterior	67	70	61	55	Traffic-Richards St
	1st Flr. Int.	49	50	47	46	"
1b	YWCA Exterior	69	75	61	51	Traffic-Richards St
	2nd Flr. Int.	51	55	48	46	"
1c	YWCA Exterior	66	68	59	53	Traffic-Richards St
	3rd Flr. Int.	46	48	43	41	"
2	Hemmeter Corp.	61	63	57	52	Traf.Richards/Hotel
9a	Const.Site	108 Impulse Level				Pile driver @ 10'
9b	Const.Site	103 Impulse Level				" " @ 50'
9c	Const.Site P/L	75	-	-	-	Traffic-Ala Moana
9c	Const.Site P/L	98 Impulse Level				Pile driver @ 100'
9c	Const.Site P/L	89	92	88	68	" " @ 100'
9d	Adj.Bldg.Walk	95 Impulse Level				" " @ 140'
9e	Bldg.Door Open	76 Int. Imp. Level				" " @ 150'
9e	Door Closed	64 Int. Imp. Level				" " @ 150'

FIGURE 3

A-WEIGHTED SOUND  
PRESSURE LEVEL, IN DECIBELS (dB)



TYPICAL SOUND LEVELS FROM  
INDOOR AND OUTDOOR NOISE SOURCES  
AND THEIR EFFECT ON PEOPLE

ENGINEERING-SCIENCE

TABLE III  
 COMPUTER MODELED TRAFFIC NOISE LEVELS AT SELECTED LOCATIONS

SITE LOCATION NUMBER(1)	AVERAGE NOISE LEVEL(2) FOR THE PEAK HOUR TRAFFIC			PROJECT CONTRIBUTION
	EXISTING	FUTURE	FUT+PROJ	
1(M)	67.4 *	68.6	69.2	0.6
2(M)	60.4 *	61.7	62.1	0.4
3	70.8	71.9	71.9	0.0
4	69.0	69.8	69.8	0.0
5	60.9	61.9	61.9	0.0
6	62.7	64.3	64.9	0.6
7	57.9	59.0	59.1	0.1
8	68.4	68.9	68.9	0.0

NOTES:

1. Refer to Figure 1 for specific locations where traffic noise was modeled.

2. The average noise level is calculated in Leq, dBA.

(M) Noise measurement location.

\* Modeled noise level agrees with measured level.

TABLE IV  
COMPUTER MODELED NOISE LEVELS OF SELECTED ROADWAYS

ROADWAY	SEGMENT	AVERAGE NOISE LEVEL(1) FOR THE PEAK HOUR TRAFFIC					
		EXISTING		FUTURE		FUTURE+PROJECT	
		@ 50Ft.	@ 100Ft.	@ 50Ft.	@ 100Ft.	@ 50Ft.	@ 100Ft.
Beretania St.	East of Richards St.	75.9	71.0	76.7	71.8	76.7	71.8
Beretania St.	West of Richards St.	73.9	69.0	74.9	70.0	74.9	70.0
Hotel St.	Alakea to Richards	58.5	53.6	58.8	53.9	58.8	53.9
King St.	Alakea to Richards	71.0	66.1	72.5	67.6	72.5	67.6
King St.	East of Richards St.	71.9	67.0	73.1	68.2	73.2	68.3
Alakea St.	South of Hotel St.	71.6	66.7	71.9	67.0	72.0	67.1
Alakea St.	North of Hotel St.	71.3	66.4	71.6	66.7	71.7	66.8
Alakea St.	South of Beretania St.	66.0	61.1	71.1	66.2	71.3	66.4
Queen Emma St.	North of Beretania St.	68.4	63.5	70.1	65.2	70.2	65.3
Richards St.	South of Hotel St.	65.4	60.5	66.6	61.7	67.2	62.3
Richards St.	North of Hotel St.	65.9	61.0	67.2	62.3	67.6	62.7

NOTES:

1. The average noise level is calculated in Leq, dBA.

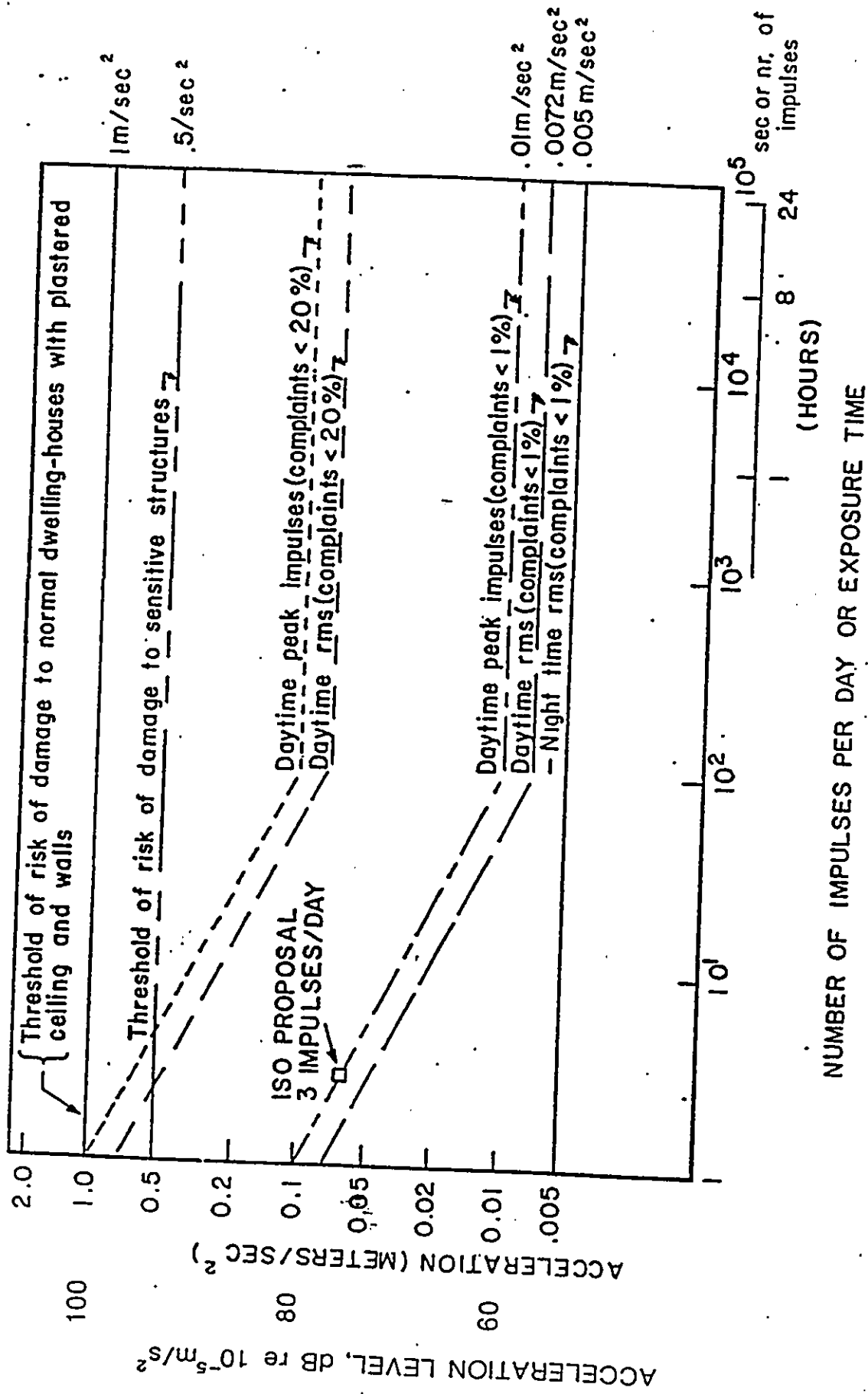


FIGURE 4. HUMAN COMPLAINT THRESHOLDS FOR VIBRATION.

TABLE V  
Results of Daytime Vibration Measurements

Site No.	Location	Acceleration Level <sup>1</sup> (dB <sup>2</sup> )				Vibration Sources
		RMS	MAX	MIN	PEAK	
1a	YWCA Exterior	69	82	68	87	Traffic-Richards St
	1st Flr. Ctr.	62	77	61	88	"
	YWCA Exterior	-	-	-	-	"
	1st Flr. Wall	-	-	-	-	"
1b	YWCA Exterior	66	81	64	86	Traffic-Richards St
	2nd Flr. Ctr.	75	90	74	95	"
	YWCA Exterior	73	85	60	90	"
	2nd Flr. Wall	65	77	51	82	"
1c	YWCA Exterior	64	75	53	80	Traffic-Richards St
	3rd Flr. Ctr.	55	66	54	71	"
	YWCA Exterior	66	82	65	87	"
	3rd Flr. Wall	55	66	54	71	"
9b	Const.Site	80	91	79	96	Traffic-Ala Moana
9b	Const.Site	91	102	89	107	Pile driver @ 50'
9d	Adj.Bldg.Walk	87	96	82	101	" " @ 140'

1 Unweighted Acceleration Levels.

2 Reference Acceleration Level is  $10^{-5}$  m/s<sup>2</sup>.

#### Noise and Vibration Criteria

While a number of noise studies to establish acceptable community noise limits have occurred over the past three decades, the energy equivalent sound level ( $L_{eq}$ ) has become generally accepted by nearly all major federal and state agencies as well as local municipalities throughout the United States.  $L_{eq}$  is the basis for both  $L_{dn}$  and CNEL community noise descriptors. The statistical noise descriptors ( $L_1$  through  $L_{99}$ ) are also used by some agencies and usually are limited to  $L_{10}$  or  $L_{50}$ .

Traffic noise criteria established by the Federal Highway Administration (FHWA 1982) are used herein to determine project related traffic noise impacts. FHWA Noise Abatement Criteria are given in Table VI. Construction related noise criteria established by the State of Hawaii, Department of Health (DOH/43 1981) are used herein to determine project related construction noise impacts.

Vibration criteria are also based on numerous studies conducted over the past three decades. While there are many proposed criteria based on the results of



TABLE VI

## FHWA CRITERIA FOR NOISE ABATEMENT

<u>Activity Category</u>	<u>Noise Abatement Criteria (dBA) L<sub>eq</sub></u>	<u>Description of Activity Category</u>
A	57	Lands on which serenity and (Exterior) quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to serve its intended purpose.
B	67	Picnic areas, recreation areas, (Exterior) playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72	Developed lands, properties, or (Exterior) activities not included in Categories A or B above.
D	--	Undeveloped lands
E	52	Residences, motels, hotels, (Interior) public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: U.S. Department of Transportation, Federal Highway Administration Federal Aid Program Manual, Volume 7, Chapter 7, Section 3, Procedures for Abatement of Highway Traffic Noise and Construction Noise, Washington D.C., May 14, 1976 (Revised version in Federal Register, Vol. 47, No. 131, P. 29653 Thursday, July 8, 1982)

the studies, those established by the International Organization for Standardization (ISO 1976) and the Committee of Hearing, Bioacoustics and Biomechanics (CHABA 1977) have been used herein. In addition, British recommendations for historic buildings have been considered (House 1973). Figure 5 gives the appropriate vibration criteria for sensitive and historic structures.

### Impacts and Mitigation Measures

#### Impact 1 - Demolition, Preparation and Construction

Construction equipment and trucks would generate significant noise during project site demolition, site preparation and construction. Noise levels on-site would depend upon the number and type of equipment used during various phases of the proposed project. Typical noise levels associated with construction type equipment as well as the number estimated to be present at the site are given in Table VII. The total  $L_{eq}$  at 50 feet for all equipment operating simultaneously in the same location would be as high as 94 dBA. However, this level would not be reached near the project site because equipment would be located in different areas and would not be operating simultaneously. Considering a fifty percent usage factor, which is rather high, an  $L_{eq}$  of 88 dBA at 50 feet would occur if only half of the equipment were operating during the same fifty percent usage time. Eight-hour exposure levels for each piece of equipment are also listed in Table VII. Since there is no operating schedule, these levels were estimated with usage factors from similar construction operations (CERL 1978).

At the project site, it is expected that construction activity would not take place outside of an 11-hour period between 7 a.m. and 6 p.m., in accordance with the DOH permit requirements. Since there would be minimal nighttime activity, the  $L_{dn}$  from the project could average 3 dBA lower than the daytime  $L_{eq}$ . It is also expected that the noise generated by project operations would decrease by about 6 dBA with doubling of distance (Harris 1979) from the project site.

The existing  $L_{eq}$  noise level at the YWCA exterior is 67 dBA. Thus, the construction noise of the proposed project site would increase the existing  $L_{eq}$  by 3 to 6 dBA, for a maximum of 73 dBA which would be considered a significant increase. The noise generated by future project operation would be audible but would not increase noise levels significantly.

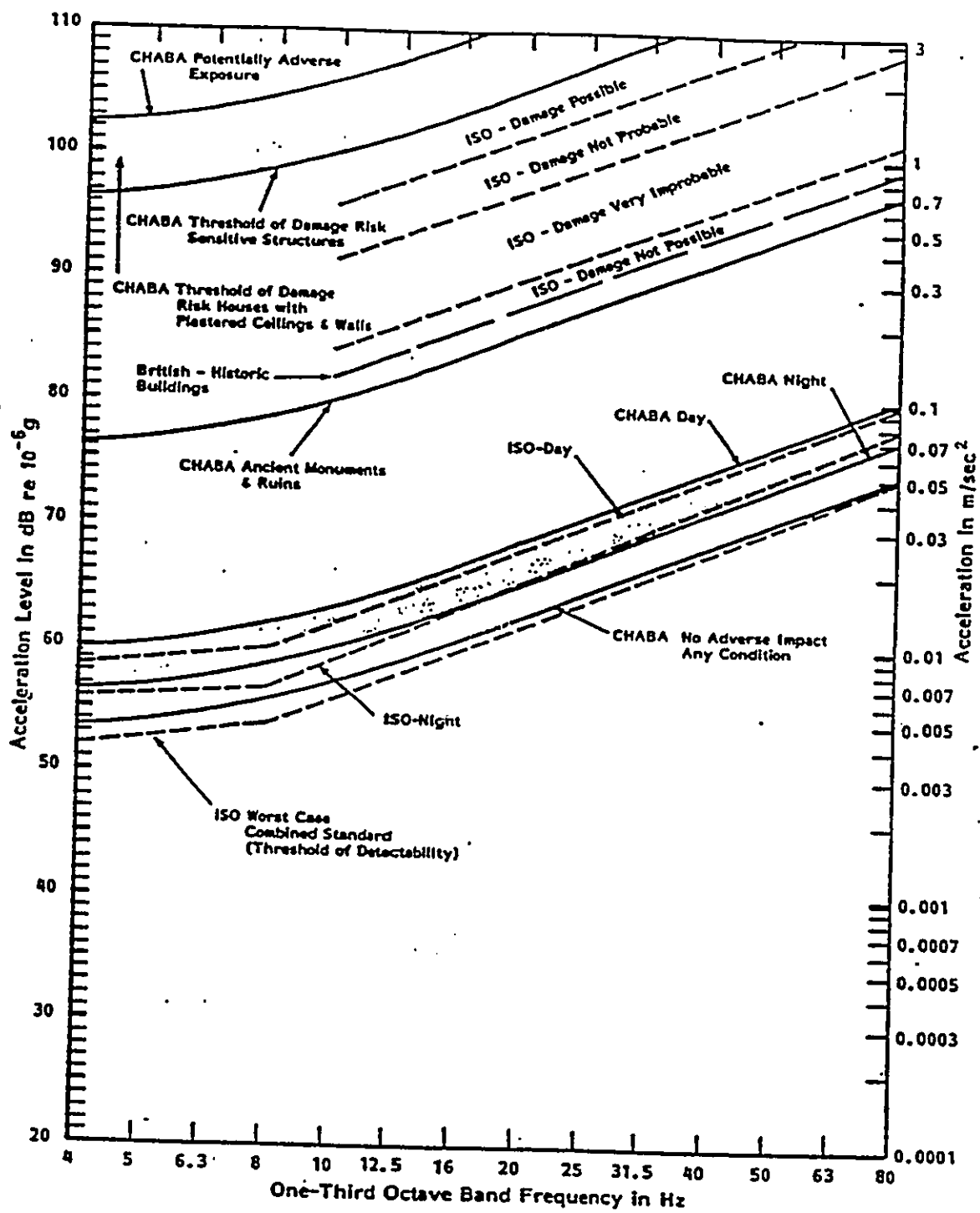


FIGURE 5. COMPARISON OF ISO AND CHABA MAXIMUM RECOMMENDED VIBRATION LEVELS.

TABLE VII  
Construction Equipment Noise

Equipment Type <sup>1</sup>	Sound Level @ 50 feet <sup>2</sup> (dBA)	Number of Pieces <sup>1</sup>	L <sub>eq</sub> <sup>2,3</sup> (dBA)	Max 8-hr Exposure (dBA) <sup>4</sup>
Scraper	87	1	84	101
Grader	85	1	82	99
Dozer	86	1	83	100
Frontend Loader	81	1	78	95
Backhoe	82	1	79	96
Compactors	81	2	81	95
Forklifts	81	2	81	95
Dump Trucks	79	3	81	81
Water Truck	79	1	76	81
Crane	78	1	75	92

- 1 = Estimates  
 2 = CERL 1978  
 3 = Noise level with all pieces operating 50% of time.  
 4 = Estimated Impact on Equip. Operator, 3 ft from engine. Truck operators in closed cab.  
 Assumptions: a) Machinery not equipped with cabs to shield operators from noise  
 b) All equipment operating within a 400-ft radius.

Construction Noise Mitigation Measures

Construction equipment operating on the site would exceed the allowable noise limits (DOH/43 1981). Thus a permit will be required from DOH to operate construction equipment, vehicles and power tools which operate in excess of the noise limits. Permitting requirements for construction activities are as follows:

- o "No permit shall allow construction activities creating excessive noise...before 7:00 a.m. and after 6:00 p.m. of the same day."

- o "No permit shall allow construction activities which emit noise in excess of ninety-five dB(A)...except between 9:00 a.m. and 5:30 p.m. of the same day."
- o "No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on...[certain] holidays. Activities exceeding ninety-five dB(A) shall [also] be prohibited on Saturdays."

Construction equipment and on-site vehicles or devices requiring an exhaust of gas or air must be equipped with mufflers. In addition, all construction related vehicles traveling upon city streets and roadways must meet the vehicle noise level requirements set by the State (DOH/42 1981).

Back-up alarms, which are specifically exempted from the DOH noise regulations, are the cause of significant complaints from nearby office workers and the general public. One measure which should be used to minimize the potential impact on the nearby community by this necessary safety feature, which is highly audible, would be to arrange on-site routing of haul trucks so as to minimize backing operations by trucks.

#### Impact 2 - Traffic Noise

The proposed project would generate an insignificant 0.6 dB maximum noise increase due to increased project related street traffic. The findings are based on the analysis of traffic volumes and speeds with and without the project, described in the Traffic Impact Study (Barton-Aschman 1989). Traffic impact analyses were carried out for existing and projected (year 1993) volumes for Alakea Street, Beretania Street, King Street, Hotel Street and Richards Street.

$L_{eq}$  values at Sites 1 and 2 were calculated for three conditions: existing, 1993 (future) and 1993 (with project). Table III summarizes the calculated noise levels.

For the year 1993, project-related traffic will increase the noise levels by a maximum of 0.6 dB, or from 68.6 dBA to 69.2 dBA at Site 1. These are not significant increases, since any change in sound level below 3 dBA is generally inaudible to the human ear. However, the future traffic noise does exceed the FHWA criteria of 67 dBA  $L_{eq}$ , with or without the proposed project.

#### Traffic Noise Mitigation Measures

No project related traffic noise mitigation would be required since project related noise increases would be less than 1 dB and are considered insignificant.

#### Impact 3 - Operation Noise

Office building and garage mechanical and electrical equipment, such as air conditioning system, ventilation system, transformers, and other stationary equipment would be required to meet the allowable noise limits established by state and local regulations. In so doing these systems will not present an adverse noise impact.

The garage is to be enclosed and will thus provide acceptable noise control from typical facility noises, such as screeching tires during turning operations within the garage.

#### Operation Noise Mitigation Measures

The design and planning of the orientation of the office building and parking garage would include noise mitigation measures relating to the location, orientation and noise control of the air-conditioning system, ventilation system, vehicle entrance and egress, and other potential noise sources, in order to comply with the state and local noise limits (DOH/43 1981 and CITY 1986).

#### Impact 4 - Demolition and Construction Vibrations

The potential for construction related damage to historic structures adjacent to and nearby the proposed project site are of concern. The resultant building motion caused by vibrations propagating through the soil is a strong function of the type and size of the foundations upon which the building rests, that is pilings, spread footings or massive concrete mats. In addition, the construction details of the buildings of concern are very important, whether they be masonry walls or framing with plaster on lath or plasterboard.

Numerous studies have been conducted over the past twenty-five years to investigate the levels of vibration associated with the movement and operation of construction vehicles and machinery, including the driving of load bearing piles. All of the results have shown that for, other than pile driving activities, construction

operation related vibrations never reach an intensity necessary to cause building damage in those structures which are safe to be occupied. However, none of the studies were conducted in Hawaii where the soil and "bed rock" differs greatly from that on the mainland. Nonetheless, it is concluded that neither demolition (other than by explosives) nor construction (other than pile driving) will generate vibrations of a building damaging magnitude.

The driving of load bearing piles has frequently been considered a potential problem for structures near to the pile driving locations, due to both vibrations and the differential settlement of foundations. Pile driving vibration monitoring has been conducted at locations within one and one-half miles of the proposed project site. One such study occurred approximately 2,500 feet northwest of the project site (Dames 1989). The other pile driving monitoring was conducted at Site 9, approximately 1-1/4 miles southeast of the project location, while noise data was being taken for this study. The data from both studies indicate that building damage due to pile driving activity is not very probable. However, the Site 9 data would exceed the historic building potential damage criteria, for frequencies below 10 Hz, if the criteria could be appropriately extrapolated below its 10 Hz lower cut-off (see Figure 6). Thus, even though the potential for pile driving related building damage is rather low, consideration should be given to documenting existing cracks and building conditions at the YWCA, as well as monitoring vibrations and noting any changes to building flaws during the entire construction period.

#### Construction Vibration Mitigation Measures

It is recommended that provisions be made to monitor the adjacent YWCA historic structure during the most severe construction activities, such as demolition, excavation and pile driving. Provide vibration monitoring during these worst-case construction periods and implement means to reduce demolition or construction activities that cause excessive building vibrations, with respect to damage criteria, or due to observations of changes in building flaws. Human perception of vibrations occurs at much lower levels and is not sufficient to warrant cessation of proposed project work.

In the event that potential pile driving vibration problems are discovered, alternate means should be considered, such as pre-drilling and the use of sonic or vibrating drivers.

