Mr. Brian Choy, Acting Director
Office of Environmental Quality Control
Central Pacific Plaza
220 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Choy:

Acceptance Notice for the Proposed
Kekaulike Revitalization Project
Final Environmental Impact Statement (Final EIS)

We are notifying you of our acceptance of the Final EIS for the proposed Kekaulike Revitalization Project, 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 July 23, 1991 OEQC Bulletin.

We have attached our Acceptance Report of the Final EIS for the Kekaulike Revitalization Project. Should you have any question, please contact Verne Winquist at 527-6044.

Sincerely,

BENJAMIN B. LEE
Chief Planning Officer

BBL:ft

Attachment

cc: Dept. of Housing & Community Development
KEKaulike
Revitalization Project

Final Environmental Impact Statement

Prepared for:

Department of Housing and Community Development
City and County of Honolulu

Prepared by:


June 1991
KEKAULIKE REVITALIZATION PROJECT

FINAL
ENVIRONMENTAL IMPACT STATEMENT

Responsible Official:

[Signature]

7/3/91

Date

for Michael N. Scarfone, Director
Department of Housing & Community Development
City & County of Honolulu

Prepared for:

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

Prepared by:

WILSON OKAMOTO & ASSOCIATES INC.

June 1991
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PROJECT SUMMARY

The City and County of Honolulu Department of Housing and Community Development proposes a mixed-use residential and commercial development to revitalize the Chinatown District of Downtown Honolulu. The redevelopment area encompasses two blocks bounded by King, Maunakea, Hotel, and River Streets, and is bisected by Kekaulike Street. (See Figure 1).

Major elements of the redevelopment include:

- acquisition and redevelopment of adjacent private parcels with the existing City-owned Kekaulike Parking Lot to develop a mixed-use complex consisting of approximately 78 one-bedroom residential and studio market residential units, approximately 8,322 square feet of leasable commercial space, and approximately 174 parking stalls;

- acquisition and redevelopment of interior parcels on the ewa side of Kekaulike Street to support 76 studio rental units for low and moderate income housing, and approximately 6,514 square feet of commercial space;

- closure and conversion of Kekaulike Street mauka of King Street into a landscaped pedestrian mall; and

- rehabilitation of adjacent and surrounding properties.

The entire project will be developed within the 40-foot height limit established for the Chinatown District and will have building designs consistent with the Chinatown area. Materials such as brick and traditional designs to cornices, canopies, double-
hung windows on upper floors and open storefronts will be incorporated. The existing 83 metered public parking stalls will be replaced within the mixed-use structure and an additional 91 public parking stalls will be provided.

This Environmental Impact Statement (EIS) is prepared in accordance with Chapter 343, Hawaii Revised Statutes and Chapter 200 of Title 11, Administrative Rules of the Department of Health. The EIS provides information on the proposed action and existing environmental conditions, and assesses the probable impacts and mitigation measures associated with the project. Impacts on traffic, air quality, noise levels, historic structures, utilities, and socio-economic conditions are expected from this redevelopment project. This document focuses on the evaluation of these impacts within the vicinity of the project site and within the regional context of Downtown Honolulu.

Impacts on the physical environment will typically occur during the short-term demolition and construction periods. Short-term negative effects will result from demolition, construction related activities, and the temporary loss of parking. Long-term impacts for Downtown Honolulu are expected to be positive as the area of old Downtown Honolulu will be upgraded with the development of a new commercial complex and the provision of residential units and jobs. Roadways and infrastructure will be impacted through both the short- and long-term periods. The following is a summary of the probable impacts and appropriate mitigation measures related to the project.

Traffic: The project is not expected to significantly affect the overall future traffic conditions in the vicinity of the site. On Maunakea Street between Hotel and King Streets, however, improvements are recommended to improve the flow of thru
traffic and ingress and egress movements from the parking structure. Rapid transit in the long term will significantly improve accessibility for the site.

Interim Parking: There will be a temporary loss of 83 parking stalls from the project site. The availability of parking during the short-term construction phase will be temporarily worsened for those seeking public parking in and around the Downtown area. Once the project is completed, 174 parking stalls will be available.

Noise: Increased urban activity may adversely impact existing noise levels within the project vicinity particularly during demolition and construction periods. Government controls regarding noise levels will help mitigate the potential noise impacts from these activities.

Potential adverse noise impacts to project residents as well as residents and establishments adjacent to the project may occur during the construction phase of the project. The use of muffled equipment as well as adherence to Department of Health Community Noise Permit regulations will minimize construction-related noise levels.

Long-term impacts resulting from traffic noise and mechanical equipment within the building structures will be minimized through mitigative measures such as the use of sound attenuation devices and total enclosure and air conditioning of residential units. Relocation of the existing street level, open air parking stalls to an enclosed, underground facility will reduce the perception of their noise transmission to street level pedestrians and residents.

Air Quality: Increased urban development within the area will result in impacts to the existing air quality. The project will adhere to Federal and State regulations
governing air quality, while street improvements will help mitigate these impacts. Appropriate mitigative measures to conform to applicable permits from the U.S. Environmental Protection Agency and State Department of Health Environmental Management Division will minimize any of the potentially adverse impacts.