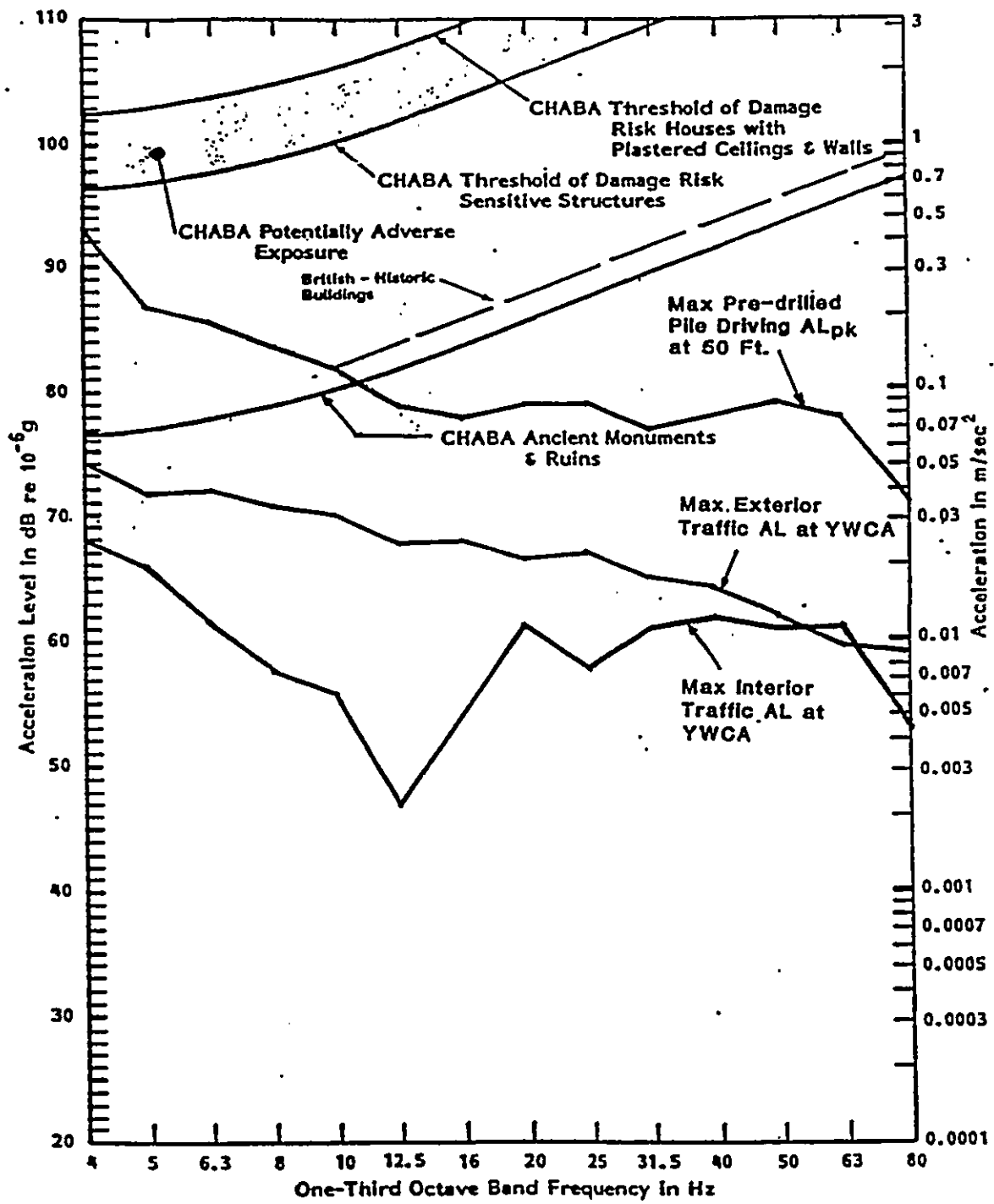


FIGURE 6. MEASURED MAXIMUM VIBRATION LEVELS DUE TO PILE DRIVING AND TRAFFIC.



#### Impact 5 - Traffic Vibrations

No traffic related vibrations, either current or future (1993) are of sufficient magnitude to result in direct damage to buildings of any kind of safe construction. The traffic related vibrations do, however exceed the CHABA and ISO criteria for detectability by humans. This is not considered to be a significant impact.

#### Traffic Vibration Mitigation Measures

No traffic vibration mitigation measures would be required due to project related traffic increases.

#### Impact 6 - Operations Vibrations

Vibrations due to traffic within a parking structure are known to exceed the threshold of detectability by humans within the same structure. There also exists the strong possibility that these vibrations could propagate into the associated office complex and be of some annoyance to the occupants of the proposed office building.

Vibrations due to mechanical system imbalance and isolation bridging are known to cause annoyance to building occupants and are normally corrected when complaints call attention to such occurrences. These vibrations would not be expected to impact neighboring structures.

No vibration impacts due to project operations would be expected to reach the nearby YWCA or Jury Box office building.

#### Operations Vibration Mitigation Measures

No operation mitigation measures would be required to control project related operational vibrations, since the magnitudes of such vibrations would not exceed the building damage threshold. Decoupling of the parking structure from the proposed office building would minimize the propagation of structure-borne noise and vibration into occupied spaces.

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**APPENDIX I**

**Reproductions of All Substantive  
Comments and Responses**



DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
BUILDING 230  
FT. SHAFTER, HAWAII 96854-5440

REPLY TO  
ATTENTION OF:

Planning Branch

July 21, 1989

DEPT. OF HOUSING  
& COMM. DEVELOPMENT

89 JUL 24 08:20

Mr. Michael N. Scarfone, Director  
Department of Housing and  
Community Development  
658 South King Street, 5th Floor  
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Thank you for the opportunity to review the Environmental Impact Statement Preparation Notice (EISP/N) for the proposed Alakea Richards Parking Lot Redevelopment Project, Honolulu. The following comments are offered:

- a. The proposed project will not require a Department of the Army permit.
- b. The flood hazard information provided on page 4 of the EISP/N is correct.

Sincerely,

*C. J. Cheung*  
Kisuk Cheung  
Chief, Engineering Division

T-1

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

610 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 833-4487



FRANK F. FAR  
DIRECTOR

MICHAEL N. SCARFONE  
DIRECTOR

September 15, 1989

Mr. Kisuk Cheung, Chief  
Engineering Division  
Department of the Army  
U.S. Army Engineer District, Honolulu  
Fort Shafter, Hawaii 96858-5440

Dear Mr. Cheung:

Subject: Environmental Impact Statement Preparation Notice (EISP/N)  
Alakea Richards Parking Lot Redevelopment Project

Thank you for your comments on the EISP/N for the proposed Richards Alakea Parking Lot Redevelopment project in downtown Honolulu. The information you provided will be utilized in the preparation of the Draft EIS, which will be completed later this year.

Sincerely,

*Michael N. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR



UNITED STATES  
DEPARTMENT OF  
AGRICULTURE

SOIL  
CONSERVATION  
SERVICE

P. O. BOX 50004  
HONOLULU, HAWAII  
96850

July 13, 1989

Mr. Michael N. Scarfone, Director  
Department of Housing and  
Community Development  
650 South King Street, 5th Floor  
Honolulu, HI 96813

FRANK F. FARR  
MAYOR



September 15, 1989

Mr. Warren M. Lee, State Conservationist  
Soil Conservation Service  
U.S. Department of Agriculture  
P.O. BOX 50004  
Honolulu, Hawaii 96850

Dear Mr. Lee:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Alakea Richards Parking Lot Redevelopment Project

Thank you for responding to the EISPN for the proposed Alakea Richards Parking Lot Redevelopment Project. The Soil Conservation Service is on the list of agencies to be consulted during preparation of the EIS and thus a copy of the Draft EIS will be sent for your review.

Sincerely,

MICHAEL N. SCARFONE  
DIRECTOR

Dear Mr. Scarfone:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN) - Proposed Richards Parking Lot Redevelopment  
Project, Honolulu, HI

We have no comments to offer at this time; however, we would appreciate the opportunity to review the draft EIS.

Sincerely,

WARREN M. LEE  
State Conservationist

89 JUL 14 P1:44  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 532-1427

MICHAEL N. SCARFONE  
DIRECTOR



JOHN WANGZ  
DIRECTOR OF PLANNING



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
P. O. BOX 921  
HONOLULU, HAWAII 96809

JUL 21 1989

WILLIAM W. PATY, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
USERT E. LUNDGREN  
SECRET

HOUSING DEVELOPMENT  
PROGRAM  
ADULTIC RESOURCES  
CONSULTATION AND  
COMMUNITY AFFAIRS  
RESOURCES EMPLOYMENT  
CONTRACTS  
INDUSTRY AND TOURISM  
PLANNING  
STATE PLANNING  
WATER AND LAND DEVELOPMENT

FRANK FAY  
NATION



MICHAEL N. SCARFONE  
DIRECTOR

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

690 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 531-4437

September 15, 1989

Honorable Michael L. Scarfone  
Director  
Department of Housing and Community  
Development  
650 South King Street, 5th Floor  
Honolulu, Hawaii 96813

Ref: LH-SS (ACQ)

89 JUL 27 P1:43  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT

Dear Mr. Scarfone:

Subject: Environmental Impact Statement Preparation Notice  
for Redevelopment of Proposed Alakea/Richards  
Street Parking Lot Project, Honolulu

Thank you for providing us with a copy of the Environmental  
Impact Statement (EIS) Preparation Notice for the subject  
Project.

As you know, the State of Hawaii has filed an action in  
eminent domain with the First Circuit Court for the acquisition  
of this property. We are therefore very concerned with the  
proposed development of the project and would appreciate being  
afforded the opportunity to comment and provide input during  
the preparation of the EIS.

Very truly yours,

WILLIAM W. PATY

cc: Mr. Moses Kealoha

Mr. William Paty, Director  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809

Dear Mr. Paty:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Alakea Richards Parking Lot Redevelopment Project

Thank you for your comments on the EISPN for the proposed Alakea  
Richards Parking Lot Redevelopment Project. The EIS will address  
the fact that the State has filed an action of eminent domain  
with the First Circuit Court for the acquisition of the property.  
State initiated redevelopment of the site will be included as an  
alternative to the proposed action. We therefore would  
appreciate any information you may have regarding State plans for  
the site if the City does not initiate development. We would  
also value the opportunity to receive and address your comments  
and/or input during the preparation of the Draft EIS.

Sincerely,

MICHAEL N. SCARFONE  
DIRECTOR







DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT

1500 KALANANĀʻOHE DR., SUITE 1500, HONOLULU, HAWAII 96813  
TELEPHONE: 548-4311 FAX: 548-4312

JOHN WARD  
GOVERNOR  
ROGER A. UVELING  
DIRECTOR  
BARBARA LEI SAUNDERS  
DEPUTY DIRECTOR  
LESLIE S. MATHIAS  
DEPUTY DIRECTOR



DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT  
LAND USE COMMISSION

1500 KALANANĀʻOHE DR., SUITE 1500, HONOLULU, HAWAII 96813  
TELEPHONE: 548-4311

RONALD L. K. NIP  
CHAIRMAN  
LAWRENCE F. OAHU  
VICE CHAIRMAN

COMMISSION MEMBERS:  
Shirley E. Riecke  
Allen E. Lee  
Estelle Lapina, Jr.  
James K. Stone  
Elton Yild  
Frederick P. Hollmann  
ESTHER UEDA  
Executive Officer

July 19, 1989

'89 JUL 21 P1:35  
DEPT. OF BUSINESS & COMM. DEVELOPMENT

Mr. Michael N. Scarfone  
Director  
Department of Housing and Community Development -  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

RE: Environmental Impact Statement Preparation Notice  
Proposed Alakea Richards Parking Lot Redevelopment Project

Dear Mr. Scarfone:

The Department of Business and Economic Development has no comments on this Environmental Impact Statement Preparation Notice.

Sincerely,  
*Roger A. Uveling*  
Roger A. Uveling

July 10, 1989

'89 JUL 12 P2:51  
DEPT. OF BUSINESS & COMM. DEVELOPMENT

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:

Subject: Chapter 343, HRS, EIS Preparation Notice for the Proposed Alakea Richards Parking Lot Redevelopment Project, Honolulu

We have no comments except that the subject site is designated within the State Land Use Urban District.

Thank you for the opportunity to comment.

Sincerely,  
*Esther Ueda*  
ESTHER UEDA  
Executive Officer

EU:to



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

830 SOUTH KING STREET, 8TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 522-4427



FRANK P. FAR  
MAYOR

MICHAEL N. SCARFONE  
DIRECTOR

September 15, 1989

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

Dear Mr. Tominaga

Subject: Environmental Impact Statement Preparation Notice  
(EISP/N)  
Alakea Richards Parking Lot Redevelopment Project

Thank you for your comments on the EISP/N for the proposed Alakea Richards Parking Lot Redevelopment Project. Your Department is included on the list of agencies to be consulted.

Your concerns regarding the impact of the proposed project on the Capital Complex will be addressed in the preparation of the Draft EIS, which will be completed later this year. The significant location of the project within the Capital District and among historic buildings has played an important role in the development of design concepts for the proposed project.

Sincerely,

MICHAEL N. SCARFONE  
DIRECTOR

5. The gateway plaza should physically and visually relate to the Capitol grounds and Capital Complex. To achieve this, Richards Street should be deleted or diminished as a vehicular roadway in favor of a pedestrian emphasis. This can be achieved through a variety of means including paving materials and patterns, landscaping, lighting, etc.
6. Vehicular traffic to the YMCA should be restricted to its Diamond Head side. Its existing front entry should be pedestrian-oriented and relate directly to the Gateway Plaza.
7. The YMCA should be retained as a significant historical building. Improvements should respect its historical significance and help to enhance its importance as one of the "walls" of the plaza.
8. The upper floors of the Alakea/Richards parking structure facing the plaza and the Capital Complex need to be treated sensitively to minimize its impact as a parking structure. The parking structure should not be more than 65' high to respect the CDO height restriction and to relate to the height of the YMCA. The top of the parking structure should be landscaped to minimize its visual impact when viewed from surrounding buildings including the State Capitol and Iolani Palace.
9. The office tower should be located on the Ewa end of the Alakea-Richards parcel. The configuration of the tower should be designed to diminish its mass and profile when viewed from the Capital Complex. Its height should not exceed the height of the Central Pacific Tower.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 31st FLOOR  
 HONOLULU, HAWAII 96813  
 PHONE: 533-4427



MICHAEL N. SCARFONE  
 DIRECTOR

September 15, 1989

FRANK F. ASH  
 Mayor

FRANK F. ASH, Mayor  
 DONNA S. COYNE, Chairman  
 JOHN K. TSUK, Vice Chairman  
 SOTER AL. DAVETH, AT CHECK, O.S.F.  
 SAM CALLEJO  
 EDWARD T. HERRIA  
 WALTER D. WATSON, JR.  
 MAURICE N. TAMURA

August 9, 1989

AUG 11 10:22  
 DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

**BOARD OF WATER SUPPLY**  
 CITY AND COUNTY OF HONOLULU  
 530 SOUTH BERETANIA STREET  
 HONOLULU, HAWAII 96813

TO: MICHAEL N. SCARFONE, DIRECTOR  
 DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER  
 BOARD OF WATER SUPPLY

SUBJECT: YOUR MEMORANDUM OF JULY 6, 1989 ON THE ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISP/N) FOR THE PROPOSED ALAKEA RICHARDS PARKING LOT REDEVELOPMENT PROJECT, FSR0011111  
 TRK: 2-1-17: 7, 8 AND 17

Thank you for the opportunity to review and comment on the EISP/N for the proposed parking lot redevelopment project.

We have the following comments to offer:

1. Presently, the existing off-site water system is adequate to serve the proposed development. However, the Board of Water Supply (BWS) needs to make extensive improvements to the downtown distribution system to accommodate additional demands that will occur in the downtown area. When these improvements are undertaken, all developments within specific downtown boundary limits established by BWS may be assessed their proportionate share of the improvements at the time of the meter application.
2. The project will also be assessed our Water System Facilities Charges, less any applicable credits for qualifying active water services. The project site has two active services that are in this category. There is a third inactive service which can receive credit until January 24, 1990. An extension may be obtained provided the service is reactivated prior to that date.
3. The construction drawings for the installation of three-inch or larger water meters and for any off-site water main improvements should be submitted for our review and approval.
4. A BWS approved reduced pressure principle backflow prevention device should be installed immediately after each domestic water meter and after any fire system water meter for a fire system using any chemicals.

If you have any questions, please contact Lawrence Whang at 527-6138.

cc: Office of Environmental Quality Control  
 Department of General Planning

**MEMORANDUM**

TO: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER  
 BOARD OF WATER SUPPLY

FROM: MICHAEL N. SCARFONE, DIRECTOR  
 DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISP/N)  
 ALAKEA RICHARDS PARKING LOT REDEVELOPMENT PROJECT

Thank you for your comments on the EISP/N for the proposed Alakea Richards Parking Lot Redevelopment Project. The information you provided regarding the existing off-site water system and future improvements to the downtown distribution system will be addressed in the preparation of the Draft EIS, which will be completed later this year.

The information you provided regarding charges, credits and other installation requirements has been forwarded to the developer, Betawest Properties, Inc.

Sincerely,  
  
 MICHAEL N. SCARFONE  
 DIRECTOR

OT-11

DEPARTMENT OF GENERAL PLANNING  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET  
HONOLULU, HAWAII 96813



FRANK E. FARI  
MAYOR

DONALD A. CLEGG  
CHIEF PLANNING OFFICER  
GENERAL PLANNING OFFICE

Michael N. Scarfone  
July 26, 1989  
Page 2

89 JUL 27 3 35 PM '89  
COMMUNICATIONS SECTION

JB/DGP 7/89-2522

July 26, 1989

MEMORANDUM

TO: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: DONALD A. CLEGG, CHIEF PLANNING OFFICER  
DEPARTMENT OF GENERAL PLANNING

SUBJECT: PROPOSED ALAKEA RICHARDS PARKING LOT REDEVELOPMENT  
PROJECT--ENVIRONMENTAL IMPACT STATEMENT PREPARATION  
NOTICE: YOUR LETTER DATED JULY 6, 1989

We have the following comments for your consideration.

1. The specific need for the proposed development and how it will meet that particular need should be fully detailed in the Draft Environmental Impact Statement (DEIS).
2. The relationship and consistency of the proposed commercial/office and parking complex structure to the following land use policies should be discussed:
  - Development Plan Land Use Map and DP Public Facilities Map for the Primary Urban Center;
  - Hawaii Capital Special District; and
  - Land Use Ordinance.
3. The impact on the loss of 217 existing off-street parking stalls in downtown Honolulu during the length of the construction period should be covered in the Traffic Impact Study for this project. We further suggest that the Traffic Impact Study be attached to the DEIS.

A discussion of the measures that will be taken to mitigate the impact of eliminating 217 off-street parking stalls to the public during the construction period.

4. The total costs of constructing the proposed 24-story high commercial/office and parking complex at Alakea Street and the duration of the construction period should be mentioned.
5. Where applicable, exhibits displayed throughout the DEIS should reflect the Hemmeter Corporation Building rather than the Armed Forces YMCA. The latter no longer exists. Additionally, the inclusion of a plot plan (8-1/2 x 11) depicting the location of the proposed building on the 1.58-acre project site would be appropriate.

We hope these comments can be of help to you. If you have any questions on this matter, contact Joe Barientos at extension 6056.

*Donald A. Clegg*  
DONALD A. CLEGG  
Chief Planning Officer

DAC:gy

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

450 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 832-4427

FRANK F. FAIR  
MAYOR



MICHAEL N. SCARFONE  
DIRECTOR

September 15, 1989

MEMORANDUM

TO: DONALD A. CLEGG, CHIEF PLANNING OFFICER  
DEPARTMENT OF GENERAL PLANNING

FROM: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
(EISP/N)  
ALAKEA RICHARDS PARKING LOT REDEVELOPMENT PROJECT

Thank you for your comments on the EISP/N for the proposed Alakea Richards Parking Lot Redevelopment Project. Your concerns outlined in comments 1, 2, 4 and 5 will be addressed in the preparation of the Draft EIS, which will be completed later this year.

Your comment 3 concerned the impact of the loss of 217 existing off-street public parking stalls during the length of the construction period. The temporary loss of these stalls will be discussed in the Draft EIS. However, it will not be included as part of the traffic impact study for this project. The traffic impact study is designed to address the traffic related impacts of this project on the surrounding roadway network after build-out. The traffic impact study will be attached to the Draft EIS.

The developer is currently defining the scope of a separate parking study which will address all aspects of parking within the building. The issue of temporary loss of the public stalls during construction is a valid concern, but may be an unavoidable impact of the action. However, other parking facilities may be developed in the interim. For example, on August 5, 1989 the Honolulu Advertiser reported that the Liberty Theatre will be torn down and that the short term plan is to pave the site and offer parking for about 100 cars.

I-12

SEPTEMBER 15, 1989  
DONALD A. CLEGG  
PAGE 2

In addition, the Chinatown Gateway and River Nimitz projects with 75 and 77 public parking stalls will be completed in May and July 1990, respectively. These measures should provide some mitigation to the temporary loss of the 217 off-street stalls.

Sincerely,

MICHAEL N. SCARFONE  
DIRECTOR

DEPARTMENT OF LAND UTILIZATION  
CITY AND COUNTY OF HONOLULU

450 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 523-4432



FRANK P. FAHI  
MAYOR

JOHN P. WHALEN  
DIRECTOR  
DEPARTMENT OF LAND UTILIZATION  
107/89-3986 (PR)

FRANK P. FAHI  
MAYOR



MICHAEL N. SCARFONE  
DIRECTOR

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

830 SOUTH KING STREET, 8TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 523-4427

September 15, 1989

MEMORANDUM  
TO: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
FROM: JOHN P. WHALEN, DIRECTOR  
SUBJECT: CHAPTER 343, HRS  
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
ALAKEA-RICHARDS PARKING-LOT REDEVELOPMENT PROJECT

July 21, 1989

MEMORANDUM

TO: JOHN P. WHALEN, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION  
FROM: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
(EISPN)  
ALAKEA RICHARDS PARKING LOT REDEVELOPMENT PROJECT

Thank you for the opportunity to review the Environmental Assessment for the above project. We have no substantive comments to offer at this time. However, the proposal will require a Hawaii Capitol Special District Permit prior to obtaining a building permit.

Thank you for your comments on the EISPN for the proposed Alakea Richards Parking Lot Redevelopment Project. Your statement that a Hawaii Capitol Special District Permit will be required prior to obtaining a building permit will be included in the Draft EIS. The site's location within the Hawaii Capitol Special District has necessitated that special attention be given to design concepts to insure that the project will compliment the surrounding area. This will be discussed in the DEIS.

*John P. Whalen*  
JOHN P. WHALEN  
Director of Land Utilization

Sincerely,  
*M. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR

JPH:s1  
0296N/17





SEPTEMBER 15, 1989  
HERBERT K. MURAKA  
PAGE 2

The City administration and Council are responsible for establishing overall goals for the downtown area.

Sincerely,



MICHAEL N. SCARFONE  
DIRECTOR

**FIRE DEPARTMENT  
CITY AND COUNTY OF HONOLULU**

1433 E. BERTINA STREET, ROOM 202  
HONOLULU, HAWAII 96814

FRANK F. FASI  
HAWAII



FRANK K. KAHOOHAHOHANO  
Fire Chief  
LORDEL E. CAMARA  
Deputy Fire Chief

FRANK F. FASI  
HAWAII

July 14, 1989

89 JUL 18 P2:11  
DEPT. OF HOUSING & COMM. DEVELOPMENT

**TO:** MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT

**FROM:** FRANK K. KAHOOHAHOHANO, FIRE CHIEF

**SUBJECT:** CHAPTER 343 HAWAII REVISED STATUTES  
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
PROPOSED ALAKEA RICHARDS PARKING LOT REDEVELOPMENT PROJECT,  
HONOLULU

We have reviewed the subject material provided and foresee no adverse impact in Fire Department facilities or services. Planned or now provided, existing fire protection is considered adequate.

Should you have any questions, please contact Battalion Chief Michael Zablan of our Administrative Services Bureau at local 3838.

*Frank K. Kahooahoano*  
FRANK K. KAHOOHAHOHANO  
Fire Chief

HZ:ny

**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU**

850 SOUTH KING STREET, 8TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 933-4427



MICHAEL N. SCARFONE  
DIRECTOR

September 15, 1989

MEMORANDUM

**TO:** FRANK K. KAHOOHAHOHANO, FIRE CHIEF

**FROM:** MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

**SUBJECT:** ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
(EISPN)  
ALAKEA RICHARDS PARKING LOT REDEVELOPMENT PROJECT

Thank you for your comments on the EISPN for the proposed Alakea Richards Parking Lot Redevelopment Project. The information you provided regarding Fire Department facilities and services will be included in the Draft EIS, which will be completed later this year.

Sincerely,  
*M. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR

1989 JUL 18 10 10 AM '89

DEPARTMENT OF PARKS AND RECREATION  
CITY AND COUNTY OF HONOLULU  
450 SOUTH KING STREET  
HONOLULU, HAWAII 96813



FRANK F. FARH  
MAYOR

August 17, 1989

WALTER M. OZAWA  
DIRECTOR

'89 AUG 21 P1:42  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT

TO: MIKE H. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND RECREATION

FROM: WALTER M. OZAWA, DIRECTOR

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION  
NOTICE (EISPH)  
ALAKEA RICHARDS REDEVELOPMENT PROJECT  
TMK: 2-1-17: 7, 8 & 17

We have reviewed the Environmental Impact Statement Preparation Notice for the proposed Alakea Richards Parking Lot Redevelopment Project and make the following comments and recommendation.

The proposed office-commercial project will have no impact on our park facilities. However, since the project abuts public streets, we recommend that the street tree and landscape plans be submitted to our department for review and approval.

Should you have any questions, please call Mr. Jason Yuen of our Advance Planning Branch at extension 6315.

*Walter M. Ozawa*  
WALTER M. OZAWA, DIRECTOR

MMO:a1

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU  
450 SOUTH KING STREET, 3TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 823-4457



FRANK F. FARH  
MAYOR

September 15, 1989

MIKE H. SCARFONE  
DIRECTOR

MEMORANDUM

TO: WALTER M. OZAWA, DIRECTOR  
DEPARTMENT OF PARKS AND RECREATION

FROM: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
(EISPH)  
ALAKEA RICHARDS PARKING LOT REDEVELOPMENT PROJECT

Thank you for your comments on the EISPH for the proposed Alakea Richards Parking Lot Redevelopment Project. Your statement that the proposed project will not have an impact on park facilities will be included in the Draft EIS.