**View Corridors:** Existing mauka-makai viewplanes are restricted by existing buildings located on the mauka and makai ends of the project site. Proposed stepbacks and other architectural features will be incorporated into building design to enhance the overall project aesthetics and visual urban design fabric of the locality, enhancing the surrounding view quality.

**Historic Buildings:** With the exception of the Ewa block, none of the buildings to be demolished have historic or architectural significance, and most are recent structures with utilitarian designs. The wooden buildings on the Ewa block of the project site are among the oldest modern structures in Chinatown, but are approaching a dilapidated status that may lead to their loss in the near future. Mitigation measures to minimize impacts during the demolition and construction phases of development are proposed. The site's location in the Chinatown Historic District, which is listed on the National Register of Historic Places, requires review of the mitigation measures and new building design through Section 106 of the National Historic Preservation Act of 1966, as amended.

**Archaeology:** An archaeological study lists a prehistoric graveyard site near King and Maunakea Streets and Pehu's Fishpond near the corner of River and Hotel Streets as potential subsurface features likely to be disturbed by the proposed development. Archaeological data recovery will be guided by recommendations of the State Historic Preservation Officer.
Social: An estimated 76 existing residential units will be demolished for the redevelopment. The phasing of development is intended to accommodate displaced residents. Additionally, approximately 20 businesses will at least be temporarily displaced. City officials will coordinate the distribution of relocation assistance funds to displaced residential and commercial tenants. Area concerns include:

- Displacement of residential and commercial tenants due to redevelopment
- Affordability of lease rents and residential rents in the new development
- Temporary loss of parking during construction
- Increased traffic generated by the project and traffic congestion during construction

Residential and Commercial Space: The proposed project will have long-term impacts on the commercial space and residential inventory within the project vicinity as well as the downtown area. The redevelopment of the site will help meet the demand for commercial space and residential units in the Honolulu area.

Utilities: Sewer, drainage, gas, telephone, and electrical systems are deemed adequate for the proposed project. According to the Board of Water Supply, the existing 6-inch water main on Kekaulike Street is undersized and should be upgraded to an 8-inch main to accommodate the increased water demand for the proposed project.
SUMMARY SHEET

Project: Kekaulike Revitalization Project

Proposing Agency: Department of Housing and Community Development
City and County of Honolulu

Accepting Authority: Department of General Planning
City and County of Honolulu

Tax Map Key: 1-7-03: 17, 20, 22, 23, 24, 25 por., 32, 33, 34, 35, 36, 91, 92 por.

Area: Approximately 66,000 square feet

Location: Chinatown, Downtown Honolulu

Owners: City and County of Honolulu
Kwai Chan Trust
Lum Watt Trust
James S. K. & Shiu W.T. Tam
Juliet C. Magoon Trust Estate
Lum Yip Kee, Ltd.
Wilfred W. C. & Annie Y. Lum
Bing Kong & Lean Qui Chun
Hon Young Wong, etal
Walter H. W. Lau, etal
Foo Ying & Alice S. L. Chee
Lau & Lau Properties, Inc.
Lung Doo Chung Sin Tong Benevolent Society

Existing Land Uses: An 83-stall municipal metered parking lot, various commercial establishments and apartment buildings
State Land Use Classification: Urban District

Development Plan Land Use: Commercial

Development Plan Public Facilities: GB/M - Government Building/Modification

Zoning: BMX-4 - Central Business District Mixed-Use

Special Districts: Historic core precinct of Chinatown Special District
INTRODUCTION
I. INTRODUCTION

A. LOCATION

The Kekaulike Revitalization Project is located within the Chinatown District of Downtown Honolulu on the island of Oahu. The Chinatown area occupies the western portion of downtown in what is generally an older, multi-cultural business and residential community.

The Chinatown District is generally defined as the land area bounded by Beretania Street, Nuuanu Avenue, Nimitz Highway, and River Street. (See Figure 2). The area is characterized by a number of fragmented parcels located within 15 irregularly shaped city blocks. The total area of Chinatown has been estimated at approximately 35 acres.

Chinatown has been undergoing revitalization through both City sponsored revitalization efforts and private sector investments. Recently, a number of Chinatown buildings, many of them historic structures, have been renovated or rehabilitated. In addition, recently constructed and planned housing and mixed-use projects in the downtown and Chinatown area are establishing a sizable residential community and market to support the area's businesses.

During its history, Chinatown was rebuilt twice as a result of devastating fires but both times rapidly regained its position as a bustling commercial and residential community before commencing a decline in the 1950s that removed the area's residents and shifted retail activity to regional shopping centers outside of the district. The area's predominance of small irregular lots, insufficient parking, narrow sidewalks, limited public areas and lack of large sites suitable for development has
deterred large scale reinvestment and development in the area. Such development occurred primarily along King, Bishop and Alakea Streets, which had larger sites and evolved as the financial center of the Downtown area.

The project site encompasses approximately 1.5 acres of land on two blocks bisected by Kekaulike Street and bounded by King Street, Maunakea Street, Hotel Street, and River Street as shown in Figure 3. The two blocks are among the last remaining parts of Chinatown which have not undergone redevelopment. The majority of the parcels within these blocks are part of the proposed redevelopment project.

The bulk of the block east of Kekaulike Street is occupied by the City-owned 83-stall at-grade parking lot identified by Tax Map Key 1-7-3:20. (See Figure 4). Privately-owned parcels which are expected to be acquired as part of the redevelopment include TMK 1-7-3: 17, 22, 23, 24, 91, and portions of parcels 25 and 92. The project area within this block encompasses approximately 36,000 square feet of land.

The block west of Kekaulike Street includes an approximately 29,000 square feet area is designated by five privately-owned parcels TMK 1-7-3: 32, 33, 34, 35, 36. Parcel 32 is planned for acquisition by the City. The owners of parcels 17, 34, 35, and 36 may participate in the project by rehabilitating their properties to comply with City design standards.

B. LAND OWNERSHIP

The site consists of the City municipal parking lot between Kekaulike and Maunakea Streets and 12 privately-owned parcels. A narrow City-owned roadway,
originating on King Street and terminating at the Hon Young Wong property, is also included in the project. The City plans to acquire all of 6 and portions of 2 of the private parcels to consolidate ownership and undertake the mixed-use development. The other private parcels are to be renovated using City design standards. The following lists the project's property owners, parcel land areas and TMK designations:

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<th>Area in Square Feet</th>
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<tr>
<td><strong>East (Kekaulike/Diamond Head) Block</strong></td>
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<tr>
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<td>26,808</td>
<td>1-7-3:20</td>
<td>City-Owned</td>
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<tr>
<td>Kwai Chan Trust</td>
<td>1,891</td>
<td>1-7-3:17</td>
<td>Rehab.</td>
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<td>Lum Watt Trust</td>
<td>751</td>
<td>1-7-3:22</td>
<td>Acquire</td>
</tr>
<tr>
<td>James S. K. Tam</td>
<td>695</td>
<td>1-7-3:23</td>
<td>Acquire</td>
</tr>
<tr>
<td>Juliet C. Magoon Trust Estate</td>
<td>2,766</td>
<td>1-7-3:24</td>
<td>Acquire</td>
</tr>
<tr>
<td>Lum Yip Kee, Ltd. (portion)</td>
<td>1,320</td>
<td>1-7-3:25</td>
<td>Acquire</td>
</tr>
<tr>
<td>Wilfred W. C. Lum</td>
<td>935</td>
<td>1-7-3:91</td>
<td>Acquire</td>
</tr>
<tr>
<td>Bing Kong &amp; Lean Qui Chun (portion)</td>
<td>460</td>
<td>1-7-3:92</td>
<td>Acquire</td>
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<tr>
<td><strong>West (Ewa) Block</strong></td>
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<tr>
<td>Hon Young Wong, et al.</td>
<td>19,959</td>
<td>1-7-3:32</td>
<td>Acquire</td>
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<td>Lung Doo Chun Sin Benevolent Society</td>
<td>1,128</td>
<td>1-7-3:33</td>
<td>Rehab.</td>
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<tr>
<td>Foo Ying Chee</td>
<td>3,479</td>
<td>1-7-3:35</td>
<td>Rehab.</td>
</tr>
<tr>
<td>Lau &amp; Lau Properties, Inc.</td>
<td>3,674</td>
<td>1-7-3:36</td>
<td>Rehab.</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>65,996</strong></td>
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C. EXISTING LAND USES

A major portion of the block east of Keaulike Street is presently used as an at-grade municipal parking lot containing 83 metered parking stalls. This parking lot is heavily used by the general public due to its central location in the commercial core of Chinatown. The remaining parcels are privately owned and utilized for a variety of retail and service establishments including bars, restaurants and ethnic shops with the exception of a vacant parcel at the corner of Hotel and Keaulike Streets. The existing uses include: Kim Fat Market, Hong Linh Crack Seed Store, Elsie's, Sun Cheong Company, Ltd., Ruby Restaurant, Fook Sau Tong Chinese Herbalist, and Nguyen-Phong Store.

Within the block west of Keaulike Street are apartment buildings, commercial and service establishments. City Villa, a four-story apartment building; and a two-story apartment complex located on the Hon Young Wong property are among the residences included in the project area. A few commercial bays on the Hon Young Wong property are closed and boarded. The commercial-service establishments in the project area include: Kimura Flowers, Ying Leong Look Fun Factory, Club Y.C. III, Le Vinh Jewelry Repair, Ricky's Barber Shop, Olympic Coffee Shop, Uncle Mary Buy Sell Trade, and Cebu Pool Hall.