Preliminary street tree and landscaping information will be included in the Draft EIS. As you are aware, the project site is within the Hawaii Capitol Special District and is thus subject to the street tree and landscaping provisions under section 7.30-4 of the Land Use Ordinance. Approval of landscaping and street tree plans will be encompassed in the processing of the Special District Permit for this project.

Sincerely,  
*Michael N. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR

ENV 2-1  
JA/G

'89 AUG -8 P2:45  
DEPT. OF HOUSING,  
& COMM. DEVELOPMENT

August 4, 1989



William A. Bonnet  
Manager  
Environmental Department

Mr. Michael N. Scarfone, Director  
Department of Housing and Community Development  
650 South King Street, Fifth Floor  
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Subject: Environmental Impact Statement Preparation Notice  
Proposed Alakea Richards Parking Lot Redevelopment  
Project, Honolulu

We have reviewed the above subject document and have no comments.

Sincerely,

An HEI Company

POLICE DEPARTMENT  
CITY AND COUNTY OF HONOLULU

1415 SOUTH BERTRAMA STREET  
HONOLULU, HAWAII 96813 • AREA CODE (808) 944-3111



DOUGLAS G. GIBB  
CHIEF  
WARREN PEREIRA  
DEPUTY CHIEF

July 24, 1989

'89 JUL 25 AIO:O  
DEPT. OF HOUSING,  
& COMM. DEVELOPMENT

TO: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: DOUGLAS G. GIBB, CHIEF OF POLICE  
HONOLULU POLICE DEPARTMENT

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
PROPOSED ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT  
PROJECT, HONOLULU

We have reviewed the environmental impact statement (EIS) preparation notice for the above project and have no comments at this time.

Also, we have no desire to be consulted during the preparation of the actual EIS.

Thank you for the opportunity to comment.

DOUGLAS G. GIBB  
Chief of Police

By   
JOSEPH AVEIRO  
Assistant Chief of Police  
Support Services Bureau

17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



DOWNTOWN IMPROVEMENT ASSOCIATION • 700 BISHOP STREET/SUITE 1005 • HONOLULU HAWAII 96813 • PHONE 535-1321

FRANK FALK  
MAYOR



MICHAEL N. SCARFONE  
DIRECTOR

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**

410 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE 533-4427

September 15, 1989

July 12, 1989

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: *Mike*

Thank you for your letter of July 6 notifying us of the intent to prepare an Environmental Impact Statement (EIS) for the Alakea Richards Parking Lot Redevelopment Project.

Our Association would appreciate being consulted during the preparation of the EIS.

Very truly yours,

*Bill*  
William A. Grant, AIA  
Executive Director

WAG:hmd

Mr. William A. Grant, AIA  
Downtown Improvement Association  
700 Bishop Street, Suite 1005  
Honolulu, Hawaii 96813

Dear Mr. Grant:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Alakea Richards Parking Lot Redevelopment Project

Thank you for responding to the EISPN for the proposed Alakea Richards Parking Lot Redevelopment Project. The Downtown Improvement Association is included on the list of agencies to be consulted during the EIS preparation.

Sincerely,

*Michael N. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR





Hawaii Society  
THE AMERICAN  
INSTITUTE  
OF ARCHITECTS

July 28, 1989

Mr. Michael N. Scarfone, Director  
Department of Housing & Community Development  
City and County of Honolulu  
650 S. King Street, Fifth Floor  
Honolulu, HI 96813

Subject: Alakea-Richards Redevelopment EIS Preparation Notice

Dear Mr. Scarfone:

The Hawaii Society of the American Institute of Architects appreciates the opportunity to offer our comments and concerns related to the upcoming EIS.

The reference site at the corner of Richards and Hotel Streets is a key site in our urban core due to its proximity to the Iolani Palace, YMCA and former YMCA and due to its function in the urban fabric as a part of the edge defining the Historic Precinct of the Hawaii Capital District. Thus, over the past year, we of the Hawaii Society/AIA have been closely following and providing our input into the planning process for the site. Enclosed are copies of our recommendations for design parameters for the site and our subsequent correspondence.

We hope that our concerns as expressed in the attached will be adequately addressed in the Draft EIS.

Thank you for the opportunity to offer our comments. We are looking forward to remaining a part of the EIS process.

Sincerely,

Carol S. Sakata, AIA  
President, Hawaii Society

Encls.

1128 Nuuanu Avenue • Honolulu, Hawaii 96817 • Telephone (808) 545-4242

8 March 1989

The Honorable John D. Waihee, III  
Hawaii State Capitol  
Honolulu HI 96813

Dear Governor Waihee:

The site of the current municipal parking structure on the corner of Hotel and Richards Streets is a key site in our urban core due to its proximity to the Iolani Palace, the YMCA and the former YMCA and due to its function in the urban fabric as a part of the edge defining the Historic Precinct of the Hawaii Capital District.

We of the Hawaii Society/AIA have been following developing events related to the site with much interest. We wish to commend the State and the City for working together towards redevelopment of the site commensurate with its significance.

We are concerned that additional and excessive parking demands are currently being placed on the site which adversely impact the viability, economics, design and function of its potential development. These demands, largely imposed by the State, though for good causes, threaten the quality and the viability of the product of the significant State/City effort for the site.

We would appreciate your effort towards enabling an appropriate and successful program and project for this key site.

Enclosed for your reference are our previous communications concerning the project.

Mahalo.

Most sincerely,

Carol S. Sakata, AIA  
President, Hawaii Society

cc: Russel Nagata, State Comptroller  
Benjamin Lee, Deputy Director DEU

1128 Nuuanu Avenue • Honolulu, Hawaii 96817 • Telephone (808) 545-4242





December 21, 1988

The Honorable Frank F. Fasi  
Mayor, City and County of Honolulu  
Honolulu Hale  
Honolulu HI 96813

Dear Mayor Fasi,

The Hawaii Society of the American Institute of Architects recently received a presentation by Jerry Hopkins of the Managing Director's office regarding the proposed development scheme submitted in response to the RFP for the Alakea-Richards Streets site.


Overall, the proposal is responsive to our concerns with regard to urban design and neighborhood compatibility largely due to the inclusion of our previously stated concerns in the RFP. We feel that the proposal is worthy of closer scrutiny.

We are generally pleased with the overall building massing, proposed building uses, site planning and open space in the proposal. Our concerns about maintaining a height and facade treatment on the Richards Street half of the site consistent with the YWCA building makai of the site and in harmony with the Iolani Palace and Hemmeter Center were particularly well addressed.

At the same time, the HS/AIA recommends a number of modifications to the proposal before it is accepted by the City and County. We believe the enclosed recommendations will provide far more benefit to the City, the developer and the community in the long run.

We appreciate the opportunity to hear the presentation on the project and to comment on what we see as an important element in our cityscape.

Sincerely,

  
Norman G. Hong, AIA  
President, Hawaii Society

1128 Nuuanu Avenue • Honolulu, Hawaii 96817 • Telephone (808) 545-4242

COMMENTS AND RECOMMENDATIONS OF THE HAWAII SOCIETY/AIA  
ON THE BETA-WEST PROPERTIES PROPOSAL FOR THE  
REDEVELOPMENT OF THE ALAKEA-RICHARDS STREETS SITE

The Hawaii Society of the American Institute of Architects supports the City and County development plans for the Alakea-Richards site as stated in the Request For Proposals and, with the following recommendations, is in support of the Beta-West Properties proposal for the site. We recommend to

- Reserve the low-rise portion of the project (that portion fronting Richards Street) exclusively for office and retail use. The proposed plans call for three levels of parking in this portion above the ground level retail space. This is an unfortunate use of potentially desirable and valuable government or commercial office space which has a clear view of the Capitol and Iolani Palace grounds and results in the deceptive masking of parking behind an illusory office facade. With the desire to separate municipal and commercial office uses and circulation, municipal office use and circulation in this location separate from the commercial ones in the tower is natural.

- Utilize a greater amount of the lower levels of the high-rise portion of the project (that fronting Alakea Street) for parking to offset the loss of parking in the low-rise portion. Parking levels would thus replace municipal office use in this portion of the site. Parking levels could be of a greater foot print per floor than the office levels above thus extending further towards Richards Street behind the office space fronting the palace grounds than do the upper commercial office levels.

- Although some parking exiting is desirable on Richards Street to distribute vehicular impact on the surrounding streets, parking and service entrances to the maximum extent possible should be located on Alakea Street to minimize the interruption of the people-oriented, pedestrian scale frontage along Richards Street. As current plans indicate, no vehicular access should be allowed on Hotel Street.

- Develop the open space along Hotel Street to be a viable pedestrian space with urban park amenities such as pleasant landscaping, paving areas and materials, benches, tables and chairs in conjunction with adjacent food service retail space for lunchtime use, fountains in addition to the existing trees. The porticoed entrance projecting into this space in the proposed scheme is a violation of the open space requirement of the RFP and is overly oriented to persons entering and exiting the building. Although a pedestrian building entrance is possible on the Hotel Street side, emphasis should be on the public open space amenity. Neither this portico nor other elements of the building should be allowed to extend mauka of the face of the existing parking structure.

The high rise portion of the project appears overly low and bulky for the site. A taller, narrower tower would better complement the low, wide form on the Richards Street side of the site and result in better site massing. We would support a trade off with the developer allowing additional floor levels and greater tower height beyond the envelope of the RFP in exchange for less square footage per tower floor resulting in comparable total office square footage.

- Notwithstanding City and State program requirements and the point that much of the proposed parking is in replacement of existing parking on the site, on the Iolani Palace grounds and at the Hemmeter Center, it is our concern that parking is excessive as related to its impact on Alakea and Richards Streets and in light of an eventual rapid transit system.

- Also of our concern is the tower elevation treatment where only every other floor is expressed. With a tower already short and bulky, such treatment only accentuates these proportions. We recommend a treatment where each individual floor is expressed.

###



August 2, 1988

Arnold Morgado, Jr., Chair  
City Council  
City and County of Honolulu  
Honolulu Haie  
Honolulu, Hawaii 96813

Dear Mr. Morgado,

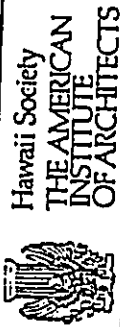
Enclosed are our recommendations for design criteria for the site of the current municipal parking structure at Alakea and Hotel Streets.

Our concern is not which government agency or which developer from the private sector ultimately develops this site but that whomever it is these criteria are met resulting in the successful development of this sensitively located site.

We appreciate the opportunity to comment on this important issue.

Sincerely,

Norman G. Y. Hony, AIA  
President Hawaii Society



Hawaii Society  
THE AMERICAN  
INSTITUTE  
OF ARCHITECTS

HAWAII SOCIETY OF THE AMERICAN INSTITUTE OF ARCHITECTS  
RECOMMENDATIONS FOR DESIGN PARAMETERS FOR THE  
ALAKEA/HOTEL/RICHARDS STREET PRECINCT

The site of the current municipal parking structure on the corner of Hotel and Richards Streets is a key site in our urban core due to its proximity to the historically significant Iolani Palace, YMCA and former YMCA and due to its function in the urban fabric as a part of the edge defining the Historic Precinct of the Hawaii Capital District. Thus we of the Hawaii Society of the American Institute of Architects wish to state our recommendations for design parameters for this site, as follows:

- Maintenance of a height limit on Richards Street comparable to the YMCA and former YMCA with the opportunity of stepping up to a higher limit on Alakea Street. This is in agreement with the building envelope indicated on Exhibit 1 of the proposed revised Hawaii Capital Special District as attached.

- Use of building height, fenestrations and facade treatment for the full height of the frontage along Richards Street compatible with those of the YMCA and former YMCA. This will result in uses other than parking along this frontage for the entire height of the envelope.

- Maintenance of a pedestrian scale at the first floor level on the Richards Street frontage by developing store front type people related uses and points of access. Parking, service and delivery access and use could occur at the lower levels on the Alakea Street frontage - with perhaps office use above - but not on the Richards Street frontage.

- Retention of the existing park on the Hotel Street frontage without penetration for vehicular access to the development.

- Mixed use development (office, retail and parking type uses) that would allow the above type uses in the various zones of the building within the recommended envelope.

1128 Nuuanu Avenue • Honolulu, Hawaii 96817 • Telephone (808) 545-4242

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU  
850 SOUTH KING STREET, 8TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 832-4137



FRANK PAB  
EDITOR

MICHAEL N. SCARFONE  
DIRECTOR

September 15, 1989

Ms. Carol S. Sakata, President  
American Institute of Architects,  
Hawaii Society  
1128 Nuuanu Avenue  
Honolulu, Hawaii 96817

Dear Ms. Sakata:

Subject: Environmental Impact Statement Preparation Notice  
(EISP/N)  
Alakea Richards Parking Lot Redevelopment Project

Thank you for your comments on the EISP/N for the proposed Alakea Richards Parking Lot Redevelopment Project. The AIA's continued input into the planning process has been appreciated.

Your concerns regarding the importance of design parameters due to the site's significant location within the urban core will be addressed in the Draft EIS. Specific references to the project's relationship to the Hawaii Capital Special District and surrounding buildings will be included.

Sincerely,

*M. Scarfone*

MICHAEL N. SCARFONE  
DIRECTOR



**HISTORIC HAWAII**  
FOUNDATION

July 12, 1989

Mr. Michael N. Scarfone, Director  
Department of Housing and Community Development  
City and County of Honolulu  
650 South King Street, Fifth Floor  
Honolulu, HI 96813

'89 JUL 14 P1:42  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT

Dear Michael:

**SUBJECT:** Chapter 343, Hawai'i Revised Statutes  
Environmental Impact Statement Preparation Notice  
Proposed Alakea Richards Parking Lot Redevelopment  
Project

Thank you very much for the opportunity to review the proposed development project. We appreciate the consideration and concern that is being shown in the development of the project to the historic buildings neighboring Alakea and Richards Streets.

At a meeting several months ago, a proposed design concept was shared which had the building face along Alakea Street designed with arches and architectural elements in keeping with the historic character of the area. We hope that this will be included in the final design for the front facing Iolani Palace with similar treatment along Hotel facing the Armed Forces YMCA.

Please keep us informed and let us know if we can help you in any way as you move through the development process.

Sincerely yours,

*Phyllis*

Phyllis G. Fox  
President

PGP:rn

cc: C. Dudley Pratt, Jr.

P.O. Box 1658 Honolulu, HI 96806 • Telephone (808) 537-9564 • The World War II Warhouse, Bldg. D, 2nd Floor • Honolulu, HI 96814

**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**  
**CITY AND COUNTY OF HONOLULU**

640 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 533-4427



FRANK F. ZARI  
MAYOR

MICHAEL N. SCARFONE  
DIRECTOR

September 15, 1989

Ms. Phyllis G. Fox, President  
Historic Hawaii Foundation  
P.O. Box 1658  
Honolulu, Hawaii 96806

Dear Ms. Fox:

**Subject:** Environmental Impact Statement Preparation Notice  
(EISP/N)  
Alakea Richards Parking Lot Redevelopment Project

Thank you for your comments on the EISP/N for the proposed Alakea Richards Parking Lot Redevelopment Project.

As you noted, the design concept for the project includes arches and other architectural elements that complement the character of the historic area and the Hawaii Capital Special District. These elements will occur along the fronts facing Iolani Palace and the Hammer Corporation Building (former YMCA) as well as along Alakea Street.

Sincerely,

*Michael N. Scarfone*

MICHAEL N. SCARFONE  
DIRECTOR



Commander (dpl)  
Fourteenth CG District

REC-117

'89 OCT 13 12:18

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

Marvin T. Miura, Director  
Office of Environmental Quality Control  
465 S. King Street, #104  
Honolulu, HI 96813

Re: Alakea/Richards Parking Lot Redevelopment

Dear Mr. Miura:

Thank you for the opportunity to review the draft environmental impact statement concerning Alakea/Richards Parking Lot Redevelopment.

The Fourteenth Coast Guard District has no comments on the proposal.

Sincerely,

*M. R. Adams*  
M. R. ADAMS  
Commander, U. S. Coast Guard  
Planning Officer  
By direction of Commander,  
Fourteenth Coast Guard District

c/c Dept. of Housing & Community Development  
(Attn: Michael N. Scarfone)



DEPARTMENT OF THE NAVY  
COMMANDER  
NAVAL BASE PEARL HARBOR  
BOX 110  
PEARL HARBOR, HAWAII 96805-5020

MAILING LABEL TO  
5090 (1768)  
Ser 032/2506  
12 Oct 1989

Department of General Planning  
City & County of Honolulu  
650 S. King St.  
Honolulu, HI 96813

Gentlemen:

ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT DEIS

The Draft Environmental Impact Statement (DEIS) for Alakea/Richards Parking Lot Redevelopment has been reviewed, and we have no comments to offer. Since we have no further use for the DEIS, it is being returned to the Office of Environmental Quality Control.

Thank you for the opportunity to review the draft.

Sincerely,

*W.K. Liu*  
W.K. LIU  
Assistant Base Civil Engineer  
By direction of  
Commander

Copy to:  
DEOC (w/DEIS)  
Parsons Hawaii  
Dept of Housing & Community  
Development

DEP 10/19 3799



DOWNTOWN IMPROVEMENT ASSOCIATION • 120 BISHOP STREET/SUITE 205 • HONOLULU, HAWAII 96813 • PHONE 535-3799

October 16, 1989

Mr. Donald Clegg, Chief Planning Officer  
Department of General Planning  
650 South King Street, 8th Floor  
Honolulu, Hawaii 96813

Dear Mr. Clegg: *DC*

Here are some comments on the Draft EIS for the BetaWest project on Alakea-Richards parking garage site:

**TRANSIT PLANS**

DTS's Alternate Routes 5 and 7 continue to consider an elevated dual guideway on Alakea Street across the front of the site. The Draft EIS does not discuss this proposal or the possibility of a station associated with it.

Since DIA does not believe any aerial guideway is environmentally acceptable through Downtown, we are not at all disturbed by its omission. However, does the omission in anyway invalidate the report as submitted?

**PARKING DURING CONSTRUCTION**

Chinatown Gateway Plaza and the parking lot to be built at the site of the Liberty Theatre and Chevron Station on Beretania Street are cited as alternatives to the stalls which will be lost to public use during construction.

These are highly unlikely substitutes for the existing garage because of their distance. Instead the City should ask the State to make part of the Capitol grounds along Richards Street available for a temporary parking lot. It would be a small price to pay for the State's eventual gain in permanent new parking stalls.

Mr. Donald Clegg  
Department of General Planning  
October 16, 1989  
Page Two

**OTHER DOWNTOWN PROJECTS**

- o A few comments on other Downtown projects listed in the report:
  - o Merchandise Mart redevelopment is 175,000 sf according to recent news reports, not 200,000 sf as per EIS. Also, while demolition is occurring now, there is no guarantee that construction will follow immediately. Ownership has not yet been transferred.
  - o Pacific Nations Center is most likely to be a predominately residential complex because the office market has not yet reached this site. Since the City seems unwilling to wait eight or ten years until the office market arrives, a large office complex on this site seems highly unlikely.
  - o the State Office Building will be deeded to the State and continue to be used for State Offices indefinitely after the emergency asbestos removal from the Capitol has been completed. It is not expected to become part of the Downtown rental office supply as the EIS implies.

**ALII PLACE FLOOR AREA**

The Alakea-Richards project description gives the project's floor area in modified net terms for BetaWest's part and both net and gross for the City's part. It would be helpful to list, for the record, a total gross area for everything but the parking garage. BetaWest tells me that figure is about 240,000 sf.

Thank you for sharing the EIS with us.  
Very truly yours,

*Bill*

William A. Grant, AIA  
Executive Director

WAG:kmd

RECEIVED  
OCT 16 PM 2:52

DEPARTMENT OF GENERAL PLANNING  
HONOLULU

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

830 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE 323-4227 FAX 323-3498



FRANK F. JARI  
MAYOR

MICHAEL H. SCARFONE  
DIRECTOR

RONALD B. HUN  
DEPUTY DIRECTOR

January 3, 1990

Mr. William A. Grant, Executive Director  
Downtown Improvement Association  
700 Bishop Street, Suite 1005  
Honolulu, Hawaii 96813

Dear Mr. Grant:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alakea/Richards Parking Lot  
Redevelopment

Thank you for your comments of October 16, 1989 on the DEIS. Our responses follow:

As you know, the federal government is currently reviewing a pre-draft environmental impact statement for the City's proposed light rail rapid transit system. It has yet to be shown that such a system is environmentally or economically acceptable. At this point, the concept has not been officially approved, funding has not been secured, route selection has not been finalized, and no permits have been issued. For these reasons, its cumulative impacts are too ambiguous to be analyzed in this DEIS. It has been included in Sections 1.05 and 15.0 as an unresolved issue. Types of environmental impacts which the subject redevelopment and a rapid transit system would have in common potentially include alterations in air quality, noise and vibration and traffic. Implementation of a rapid transit system would presumably decrease downtown traffic and therefore decrease automobile exhaust emissions and noise. The net effect would be to mitigate to some extent the impacts of the redevelopment, and therefore, the analysis in the subject DEIS is a conservative "worst case." Of course, until a route and a technology are selected, impacts of the transit system in such areas as vibration and aesthetics can only be addressed in analysis of alternatives. Because of its present status, the nature of its potential cumulative impacts and the fact that it is the subject of its own DEIS, the rapid transit system was not included in the subject DEIS, however, this in no way invalidates the document.

Mr. William A. Grant  
January 3, 1990  
Page Two

By the way, the City's agreement with the developer requires that provision be made in the design of the building to potentially accommodate a transit station by installing removable exterior wall panels in the second floor.

Your suggestion to use part of the Capitol grounds along Richards Street for temporary public parking is potentially a good mitigation measure, and will be passed along to the State.

Our information on the Merchandise Mart redevelopment was taken from the August 2, 1989 edition of The Honolulu Advertiser which showed an artist's rendering of the new building and stated that the building would contain 195,580 square feet of commercial space. We were unable to get design or scheduling information from the developers or architects of this project. It is included in the present time frame to give a conservative assessment of impacts.

The City is currently awaiting developer proposals for the Pacific Nations Center. The description of the development used in the subject DEIS is that which appeared in the DEIS for the Pacific Nations Center. Until proposals are submitted and a developer selected, there is no justification to discard this description.

The text in the Final EIS will be changed to remove the implication that the State Office Tower would add to the rental office supply after 1995.

The architects are presently completing final design development, and therefore the figures for square footages are not final. The gross square footage for everything except the parking garage is approximately 325,738.

Sincerely,

MICHAEL H. SCARFONE  
DIRECTOR



United States Department of the Interior  
**FISH AND WILDLIFE SERVICE**  
**PACIFIC ISLANDS OFFICE**  
 P.O. BOX 50187  
 HONOLULU, HAWAII 96850



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**  
 430 SOUTH KING STREET, 3TH FLOOR  
 HONOLULU, HAWAII 96813  
 PHONE: 523-4277 & 741-277-3488

FRANK F. JAY  
 MAIL ROOM

MICHAEL N. SCARFONE  
 DIRECTOR  
 RONALD B. HUN  
 DEPUTY DIRECTOR

ES  
 Room 6307  
 October 16, 1989

Department of General Planning  
 City & County of Honolulu  
 650 S. King Street  
 Honolulu, Hawaii 96813

January 3, 1990

Mr. Ernest Kosaka, Field Office Supervisor  
 Environmental Services  
 United States Department of the Interior  
 Fish and Wildlife Service, Pacific Islands Office  
 P.O. Box 50187  
 Honolulu, Hawaii 96850

Re: Alakea/Richards Parking Lot Redevelopment  
 Draft Environmental Impact Statement

Gentlemen:

We have reviewed the referenced material dated October 3, 1989 and find that due to its nature, the proposed project will have no significant deleterious impact on fish and wildlife resources within our jurisdiction. Please do not hesitate to call on us if we may be of further assistance.

We appreciate this opportunity to comment.

Sincerely yours,

*Ernest Kosaka*  
 Ernest Kosaka  
 Field Office Supervisor  
 Environmental Services

cc: Mr. Marvin T. Miura, Director  
 Office of Environmental Quality Control  
 Mr. Michael N. Scarfone, Director  
 C&C Dept. of Housing & Community Development  
 Parsons Hawaii

Dear Mr. Kosaka:

Subject: Draft Environmental Impact Statement (DEIS)  
 for the Proposed Alakea/Richards Parking Lot  
 Redevelopment

Thank you for your letter of October 16, 1989 in which you have comments about the draft environmental impact statement for the proposed redevelopment of the Alakea/Richards parking lot.

We understand that the proposed project will have no deleterious impact on fish and wildlife resources, and this has been reflected in the text of the document.