D. SURROUNDING LAND USES

Commercial establishments surrounding the Keaulike parking lot include a variety of jewelry shops, clothing stores, markets, lei shops, restaurants, a travel agency, crack seed store, and bars. Many of the specialty stores, general merchandise, and
eating establishments cater to the Chinese community, especially along and in the vicinity of Maunakea Street. The Wo Fat Chop Sui Restaurant is adjacent to the project site at the corner of Maunakea and Hotel Streets.

Along Hotel Street in the vicinity of the site, there are numerous ethnic restaurants and markets. The Maunakea Marketplace Mall lies directly mauka of Kekaulike Street and provides pedestrian access to and from Hotel and Pauahi Streets.

On the west side of Kekaulike Street, surrounding uses include jewelry shops, clothing stores, travel agency, restaurants, liquor stores, markets, a beauty salon and a private club. Lung Doo Benevolent Society, a private organization, is located on the western corner of Hotel and Kekaulike Streets.

Primarily Vietnamese restaurants are located on the block along River Street. Nuuanu Stream lies alongside of River Street.

Along King Street makai of the project, some of the major establishments in the area include the Bank of Hawaii, Ting Yin Chop Sui, and the King and Oahu Markets.
DESCRIPTION OF THE PROPOSED PROJECT
II. DESCRIPTION OF THE PROPOSED PROJECT

A. PROJECT DESCRIPTION

The Kekaulike Revitalization Project proposes to substantially develop much of two blocks within the heart of Chinatown, in the area bounded by King, Maunakea, Hotel, and River Streets. Kekaulike Street, which bisects the two blocks, is the focal point of the revitalization project.

Major elements of the revitalization project include:

- a mixed-use complex on the existing Kekaulike Parking Lot consisting of approximately 78 one-bedroom and studio market residential units, approximately 8,322 square feet of leasable commercial space, and approximately 174 parking stalls a portion of which will be located below Kekaulike Street Mall;

- acquisition of selected parcels on the west side of Kekaulike Street to develop approximately 76 studio rental units for low and moderate income housing, and approximately 6,514 square feet of commercial space;

- closure of Kekaulike Street mauka of King Street and conversion of the closed portion into a landscaped pedestrian mall linking Hotel and King Streets; and

- rehabilitation of adjacent and surrounding properties.
The entire project will be developed within the 40-foot height limit established for the Chinatown District and will have building designs consistent with the Chinatown area.

The overall master plan for redevelopment envisions two major phases, as shown in Figure 5. The development of the Kekaulike Parking Lot and surrounding properties into a low-rise mixed-use development consists of the following:

**Phase I:**
- Approximately 78 residential units, including 6 studios & 72 one-bedroom market priced/temporary relocation units in 3 buildings separated by landscaped courtyards
- Approximately 8,322 square feet of commercial ground floor space fronting Maunakea, Kekaulike and Hotel Streets
- Approximately 174 parking stalls on ground level and two below-grade levels
- Conversion of Kekaulike Street into a pedestrian mall, including rehabilitation of the facades of Parcels 33, 34, 35 and 36.

**Phase II:**
- Approximately 76 residential units, single-room occupancy low-moderate income rental units in a "U-shaped" four-story structure surrounding a landscaped courtyard
- Approximately 6,514 square feet of commercial ground floor space fronting Hotel Street

**Phase I - Kekaulike Block**

The first phase of the project consists of the redevelopment of the Kekaulike parking lot into a mixed-use residential, commercial, and parking structure. Also
to be pursued in this phase is the conversion of Kekaulike Street into a pedestrian mall and the rehabilitation of adjacent buildings. (See Figures 6, 7, 8, 9 and 10).

The Lung Doo Chung Sin Tong Benevolent Society may also participate in the rehabilitation efforts planned for the project. The property is located in the Ewa block at the corner of Kekaulike and Hotel Streets, TMK 1-7-03: parcel 33.

Several adjacent parcels are proposed to be acquired to consolidate and achieve the desired floor area. To supplement the 26,808 square foot parking lot site, approximately 6,900 square feet of land area are to be acquired with Community Development Block Grant Funds.

A four-story mixed-use structure will be developed to accommodate facilities for 78 residential units, approximately 174 parking stalls, two garden courts and 8,322 square feet of retail space. The existing 83 metered parking stalls will be replaced within the mixed-use structure and an additional 91 parking stalls will be provided for public and commercial uses.

The 78 residential units will serve as temporary relocation housing for the tenants to be displaced by the Phase II development. The temporary relocation housing will ultimately be converted to permanent market housing.

Mauka of King Street, Kekaulike Street will be closed and redeveloped as a pedestrian mall, linking Hotel and King Streets. Extensive landscaping and the rehabilitation of adjacent buildings are planned to enhance the overall appearance of the proposed mall area.
Residential Units - Three buildings containing approximately 6 studios and 72 one-bedroom units are planned for the second, third and fourth floors with storage, laundry and trash facilities on each floor. The third and fourth levels of the building will be set back to enable matching of cornice lines and scale of the existing buildings. Two interior garden courtyards separating the residential structures on the second level will provide the residents with landscaped open space as well as passive recreational opportunities. During Phase I, priority for these units will be rented to low and moderate income households displaced when residential units in the Ewa block are demolished for the Phase II redevelopment. The units will be converted to market-rate rental units upon completion of the entire project.

Commercial Facilities - Approximately 8,322 square feet of retail space will be provided at street level. Commercial access will be through Kekaulike Mall, Hotel Street, Maunakea Street and the parking garage.

Parking Facilities - Approximately 174 parking stalls will be located at street level and on two underground levels. Vehicles will enter and exit the parking garage from Maunakea Street. Parking stalls may not be available for a portion of the residential units. Pedestrian access to the garage will be through Kekaulike and Maunakea Streets. Stairwells located on Maunakea Street and Kekaulike Mall lobbies will provide access within the building.

Kekaulike Pedestrian Mall - Kekaulike Street will be closed to vehicular traffic and converted to an open-air pedestrian mall. One of the functions of the Kekaulike Mall is to serve as a connection between the Oahu Marketplace and the Maunakea Marketplace. The mall will be generously and appropriately landscaped with some
mature trees and street furniture. Building elevations along the Mall will be limited to two stories to maintain the character and scale of Chinatown.

**Rehabilitation** - Rehabilitation along the Ewa side of the planned Kekaulike Mall as well as for the Maunakea-King Street corner parcel will be in accordance with design standards established to promote exterior facades consistent with the Chinatown District. No structural changes are planned.

**Phase II - Ewa Block**

Phase II on the ewa side of Kekaulike Street also consists of a four-story residential and commercial mixed-use development, but without any parking. There will be approximately 76 residential units, all of which will be affordable rental units geared for low and moderate income persons. Commercial development of approximately 6,514 square feet as well as residential units will occupy the ground floor level of the redeveloped complex. (See Figures 11 and 12).

**Residential Units** - The ewa complex will provide approximately 76 affordable single-room occupancy units in a "U-shaped" building. Residential passive recreational needs will be met by a 50 feet by 100 feet courtyard area located at street level. (See Figure 13). Storage and trash facilities are provided on each level and access to the residential units will be provided through a lobby entry off of River Street.

**Commercial Facilities** - Commercial space of approximately 6,514 square feet will be provided at ground level with storefront access through the Hotel Street Mall, Kekaulike Street Mall, and River Street.
B. PROJECT NEED

The Kekaulike Street Parking Lot is an underutilized parcel in the middle of Chinatown which has yet to undergo significant redevelopment. The City and County of Honolulu intends to continue its revitalization efforts in the Chinatown area through the coordinated redevelopment of the project site by providing new and additional rental housing units for low and moderate income persons, additional parking and additional commercial space. The proposed uses will generate new consumers for existing retail and service businesses, hastening the revitalization of the locality.

The conversion of Kekaulike Street into a landscaped pedestrian mall and renovation of adjacent buildings will facilitate pedestrian access to the businesses and further attract visitation to the area.

C. DEVELOPMENT CONCEPT

The overall development concept for the Kekaulike Revitalization Development is to combine residential parking, public space and commercial opportunities to further the economic revitalization of downtown Honolulu.

Phase I development plans include replacement and additions to the 83 public parking stalls. The ground floor will provide retail space. Seventy-eight residential units will be developed on the second, third, and fourth floors on the Diamond Head site. An additional 76 affordable rental units and commercial area are planned for Phase II.
The Kekaulike Revitalization Project lies within the Chinatown Historic District, listed in both the National and State Registers of Historic Places, and the Historic Core Precinct of the Chinatown Special District designated pursuant to the City's Land Use Ordinance. The proposed development is subject to a 40-foot height limit and other design requirements including review by the Federal Advisory Council on Historic Preservation resulting in the approval of a "Memorandum of Agreement", review and signing of the building permit by the State Historic Preservation Officer and approval of a City Special District Permit by the Department of Land Utilization.

A consistent architectural scheme incorporating contemporary versions of the Old Honolulu style found throughout Chinatown will ensure sensitivity to the area's details and finishes. The following characteristics of the Old Honolulu style are incorporated in the proposed design:

- Retail storefronts are completely open.
- A continuous building facade is provided.
- A regular rhythm of openings facing the street and pedestrian mall is incorporated.
- Openings get smaller as the building rises to create a hierarchy of building proportion.
- Sidewalk canopies and historic signage are featured.
- Articulated parapets and facades are present at major entry points.
Contemporary interpretations of neo-classical detailing are used.

D. ESTIMATED PROJECT COST/SCHEDULE

Construction for Phase I is scheduled to begin the first quarter of 1992. Phase I occupancy and Phase II development is scheduled for the second quarter of 1994. Phase II occupancy will occur in 1996. Total development costs are estimated at $30,000,000. Community Development Block Grant funds and general obligation bond funds have been appropriated in the City's FY 1990, 1991 and 1992 Capital Improvements Program budget.