Sincerely,

*Michael N. Scarfone*  
 MICHAEL N. SCARFONE  
 DIRECTOR





STATE OF HAWAII  
DEPARTMENT OF DEFENSE  
OFFICE OF THE ADJUTANT GENERAL  
2949 BULLWOCK HEAD ROAD, HONOLULU, HAWAII 96819

JOHN BLANKS  
Major General

ALEXIS T. LUM  
Major General  
Adjutant General  
BETHEL M. NAKAZUMI  
Major General  
Adjutant General



DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
BUILDING 230  
FT. SHAFTER, HAWAII 96855-5440

October 17, 1989

REPLY TO  
ATTENTION OF:

Planning Branch

Engineering Office

October 13, 1989

City and County of Honolulu  
Department of General Planning  
650 South King Street  
Honolulu, Hawaii 96813

Gentlemen:

Alakea/Richards Parking Lot Redevelopment  
Draft Environmental Impact Statement  
Honolulu, Hawaii

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 H. Matsuda*  
Jerry H. Matsuda  
Lieutenant Colonel  
Hawaii Air National Guard  
Contracting & Engineering Officer

cc: Dr. Marvin T. Miura, Director, DEQC  
C&C Dept. of Housing & Community Development  
Parsons Hawaii

NATIONAL GUARD  
American At Their Best

GK  
meo

Mr. Donald A. Clegg  
Chief Planning Officer  
Department of General Planning  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Clegg:

Thank you for the opportunity to review the draft Environmental Impact Statement for the Alakea/Richards Parking Lot Redevelopment, dated October 1989. The comments provided in our letter dated July 1989 are still appropriate, and we have no additional comments.

Sincerely,

*C. J. Cheung*  
Kisuk Cheung  
Chief, Engineering Division

Copy Furnished:

City & County of Honolulu  
Department of Housing & Community Development  
650 S. King Street, 5th Fl.  
Attn: Michael N. Scarfone, Director  
Honolulu, HI 96813

Parsons Hawaii  
567 S. King Street, #105  
Honolulu, HI 96813

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU  
830 SOUTH KING STREET, 3TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 313-4277 • FAX: 327-5488



MICHAEL N. SCARFONE  
DIRECTOR  
RONALD B. WU  
DEPUTY DIRECTOR

FRANK P. FAR  
MAYOR

January 3, 1990

MEMORANDUM

TO: SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER  
DEPARTMENT OF PUBLIC WORKS

FROM: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE  
PROPOSED ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT

Thank you for your comments of October 23, 1989 regarding the subject DEIS.  
We will clarify in the text of the final EIS that the sewer connection should be made to the Richards Street line.

*Michael N. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR

DEPARTMENT OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU  
430 SOUTH KING STREET  
HONOLULU, HAWAII 96813



SAM CALLEJO  
DIRECTOR AND CHIEF ENGINEER  
In reply refer to:  
ENV 89-188 (449)

FRANK P. FAR  
MAYOR

October 23, 1989

MEMORANDUM

TO: DONALD A. CLEGG, CHIEF PLANNING OFFICER  
DEPARTMENT OF GENERAL PLANNING

FROM: SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)  
ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT  
TAX MAP KEY: 2-1-17: 7, 8, AND 17

We have reviewed the subject DEIS and have the following comments:

1. We have no objection to the proposed redevelopment of the parking lot.
2. Existing sewers are adequate and the connection should be made to the 8-inch line on Richards Street.
3. We have no drainage comments at this time.

*Sam Callejo*  
SAM CALLEJO  
Director and Chief Engineer

cc: OEQC  
Parsons Hawaii  
Department of Housing and Community Development

OK | File  
meo



Hawaiian Electric Company, Inc. - PO Box 2750 - Honolulu, HI 96840-0001

DGR 10/18/89 3887



U.S. Department of Housing and Urban Development  
Honolulu Office, Region IX  
300 Ala Moana Blvd., Room 318, Box 50007  
Honolulu, Hawaii 96813-0318

ENV 2-1  
JA/G



William A. Bennett  
Manager  
Environmental Department

October 31, 1989

October 24, 1989

Mr. Donald Clegg  
Chief Planning Officer  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

GENERAL PLANNING  
& DEVELOPMENT

'89 OCT 25 AM 11:15 89-364

Harvin T. Miura, Ph.D., Director  
Office of Environmental Quality Control  
465 South King Street  
Honolulu, Hawaii 96813

Dear Dr. Miura:

Subject: Draft Environmental Impact Statement for Alakea/Richards  
Parking Lot Redevelopment

We have reviewed the above subject document and have no comments.

Sincerely,

JIM:qjy

cc: Department of General Planning  
C&C Department of Housing & Community Development  
Parsons Hawaii

RECEIVED

NOV 3 1989  
PARSONS

Dear Mr. Clegg:  
SUBJECT: Draft Environmental Impact Statement (DEIS)  
Alakea Richards Parking Lot Development

We have reviewed the Draft EIS for the proposed action to develop a 24-story office building with 1,000 parking stalls and retail commercial space at a site bounded by Alakea, Hotel and Richards Streets.

We do not have any substantive comments. Since the proposed action will not affect any HUD-assisted programs or projects in the area, we do not need to receive the Final EIS.

Very sincerely yours,

Calvin Lew  
Director  
Community Planning and  
Development Division

DEPARTMENT OF PARKS AND RECREATION  
CITY AND COUNTY OF HONOLULU

410 SOUTH KING STREET  
HONOLULU, HAWAII 96813



FRANK F. FARR  
MAYOR

WALTER M. OZAWA  
DIRECTOR  
DEPARTMENT OF PARKS AND RECREATION

October 31, 1989

TO: DONALD A. CLEGG, CHIEF PLANNING OFFICER  
DEPARTMENT OF GENERAL PLANNING

FROM: WALTER H. OZAWA, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)  
ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT  
HAWAII CAPITAL SPECIAL DISTRICT  
TAX MAP KEY: 2-1-17: 7, 8 & 17

We have reviewed the Draft EIS for the Alakea/Richards Parking Lot Redevelopment and make the following comments and recommendation.

A conceptual street tree plan has not been included in the report to reflect the species of trees to be planted along public streets abutting the project site. Under the Hawaii Capital Special District design controls, Olive trees and Royal Poinciana trees are to be provided along Alakea and Punchbowl Streets, respectively. Monkeypod trees should be exclusively used along Hotel Street for consistency.

We recommend that Betakest, developer for the project, coordinate with our department to develop a street tree planting plan for the project. The plan will be subject to review and approval of the Department of Parks and Recreation.

Thank you for the opportunity to comment on the Draft EIS.

*Walter H. Ozawa*  
WALTER H. OZAWA, Director

WHO:js

cc: Office of Environmental Quality Control  
Dept. of Housing and Community Development  
Parsons Hawaii

*66/716*

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

410 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE 533-4217 FAX 527-5489



FRANK F. FARR  
MAYOR

MICHAEL N. SCARFONE  
DIRECTOR  
RONALD B. MUIR  
DEPUTY DIRECTOR

January 3, 1990

MEMORANDUM

TO: WALTER M. OZAWA, DIRECTOR  
DEPARTMENT OF PARKS AND RECREATION

FROM: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE  
PROPOSED ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT

Thank you for your comments of October 31, 1989 regarding the subject DEIS.

The developer and architect are aware of the requirements of the Hawaii Capital Special District with respect to tree plantings. The developer will submit for your review and approval a street tree planting plan before undertaking any landscaping.

*Michael N. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR

DEPARTMENT OF TRANSPORTATION SERVICES  
**CITY AND COUNTY OF HONOLULU**

HONOLULU MUNICIPAL BUILDING  
850 SOUTH KING STREET  
HONOLULU, HAWAII 96813



FRANK ZAHN  
MAYOR

ALFRED J. THIEDE  
DIRECTOR

JOSEPH H. MAGLOLA, JR.  
DEPUTY DIRECTOR

TE-5498  
PEL.1745

October 31, 1989

Parsons Hawaii  
P. O. Box 29909  
Honolulu, Hawaii 96820

Attention: Mr. George Krasnick, Project Manager

Gentlemen:

Subject: Richards-Alakea Office Building  
Traffic Impact Study - Draft  
TMK: 2-1-17:8

This is in response to your transmittal of August 28, 1989 requesting our comments on the draft traffic impact study for the subject project.

Based on our review, we have the following comments:

1. The proposed driveway locations servicing this project should be established and/or stated in the traffic study, and the merits of these locations should be assessed.
2. The parking entry controls should be recessed as far into the project as practical, and the type and method of collection should be established to minimize the potential of queuing onto public streets.
3. The need for multiple entrance lanes at the parking entry controls should be addressed.
4. All public parking areas should be interconnected and designed such that vehicles can enter and exit from any access point to minimize unnecessary circulation around the project site.
5. The driveway grade should not exceed 5 percent for a minimum distance of 35 feet from the curb line, and adequate site distance to pedestrians and other vehicles should be provided and maintained.

Parsons Hawaii  
Page 2  
October 31, 1989

6. The location of the loading zones should be addressed and designed such that no maneuvering occurs on any public street.
7. The levels of service analysis at the various intersections should be supplemented with visual observations.
8. Plans showing proposed improvements to streets under the jurisdiction of the City should be included in the report.
9. The design of the internal circulation pattern and physical operation of the City controlled parking area should be coordinated with the department's Parking Branch.
10. The study should address the adequacy of future public parking based on the current parking demand for this site.
11. All vehicular access points shall be constructed as standard City dropped driveways.
12. The study should consider including the discounted number of trips to provide a more conservative evaluation of the impacts to traffic.
13. Coordination should be made with our Rapid Transit Development Division with regard to possible impacts to the rapid transit alignment.

Very truly yours,

ALFRED J. THIEDE  
Director

cc: Department of Housing and Community Development

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

630 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 522-4437 • FAX 527-5488



FRANK FASI  
MAYOR

MICHAEL N. SCARFONE  
DIRECTOR  
RONALD B. MUN  
DEPUTY DIRECTOR

Alfred J. Thiede  
January 3, 1990  
Page Two

January 3, 1990

MEMORANDUM

TO: ALFRED J. THIEDE, DIRECTOR  
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE  
PROPOSED ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT

Thank you for your comments of October 31, 1989 pertaining to the draft traffic impact study in the subject DEIS. The following respond in order to your numbered comments:

1. An addendum has been added to the traffic study which examines the traffic implications of the driveway locations and parking access scheme adopted for the final design. At the time of the traffic impact study (which addresses impacts of trips generated by the facility on the surrounding roadway network), the internal circulation of the parking structure had not been determined. With the determination of the internal requirements, the traffic study addendum concluded that two additional intersections would require mitigation in the form of restriping and signal modifications. These measures have been added to those in Section 10.07 and are discussed in more detail in the addendum.
2. Your suggestion to recess the parking controls as far into the building as practical to minimize queuing has been incorporated into the design. There will be multiple entries to the controls in the public parking section; the other sections will be accessed via card keys, minimizing queuing.

3. The need for multiple lanes at the parking entry controls has been studied. To avoid queuing onto public roadways, the following design has been adopted. On Richards Street, one entry and one exit lane will be accessed via because the below grade area served will be accessed via card keys. On Alakea Street, there will be one entry and one exit lane at the curb, but these two lanes will be augmented by a third, reversible lane inside the building at the entry controls. This is necessary because of the greater number of vehicles using this access point and the greater delays involved in processing the public parking users.
4. The site configuration, open space and setback requirements, Capital District design criteria and the physical constraints of the building design preclude the possibility of internal interconnections to all access points.
5. The project's design will use the City's criteria for driveway slope and sight distance.
6. To minimize the aesthetic impacts to the Capital District, the entry to the loading zone will be on Alakea Street. It can be expected that most deliveries will be made in fixed-body vans of 35 feet or less in length. The largest of these would have to back into the loading area as there would not be space to maneuver inside the building. These types of deliveries could be restricted to non-peak hours.
7. All of the intersections studied were observed in operation during peak and non-peak hours.
8. Dimensions and striping plans for all streets included in the study were reviewed. Conceptual information on future street improvements by the City was factored into the analysis of the future traffic situation.
9. The Development Agreement between the City and the developer permits the developer to control the public parking for the first thirty years after construction without concurrent control by the City's Parking Branch. Internal circulation and facility operations are being studied by the developer's professional parking consultants.

Alfred J. Thiede  
January 3, 1990  
Page Three

UNITED STATES  
DEPARTMENT OF  
AGRICULTURE

SOIL  
CONSERVATION  
SERVICE

P. O. BOX 50004  
HONOLULU, HAWAII  
96830

November 6, 1989

10. The Development Agreement specifies that the developer must provide 235 public parking stalls to replace the 219 stalls in the existing structure. Although this project will not significantly increase the number of public parking stalls, two other City parking lots planned for redevelopment include new parking stalls. The Smith Boretania parking lot with 129 stalls at present is being designed for approximately 400 stalls. The Pacific Nations Center site with 206 stalls is planned for an additional 294 stalls. These additional stalls will to an extent help relieve overall parking demand downtown.
11. Standard City dropped driveways will be utilized at all vehicular access points.
12. Trip generation rates are based on square footage and vary by usage of the area in question. In this case, the largest discount factor is for the City office space which does not have associated parking, and therefore will create no employee trips. A small discount is applied for the convenience retail space which, unlike other retail space, does not generate trips itself. The trip rates were also discounted for public transportation usage and other forms of ridesharing, and for multi-purpose trips in the downtown area. These are standard assumptions and the discounts used were conservative.
13. The Development Agreement specifies that the developer accommodate the possibility of an on-site rapid transit station in the building by providing removable exterior wall panels on the second floor. The development has no effect on possible rapid transit system alignments beyond that.

Mr. Marvin T. Miura, Director  
Office of Environmental Quality Control  
465 S. King Street, #104  
Honolulu, HI 96813

Dear Mr. Miura:

Subject: Draft Environmental Impact Statement (DEIS) -  
Alakes/Richards Parking Lot Redevelopment,  
Honolulu, Hawaii


We have no comment to offer at this time; however, we would appreciate the opportunity to review the final EIS.

Sincerely,



WARREN M. LEE  
State Conservationist

cc: Dept. of General Planning, City & County of Honolulu, 650 S. King Street,  
Honolulu, HI 96813  
Mr. Michael N. Scarfone, Director, C&C Department of Housing & Community  
Development, 650 S. King Street, 5th Floor, Honolulu, HI 96813  
Parsons Hawaii, 567 S. King Street, #102, Honolulu, HI 96813



MICHAEL N. SCARFONE  
DIRECTOR



Mr. Donald Clegg  
Dr. Marvin Miura  
Page 2

Ltr. No. (P)2100.9

(P)2100.9

NOV 6 1989

Mr. Donald Clegg  
Chief Planning Officer  
Department of General Planning  
City and County of Honolulu  
630 South King Street, 8th Floor  
Honolulu, Hawaii

Dr. Marvin Miura  
Director  
Office of Environmental  
Quality Control  
465 South King Street, Rm. 104  
Honolulu, Hawaii

Gentlemen:

Subject: Alakea/Richards Parking Lot Redevelopment  
Draft EIS

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

1. The State's plans for the Hawaii Capital District envisions "Gateways" or "Entries" on four sides - Mauka, Makai, Ewa and Waikiki. The State has developed a master plan for the Mauka Entry (Punchbowl Street area from Vineyard Boulevard to Beretania Street) and has implemented portions of the plan. The State has also developed about half of the Mililani Mall which constitutes a major portion of the Makai Entry.
2. To plan for the Ewa Entry, the State engaged the consultant firm of Group 70 which prepared the report "Capital Complex/Ewa Gateway Study" in 1984. The design concept recommended in this report was to provide an active urban plaza as a gateway to the Capital Complex and as an appropriate transitional urban space between the urban downtown core and the great park of the Civic Center. The design criteria of this plan are listed on the attached sheet.

3. Please note that Items 6 and 7 which relate specifically to the former YMCA have been implemented by Hemmeter Development Corporation, that Items 8 and 9 relate specifically to the proposed BetaWest Development and that the remaining design criterions may be affected by the BetaWest Development.

4. Therefore, we would like to see the EIS address the impact of the project on the design criteria for the Ewa Entry. A copy of the report was previously sent to the EIS preparer.

Should there be any questions, please have your staff contact Mr. Cedric Takamoto of the Planning Branch at 548-7192.

Very truly yours,



TEUANE TOMINAGA  
State Public Works Engineer

CT:jk

Attachment

cc: City and County of Honolulu, Department of  
Housing and Community Development w/attachment  
Parsons Hawaii w/attachment

[REDACTED]

DESIGN CRITERIA

1. Provide an urban plaza properly integrated into the great park setting of the State Capitol grounds and properly scaled to encourage and enhance a variety of active and passive pedestrian-type activities within and along the perimeter of the plaza.
2. Integrate major works of art and/or waterplay into the plaza such that they are carefully sited to enhance the view of the State Capitol from Hotel Street Mall and the Gateway Plaza.
3. Provide landscaped and shaded places within and along the edges of the plaza for pedestrians to comfortably walk as well as sit. The landscape should respect the view towards the Capitol and help to properly frame it. Certain existing trees may have to be relocated to enhance the view.
4. Provide pedestrian-related ground floor facilities such as outdoor dining, book-stores, convenience shops, and other service type businesses to be located at the perimeter of the plaza.
5. Physically and visually relate the gateway plaza to the Capitol grounds and Capital Complex by deleting or diminishing Richards Street as a vehicular roadway in favor of a pedestrian emphasis.
6. Restrict vehicular traffic to the YMCA to its Diamond Head side and make its existing front entry pedestrian-oriented and related directly to the Gateway Plaza.
7. Retain the YMCA as a significant historical building. Improvements should respect its historical significance and help to enhance its importance as one of the "walls" of the plaza.
8. Treat the upper floors of the Alakea/Richards parking structure facing the plaza and the Capital Complex sensitively to minimize its impact as a parking structure. The parking structure should not be more than 65' high to respect the CDO height restriction and to relate the the height of the YMCA. The top of the parking structure should be landscaped to minimize its visual impact when viewed from surrounding buildings including the State Capitol and Iolani Palace.

9. Locate the office tower on the Eva end of the Alakea-Richards parcel, configure it to diminish its mass and profile when viewed from the Capital Complex, and limit it to the height of the Central Pacific Tower.
10. Relate the Ground floor lobby of the District Court Complex to the Gateway Plaza by removing the planter wall adjoining the plaza and by adding steps down to the plaza level.
11. Continue the plaza paving material and pattern along Richards Street Mall to Beretania and King Streets, if Richards Street is closed to traffic.
12. Provide appropriate and attractive lighting and proper directional and informational graphics within the plaza and along Richards Street.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

830 SOUTH KING STREET, 37TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 322-4277 x 7422 327-5488



FRANK P. JAM  
MAYOR

MICHAEL N. SCARFONE  
DIRECTOR  
DONALD B. HUI  
DEPUTY DIRECTOR

Mr. Teuane Tominaga  
January 3, 1990  
Page Two

January 3, 1990

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

Dear Mr Tominaga:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alahea/Richards Parking Lot  
Redevelopment

Thank you for your comments of November 6, 1989 on the subject DEIS  
and a copy of your 1984 "Capital Complex/Ewa Gateway Study." The  
following refers to the corresponding criterion in the study:

1. The integration of the building and landscaping with the surrounding Capital District and the design of the entry area as an "urban plaza" have been major design criteria given to the architect. The scale is appropriate to the setting, and a variety of pedestrian-type activities will be available.
2. Existing views along Hotel Street will be maintained, as indicated in the visual impact analysis in the DEIS, and a water feature in the plaza will enhance pedestrian views of the Capitol.
3. Arcades and other shaded places to sit and walk will be provided. Landscaping species and spacing complementary to the surrounding area and in conformance to the provisions of the Capital Special District will be provided.
4. Retail space easily accessible to pedestrians will be provided at ground level, and will minimize the visual impacts of the parking garage to pedestrians.

5. Your suggestion to delete or diminish Richards Street as a vehicular roadway for aesthetic reasons must be assessed against its present value as an essential car and bus route by the public and City decision-makers.
6. Not applicable as per paragraph 3 of your letter.
7. Not applicable as per paragraph 3 of your letter.
8. The height of the parking structure is approximately 46 feet at the Richards Street facade to match the YMCA facade and terraces back to a maximum height of approximately 98 feet. Its height, appearance and landscaping (including that on the roof) have been designed to complement the architecture of the YMCA, the Capitol and Iolani Palace.
9. The office tower has been located on the Zwa end of the site. The terracing of its floors serves to diminish its apparent mass when viewed from the Capital Complex. Its height would be approximately 270 feet, compatible with the approximately 260 feet of the Central Pacific Tower.
10. Modifications to the District Court Complex would be under State jurisdiction.
11. This is a moot point unless and until Richards Street is closed to vehicular traffic.
12. Lighting around the building will be appropriate in character and intensity to the setting. Informational graphics on Richards Street would be either City or State responsibilities, depending on their nature and would conform to applicable sign and Special Design District guidelines.

Sincerely,

MICHAEL N. SCARFONE  
DIRECTOR



**HISTORIC HAWAII  
FOUNDATION**

November 6, 1989

Mr. Michael N. Scarfone  
Director  
Department of Housing and Community Development  
City and County of Honolulu  
650 South King Street, 5th Floor  
Honolulu, HI 96813

Dear Mr. Scarfone:

**SUBJECT: Draft Environmental Impact Statement  
Alakea Richards Parking Lot Redevelopment**

We appreciated the opportunity to review and comment on the draft EIS for the Alakea Richards Parking Lot Redevelopment Project.

We would like to thank you very much for the sensitivity reflected in the EIS for archaeological concerns as well as historic buildings.

We would like to recommend (1-4) that if "significant cultural materials" are found in the backhoe testing that you then consult with the State Historic Preservation Office to evaluate the significance of the findings and determine the proper procedure before continuing.

We strongly support your plans to monitor all of the historic buildings (1-11) which might be impacted during demolition, pile driving and construction.

Sincerely yours,

*Phyllis G. Fox*  
Phyllis G. Fox  
President

PGF:rn

**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU**

850 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 832-4277 • FAX: 837-9488



FRANK ZABI  
SENIOR

MICHAEL N. SCARFONE  
DIRECTOR  
RONALD B. HUN  
DEPUTY DIRECTOR

January 3, 1990

Ms. Phyllis G. Fox, President  
Historic Hawaii Foundation  
P.O. Box 1658  
Honolulu, Hawaii 96806

Dear Ms. Fox:

**Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alakea/Richards Parking Lot  
Redevelopment**

Thank you for your comments of November 6, 1989 on the DEIS.

The archaeologist will coordinate with and consult the State Historic Preservation Office (SHPO) if "significant cultural materials" are found in the backhoe testing. Section 10.03 of the DEIS indicates that if such materials are found, then a monitoring program would be instituted and supervised by the SHPO.

Sincerely,

*Michael N. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR

NOV 08 1989  
DEPT. OF HOUSING AND COMM. DEVELOPMENT



DEPARTMENT OF GENERAL PLANNING  
CITY AND COUNTY OF HONOLULU  
630 SOUTH KING STREET  
HONOLULU HAWAII 96813



FRANK C. FASI  
DIRECTOR

DONALD A. CLEGG  
CHIEF PLANNING OFFICER

GENE CONNELL  
DEPARTMENT OF GENERAL PLANNING

MH/DGP 10/89-3685

November 9, 1989

MEMORANDUM

TO: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: DONALD A. CLEGG, CHIEF PLANNING OFFICER  
DEPARTMENT OF GENERAL PLANNING

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE  
PROPOSED ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT

Thank you for the opportunity to review and comment on the subject DEIS. After checking the responses to our previous comments on the Environmental Impact Statement Preparation Notice, our department deems the responses to be adequate.

In addition, we have the following comments to offer:

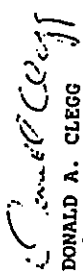
1. According to TABLE 4 (DEVELOPMENT PROGRAM) on page 5-8, the City would be allocated 67,156 square feet of office space. However, page 5-3 indicates that "An additional 71,250 square feet of office space would be allocated to the city." Please clarify the above data.
2. On pages 7-11 and E-30, the word (interisland) may have been mistaken for Intraisland. This wording may be verified with the proposed Oahu Intraisland Ferry System Final EIS.

Michael N. Scarfone, Director  
Department of Housing and Community Development  
Page 2  
November 9, 1989

3. Page D-4 discloses that the exploratory borings encountered "highly variable ground conditions beneath the project site." With respect to reducing potential pile driving vibration problems, it may be beneficial to do post-demolition site-specific borings to determine if it would be necessary to pre-drill or employ the use of sonic or vibrating drivers as discussed on page 10-49.