Rehabilitation costs to the aforementioned four properties will be incurred by the individual owners. The owners participating in the rehabilitation effort must have their plans approved by the City. The deadline for completion of rehabilitation work will be set by mutual agreement.
DESCRIPTION OF THE EXISTING ENVIRONMENT
III. DESCRIPTION OF THE EXISTING ENVIRONMENT

A. CLIMATE

The climate of the Downtown Honolulu area is typical of the leeward coastal lowlands of Oahu. The area is characterized by abundant sunshine, persistent trade winds, relatively constant temperatures, moderate humidities, and the infrequency of severe storms.

The prevailing wind throughout the year is the northeasterly trade wind, although its frequency varies from more than 90 percent during the summer months to 50 percent in January. The average annual velocity of the wind is approximately 10 miles per hour.

The mean temperature in Honolulu ranges from 73 degrees Fahrenheit in the winter to 82 degrees in the summer. The mean annual rainfall is 23 inches. On the average about 50 percent of the total annual rainfall occurs during the three wettest months -- December through February. Relative humidity ranges between 56 and 72 percent.

B. GEOLOGY AND HYDROLOGY

Oahu's south central coast, geographically referred to as the Honolulu Plain, is underlain by a broad elevated coral reef which has been partly covered by alluvium carried down from the mountains. Core samples reveal that lava flows of the Honolulu Volcanic Series are interbedded with these reef deposits which were
formed when sea level was higher than it is now. Prior to the dredging and filling of Honolulu Harbor, the shoreline area consisted of submerged coral reefs, mudflats, and islands.

The same interbedding of coral and alluvial deposits which play an important role in Oahu’s geology also influenced the hydrological character of Oahu’s leeward coastline. The interface between upper sedimentary layers and the underlying basalt constitutes a zone of low permeability known as caprock. This caprock extends along the coastline about 800 to 900 feet below sea level, forming an impervious zone which prevents the seaward movement of potable water from the basaltic aquifers.

The width and thickness of the caprock suggests that the basal potable water supply will be relatively unaffected by modifications near the coastline. This is supported by the fact that filling of most of Honolulu’s salt marshes and lowlands over the past 40 years with dredged marine deposits of high saline content has produced no deterioration in the quality of the basal water recovered by the Board of Water Supply’s wells.

The Flood Insurance Rate Map indicates that the project site lies in Zone X, an area of minimal flooding outside the 500-year floodplain. The site is not in a designated tsunami zone.

C. TOPOGRAPHY

The project site and surrounding areas are relatively flat and contain no unique or unusual topographic features. The site elevations range from approximately 10 feet to 15 feet above sea level, with an average slope of 1 to 2 percent. The project site
is approximately two feet higher on the Hotel Street side of the site than the King Street side. The Kekaulike block is 4 to 5 feet higher on the Maunakea Street side.

D. **SOILS**

According to the U.S. Department of Agriculture Soil Conservation Service, the Kekaulike project site consists of soil classified as Ewa silty clay loam (EmA) with a moderately shallow, 0 to 2 percent, slope. This soil occurs on alluvial fans and terraces. The surface layer is a dark reddish-brown silty clay loam. Depth to coral limestone is 20 to 50 inches. The subsoil is dark reddish-brown and dark-red silty clay loam that has a subangular blocky structure. Permeability is moderate, runoff is slow, and the erosion hazard is slight. The available water capacity is about 1.3 inches per foot in the surface layer and 1.4 inches per foot in the subsoil.

E. **FLORA AND FAUNA**

Generally, the project site and the surrounding area is a highly altered urban environment, providing little habitat for any terrestrial flora and fauna because the project site is completely occupied by buildings or covered by asphalt or concrete pavement.

Species of cats and mice common to inner city environments are present at the site. The site does not provide a habitat for native or endangered avifauna, although species common to urban areas such as mynahs, finches, and doves are seen in the area.
F. AIR QUALITY

An air quality analysis was conducted in February 1991 for the Kekaulike Project by Environmental Technologies, Inc. The study is included in Appendix A with portions of it summarized here.

Ambient air quality concentrations are regulated by both national and State of Hawaii standards. The State Ambient Air Quality Standards (AAQS) have been patterned after the National Air Quality Standards and are currently established for six pollutants. These pollutants include: particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, and lead.

The National AAQS are stated in terms of primary and secondary standards reflecting the maximum allowable concentrations for specific air pollutants. The primary standards are designed to protect the public health by an adequate margin of safety. The secondary standards are designed to protect public welfare from any known or anticipated adverse pollutant effects. The State AAQS are given in terms of a single standard that is defined to protect public health and welfare as well as prevent significant deterioration of the ambient air quality. The State standards in some cases are more stringent than the National standards. Specifically, the 1-hour carbon monoxide State AAQS is four times as stringent as the National AAQS.

The existing air quality within the project area is primarily affected by mobile sources, industrial, natural, and distant agricultural sources. Nitrogen oxide and carbon monoxide emissions from motor vehicles on nearby heavily used roadways affect the project site. Air pollutants such as salt spray from the ocean, allergens produced by vegetation, dust and volcanic gases could also affect the project area.
The Hawaiian Electric Company, Inc.'s Honolulu Power Plant is located in proximity to the project site. The existing air quality in the project vicinity could be affected by nitrogen oxide and sulfur oxide emissions from the power plant’s short boiler stacks.

Suspended particulate matter monitored in proximity to the project site were well below the State standard. Particulate matter less than 10 microns in size monitored at the Kauluwela School located approximately 1.5 miles north of the project were also well below the National AAQS.

Carbon monoxide concentrations are monitored at the Department of Health building in downtown Honolulu. Exceedances of the 1-hour ambient State standard occurred in 1985, 1986 and 1987, however, exceedances of the 8-hour ambient State standard have not been recorded.

Ambient ozone, lead, sulfur dioxide and nitrogen dioxide concentrations monitored were all well below the State and National AAQS.

G. NOISE

A noise study was conducted for the proposed project in January 1991 by Y. Ebisu & Associates. The study is included in Appendix B of this EIS. The report indicates existing traffic noise levels in the project environs along King, Hotel, Maunakea and River Streets are in the "Significant Exposure, Normally Unacceptable" category. In the interior portions of the project site, where existing buildings obstruct traffic noise from major thoroughfares, the existing traffic noise levels are in the "Moderate Exposure, Acceptable" category.
Results of the calculation of existing traffic noise levels show that noise levels on King and Hotel Streets are high and are greater than 65 Ln. (Ldn is a day-night average sound level weighted to account for greater sensitivity for late evening and early morning noise.) Along River and Maunakea Streets, traffic noise levels are greater when there is direct line-of-sight to the noisier King and Hotel Streets.

H. ACCESS AND UTILITIES

1. ACCESS AND TRAFFIC

Existing access to the project site is provided from Kekaulike, Hotel, Maunakea, King and River Streets. Pedestrian access is provided through easements currently existing as portals or alleyways between existing buildings on Hotel Street and King Street.

The project site incorporates two blocks bounded by Hotel, Maunakea, River and King Streets. Kekaulike Street, which bisects the site, terminates at the mauka end where it intersects with Hotel Street. Kekaulike Street runs one-way in the makai direction between King Street and Beretania Street and becomes two-way makai of King Street to Nimitz Highway. Maunakea Street is a two-lane secondary roadway which parallels Kekaulike Street and runs one-way in the makai direction mauka of King Street. It is a two-lane roadway intersecting King Street and Nimitz Highway. Hotel Street is a two-way, two-lane transit mall running in a east-west direction to the site. King Street is a major four-lane one-way arterial running in the Diamond Head direction. River Street is a two-lane secondary roadway system servicing mauka and makai bound traffic.
According to the traffic analysis conducted by Wilbur Smith Associates in January 1991 for the Kekaulike Revitalization Project (Appendix C), most of the intersections directly affecting the project area are generally operating at acceptable Level-of-Service (LOS) ratings of A through D with a volume-to-capacity ratio of less than 1.0. However, the Nimitz/River and Nimitz/Nuuanu intersections operate at an LOS F rating. This rating was caused by a few traffic movements having a volume-to-capacity ratio of greater than 1.2.

2. MASS TRANSIT

The project site is well served by the municipal bus system. Nearly all of the city's major bus routes converge in Downtown Honolulu along the Hotel, King, and Beretania Street corridors. Hotel Street is a transit mall exclusively reserved for bus traffic.

3. WATER SYSTEM

The project site is served with potable water from the Board of Water Supply's Honolulu District through a 12-inch water transmission main on King and Maunakea Streets, an 8-inch water line on Hotel Street, and a 6-inch water line on Kekaulike Street.

4. WASTEWATER SYSTEM

The project site is served by an 8-inch sewer line along Hotel, Maunakea, King, and Kekaulike Streets. Sewage is ultimately conveyed to the Sand Island Wastewater Treatment Plant.
5. DRAINAGE SYSTEM

Surface runoff is collected and discharged into Honolulu Harbor from catch basins at these locations: corner of Kekaulike and King Streets, and corner of Maunakea and King Streets.

6. OTHER UTILITIES

Gas, electric and telephone lines are presently available at the project site.

I. ARCHAEOLOGICAL RESOURCES

A historical and archaeological review was conducted by Bishop Museum in January 1991 for the Kekaulike Revitalization Project. See Appendix E.

The project site lies within an area previously known as Kikihale, bounded by Hotel, Maunakea, King and River Streets. Initially occupied as housesites by native Hawaiians, it gradually transitioned into a Hawaiian-Chinese business district.

Prior to 1848, the area included Pehu's Fishpond, located near the corner of River and Hotel Streets, Kikihale Flume, fenced houseslots, sailmaking shops, blacksmith shops, and Liberty Hall Barroom. In 1879, Chinese businesses and a boarding house was recorded at the site. In 1886, the first of two Chinatown fires occurred on Hotel Street. Businesses were rebuilt, but in 1900 in an attempt to control the bubonic plague, a fire set by the fire department went out of control. Lost and burned land ownership records resulted in new land ownerships. Resulting businesses included general merchandise stores, a vacant building, a doctor's office,
a barber, a blacksmith, two dwellings, a coffee shop, 13 shop spaces, 2 druggists, a restaurant, and a plumber. Water and sewer lines were installed in the 1830s and early 1900s.