We hope these additional comments are helpful to you. If you have any questions regarding our comments, please contact Matthew Higashida at 527-6056.

Sincerely,

  
DONALD A. CLEGG  
Chief Planning Officer

cc: Farsons Hawaii

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**

430 SOUTH KING STREET, 5TH FLOOR  
HONOLULU, HAWAII 96813  
PHONE: 525-4377 • FAX: 527-4488



FRANK FASI  
MAYOR

MICHAEL N. SCARFONE  
DIRECTOR  
RONALD B. HUN  
DEPUTY DIRECTOR

January 4, 1990

MEMORANDUM

TO: BENJAMIN B. LEE, CHIEF PLANNING OFFICER  
DEPARTMENT OF GENERAL PLANNING

FROM: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE  
PROPOSED ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT

Thank you for your comments of November 9, 1989 regarding the subject DEIS. The following responds to them in numerical order:

1. The larger of the two values for City office space represents gross square footage while the smaller value represents usable square footage. The latter value excludes areas set aside for such uses as elevator shafts and mechanical rooms. Because the architects are presently completing final design development, the various floor area measures are not yet final. At this time, the gross City office space is 70,715 square feet.
2. You are correct; the word "interisland" will be changed to "intraisland" in the final EIS.
3. Your suggestion is a good one, and may be done in any event to look at the variability in load-bearing properties of the soils across the site. However, the developer has decided to employ a mat-type foundation to minimize noise and dust impacts to neighbors, thus eliminating the need for foundation pile driving.

*Michael N. Scarfone*  
MICHAEL N. SCARFONE  
DIRECTOR

JOHN WAHLEE  
GOVERNOR



State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 So. King Street  
Honolulu, Hawaii 96814-2512

YUKIO KITAGAWA  
CHAIRPERSON, BOARD OF AGRICULTURE  
SUZANNE PETERSON  
DEPUTY TO THE CHAIRPERSON

Mailing Address:  
P. O. Box 22159  
Honolulu, Hawaii 96822-0159

November 14, 1989

MEMORANDUM

To: Mr. Donald A. Clegg  
Chief Planning Officer  
Department of General Planning  
City and County of Honolulu

Subject: Draft Environmental Impact Statement (DEIS) for  
Alakea/Richards Street Parking Lot Redevelopment  
TKK: 2-1-17: 7, 8, 17 Honolulu, Oahu  
Area: 1.58 acres

The Department of Agriculture has reviewed the subject document and has no comments to offer.

Thank you for the opportunity to comment.

*Yukio Kitagawa*  
YUKIO KITAGAWA  
Chairperson, Board of Agriculture

cc: Office of Environmental Quality Control  
City Department of Housing and Community Development  
Parsons Hawaii



13 November 1983

TO: Marvin T. Miura, Director  
Office of Environmental Quality Control  
465 South King Street, #104  
Honolulu, Hawaii 96813

FROM: Bertell D. Davis, Archaeologist  
546 Lauiki Street, #6  
Honolulu, Hawaii 96826

SUBJECT: DRAFT EIS--HAWAII CAPITAL DISTRICT  
ALAKEA/RICHARDS ST. PARKING LOT REDEVELOPMENT  
HONOLULU, OAHU; TMK 2-1-171-7, 8, and 17

These comments are addressed to the cultural/historical section of the above named EIS and the original archaeological report submitted by Cultural Surveys Hawaii.

The property consists of three parcels in the TMK system. Parcel 8, accounting for approximately 65% of the property, is the site of a City and County garage. Parcels 7 and 17, and part of Parcel 8, are presently open space. The existing garage is a pillar-and-slab structure without any major subterranean basement. Perusal of various archival documents such as the Dakin (1899) and Gurrey (1906) fire insurance maps and Hawaii State Registered Map 1151, in addition to sources cited in the archaeologist's report, show that the majority of the structures preceding construction of the City's Garage involved little in the way of mass earthmovement for foundations or basements. It is therefore highly probable that intact pre-historic and early historic deposits still remain on the site.

That this is so, or at least very probably so, is amply demonstrated by the archaeological finds of the past few years. Included among these are...

**Downtown.** The recently completed renovations at the Armed Forces YMCA which yielded material from the nineteenth century, including material from the old Hawaiian Hotel, and the Texaco Gas station site that yielded an impressive assemblage from the former Honolulu Soda Works. While little else in the way of controlled archaeological excavation has been undertaken in the downtown area, the fact that bottle collectors pot-hunting for nineteenth century bottles and ceramics have successfully looted major cultural/historical sites, such as at Century Square, the old Alexander Young Hotel, the Executive Centre, and the State District Court, clearly attests to potential of these downtown sites, and to the continuing uncontrolled loss of this potential.

**Kakaako.** The recent excavations around the Honolulu Iron-works and along South Street, the latter of which recovered

DRAFT EIS  
ALAKEA/RICHARDS ST.  
PARKING LOT REDEVELOPMENT  
-2-

burials that were in part identified as being victims of the small pox epidemic that swept Honolulu early in the 1850s. The DOT Garage site which yielded significant cultural remains dated from AD 1250-1450, and possibly evidence of even earlier cultural activity around AD 600-800. Then there is the State Judiciary site which has yielded substantial information on the initial urbanization of Kakaako beginning in the 1880s.

**Waikiki.** The Liliuokalani Gardens, the Halekulani Hotel, the Hilton Hawaiian Village, and the Hale Koa Hotel, all of which yielded numerous Hawaiian burials and substantial associated cultural remains. This has been added to significantly by the recent investigations at the Moana Hotel site which found intact prehistoric cultural features, as well as midden (food remains), artifacts, and at least four human burials from the basement and directly underlying main load-bearing walls of the masonry portion of the hotel. And more recently, continuing work in Waikiki has identified fishponds and 'auwai, and their associated habitation sites buried by the Waikiki Reclamation Project of the 1920s. Collectively, the new findings have documented a sequence of prehistoric settlement in the Waikiki area beginning as early as the mid-1300s.

Given this general background regarding the potential for surviving archaeological remains in urban Honolulu, Cultural Surveys Hawaii's report starts off in a very positive direction. I am certainly in complete agreement with the archaeological consultant's preliminary findings, their archaeological update which--in similar fashion as I have outlined above--convincingly argues the likelihood of surviving cultural/historical remains on the property, and their final assessment of the potential significance of the property. It is clear that consultant is aware of what has been successfully accomplished in the arena of urban archaeology.

It is precisely because of their awareness that I find their ultimate recommendations so disheartening; recommendations which appear backpeddling at best. We are talking about the former house sites of Abner Paki, William Sumner, and John Voss, people of historical importance during the early years of the Hawaiian Kingdom. They were certainly personages who had "national" influence. Yet, the consultant states...

"...a presentation of potential significance may be far removed from the reality of what survived the most recent demolition and construction of the



present parking structure. However, the portion of the project area fronting Hotel Street may have been unaffected by early 1960s construction (page D 25).

While this may be true, it is quite frankly immaterial and has the very real potential of being a red herring. The archaeologist's responsibility is to straightforwardly assess potential archaeological significance based on established criteria. This has not been done; there is no reference to 36 CFR 60 which lists the established criteria by which archaeological sites are to be measured.

The consultant then recommends that "archaeological test excavations consisting of 4-8 backhoe trenches within the project area following demolition, but preceding construction" (ibid). And further, "if significant cultural materials are found in the backhoe trenching, then archaeological monitoring of the excavation of building foundations and utility lines should be required" (ibid).

Neither of these recommendations, as stated at this time, are warranted or acceptable. This most especially applies to the consultant's caveat concerning expediency. Moreover, monitoring has never been an acceptable means of mitigating the loss of significant--which I assume to mean intact--deposits.

Having once assessed the potential significance of a site, it is the responsibility of the archaeologist to recommend appropriate actions that are in keeping with guidelines established by the National Advisory Council on Historic Preservation in 36 CFR 600. This also has not been done by the consultant. While there are federal regulations, they serve as the standard for most professional archaeologists regardless of whether a given project is in the private or public sector.

I strongly argue that the following be considered for inclusion in the final EIS, and, in consultation with the State Historic Preservation Office, that the recommended actions be undertaken.

1. Based on archival documentation of the history of land-use in the subject property, the site is considered to be potentially significant mainly in terms of criterion B and D, as provided in 36 CFR 60, which states in part that a given property may be considered potentially significant if...

- B. It is associated with the lives of persons significant in our [in this case, Hawaiian] past; and,
- D. It has yielded, or may be likely to yield, information important in prehistory or history.
2. Although there is as yet no direct evidence to indicate that intact prehistoric and/or early historic cultural deposits have indeed survived at this site, there is sufficient circumstantial evidence to warrant such consideration. Therefore...
3. It is recommended [a] that the property be archaeologically monitored during demolition, thereby allowing an informed assessment of the condition of the upper levels of the property, and [b] that a systematic subsurface reconnaissance be conducted so as to ascertain the presence of intact cultural deposits, their probable extent, depth, complexity, and age.
4. The strategy and methodology for this subsurface survey should be set forth in a research design approved by the State Historic Preservation Office. Most importantly, considering the wealth of historic material available, this research design should include a background summary of pertinent archival and cartographic data which will assist in selecting test locations. Implementation of this subsurface reconnaissance should not proceed prior to final acceptance of the research design.
5. In the event significant intact archaeological deposits are located by the subsurface reconnaissance, the State Historic Preservation Office should be notified and the site assessed as to the possible need for expanded data recovery excavations. And,

6. Should the subsurface reconnaissance not locate intact cultural deposits on the property, data recovery excavations may not be necessary; however, archaeological monitoring of all foundation and utility excavations is still recommended in the event that undocumented remains are encountered.

cc: State Historic Preservation Office  
C&C Dept. of General Planning  
C&C Dept. of Housing and Community Development  
Parsons Hawaii

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

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FRANK FASO  
DIRECTOR

MICHAEL SCARFONE  
DIRECTOR

RONALD B. HUI  
DEPUTY DIRECTOR

Mr. Bertell D. Davis  
January 3, 1990  
Page Two

As a final note, due to safety considerations and the existing heavy public usage of the parking garage, the archaeologists were unable to drill or excavate to determine the depth of its foundation. They will carefully observe the garage's demolition and coordinate with the SHPO to determine the potential survival of intact remains and develop a plan for resource recovery.

Mr. Bertell D. Davis  
546 Lauiki Street  
Honolulu, Hawaii 96826

January 3, 1990

Dear Mr. Davis:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alakea/Richards Parking Lot  
Redevelopment

Thank you for your comments of November 13, 1989 on the DEIS. The following responds to your comments:

We concur with your assessment of the potential significance of the subsurface deposits, and this potential is addressed in the DEIS. More specific investigation following demolition of the existing garage will show if intact subsurface cultural materials are present.

The recommendations section of the archaeologist's report should have more thoroughly explained the need for full-scale data recovery before construction if significant historic deposits are found in the post-demolition testing, and this will be clarified in the final EIS. Clearly this data recovery, if called for, would be fully coordinated with the DLNR Historic Sites Section (SHPO). It would also be advisable for an archaeologist to inspect the site in the final phases of demolition to determine whether historic materials are being exposed. The developer and its consultants have and will continue to coordinate all their work with DLNR's Historic Sites Section.

Sincerely,

MICHAEL N. SCARFONE  
DIRECTOR

DEPARTMENT OF LAND UTILIZATION  
**CITY AND COUNTY OF HONOLULU**

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FRANK P. ZISH  
DIRECTOR

JOHN P. HALLZER  
DIRECTOR

DELAUNE E. LEE  
DEPUTY DIRECTOR

LUI0/89-6502(DEB)

November 13, 1989

Marvin T. Miura, Ph.D., Director  
Office of Environmental Quality Control  
465 S. King Street, #104  
Honolulu, Hawaii 96813

Dear Dr. Miura:

Alakea/Richards Parking Lot Redevelopment  
Draft Environmental Impact Statement (DEIS)  
Downtown Honolulu, Oahu  
Tax Map Key 2-1-17: 07, 08, and 17

We have reviewed the DEIS for the above described project and offer the following comments. Comments 3-6 speak to specific issues of compliance with the Land Use Ordinance (LUO).

1. Reference, Pages 1-4, 10-3

Has any contact made with the Historic Sites Section of ULNR regarding the possibility of the presence of historic or prehistoric resources at this site and appropriate archaeological testing measures?

If significant cultural resources are discovered in the backhoe testing, archaeological monitoring will be required and immediate contact should be made with the Historic Sites Section of the State Department of Land and Natural Resources (DLNR).

2. Reference, Page 1-9

The mitigation measures and transit amenities/incentives are very appropriate. However, these are suggestions that will prove worthless unless serious steps are taken to implement them within the design and intent of the project. For instance, will bike racks be provided in a secured, covered area with reasonable access? Will there be incentives for employers who encourage employees to utilize alternative transportation?

Harvin, T. Miura, Ph.D., Director  
Page 2

3. Reference, Pages 1-13, 10-51

The EIS should state the justification for the proposed waiver of the 20-foot setback. The justifications should be supported in the final EIS by design objectives which (a) preserve the alignment of existing buildings on Richards Street, and (b) create a strong edge along Richards Street.

4. Reference, Page 5-8, Open Space

There is no discussion of whether the proposed project complies with the Land Use Ordinance (LUO) Hawaii Capital Special District open space requirements. This discussion should be included in the final EIS.

5. Reference, Page 5-9

It is stated that the Alakea Street tower will have an approximate height of 282 feet, which is 12 feet over the Judiciary Precinct's allowable height. The DEIS does not state how tall the Richards Street base will be and if the base will be in conformance with the Historic Precinct's allowable height of 65 feet.

The EIS should state the justifications for requesting a waiver of the height limitations. All height limits around the perimeter of the Hawaii Capital District Historic Precinct were determined based on the same transitional height methodology.

6. Reference, Pages 6-4, 10-48

Section 6.04, "Reduced Scale," says nothing with respect to development in compliance with height, setback and possible open space regulations. It goes without saying that "a reduced scale . . . would represent a low intensity of use of the site." What needs to be explained is why the project cannot comply with the LUO, and how compliance would affect the intensity of development at this site.

7. Reference, Pages 10-2, 10-48

Conclusions regarding construction-related vibrations are reached utilizing data from studies conducted on the Mainland. The DEIS

Harvin, T. Miura, Ph.D., Director  
Page 3

clearly states that none of the studies were conducted in Hawaii which has a very different soil and "bed rock" composition. The information provided in the DEIS does not justify the conclusion that "neither demolition (other than by explosives) nor construction (other than pile driving) will generate vibrations of a building damaging magnitude." An attempt should be made to either utilize comparable data or to conduct a vibration study in Hawaii.

In addition, are there any available measures to mitigate the vibration effects on the surrounding environment?

8. Reference, Page 10-7

It is stated in the last paragraph that the "developer is considering possible measures to mitigate effects of construction noise." Please specify in the text exactly which mitigation measures are being considered.

9. Reference, Page 10-14

The revenue generated by the proposed project is clearly stated. However, what are the revenues generated by the existing land use at this site? This information is necessary in order to make a comparison of the two land uses.

10. Reference, Page 10-46

The last paragraph states that because the garage would be enclosed, it would adequately control typical facility noises, such as screeching tires during vehicle turning within the garage. Are there particular construction materials which might be utilized in the garage to reduce or eliminate noise from screeching tires?

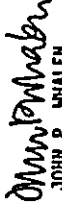
11. Reference, Page 10-53

Section 10.11, "Shadow Impact," is unacceptable in scope and depth especially in view of the magnitude of the proposed project. If a shadow study has been conducted, the results should be included in the text of the final EIS. If a shadow study has not been conducted, one is suggested in order to validate conclusions concerning shadow impacts.

Harvin, T. Miura, Ph.D., Director  
Page 4

Thank you for the opportunity to offer comments for this project and we look forward to reviewing the final EIS. If you have any questions, please contact Diane E. Borchardt of our staff at 527-5389.

Very truly yours,

  
JOHN P. WHALEN  
Director of Land Utilization

JPM:s1  
0251N/6-9  
cc: Department of Housing & Community Development  
✓ Parsons Hawaii

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FRANKIE FASI  
CLERK

MICHAEL N. SCARFONE  
DIRECTOR  
ROBERT B. HUN  
DEPUTY DIRECTOR

Donald A. Clegg  
January 4, 1990  
Page Two

January 4, 1990

MEMORANDUM

TO: DONALD A. CLEGG, DIRECTOR  
DEPARTMENT OF LAND UTILIZATION

FROM: MICHAEL N. SCARFONE, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE  
PROPOSED ALAKEA/RICHARDS PARKING LOT REDEVELOPMENT

Thank you for your comments of November 13, 1989 regarding the subject DEIS. The following responds to your comments:

1. The archaeologists coordinated with DLR's Historic Sites Section to develop their report and will conform to DNR direction on appropriate measures to be taken if significant cultural resources are discovered.
2. The developer will provide bike racks in a secured, covered and accessible area. Tenants' employees will be encouraged to utilize alternative modes of transportation due to the anticipated premium market parking rates which will be in effect in the new building.
3. The site plan evolved from a series of discussions with representatives from City agencies including the Departments of Finance, Land Utilization and Housing and Community Development, and the State Department of Accounting and General Services. Justifications for any waivers of the Land Use Ordinance will be based on the presence of "public government facilities" such as State and public parking stalls and City office space in the project. Our design objectives use the YMCA's Richards Street seven foot setback from the property line to align the proposed building. This has been clarified in Sections 1.05 and 10.10.

4. The open space portion of the site as presently utilized is 34%. The LHO open space and other requirements have been used as guidelines in the project's architectural design, and will be appropriately reviewed in the project's application for a Special District permit. Including the arcade areas, the present plan provides nearly 50% open space.

5. Government-related facilities in the project including 235 replacement public parking stalls, 432 State-required parking stalls and approximately 70,715 gross square feet of City office space generated the building's height and width. Respect for the Capital District and the nearby historic buildings dictated a sensitive approach to space utilization resulting in terracing back both buildings. The parking structure will be about 45 feet in height nearest Richards Street, but will terrace back to about 98 feet high at its interior maximum.

6. Analysis by the developer showed that, the addition of facilities from the City in terms of its office space and parking requirements and from the State in terms of its parking requirements, made the reduced-scale alternative economically infeasible. Section 6.04 has been augmented to clarify this.

7. The developer, to reduce noise and vibration impacts on the surrounding community, has opted to employ a mat-type foundation rather than piles. A mat foundation requires excavation, framing and pouring successive layers of concrete. The vibration levels associated with excavation are significantly less than those associated with pile driving.

Engineering-Science, Inc. did measure vibration attenuation characteristics of the soil at a construction project located at Site 9 on Figure 1 of the noise and vibration study. These data and other reported data for the Honolulu area were used to predict both surface excitation by construction equipment and excitation of the surface due to pile driving. These data were extrapolated to the project site to assess the impacts of construction of both pile and mat foundation types.

The measured vibration data taken by Engineering-Science and those reported by Dames and Moore for other sites in Hawaii show vibration levels at nearby building foundations due to pile driving to be respectively about

equal to and less than building damage criteria for older structures in poor condition. Building damage criteria do not change from site to site. Test data for mainland and Hawaii sites show that construction vibration levels for operations other than pile driving or blasting are well below historic building damage criteria. Section 10.09 has been clarified to reflect these points.

Measures to mitigate construction-related and operations-related vibrations have been studied. One such measure is to dig a trench between the construction site and the structure to be protected to intercept the ground waves. Unfortunately, trench-type mitigation between the project site and nearby sensitive receptors is often impractical because the trench depth must be of the same dimension as the wavelength of the lowest frequency of concern. For this project site, this could be on the order of 50-100 feet. Studies have shown that attenuation of vibrations by the trench method is relatively low, but can be enhanced by filling the trench with an elastic material. Polystyrene has been studied and found to improve the attenuation, but it introduces other health risks. Selection of a mat-type foundation for this project eliminates the need for mitigation of construction-related vibrations.

8. The most obvious mitigation of potential noise impacts is the decision to employ a mat foundation rather than driving piles. In the social impact assessment it was noted that one of the most annoying noises around construction sites is the backup alarms required on trucks and other equipment. The developer will work with the general contractor to try to devise delivery routes which minimize backing.

9. Net parking revenue to the City in fiscal year 1988-89 was approximately \$270,000.

10. We are unaware of construction materials or techniques which would reduce or eliminate tire noises in the parking structure. Noises generated within the parking facility would not impact exterior areas or the interior of the office building because the garage will be completely enclosed.

11. A shadow impact study by the architects indicated that shadowing impacts on adjacent properties would be negligible. We will include information on the methodology, results and conclusions of this study in the final EIS.



MICHAEL N. SCARFONE  
DIRECTOR

89-11-3125

DOWNTOWN NEIGHBORHOOD BOARD NO. 13  
c/o NEIGHBORHOOD COMMISSION OFFICE  
CITY HALL  
HONOLULU, HAWAII 96813



November 19, 1989

Michael N. Scarfone, Director  
Dept. Of Housing And Community Development  
650 S. King Street, 5th Floor  
Honolulu, HI 96813

RE: Alakea/Richards Parking Lot Redevelopment DEIS

Dear Mr. Scarfone:

The Downtown Neighborhood Board (#13) has reviewed the above-noted DEIS and has the following comments.

- I. Concerning the traffic study, we have all the same objections that were raised relative to the Block J (Pacific Nations Center) DEIS. As a general statement, we find the study difficult to believe due to numerous apparent errors and the failure to take into account the specific traffic patterns of the Central Business District. One very good example of apparent errors is the current traffic count for Alakea Street between Hotel Street and Beretania Street during the PM peak hour. Figure 12 shows 2444 vehicles entering that one block stretch of Alakea Street, but only 730 leaving it. What happened to the missing 1,700 cars? Another good example occurs in Table 12 (page 10-24). Honolulu Park Place is a residential condominium having about 400 units. Nevertheless, it is shown as generating 4,654 trips per day. This does not seem reasonable.
- Even accepting the report, the following is obvious. AM Peak Hour traffic will increase from 737 cars per hour turning from King onto Alakea to 1228. All this traffic increase must be born by two left-turn lanes. Similarly, traffic coming down Richards (one lane) will increase from 526 to 954. How will these traffic flows be mitigated?
- Despite claims in one section of the report that the parking on the subject site would help ease the downtown parking problem, on page E-34, the drafters acknowledge that the number of parking stalls downtown is not keeping up with the amount of office space being built. It should be remembered that much of the parking in the Alakea/Richards project simply replaces stalls being eliminated elsewhere downtown by the State and stalls already on site at the existing public facility. Furthermore, the proposed parking will not even meet the demands of the subject commercial/office space as the parking for the City's 71,000 square feet of offices will have to be provided off-site.

The statement on page 10-10 that "It is possible that the users of State spaces in the building would free up public and other spaces in the area, easing the parking problem

slightly" is naive in the extreme, as State employees pay monthly rates far below market and are not likely to give up such a benefit without some substantial alternative being made available. Furthermore, the State payroll appears to be growing, not shrinking.

Concerning air quality, measurements from the Hawaii Department of Health Building are made *mainly* of the bulk of the parking lots in the CBD. Therefore, we are skeptical of any conclusions drawn from such data. The tremendous increase in parking stalls scheduled for a one block radius from the subject site would require an enormous reduction in the emissions per car or a very rapid retirement of older cars from use, or both. We feel that it is imperative that pollution measurements be made at ground level in the vicinity of the subject project and that estimates of pollution levels be made for the interior of the parking structure, too. The history of the Pan Pacific Plaza (at the old Kress site) haunts the City, which rendered a negative declaration on parking for that project.

Also, as our recent interlude with VOG reminds us, there may be periods of natural contamination. That aspect was entirely ignored in the DEIS and we feel it warrants attention.

Finally, the analysis of alternatives is a farce. In particular, section 6.04 dealing with "Reduced Scale" totally ignores the impact of reducing the number of parking stalls or changing their distribution from subsidized monthly parking to hourly public parking. The impact on peak hour traffic likely would be measurable, as the State's stalls will almost surely be used by employees following typical peak hour traffic patterns.

Thank you for the opportunity to comment on the Alakea/Richards DEIS.

Very truly yours,

Andrew Rothstein, Chairman

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

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FRANK FARI  
MAYOR

MICHAEL R. SCARFONE  
DIRECTOR

RONALD B. HUN  
DEPUTY DIRECTOR

Mr. Andrew Rothstein  
January 4, 1990  
Page Two

January 4, 1990

Mr. Andrew Rothstein, Chairman  
Downtown Neighborhood Board No. 13  
c/o Neighborhood Commission Office  
City Hall  
Honolulu, Hawaii 96813

Dear Mr. Rothstein:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alakea/Richards Parking Lot  
Redevelopment

Thank you for your comments of November 19, 1989 on the DEIS. The following respond to your concerns:

1. There is a typographical error in the traffic count shown in Figure 12 which has been corrected. The count for traffic proceeding mauka on Alakea Street through the Beretania Street intersection should have read 1391 rather than 391. The correct value was used in the level-of-service calculations. The counts used for the intersections included in the traffic study were made in the course of several studies over a period of six to eight months. The counts will not balance precisely from intersection to intersection due to daily, seasonal and other variables.

Total trips generated by the Honolulu Park Place development (4,654) were arrived at assuming the proposed building's 509,734 square feet would be used for office space. Instead, the project will consist of 437 luxury condominium units which would generate an estimated 2,224 daily trips. Thus the cumulative 1993 background conditions have been overestimated. However, this would not affect the assessment of project-related impacts because the primary criterion used to determine significance is the change in volume/capacity (V/C) ratio induced by the project.

An addendum has been added to the traffic study which examines the traffic implications of the driveway locations and parking access scheme adopted for the final design. Included are mitigation measures needed to handle the increase in PM peak hour traffic at intersections immediately surrounding the site. AM peak hour impacts were not considered significant based on the criteria used in the traffic study. Please refer to Section 10.07 for identification of proposed mitigation measures for Richards Street at the Hotel Street and Beretania Street intersections. This section of Richards Street is presently two lanes, not one, and can be restriped to provide two through and one right turn lane.

II.

The requirements for and allocation of parking spaces in this redevelopment were established by the City's request-for-proposal and finalized in the City's Agreement between the City and the developer. Although this project will not significantly increase the number of public parking stalls, two other City parking lots planned for redevelopment include new parking stalls. The Smith Beretania parking lot with 129 stalls at present is being designed for approximately 400 stalls. The Pacific Nations Center site with 206 stalls is planned for an additional 294 stalls. These additional stalls will to an extent help relieve overall parking demand downtown. The statement referenced on page 10-10 of the DEIS will be deleted as speculative.

III.

Data from the State of Hawaii air quality monitoring network were used. These are the only available long-term data for CO. The station is EPA-approved and intended to provide "background" data. It is not intended to provide "worst-case" or "hotspot" CO measurements at the tailpipe level.

To examine further the problem of concentrations of pollutants in the enclosed parking structure, the analysis was repeated using a "box model" and a MOBILE3 emission factor of 146.3 grams/mile (5 mph, 21°C, 100% cars, capacity filled in one hour for Basement 2). The resulting maximum 1-hour CO concentration is estimated to be 2,400 ug/m. Using the assumption that the 8-hour CO concentration is 60% of the maximum 1-hour concentration, a maximum 8-hour concentration of 1,440 ug/m is obtained. Assuming background CO concentrations



Mr. Andrew Rothstein  
January 4, 1990  
Page Three

of 4,700  $\mu\text{g}/\text{m}^3$  (8-hour) and 13,500  $\mu\text{g}/\text{m}^3$  (1-hour), total garage CO concentrations are found to be 6,140  $\mu\text{g}/\text{m}^3$  for 8-hour periods.

Ventilation of the parking structure would consist of pulling air in from the Hotel Street side of the building and exhausting the air along the opposite side. Separate vents would exhaust each floor of the parking garage. Exhaust vents would be located on each floor near the building corners at Alakea and Richards Streets. Vent heights would range from 18 to 60 feet above the sidewalk to avoid increasing concentrations of pollutants at pedestrian level.

Using EPA's MOBILE3 emission factor (65.14 g/mi) and traffic volumes at the Nuuanu Avenue-Vineyard Boulevard intersection, estimated concentrations were obtained. The model was run using worst-case meteorology which included a low wind speed (1.0 m/s) and very stable (F) conditions. The wind was varied about the compass at 25 degree increments and 1993 cumulative plus project PM peak hour traffic volumes were incorporated. Ten receptors were situated curbside of the intersection. The results predict a worst-case maximum 1-hour increase of 13.0 ppm (15,600  $\mu\text{g}/\text{m}^3$ ) to existing maximum 1-hour ambient CO concentrations, to give a total worst-case maximum 1-hour concentration of 29,100  $\mu\text{g}/\text{m}^3$ . Using the assumption that the eight-hour CO concentrations are 60% of the 1-hour concentrations, a total worst-case maximum 8-hour concentration of 14,060  $\mu\text{g}/\text{m}^3$  is obtained.

Volcanic eruptions are fundamentally different than combustion of fossil fuels in their contribution to atmospheric pollution. The pollutants characteristic of VOG are primarily sulfur dioxide and particulate matter. As can be seen in the data presented in Table 1 of the air quality report, over the past three years, a period of continuous volcanic activity, ambient concentrations of these pollutants in Honolulu have never approached the limits set in State and Federal standards. Carbon monoxide is not a significant component of Honolulu's VOG, and cumulative impacts with automobile emissions are negligible.

Mr. Andrew Rothstein  
January 4, 1990  
Page Four

IV. In order to achieve the intended goal of having the project constructed at no cost to the taxpayers, it is necessary that the project be economically feasible to the developer. To significantly reduce the commercial office space without concomitant reductions in City office space and State and public parking would render the project economically infeasible.

Sincerely,



MICHAEL N. SCARFONE  
DIRECTOR



THE LEAGUE  
OF WOMEN VOTERS OF HONOLULU

November 20, 1989

To: Department of General Planning  
Office of Environmental Quality Control  
Department of Housing and Community Development  
Parsons Hawaii

We submit the following comments on the draft EIS for the Alakea-Richards Parking Lot Redevelopment:

During the past three years our organization has seriously questioned two downtown office building projects--the Pan Pacific office building adjacent to Union Hall and the office building and garage on the Alakea-Richards site.

With respect to the first, our concerns were the great increase in floor area -- some 150,000 or more square feet -- permitted by use of the publicly-owned Union Hall as "open space" for floor area bonuses under the LIO. We felt that the addition of some 800 parking garage stalls in this already congested area would result in increased traffic, parking and loading activity, with resultant slowing of bus and automobile traffic on Bishop and other adjacent streets and resulting increased air pollution.

In the second proposal above, we were concerned that the 80% open space requirement and 65-foot height limits of the Historic Precinct of the Hawaii Capitol District, in which the site was located, were rendered moot by LIO amendments removing the site from the Precinct and creating a new spot zone called the Alakea-Hotel Precinct, with only half the open space requirement and three or four times the height previously permitted. This, of course, allowed greater density and, in fact, present plans call for a high-rise building with some 800 to 1,000 garage spaces -- a four-fold increase over those now on the site.

We have long urged that the City and State encourage employees to use bus transit by restricting, rather than augmenting, the number of low-priced, subsidized car parking spaces made available to them. We feel that supplying ever more parking facilities downtown, whether for government employees or the general public, only creates more traffic, more congestion, and more air pollution and conflicts with the policy of encouraging mass transit which both City and State espouse.

With specific reference to the draft EIS for the Alakea-Richards proposal, we have a number of questions dealing primarily with its impacts on air quality:

1. We think that the most important problem is air pollution at street level -- on the sidewalks and street intersections downtown workers and shoppers have to walk on and breathe in. Were the ambient air quality levels (page G-4) measured at street level, where carbon monoxide would be greatest?

2. With the proposed widening of Richards Street and the addition of 600 or 700 automobile spaces above the present garage capacity, we think characterization of the project's impact as "insignificant" is questionable. As in the Union Hall case, we

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fear that at peak hours the ingress and egress of hundreds of cars will create street congestion and air pollution.

3. The present Alakea-Richards parking facility has an open-sided ground floor and an open-air roof-top level. The proposed garage is enclosed, with two underground levels and five above ground. Was the carbon monoxide concentration discussed on p. G-11 based on appropriate models for such a garage?

4. Is the cited maximum "worst case" peak hour volume of 1,614 vehicles per hour at an intersection (p. G-14) correct? The July 1989 issue of the Downtown Improvement Association's "Downtown" shows some 25,000 parking stalls already existing or under construction in the downtown-Civic Center area. With only a few major downtown traffic arteries, an average of at most 27 cars per minute at a major downtown intersection seems lower than every-day experience would indicate.

In conclusion, we think that any large downtown project seriously impacts upon what is already a congested area with significant air pollution. We urge a very careful analysis of these impacts before any more projects of this type -- and their parking garages -- are approved by the Office of Environmental Quality Control.

Sincerely

*Astrid Monson*

Astrid Monson, Chair  
Planning and Zoning Committee

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

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FRANCE FARM  
44100

MICHAEL A. EGARFONE  
DIRECTOR  
RONALD B. MUN  
DEPUTY DIRECTOR

Ms. Astrid Monson  
January 3, 1990  
Page Two

January 3, 1990

Ms. Astrid Monson, Chair  
Planning and Zoning Committee  
The League of Women Voters of Honolulu  
49 S. Hotel Street, Room 314  
Honolulu, Hawaii 96813

Dear Ms. Monson:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alakea/Richards Parking Lot  
Redevelopment

Thank you for your comments of November 20, 1989 on the DEIS. The below paragraphs respond to your numbered comments.

1. Data from the State of Hawaii air quality monitoring network were used. These are the only available long-term data for CO. The station is EPA-approved and intended to provide "background" data. It is not intended to provide "worst-case" or "hotspot" CO measurements at the tailpipe level. The air quality study did not measure ambient levels at street level or elsewhere because a small number of measurements concentrated in space and time do not provide a valid statistical background and may seriously underestimate or overestimate ambient concentrations.

2. The subject project does not propose to widen Richards Street, and we are unaware of any proposal which does.

The project contains 1,000 parking stalls, but does not add 1,000 stalls to the area's inventory. 219 of the 235 public parking stalls replace those now on the site. The City does not want to reduce the number of available public parking stalls. The 432 State and Hemmeter Corporation stalls in part replace those lost from the former Armed Forces YMCA lot (about 100), those lost from the area around the

King Kamehameha statue in front of the Aliiolani Hale and those to be removed from the Iolani Palace grounds. Satisfaction of these prior commitments by the State was the subject of a separate agreement between the City and the State, and was made a part of the Development Agreement between the City and the developer of this project. The number of new stalls in this project is actually in the 350-500 range, with most of these intended to serve new tenants. Without these parking stalls, the building would not be attractive to new tenants, would not be marketable by the developer, and therefore, the redevelopment, with its numerous positive impacts, would be infeasible. Furthermore, the provision of considerable new open space in the Capital District is a result of this project's capacity to provide parking for the Hemmeter building.

The EIS does not conclude that the project's impacts are insignificant. There are significant long-term impacts in the areas of traffic and air quality and short-term impacts associated with construction. To the extent possible, mitigation measures are proposed. On the other hand, however, the project will stimulate economic development and employment in the private sector, satisfy a portion of the demand for downtown office space, stimulate nearby service businesses, increase membership and use of services and facilities at the YMCA, increase City and State revenues from various sources, provide City office space, provide State parking space, and enhance the aesthetics of the Capital District. On balance, the benefits of the redevelopment far outweigh the negative impacts.

3. To examine further the problem of concentrations of pollutants in the enclosed parking structure, the analysis was repeated using a "box model" and a MOBILE3 emission factor of 146.3 grams/mile (5 mph, 21<sup>st</sup>, 100% cars, capacity filled in one hour for Basement 2). The resulting maximum 1-hour CO concentration is estimated to be 2,400 ug/m<sup>3</sup>. Using the assumption that the 8-hour CO concentration is 60% of the maximum 1-hour concentration, an 8-hour concentration of 1,440 ug/m<sup>3</sup> is obtained. Assuming background CO concentrations of 4,700 ug/m<sup>3</sup> (8-hour) and 13,500 ug/m<sup>3</sup> (1-hour), total garage CO concentrations are found to be 6,140 ug/m<sup>3</sup> for 8-

Ms. Astrid Monson  
January 3, 1990  
Page Three

hour periods. Two clarifications of these conclusions are necessary. First, you will note that the bulk of the CO represents the baseline ambient concentration drawn into the facility from outside. In fact, this baseline level is the highest level measured by DOH during the last three years. Second, the box model used does not effectively incorporate the mitigating effect of the garage's ventilation system. It is planned to install the latest in garage ventilation technology to minimize buildup of CO and other pollutants in the garage.

4. The number to which you refer is the change in peak hour traffic volume due to the project and all the other foreseeable projects scheduled to be constructed in the area during the next five years. The 27 vehicles per minute is not the total number of vehicles passing through this intersection, but rather the total increase over existing conditions.

Sincerely,



MICHAEL N. SCARFONE  
DIRECTOR



JOSEPH K. CONANT  
EXECUTIVE DIRECTOR

STATE OF HAWAII

DEPARTMENT OF BUDGET AND FINANCE

HOUSING FINANCE AND DEVELOPMENT CORPORATION

8701 WATERFRONT PLAZA, SUITE 208

808 ALA MOANA BOULEVARD

HONOLULU, HAWAII 96813

TEL (808) 543-4441

JOSEPH K. CONANT  
EXECUTIVE DIRECTOR

IN REPLY REFER TO:

89:PLNG/5661 jt

November 14, 1989

MEMORANDUM

TO: Dr. Marvin T. Miura, Director  
Office of Environmental Quality Control

FROM: Joseph K. Conant

SUBJECT: Draft Environmental Impact Statement for the Proposed  
Alakes/Richards Street Parking Lot Redevelopment

We have reviewed the subject draft EIS and have no comments to offer.

Thank you for the opportunity to comment.



JOSEPH K. CONANT  
Executive Director

cc: Dept. of Housing and Community Development  
/Parsons Hawaii

89-11-3123



# CONSERVATION COUNCIL for HAWAII

A CITIZENS' ORGANIZATION PROMOTING ENVIRONMENTAL HEALTH AND EDUCATION,  
CONSERVATION AND MANAGEMENT OF HAWAII'S NATURAL RESOURCES

November 21, 1989

Mr. Michael Scarfone, Director  
Dept. of Housing and Community Development  
650 S. King St., 5th Floor  
Honolulu, HI 96813

Dear Mr. Scarfone:

Re: Draft EIS Alakea/Richards Parking Lot Redevelopment

We have reviewed the subject draft EIS and submit the following comments for your review and response.

Comments on Air Quality Report (Appendix G):

- Page G-4: Ambient air quality was characterized using data collected by the State Department of Health several blocks away at the DOH building. Since such measurements are taken near the top of that building (3rd & 4th stories) they are not representative of street level pollutant concentrations. In the case of automotive pollutants such as carbon monoxide, street level concentrations would be higher.
- Page G-8: The EMFAC7PC model was used to calculate vehicle emission factors. This model was designed specifically for California and not intended for use in other states (references 1 & 2). Because California has more stringent vehicle emission standards, the EMFAC7PC model would UNDERESTIMATE vehicle emissions in other states.
- Page G-10 and Table 5: The text and table compare pollutant concentration estimates to "significance levels" and conclude that the project's impact is "insignificant". The "significance levels" referred to come from federal rules and pertain to federal air quality standards. In the case of carbon monoxide, the state standard (10 milligrams per cubic meter) is much more stringent, i.e., only 1/4 of the federal standard (40 milligrams per cubic meter); thus, the federal "significance level" should also be divided by 4 to make it comparable to the state standard.
- Pages G-11 & G-12: The parking garage analysis was based on a "parking lot" option of the CALINE4 dispersion model. It appears questionable at best to use an ABOVE GROUND parking lot model for a TOTALLY ENCLOSED, underground parking garage. The very low carbon monoxide concentration estimate (less than 1 part per million (ppm) presented on page G-12 further indicates the dubious nature of this analysis.
- Page G-14: The "cumulative air quality analysis" was also highly suspect. It is difficult to believe that the traffic contributions of TEN development projects downtown plus the

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DEPT. OF HOUSING AND COMM. DEVELOPMENT

Mr. Michael Scarfone, Director  
November 21, 1989

Alakea-Richards Redevelopment will only cause a 1.7 parts per million rise in carbon monoxide level at the "worst case" intersection. The text referred to a "maximum peak hour traffic volume (1,614 vehicles per hour)" when substantially higher traffic volumes were shown in the Traffic Impact Analysis (Appendix F) at the Nuuanu Avenue - Vineyard Boulevard intersection.

6. The net result is that despite the EIS claims of "worst case" and "conservative (over predicting) assumptions", quite the opposite seems to be true. The analysis appears to have underestimated the air quality impact of the proposed project, perhaps seriously. A proper and accurate impact analysis should be completed and subjected to public review before this EIS is accepted. It is important that government decision-makers and the public are aware of the impacts associated with development projects before the projects proceed.

7. What are the impacts of the garage ventilation system? Where are the exhaust vents? What is down wind of these vents?

8. CCH has long supported mass transit for O'ahu. But isn't the proposal of 1,000 more parking stalls which will attract more motor vehicles into an already congested area contradictory to the City's mass transit plans?

9. Shouldn't the parking garage be reduced substantially or eliminated?

10. What measures are incorporated for prevention of motor vehicle exhaust gases into the office building? Indoor air pollution is of concern in Hawaii.

11. Mitigation measures on page 1-9 are described as measures which "could" be done. What mitigation measures "will" be done?

Yours truly,

*Mike Scudder*

Rick Scudder,  
Chairman

cc: Dept. of General Planning  
OECC

References:

- User's Guide to Mobila3 (Mobile Source Emissions Model), U.S. Environmental Protection Agency, EPA-600/3-84-002, June, 1984
- AQAT-2 (Air Quality Analysis Tools), California Air Resources Board, 1987.

State Board of Air Quality  
P.O. Box 2913  
Honolulu, Hawaii 96802

Mike Scudder  
P.O. Box 212  
Honolulu, HI 96811

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DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

630 SOUTH KING STREET, 8TH FLOOR  
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FRANK FASI  
MAYOR

MICHAEL N. SCARFONE  
DIRECTOR

RONALD B. HUN  
DEPUTY DIRECTOR

Mr. Rick Scudder  
January 3, 1990  
Page Two

January 3, 1990

Mr. Rick Scudder, Chairman  
Conservation Council for Hawaii  
P.O. Box 2923  
Honolulu, Hawaii 96802

Dear Mr. Scudder:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alaeka/Richards Parking Lot  
Redevelopment

Thank you for your comments of November 21, 1989 on the DEIS. The paragraphs below respond to your numbered comments.

1. Data from the State of Hawaii air quality monitoring network were used. These are the only available long-term data for CO. The station is EPA-approved and intended to provide "background" data. It is not intended to provide "worst-case" or "hotspot" CO measurements at the tailpipe level.
2. With respect to the EMFAC7PC model used for emission modeling, for the final EIS an emission factor of 65.14 g/mi (from EPA's MOBILE3 emissions model) was used.
3. Although it is not inappropriate to use PSD significance levels to determine the significance of the project's impacts, in the final EIS project impacts are only compared with air quality standards.
4. To examine further the problem of concentrations of pollutants in the enclosed parking structure, the analysis was repeated using a "box model" and a MOBILE3 emission factor of 146.3 grams/mile (5 mph, 21°C, 100% cars, capacity filled in one hour for Basement 2). The resulting maximum 1-hour CO concentration is estimated to be 2,400 ug/m<sup>3</sup>. Using the assumption that the 8-hour CO concentration is 60% of the maximum 1-hour concentration, an 8-hour concentration of 1,440 ug/m<sup>3</sup> is

obtained. Assuming background CO concentrations of 4,700 ug/m<sup>3</sup> (8-hour) and 13,500 ug/m<sup>3</sup> (1-hour), total garage CO concentrations are found to be 6,140 ug/m<sup>3</sup> for 8-hour periods. Two clarifications of these conclusions are necessary. First, you will note that the bulk of the CO represents the baseline ambient concentration drawn into the facility from outside. In fact, this baseline level is the highest level measured by DOH during the last three years. Second, the box model used does not effectively incorporate the mitigating effect of the garage's ventilation system. It is planned to install the latest in garage ventilation technology to minimize buildup of CO and other pollutants in the garage.

5. The number to which you refer is the change in peak hour traffic volume due to the project and all the other foreseeable projects scheduled to be constructed in the area during the next five years. The 1614 vehicles per hour is not the total number of vehicles passing through this intersection, but rather the total increase over existing conditions.

Using EPA's MOBILE3 emission factor (65.14 g/mi) and traffic volumes at the Nuuanu Avenue-Vineyard Boulevard intersection, estimated concentrations were obtained. The model was run using worst-case meteorology which included a low wind speed (1.0 m/s) and very stable (F) conditions. The wind was varied about the compass at 25 degree increments and 1993 cumulative plus project PM peak hour traffic volumes were incorporated. Ten receptors were situated curbside of the intersection. The results predict a worst-case maximum 1-hour increase of 13.0 ppm (15,600 ug/m<sup>3</sup>) to existing 1-hour ambient CO concentrations, to give a total worst-case maximum 1-hour concentration of 29,100 ug/m<sup>3</sup>. Using the assumption that the eight-hour CO concentrations are 60% of the 1-hour concentrations, a total worst-case 8-hour concentration of 14,060 ug/m<sup>3</sup> is obtained.

6. As noted above, EPA's MOBILE3 emission factor has been used in the final air quality analysis, and the projected air quality impacts are greater than projected in the DEIS. With the exception of this factor, however, extremely conservative assumptions were used in the DEIS. For example, the "background" CO concentration was assumed to be equal to the highest concentration measured by DOH over the three most recent years for which data are available. Meteorological conditions were assumed

to be those most conducive to an accumulation of air pollutants. The worst possible location at the busiest intersection at the worst time of day was modeled. Furthermore, a likely decline in ambient CO concentrations over the next five years due to more stringent federal emission standards for newly manufactured vehicles and the mandated availability of cleaner burning fuels were not factored into the analysis. The net result of this combination of assumptions is a very conservative analysis which does show that there may be some significant impacts to air quality. The FEIS is responsive to the public comments received relative to the DEIS, and the final document provides decision-makers with the proper and accurate analysis necessary to weigh the balance between the potential benefits and impacts of the redevelopment.

7. Ventilation of the parking structure would consist of pulling air in from the Hotel Street side of the building and exhausting the air along the opposite side. Separate vents would exhaust each floor of the parking garage. Exhaust vents would be located on each floor near the building corners at Alakea and Richards Streets. Vents would exhaust towards the respective street. Vent heights would range from 18 to 60 feet above the sidewalk to avoid increasing concentrations of pollutants at pedestrian level. The adjacent YMCA is primarily ventilated with open windows. It has an exhaust for the shower rooms which vents near the center of the mauka courtyard. Intakes for the Jury Box building are low on the makai side of the building, well away from the proposed vent locations. Neither building would be impacted by the proposed vents.

8. The project contains 1,000 parking stalls, but does not add 1,000 stalls to the area's inventory. 219 of the 235 public parking stalls replace those now on the site. The City does not want to reduce the number of available public parking stalls. The 432 State and Hemmeter Corporation stalls in part replace those lost from the former Armed Forces YMCA lot, those lost from the area around the King Kamehameha statue in front of the Aliiolani Hale and those to be removed from the Iolani Palace grounds. Satisfaction of these prior commitments by the State was the subject of a separate agreement between the City and the State, and was made a part of the Development Agreement between the City and the

developer of this project. The number of new stalls in this project is actually in the 350-500 range, with most of these intended to serve new tenants. Without these parking stalls, the building would not be attractive to new tenants, would not be marketable by the developer, and therefore, the redevelopment, with its numerous positive impacts, would be infeasible.

9. For the reasons given in the above response, the parking garage cannot be reduced substantially or eliminated.

10. The parking garage and the office space are essentially two separate structures isolated horizontally. The parking structure will be a poured-in-place concrete structure, while the office tower above will be structural steel. The only vertical penetrations will be elevators, stairwells and chilled water lines. Elevators, ventilation systems and other mechanical systems will be independent for the parking garage and the office tower. Stairwells will be smokeproof enclosures. Chilled water lines will be sealed at all vertical penetrations.

11. During construction, all mandated dust and vehicle emission control regulations will be adhered to. During operation, the most effective mitigation measure will be to alter work hours of tenants to reduce peak hour trips. In this respect, the air quality analysis overestimates the impacts of the project because it assumes that a standard work day will be in effect for all users of the new building. In practice, however, many firms will allow some form of altered work schedule. In addition, appropriate bicycle parking areas (or perhaps lockers) will be provided.

Sincerely,



MICHAEL N. SCARFONE  
DIRECTOR

**AMERICAN**  **LUNG ASSOCIATION of Hawaii**  
The Christmas Seal People

November 21, 1989

Department of General Planning  
City & County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Sir:

Subject: Draft Environmental Impact Statement  
Alakea/Richards Parking Lot Redevelopment

We have reviewed the subject document with special attention to those sections pertaining to traffic and air quality and offer the following comments:

1. Appendix F, pages F-22 & F-23: The discounting of project-related trips generation by 50% needs further explanation. The discussion provided is inadequate and gives the traffic reduction the appearance of being arbitrary.
2. Appendix G, page G-4: Ambient air quality was characterized using data collected by the State Department of Health several blocks away at the DOH building. Since such measurements are taken near the top of that building, they are not representative of street level pollutant concentrations. In the case of automotive pollutants such as carbon monoxide, street level concentrations would be higher.
3. Appendix G, page G-8: The EHFAC7PC model was used to calculate vehicle emission factors. This model was designed specifically for California and not intended for use in other states [1,2]. Because California has more stringent vehicle emission standards, the EHFAC7PC model would underestimate vehicle emissions in other states. Using EPA's MOBILE3 emissions model and Honolulu's vehicle age distribution, we computed a 10 mph emission factor of 65.14 g/mi (in contrast to the EHFAC7PC factor of 21.83) which suggests that the EIS underestimated curbside carbon monoxide levels by at least a factor of 3.
4. Appendix G, page G-10 and Table 5: The text and table compare pollutant concentration estimates to "significance levels" and conclude that the project's impact is "insignificant". The "significance levels" referred to come from the federal Prevention of Significant Deterioration (PSD) rules and relate to federal air quality standards. In the case of carbon monoxide, the state standard (10 mg/m<sup>3</sup>) is much more

Department of General Planning  
November 21, 1989  
Page 2

stringent than the federal standard of 40 mg/m<sup>3</sup>; thus, if the federal "significance level" is to be applied, it should be reduced by 1/4 in order to retain the proper "significance" relationship with the state standard.

5. Appendix G, page G-12, Table 5: Applying a correction factor of 3 to the estimated CO concentrations and a correction factor of 0.25 to the "significance levels" would result in a determination of "significant" impact.

3 x 233 ug/m <sup>3</sup>	=	699 ug/m <sup>3</sup>	1-hr CO @ Richards St.
3 x 140	=	420	8-hr CO
3 x 816	=	2,448	1-hr CO on Parking Floor
3 x 490	=	1,470	8-hr CO

Significance levels: 1-hr: .25 x 2000 = 500 ug/m<sup>3</sup>  
8-hr: .25 x 500 = 125

6. Appendix G, pages G-11 & G-12: The parking garage analysis was based on a "parking lot" option of the CALINE4 dispersion model. It appears questionable at best to use an ABOVE ground parking lot model for a totally enclosed, underground parking garage. The very low carbon monoxide concentration estimate (816 ug/m<sup>3</sup>) presented on page G-12 further indicates the dubious nature of this analysis.

We have in the past (February-March, 1976) measured CO concentrations at the Alakea-Richards Garage and found peak-hour concentrations ranging from 25,000 - 36,000 ug/m<sup>3</sup>. More recently (11/21/89), we measured CO during an off-peak hour and found an average concentration of 13,200 ug/m<sup>3</sup>. On that particular day, we caught the tail-end of a morning peak hour when 1-minute CO averages were as high as 50,000 - 60,000 ug/m<sup>3</sup> (see attached Figure 1). It should be noted that the existing garage is above ground and open on 3 sides. Honolulu weather at the time of the measurements was partly cloudy skies and northeast tradewinds at 10 - 15 knots.

7. Appendix G, page G-14: The "cumulative air quality analysis" was also highly suspect. It is difficult to believe that the traffic contributions of ten development projects downtown plus the Alakea-Richards Redevelopment will only cause a 1.7 parts per million rise in carbon monoxide level at the "worst case" intersection. The text referred to a "maximum peak hour traffic volume (1,614 vehicles per hour)" when substantially higher traffic volumes were shown in the Traffic Impact Analysis (Appendix F) at the Nuuanu Avenue - Vineyard Boulevard intersection.



8. Using the aforementioned MOBILE-3 10 mph emission factor, the CALINE-4 dispersion model, and traffic volumes from Appendix F of the EIS, we modeled curbside CO levels at the Richards Street-King Street and Nuuanu Avenue-Vineyard Boulevard intersections. "Worst case" conditions included 1 m/sec windspeed, acute wind-road angle, "P" stability (A.M.) and "D" stability (P.M.). The results, depicted in Figures 2 and 3, show substantially higher CO levels than indicated in the EIS and at some receptor locations exceed State 1-hour and 8-hour and Federal 8-hour standards.

9. The EIS appeared to lack any detailed discussion of impacts associated with a garage ventilation system. The locations of ventilation system exhausts particularly with relation to public exposure and ventilation system intakes of other buildings were not identified or discussed. The adequacy of such a system for avoiding dangerous pollutant buildup within the garage structure and the avoidance of excess pedestrian exposure should be thoroughly evaluated.

10. The EIS lacked detailed discussion of what measures are incorporated into the building design to prevent intrusion of motor vehicle exhaust gases into occupied work spaces.

11. Apparently due to the erroneous determination of "insignificant" air quality impact, the EIS indicated no commitment to implement any of the mitigation measures listed on page 1-9. This shortcoming should be corrected.

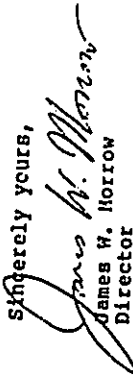
12. The proposal of 1,000 more parking stalls which will attract more motor vehicles into an already congested area seems ill-advised and contradictory to the City's mass transit plans. Shouldn't the parking garage be reduced substantially or eliminated?

13. Conclusions. Despite the EIS claims of "worst case" and "conservative (over predicting) assumptions", quite the opposite seems to be true. The analysis appears to have seriously underestimated the cumulative air quality impact of the proposed project. A proper and accurate impact analysis should be completed and subjected to public review before this EIS is accepted. It is important that government decision-makers and the public be fully aware of the impacts associated with development projects before the projects proceed.

14. References:

- a. User's Guide to Mobile3 (Mobile Source Emissions Model), U.S. Environmental Protection Agency, EPA 460/3-84-002, June, 1984
- b. AQMT-2 (Air Quality Analysis Tools), California Air Resources Board, 1987.

Sincerely yours,

  
James W. Morrow  
Director  
Environmental Health

JWM:ct  
18942  
Enc.

cc: OEQC  
DHCD  
Parsons Hawaii  
DOH  
A. Lum, Esq.  
P. Benco, Esq.

FIGURE 1

ALAKEA-RICHARDS STREET GARAGE  
NOVEMBER 21, 1989

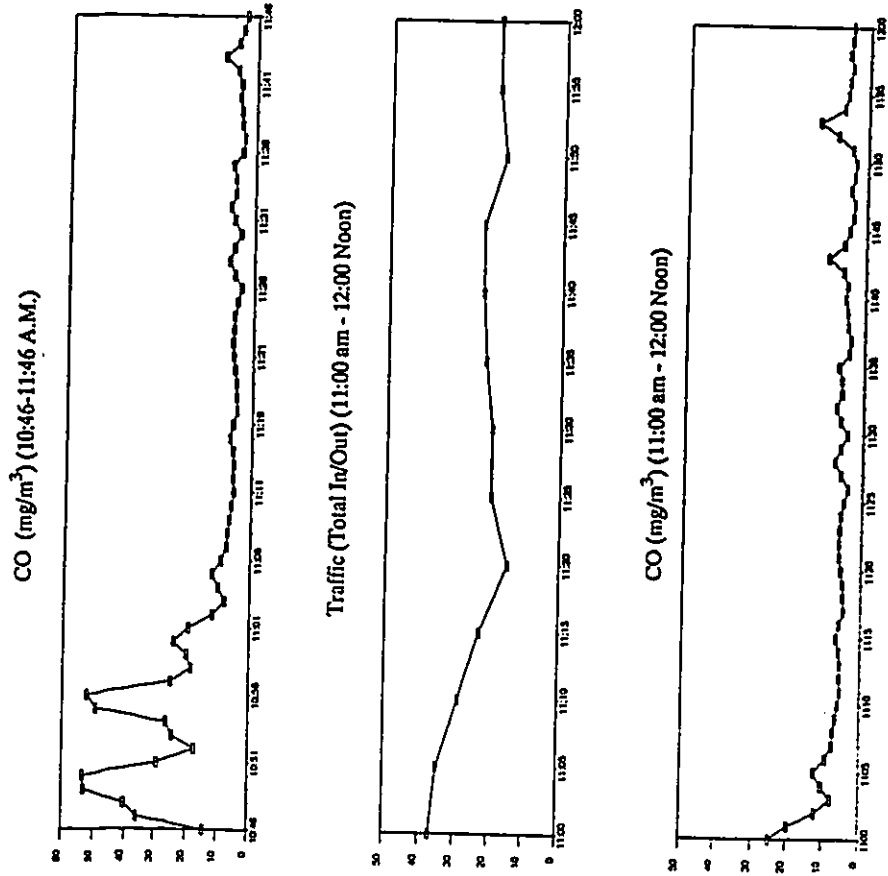
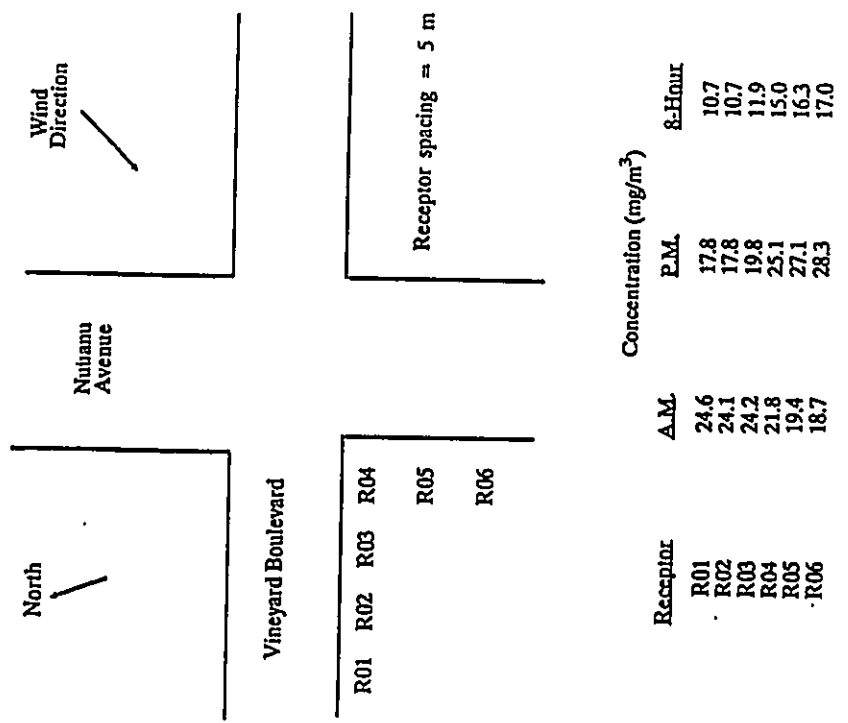


FIGURE 2  
ESTIMATES OF MAXIMUM 1-HOUR  
CARBON MONOXIDE CONCENTRATIONS  
Nuuanu Avenue at Vineyard Boulevard  
Peak Traffic Hours  
1993



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 37th FLOOR  
 HONOLULU, HAWAII 96813  
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FRANK F. FISH  
 MAYOR

MICHAEL W. SCARFONE  
 DIRECTOR  
 RONALD B. WYNN  
 DEPUTY DIRECTOR

January 3, 1990

Mr. James W. Morrow, Environmental Health Director  
 American Lung Association of Hawaii  
 245 North Kukui Street  
 Honolulu, Hawaii 96817

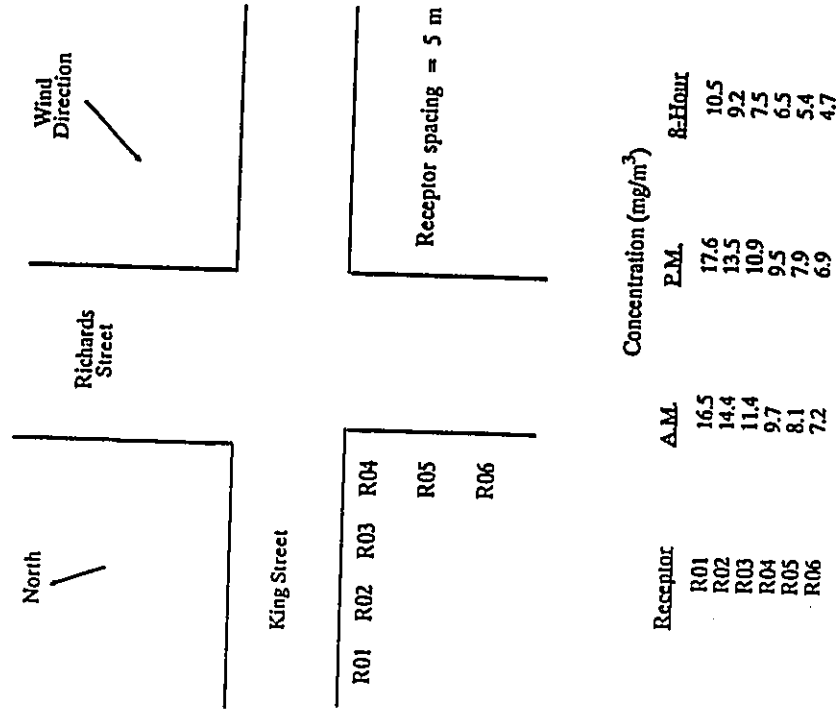
Dear Mr. Morrow:

Subject: Draft Environmental Impact Statement (DEIS)  
 for the Proposed Alakea/Richards Parking Lot  
 Redevelopment

Thank you for your comments of November 21, 1989 on the DEIS. The paragraphs below respond to your numbered comments.

1. Trip generation rates are based on square footage and vary by usage of the area in question. In this case, the largest discount factor is for the City office space which does not have associated parking, and therefore will create no employee trips. A small discount is applied for the convenience retail space which, unlike other retail space, does not generate trips itself. The trip rates were also discounted for public transportation purpose trips in the downtown area. These are standard assumptions and the discounts used were conservative.
2. Data from the State of Hawaii air quality monitoring network were used. These are the only available long-term data for CO. The station is EPA-approved and intended to provide "background" data. It is not intended to provide "worst-case" or "hotspot" CO measurements at the tailpipe level. The air quality study did not measure ambient levels at street level or elsewhere because a small number of measurements concentrated in space and time do not provide a valid statistical background and may seriously underestimate or overestimate ambient concentrations.

FIGURE 3  
 ESTIMATES OF MAXIMUM 1-HOUR  
 CARBON MONOXIDE CONCENTRATIONS  
 Richards Street at King Street  
 Peak Traffic Hours  
 1993



3. With respect to the EMFAC7PC model used for emission modeling, for the final EIS an emission factor of 65.14 g/mi (from EPA's MOBILE3 emissions model) was used.
4. Although it is not inappropriate to use PSD significance levels to determine the significance of the project's impacts, in the final EIS, project impacts are only compared with air quality standards.
5. See above comment.
6. To examine further the problem of concentrations of pollutants in the enclosed parking structure, the analysis was repeated using a "box model" and a MOBILE3 emission factor of 146.3 grams/mile (5 mph, 21°C, 100% cars, capacity filled in one hour for Basement 2). The resulting maximum 1-hour CO concentration is estimated to be 2,400 ug/m<sup>3</sup>. Using the assumption that the 8-hour CO concentration is 60% of the 1-hour concentration, a maximum 8-hour concentration of 1,440 ug/m<sup>3</sup> is obtained. Assuming background CO concentrations of 4,700 ug/m<sup>3</sup> (8-hour) and 13,500 ug/m<sup>3</sup> (1-hour), total garage CO concentrations are found to be 6,140 ug/m<sup>3</sup> for 8-hour periods.

7. The number to which you refer is the change in peak hour traffic volume due to the project and all the other foreseeable projects scheduled to be constructed in the area during the next five years. The 1614 vehicles per hour is not the total number of vehicles passing through this intersection, but rather the total increase over existing conditions.

Using EPA's MOBILE3 emission factor (65.14 g/mi) and traffic volumes at the Nuuanu Avenue-Vineyard Boulevard intersection, estimated concentrations were obtained. The model was run using worst-case meteorology which included a low wind speed (1.0 m/s) and very stable (F) conditions. The wind was varied about the compass at 25 degree increments and 1993 cumulative plus project PM peak hour traffic volumes were incorporated. Ten receptors were situated curbside of the intersection. The results predict a worst-case maximum 1-hour increase of 13.0 ppm (15,600 ug/m<sup>3</sup>) to existing 1-hour ambient CO concentrations, to give a total worst-case maximum 1-hour concentration of 29,100 ug/m<sup>3</sup>. Using the assumption that

the eight-hour CO concentrations are 60% of the 1-hour concentrations, a total worst-case maximum 8-hour concentration of 14,060 ug/m<sup>3</sup> is obtained.

8. See above comment.
9. Ventilation of the parking structure would consist of pulling air in from the Hotel Street side of the building and exhausting the air along the opposite side. Separate vents would exhaust each floor of the parking garage. Exhaust vents would be located on each floor near the building corners at Alakea and Richards Streets. Vents would exhaust towards the respective street. Vent heights would range from 18 to 60 feet above the sidewalk to avoid increasing concentrations of pollutants at pedestrian level. The adjacent YMCA is primarily ventilated with open windows. It has an exhaust for the shower rooms which vents near the center of the Mauka side of the YMCA, but the intake is from the central courtyard. Intakes for the Jury Box building are low on the Makai side of the building, well away from the proposed vent locations. Neither building would be impacted by the proposed vents.
10. The parking garage and the office space are essentially two separate structures isolated horizontally. The parking structure will be a poured-in-place concrete structure, while the office tower above will be structural steel. The only vertical penetrations will be elevators, stairwells and chilled water lines. Elevators, ventilation systems and other mechanical systems will be independent for the parking garage and the office tower. Stairwells will be smokeproof enclosures. Chilled water lines will be sealed at all vertical penetrations.
11. The revised emission factor used in the air quality analysis does indicate there will be significant impacts. During construction, all mandated dust and vehicle emission control regulations will be adhered to. During operation, the most effective mitigation measure will be to alter work hours of tenants to reduce peak hour trips. In this respect, the air quality analysis overestimates the impacts of the project because it assumes that a standard work day will be in effect for all users of the new building. In practice, however, many firms will

allow some form of altered work schedule. In addition, appropriate bicycle parking areas (or perhaps lockers) will be provided.

12. The project contains 1,000 parking stalls, but does not add 1,000 stalls to the area's inventory. 219 of the 235 public parking stalls replace those now on the site. The City does not want to reduce the number of available public parking stalls. The 432 State and Kemmeter Corporation stalls in part replace those lost from the former Armed Forces YMCA lot (approximately 100), those lost from the area around the King Kamehameha statue in front of the Aliiolani Hale and those to be removed from the Iolani Palace grounds. The State's desire to satisfy these prior commitments initiated a separate agreement process between the City and the State, and was made a part of the Development Agreement between the City and the developer of this project. The number of new stalls in this project is actually in the 350-500 range, with most of these intended to serve new tenants. Without these parking stalls, the building would not be attractive to new tenants, would not be marketable by the developer, and therefore, the redevelopment, with its numerous positive impacts, would be infeasible.

To lessen the impact on the site and surrounding roadways, the City has decided that parking for its office space will be off-site. Bus passes are being offered free of charge to those employees opting to park at the new Blaisdell Center lot.

13. As noted above, EPA's MOBILE3 emission factor has been used in the final air quality analysis, and the projected air quality impacts are greater than projected in the DEIS. With the exception of this factor, however, extremely conservative assumptions were used in the DEIS. For example, the "background" CO concentration was assumed to be equal to the highest concentration measured by DOH over the three most recent years for which data are available. Meteorological conditions were assumed to be those most conducive to an accumulation of air pollutants. The worst possible location at the busiest intersection at the worst time of day was modeled. Furthermore, a likely decline in ambient CO concentrations over the next five years due to more stringent federal emission standards for newly manufactured vehicles and the mandated availability of cleaner burning fuels were not factored into the

analysis. The net result of this combination of assumptions is a very conservative analysis which does show that there may be some significant impacts to air quality under certain circumstances. The FEIS is responsive to the public comments received relative to the DEIS, and the final document provides decision-makers with the proper and accurate analysis necessary to weigh the balance between the potential benefits and impacts of the redevelopment.

Sincerely,



MICHAEL N. SCARFONE  
DIRECTOR



# University of Hawaii at Manoa

Environmental Center  
Crawford 317 • 2550 Campus Road  
Honolulu, Hawaii 96822  
Telephone (808) 948-7301

November 21, 1989  
RE:0542

Dr. Marvin T. Miura, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Department of General Planning  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Sir/Madam:

Alakea/Richards Parking Lot Redevelopment  
(THK: 2-1-17: 7, 8, and 17)  
Draft Environmental Impact Statement  
Honolulu, Oahu

The Honolulu Department of Housing and Community Development in agreement with Betawest Properties of Equity Richards Ventura proposes to develop a 24 story office-commercial building and a seven-story parking structure at the corner of Richards and Alakea Streets, replacing the existing city-owned parking garage. The proposed building would provide approximately 67,156 square feet of city office space, 230,692 square feet of rentable office space and 8,525 square feet of retail commercial space. The proposed parking structure would provide approximately 1,000 parking stalls: 412 stalls allocated to state parking, 235 stalls to replace the existing 219 public parking stalls, and at least 333 stalls allocated for private use. Included in the plan is city cancellation, by eminent domain, of approximately five feet of a ten-foot right-of-way between the proposed site and the adjacent YMCA. We have briefly reviewed the Draft EIS for this project with the assistance of Paul Hummel, Civil Engineer; Peter Flachsbart, Urban and Regional Planning; Bertell Davis, Anthropology; Peter Harriett Kessinger of the Environmental Center.

We note several areas of major concern as follows:

4022 # Wm Resources Rev-04-78-46

... OPPORTUNITY STATEMENT

Office of Environmental Quality Control  
and Department of General Planning  
November 21, 1989  
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## Vibration

The information regarding alternative structural foundations contained in the above cited document is inadequate. There are several alternatives mentioned in passing, yet the only alternative even briefly covered is the driven pile foundation. The matter of potential damage to nearby historic structures and other buildings resulting from vibrations due to pile-driving activities appears to pose significant risk and must be more fully addressed in the Final EIS.

On page H-19, under "Impact 4 - Demolition and Construction Vibrations", the document states:

"The potential for construction related damage to historic structures adjacent to and nearby the proposed project site [is] of concern. The resultant building motion caused by vibrations propagating through the soil is a strong function of the type and size of the foundations upon which the building rests, that is pilings, spread footings or massive concrete mats. In addition, the construction details of the buildings of concern are very important, whether they be masonry walls or framing with plaster on lath or plasterboard."

However, despite the stated premises that potential damage to the nearby buildings is of concern and that building motion is strongly related to particulars of foundation type and construction details, no information is presented which indicates what these particulars are for the buildings nearby and adjacent to the project site, or how exactly these specific details might affect the individual buildings in question, particularly the YMCA building.

Page H-19 states that results of studies show that "other than pile-driving activities, construction operation related vibrations never reach an intensity necessary to cause building damage...", and concludes that "construction (other than pile driving) will [not] generate vibrations of a building damaging magnitude." The fact that "pile-driving activities" are meticulously excluded from these qualifications at every turn indicates that these activities are definitely not being qualified as innocuous to surrounding structures.

Further, the document states (p. H-20) that pile driving activities have frequently been considered a potential problem for structures near to the pile driving locations, due to both vibrations and the differential settlements of foundations." It indicates that because of this concern monitoring studies have been conducted at other project sites a short distance from the above proposed site. One of these studies showed vibration levels from pile driving activities which would "exceed the historic building potential damage criteria" for certain low frequencies. Referral is made to the "numerous studies" conducted over the past

twenty-five years regarding construction related vibrations, in pointing out that "none of the studies [was] conducted in Hawaii where the soil and 'bed rock' differ(s) greatly from that on the mainland." The latter statement offers the possibility of different results should similar studies be conducted in Hawaii. The section ("Impact 4 - Demolition and Construction Vibrations") concludes that "even though the potential for pile driving related building damage is rather low...", yet, clearly, there has been NO evidence presented in this section, or the document in general, to support this conclusion.

An additional concern is that "no final decision has been made" regarding the foundation type to be used because "information needed to decide on construction techniques and cost is not yet available" (page 1-5 of the Draft EIS). Apparently the only alternatives being considered are a mat or driven pile foundation (page 1-5 of the Draft EIS) Implementation of a drilled shaft foundation (as opposed to merely pre-drilling for pile accommodation) or of a "sonic vibrating driver" should be fully addressed as alternatives in the Draft EIS. As presented, there is no rationale provided to indicate why either of these methods would be environmentally more acceptable - or otherwise less acceptable - than driven piles. In addition, the indicated mat alternative is not addressed, beyond one reference to it as the alternative under consideration to a driven pile foundation.

The project site is located in a sensitive, historical district and should merit full consideration of alternatives in behalf of protection of the area's historic buildings from structural damage. Implementation of a foundation method causing real potential risks to these historic structures, waiting to see if any damage occurs, then changing methods after damage has occurred is not economically or environmentally responsible.

We find this section of the Draft EIS to contain serious deficiencies according to the EIS Rules (Sec. 11-200-17(f) and (g)) in that a) it is lacking a "rigorous exploration and objective evaluation of the environmental impacts of all reasonable alternative actions, particularly those that might enhance environmental quality or avoid or reduce some or all of the adverse environmental risks" (f) and (b) "special emphasis shall be placed on environmental resources that are rare or unique to the region and the project site (including natural or man-made resources of historic... significance)" (g) and (c) "it is essential that the sources of data used to identify, qualify or evaluate any and all environmental consequences be expressly noted" (g). An incomplete report regarding a major issue of a proposed action in a Draft EIS compromises the intent of Chapter 343, HRS (Sec. 343-1) by denying individuals the opportunity for a thorough review of the proposed action and its potential impacts.

It appears that the DEIS for the above project was filed prematurely. Until additional studies on the foundation alternatives are conducted and documented a "thorough review" of the potential impacts on the buildings adjacent to the proposed project site is not possible.

#### Historical and Archaeological Significance

The historical research involved in the Historical and Archaeological Assessment within the above Draft EIS appears to have been thorough in its coverage of the early 19th century to present occupations. However, specific references regarding the prehistory of the site in question is lacking.

Our reviewers concur with the finding that the site is potentially archaeologically significant, both from the standpoint of early Hawaiian history, as well as of early Euro-American traditions in Hawaii. However, we disagree with the recommendations of the assessment in the Draft EIS.

While the proffered recommendations are undoubtedly the most cost/time-effective solution to the problem, they do not adequately protect the potentially significant status of the site. In the first place, monitoring after demolition is inadequate because intact items of concern would likely be destroyed during demolition (especially since the foundation depth is apparently unknown). Archaeological monitoring during demolition, as well, would seem more reasonable. Secondly, post-demolition research testing should follow the federal guidelines set forth by the National Advisory Council on Historic Preservation (NACHP), 36 CFR 66, to insure adequate systematic testing to determine presence of intact remains. The research design should be submitted to the State Historic Preservation Office (SHPO) for approval. If such intact historic or prehistoric remains are found the site would merit a full on-site archaeological survey. However, if adequate testing shows nothing important remains intact, monitoring of the construction process would probably be sufficient.

In summary, our recommendations are:

- 1) Archaeological monitoring should accompany demolition.
- 2) Adequate systematic testing, through a SHPO-approved plan and in compliance with federal and state guidelines, should be carried out to determine presence or absence of significant remains.
- 3) If significant subsurface remains are found the site should be archaeologically mitigated through a full on-site survey.

#### Air Quality

Our reviewers noted several major concerns regarding the air quality study presented in the Draft EIS, Appendix G.

Data used to determine maximum background (existing) concentrations of carbon monoxide (CO) were taken from records for 1985-1987, from a monitoring station more than two blocks removed from the proposed project site, and at a position nearly four stories higher than street level. The

consultant, Engineering-Science, Inc. of Berkeley, California used the EMFAC7PC emissions model and Caline4 dispersion model to determine carbon monoxide impacts of the proposed project on its fronting stretch of Richards Street for the year 1993. The dispersion model was run using "worst case meteorology" and 139 vehicles per hour, said to be the "afternoon maximum peak hour traffic volume caused by the project" (p. G-9)

Major problems with this methodology involve the emission factors model (EMFAC7PC), and the accuracy and applicability of the data used.

1) The EMFAC7PC is a California model; California has stricter emissions standards than Hawaii, therefore, application of this model to downtown Honolulu would result in an underestimation of project-caused carbon monoxide concentrations. According to the Draft EIS (p. G-10, Table 4), the background maximum CO concentrations exceeded Hawaii state one-hour standards and were just below state eight-hour standards. If we apply the predicted 1.5 percent annual increase in background traffic (from the traffic study, p. F-15) - thus, elevating the background figures presented here for the air quality analysis, both for current and future levels with emissions from the project-generated traffic added, the total CO concentration is much more likely to exceed state standards.

2) The data derived two to four years ago from a monitoring site more than two blocks away from the proposed site, and from an elevation of nearly four stories, does not adequately represent current background CO levels at the site, and at street level.

3) The predicted cumulative impact for CO is 1,980 micrograms/cubic meter, just 20 micrograms/cubic meter below the significance level of 2,000 micrograms/cubic meter, which has been adopted by California. The significance level of 2,000 micrograms/cubic meter should not be appropriate for Hawaii because Hawaii has much more stringent emission standards.

#### Traffic

The traffic counts used to represent background data were taken in the summer and autumn of 1988 and 1989. The report states that the September and July count figures were within 10 percent of each other, yet does not clarify which count is represented in the accompanying table. This difference of 10 percent may be significant in the predicted impact results. Also, it would seem likely that the traffic volume in the site area would tend to increase during the period from January to April, when the State Legislature is in session, a period unrepresented in the traffic counts presented in the report.

Where the level of service is rated "E" or "F", an increase in the volume/capacity ratio of more than 0.030, requires mitigation measures

to reduce the increase to below 0.030. This is not a Hawaii standard (which has none as yet) but is based on standards used by "other cities", and may not be adequate in application to Hawaii.

The traffic report does not explain how the mitigation measures suggested for the six intersections exceeding the above standard (p. F-31) will work to help offset the problems, nor does it provide any predictive evidence to that end. Even considering the proposed mitigative measures, most of the intersections will remain at level "F". This highlights the overall problem that current standards do not adequately address cumulative responsibility and the need to identify mitigative measures at an earlier stage of reduced level of service (level "C" or "D", at least).

#### Recommendations

President is extremely important in regard to future decision-making, especially in the controversial area of downtown development and its cumulative impact on the major concerns of a worsening traffic problem and deteriorating air quality. Also, inappropriate, insensitive or faulty construction methods can lead to devastating adverse impacts, as recently witnessed in Walkiki with the dewatering fiasco. And, again, appropriate precedents should be set in following national and state guidelines regarding the handling of potential archeologically significant development sites, to avoid permanent loss of historical information and treasures.

In consideration of the numerous, major problems we note above with the Draft EIS herein reviewed, we strongly recommend that these issues be addressed and corrected in the Final EIS document.

Thank you for the opportunity to comment on this Draft EIS.

Yours truly,

*Jacqueline M. Miller*  
Jacqueline Miller

Associate Environmental Coordinator

cc: Dept. of Housing & Community Development  
Parsons of Hawaii  
Joyce Beth, State Historic Preservation Office  
L. Stephen Lau  
Paul Hummel  
Peter Flachsbarth  
Bertell Davis  
Harriett Kessinger



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

630 SOUTH KING STREET, 8TH FLOOR  
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PHONE: 833-4437 & FAX 837-8438



Ms. Jacquelin Miller  
January 3, 1990  
Page Two

FRANCY FASH  
DIRECTOR

MICHAEL SCARFONE  
DIRECTOR  
RONALD E. MUN  
DEPUTY DIRECTOR

January 3, 1990

Ms. Jacquelin Miller, Associate Environmental Coordinator  
University of Hawaii  
Environmental Center  
Crawford 317  
2550 Campus Road  
Honolulu, Hawaii 96822

Dear Ms. Miller:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alaska/Richards Parking Lot  
Redevelopment

Thank you for your comments of November 21, 1989 on the DEIS. The following responds to your concerns.

**Vibration**

The developer, to reduce noise and vibration impacts on the surrounding community, has opted to employ a mat-type foundation rather than piles. A mat foundation requires excavation, framing and pouring successive layers of concrete. The vibration levels associated with excavation are significantly less than those associated with pile driving.

Engineering-Science did measure vibration attenuation characteristics of the soil at a construction project located at Site 9 on Figure 1 of the noise and vibration study. These data and other reported data for the Honolulu area were used to predict both surface excitation by construction equipment and excitation of the surface due to pile driving. These data were extrapolated to the project site to assess the impacts of construction of both pile and mat foundation types.

The measured vibration data taken by Engineering-Science and those reported by Dames and Moore for other sites in Hawaii show vibration levels at nearby building foundations due to pile driving to be respectively about equal to and less than

building damage criteria for older structures in poor condition. Building damage criteria do not change from site to site. Test data for mainland and Hawaii sites show that construction vibration levels for operations other than pile driving or blasting are well below historic building damage criteria.

As part of the field investigations for the vibration study, the types of building foundations for the nearby historic buildings (Hemmeter Corporation Headquarters and the YMCA) were identified from structural drawings and found to be spread footings. Both buildings were thoroughly inspected, and building maintenance engineers interviewed. Both buildings are in very good condition.

We fully agree with your assessment of the potential significance of the subsurface deposits. A more specific assessment of actual deposits present to show if intact subsurface cultural materials survive will take place towards the end of demolition and thereafter, as you recommend.

The testing plan recommended in the DEIS was developed in consultation with the DLMR Historic Sites Section and would be implemented with their guidance.

We further agree that the discovery of significant cultural remains should require a full on-site survey prior to construction.

With regard to prehistory of the site, please refer to pages D-3 and D-5 of the Appendix which reference early settlement patterns of the area.

Data from the State of Hawaii air quality monitoring network were used. These are the only available long-term data for CO. The station is EPA-approved and intended to provide "background" data. It is not intended to provide "worst-case" or "hotspot" CO measurements at the tailpipe level.

**Historical**

**Air Quality**

Ms. Jacquelin Miller  
January 3, 1990  
Page Three

With respect to the EMFAC7PC model used for emission modeling, for the final EIS an emission factor of 65.14 g/mi (from EPA's MOBILE3 emissions model) was used.

Although it is not inappropriate to use PSD significance levels to determine the significance of the project's impacts, in the final EIS project impacts are only compared with air quality standards.

#### Traffic

Traffic counts at the same intersection can vary 10% from one weekday to another. The purpose of the counts was to confirm that there were no unusual variations at that intersection and to determine if adjustment factors should be applied or new counts conducted. Because the counts were within 10% of each other, it seemed reasonable to assume that no new counts were necessary. At any rate, the higher volumes were used in the impact analysis to represent a "worst-case" condition.

The City of Honolulu has not established a guideline for determination of significant impact. Lacking such a standard, therefore, the consultant was left to determine one. The 0.030 level was used because it is a median of those used in other cities in which the consultant has recently completed projects (0.020 in Los Angeles, 0.040 in Reno).

Traffic volumes do vary seasonally. In Hawaii, the primary seasonal variable is the school year. This was accounted for in the duplicate counts discussed above. The legislative session is unlikely to significantly impact the analysis of traffic impacts because the impacts are based on peak hour traffic whereas the legislative hearing schedule is such that trips would be generated throughout the day and evening.

Calculations were prepared to determine that the mitigation measures discussed would indeed mitigate the project's impacts. These are typically not provided in the report. A project is generally only

Ms. Jacquelin Miller  
January 3, 1990  
Page Four

required to mitigate its own impacts. If an intersection operates at a level-of-service F without the project, it is the result of background conditions and not the result of the project.

Sincerely,



MICHAEL N. SCARFONE  
DIRECTOR

DEP 11/89 H/ER 2430



DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT

ENERGY DIVISION, 135 W. KOWALIC ST., RM. 102, HONOLULU, HAWAII 96813

JOSEPH W. WANG, CHIEF OF BUREAU; ROGER A. UYEBING, DEPUTY DIRECTOR; BARBARA B. BULLINGTON, DEPUTY DIRECTOR; LESLIE S. LANZARUZZA, DEPUTY DIRECTOR

89:767e

November 13, 1989

Mr. Donald Clegg, Chief Planning Officer, Department of General Planning, City and County of Honolulu, 650 South King Street, Honolulu, Hawaii 96813

Dear Mr. Clegg:

Subject: Draft Environmental Impact Statement for Alakea/Richards Parking Lot Redevelopment

The Energy Division has received the above-referenced Draft Environmental Impact Statement (DEIS) and has the following comments:

We note that the DEIS contains minimal discussion of energy impacts that will result from the proposed project. The DEIS contains neither an estimate of total electricity consumption within the project nor a discussion of energy conservation or renewable energy sources that might help meet the project's energy requirements.

We note also that in Chapter VIII neither the State Plan's guidelines for energy use and development nor the State Energy Functional Plan were examined for their relationship to the proposed project. The requirement for such an examination is spelled out in the enclosed excerpt from the OEDC BULLETIN.

Thank you for the opportunity to comment on this DEIS. I hope these comments will be useful to you.

Sincerely,

Maurice H. Kaya, Energy Program Administrator

MHK/PE:do

Enclosure

cc: Michael H. Scarfone, Parsons Hawaii

FRANK F. FISH, MAYOR



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT, CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 8TH FLOOR, HONOLULU, HAWAII 96813, PHONE: 533-2427 / FAX: 533-2489

MICHAEL N. SCARFONE, DIRECTOR

RONALD B. RUPP, DEPUTY DIRECTOR

January 3, 1990

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

Dear Mr. Kaya:

Subject: Draft Environmental Impact Statement (DEIS) for the Proposed Alakea/Richards Parking Lot Redevelopment

Thank you for your letter of November 13, 1989 in which you have comments about the draft environmental impact statement for the proposed redevelopment of the Alakea/Richards parking lot. The below paragraphs respond to your comments and concerns.

Please note that an estimate of total electricity demand from the project was included in the DEIS on page 10-22. The total projected load of three megawatts was arrived at in consultation with Hawaiian Electric Company engineers.

Applicable sections of the Hawaii State Plan and the State Energy Functional Plan encourage energy conservation practices, including passive design and energy efficient appliances, and the direction of future urbanization into easily serviceable, more compact, concentrated developments next to existing urbanized areas.

An energy management system is being planned for the building. As noted throughout the DEIS, the City's goal of developing the urban core to the fullest extent practicable was a major impetus for the proposed redevelopment and complies with the goals, objectives and policies of the Hawaii State Plan.

Sincerely,

MICHAEL N. SCARFONE, DIRECTOR

Vertical stamp: RECEIVED NOV 15 1989 DEPT. OF GENERAL PLANNING C & C HONOLULU

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November 29, 1989

DEPT. OF GENERAL PLANNING C & C HONOLULU

Mr. Donald Clegg  
Chief Planning Officer  
Department of General Planning  
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- Michael Tamble
- Shelley Tamm
- Christine Turock
- Paul Turock
- Jane Shirohara
- Executive Director

Dear Mr. Clegg:

Draft Environmental Impact Statement (EIS)  
Alakea/Richards Parking Lot Redevelopment

We appreciate the opportunity to review the above document concerning the development of a high-rise building immediately adjacent to the Richards Street YWCA. We hope that you will take our comments into consideration in preparing the Final EIS, although we have been somewhat tardy in responding.

Condemnation of Right-of-Way Easement

On page 1-1 of the Draft EIS, the proposed action is described as involving "City cancellation, by eminent domain, of approximately five feet of the ten-foot right-of-way easement on City property (TMK 2-1-17:8) which runs in favor of the YWCA." By letter of November 9, 1989 from Michael N. Scarfone, Director of the Department of Housing and Community Development, we understand that the request to the City Council to condemn has been canceled. Hence, we assume that the condemnation is no longer part of the proposed action.

Building Footprint

Given the above, does the developer still intend to locate the building five feet mauka of the property line, as described on page 1-6?

Potential Damage to YWCA Historic Structure During Construction

On page 1-11, it is recommended that "provisions be made to monitor the adjacent YWCA historic structure during the most severe construction activities, such as demolition, excavation and pile driving. In the event that potential pile driving vibration problems are discovered, alternate means should be considered, such as pre-drilling and the use of sonic vibrating drivers."

Donald Clegg  
Page 2.

We appreciate these precautions and would like you to consider committing to a corollary mitigation measure: should the YWCA structure be damaged in any way due to your construction activities before a problem is discovered, the developer shall pay for damages.

Relocation of YWCA Activities During Construction

On pages 10-6 & 7, activities at the YWCA are identified as likely to be affected by construction at the Alakea/Richards Parking parcel: "The toddler play area, reaching into the area leased from the City and County, would have to be relocated; the infant toddler programs, which are housed in rooms facing the project site, will have to be moved during construction due to noise and possible dust; and space now used for parking two vans would be reduced, so only one van could park off the street." Also, "Construction noise and other impacts would likely deter some persons from participating in programs at the YWCA or eating at the Palace Court restaurant for part or all of the construction period. The consequence would be a loss of revenue for the YWCA."

We do not see any proposed measures in the Draft EIS to mitigate the above adverse impacts. Please include such measures in the Final EIS.

Thank you again for allowing us to comment on your proposed project. We trust that our concerns will be addressed in the Final EIS.

Sincerely,

*Sandra Lacer*  
Sandra Lacer, President  
YWCA of Oahu

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**

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FRANK F. FASI  
MAYOR

MICHAEL R. SCARFONE  
DIRECTOR

RONALD B. BURN  
DEPUTY DIRECTOR

Ms. Sandra Lacar  
January 3, 1990  
Page Two

Potential Damage to YMCA Historic Structure During Construction

The developer will employ a mat foundation to eliminate the vibration problems (and noise) associated with foundation pile driving. The developer will work with the YMCA to minimize construction-related impacts to the YMCA structure. The contractor will monitor the building's status during demolition, excavation and construction.

Ms. Sandra Lacar, President  
YMCA of Oahu  
P.O. Box 337  
Honolulu, Hawaii 96809

January 3, 1990

Dear Ms. Lacar:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alakea/Richards Parking Lot  
Redevelopment

Thank you for your comments of November 29, 1989 on the DEIS. Please note for your future reference that Chapter 343 HRS, Hawaii's Environmental Impact Statement Law, allows the public 45 days within which to comment on a draft EIS. In this instance the deadline was November 21, 1989. While it is sometimes customary for many agencies to respond to letters received after the deadline, it is not required, as the letters have no legal standing. Your letter was received early enough in the draft revision process to be accommodated. The following responds to your concerns.

Condemnation of Right-of-Way Easement

Your assumption is correct. Cancellation of the easement is no longer part of the project. During the seven to eight month period of demolition and construction of the foundation and basement, about five feet of the easement will be temporarily required by the contractor. The developer will coordinate this with you to ameliorate any inconvenience to the extent possible.

Building Footprint

Because nothing will be built on the easement, the building will be located ten feet from the property line of TWK 2-1-1718.

Relocation of YMCA Activities During Construction

By virtue of the construction activities, certain programs of the YMCA which are open air and about the Alakea/Richards parcel may be impacted during the initial phases of the construction, particularly during demolition and the construction of the parking garage portion of the project. Because of the fact that there will not be any driving of foundation piles, the amount of noise generated by the project will be reduced considerably. It is unlikely that the construction noise will be sufficient to deter individuals from eating at the enclosed Palace Court Restaurant or, for that matter, at the outdoor tables in the YMCA courtyard. The level of noise generated by the construction will not be that much different from the general noise level in downtown Honolulu and therefore would not inhibit individuals from attending YMCA programs. It is true that there will be an elimination of the 219 public parking spaces during construction, however, the street parking on Richards Street will remain as will the available parking in the parking garage across Alakea Street at Bishop Square and immediately makai of the YMCA in the Central Pacific Plaza. The fact that one van will no longer be parked on the property owned by the City is a result of the City determining that it wishes to lawfully terminate its month-to-month lease and allow its property to be used for other purposes.


As a mitigating measure, the developer will coordinate with the general contractor to devise a method to minimize backing of large trucks and other heavy equipment and thereby reduce the alarm noise associated therewith. Standard noise and air pollution mitigation measures required by the City and State will be adhered to during construction so as to minimize any adverse impact on the adjoining properties.

There will undoubtedly be some inconvenience associated with being immediately adjacent to the project during demolition and construction, however, these are inevitable and unavoidable. In the longer term, however, significant benefits should accrue to the

Ms. Sandra Iacar  
January 3, 1990  
Page Three

YMCA in terms of increased membership, additional use of facilities  
and services and increased patronage of the Palace Court  
Restaurant.

Sincerely,

  
MICHAEL N. SCARFONE  
DIRECTOR



Mr. Michael N. Scarfone, Director  
Department of Housing and Community Development  
650 South-King Street, Fifth Floor  
Honolulu HI 96813

Subject : Alakea-Richards Redevelopment Draft EIS

Dear Mr. Scarfone,

Thank you for the opportunity to comment on the EIS for the Alakea Richards Street Parking Lot Redevelopment. Our concerns for this site have been previously addressed to you in correspondence of December 1988, March 1989, and July 1989. Three items expressed in our previous correspondence have not been adequately addressed in the EIS with regard to possible solutions.

The first concern is with the excessive amount of parking on the site and the vehicular access onto the neighboring streets. The low rise portion of the site along Richards Street should not be used for parking. Currently, this portion of the site has five levels of parking. This area has a clear view of the Capitol and the Palace and would be premium office space. The parking lot should primarily exit onto Alakea Street. Currently, there is an entrance and an exit from Richards Street.

The second concern relates to the need for people-oriented spaces at the ground level. The Richards Street facade should be open to the sidewalk or an arcade with retail spaces. The site should not be enclosed with a low wall such as at the Hemmeter Center since this greatly restricts pedestrian access and appreciation of the park-like setting of the Capitol District.

The third item relates to the existing controls on the site due to the Capitol Special District regulations. It appears that there is variance to these controls particularly related to the height regulations on the Richards Street portion of the property. The public benefit to this variance has not been clearly identified.

Thank you again for allowing us to be part of the planning process for this important site in our urban core.

Sincerely,



Carol S. Sakata, AIA  
President, Hawaii Society

1128 Nuuanu Avenue • Honolulu, Hawaii 96817 • Telephone (808) 545-4242

DEC 4 1989  
DEPT. OF HOUSING AND COMM. DEVELOPMENT

#2:

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

430 SOUTH KING STREET, 3TH FLOOR  
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FRANK F. FARI  
MAYOR

MICHAEL N. SCARFONE  
DIRECTOR

RONALD E. WUN  
DEPUTY DIRECTOR

Ms. Carol S. Sakata  
January 3, 1990  
Page Two

January 3, 1990

Ms. Carol S. Sakata, President  
Hawaii Society  
The American Institute of Architects  
1128 Nuuanu Avenue  
Honolulu, Hawaii 96817

Dear Ms. Sakata:

Subject: Draft Environmental Impact Statement (DEIS)  
for the Proposed Alakea/Richards Parking Lot  
Redevelopment

Thank you for your comments of November 30, 1989 on the DEIS. Please note for your future reference that Chapter 343 HRS, Hawaii's Environmental Impact Statement Law, allows the public 45 days within which to comment on a draft EIS. In this instance the deadline was November 21, 1989. While it is sometimes customary for many agencies to respond to letters received after the deadline, it is not required, as the letters have no legal standing. Your letter was received early enough in the draft revision process to be accommodated. The below paragraphs respond to your comments and concerns.

1. The amount of parking on the site was determined by the requirement to replace public parking lost in demolition of the existing structure, prior State commitments and tenant needs. The City office space is not provided on-site parking to minimize requirements. Vehicular access would be to both Alakea and Richards Streets to avoid excessive queuing inside the building at the PM peak hour, however, the primary exit is to Alakea Street. To utilize the low-rise portion of the development for office space would eliminate the Richards Street access, force parking much higher into the high-rise building, eliminate the possibility to segregate parking areas, reduce the efficiencies inherent in longer ramps in the parking structure (thereby increasing the height of the office tower) and eliminate the possibility to provide an essentially self-contained City office facility with its own entrance.

2. The makai portion of the Richards Street frontage provides a distinct entrance to the City offices. The mauka portion of this frontage connects with the retail space along Hotel Street, easily accessible to pedestrians. The fence which typically borders many of the historic buildings is a significant design feature of the Capital District, and has been specifically employed in this project to give architectural continuity along Hotel Street and with many of the surrounding buildings. It does not block pedestrian access to the arcade areas fronting Richards and Alakea Streets. In comparison, the fence around Iolani Palace does not seem to diminish appreciation of its park-like setting, but to the contrary, tends to remove it from surrounding traffic and enhance the setting.

3. The height variance is necessary physically and economically in light of the addition of State and City parking and City office space to the developer's commercial office space. The public benefits include economic stimulation, aesthetic improvement of the site and receipt of over 70,000 square feet of City office space at no cost to the taxpayers.

Sincerely,

MICHAEL N. SCARFONE  
DIRECTOR