A portion of a prehistoric graveyard site lies under the parking lot site near King and Maunakea Streets.

J. HISTORIC BUILDINGS

An analysis of the existing built environment with particular focus on historic buildings in the area was conducted by Spencer Mason Architects in March 1991. (See Appendix D).

The special historic, cultural, and architectural values of Chinatown were recognized by its placement on the National Register of Historic Places in January 1973. The National Register boundary generally follows the City's Chinatown Special District boundary. The architectural significance of the district derives more from the grouping of similar buildings than from individually distinctive structures.

The Phase I Kekaulike parking block includes three buildings and the rear projections of two buildings on the project site. None of these have historic or architectural significance, and most are recent concrete block structures with utilitarian designs.

In the Ewa block, the buildings on the Hon Young Wong site, TMK 1-7-03: 32 are of greater historical significance due to their age, social history, and material of construction. Constructed in the early 1900s, these are among the few remaining wooden buildings in Chinatown, probably the oldest wooden buildings, and certainly

III-9
the last with an imposing presence. The main building creates a unique streetscape in Chinatown, while the interior jumble of buildings reflects the way people lived in Chinatown.

K. SOCIO-ECONOMIC ENVIRONMENT

A social impact assessment study of the project site and surrounding area was conducted by Earthplan in April 1991 (see Appendix F). The Kekaulike project site is in the heart of Chinatown adjacent to Honolulu's Central Business District. Currently, economic activity in Chinatown includes a variety of retail and business services and a few wholesale and manufacturing businesses. The market for goods and services in Chinatown is segmented into three distinct groups: the Chinatown residents, the lunch and shopping customers, and the evening adult entertainment patrons.

- **Chinatown Residents** - The local Chinatown residents provide a strong market for less expensive ethnic restaurants and convenience goods and services. With the majority of residents living in studio apartments with limited cooking facilities, most meals are eaten in neighborhood restaurants.

- **Lunch and Shopping Customers** - Shoppers and employees from the financial district provide a strong, stable market for lunch business. Many of the restaurants have noontime waiting lines.
- Evening Customers - Non-residents frequent the adult entertainment in the evenings when most of the businesses servicing local residents are closed. The concentration of adult entertainment draws market support islandwide.

The physical decline that occurred in Chinatown is a phenomenon that has occurred in the older portions of many cities on the U.S. mainland and in older countries. Chinatown's decline occurred in stages and was the result of several factors:

- The decline began in the 1950s with the clearance of adjacent areas for urban renewal. This significantly reduced the resident population and thus diminished the resident market that supported Chinatown's stores.

- The decline was compounded in the late 1950s when the development of the Ala Moana Shopping Center shifted retail activity away from the downtown-Chinatown area. As a consequence, retail sales in the area decreased substantially and vacancies increased.

- Anticipating the need to eventually vacate buildings for urban renewal, property owners and managers tended not to offer tenants long-term leases. Consequently, tenant improvements were either not maintained or were minimal, contributing to the area's decline.

- The proliferation of adult entertainment and related activities and clientele created a tainted image for the district. These businesses tended to deter market support of the conventional retail establishments, resulting in many shops reducing their operating hours.

III-11
Reinvestment activity is deterred by the area's physical environment including the condition of surrounding properties, insufficient parking, narrow sidewalks, and limited public areas. The unavailability of large sites also deters development. This arises due to the area's small and irregular lots averaging 3,200 square feet, and the presence of trust and absentee owners who are either not motivated to redevelop or are satisfied with the return derived by their property under the status quo.

The site is within the boundaries of the Downtown Neighborhood Board No. 13 and is located in the 18th Senatorial District and the 34th Representative District. The study area includes the Downtown sub-area made up of Census Tracts 40 and 42, and the Chinatown sub-area made up of Census Tracts 51 and 52. (See Figure 14).

1. POPULATION AND HOUSING

The rate of population growth in the City and County of Honolulu has been steadily decreasing over recent decades. The islandwide average annual population growth rate decreased from 2.3 percent in the 1960s, to 1.9 percent in the 1970s, to less than 1 percent in the 1980s.

Based on the 1990 Census, an estimated 8,542 people lived in the study area. The study area population growth rate fluctuated because of redevelopment efforts. Between 1960 and 1970, the residential population in both the Downtown and Chinatown areas decreased by 5.4 percent a year. Since 1970, the population has increased with the highest annual growth rates occurring in the 1970s.

III-12
The Census Tract 40 population decreased in the 1960s but increased during the 1970s with the development of Harbor Square Town and Harbor Towers. This area has continued to grow in the 1980s, mostly because of the addition of residential units in Executive Centre. An estimated 991 persons lived in this makai portion of Downtown in 1990. In Census Tract 42, the population grew the most between 1970 and 1980, with an annual growth rate of 10.6 percent. This was due mostly because of the addition of Kukui Plaza. Since 1980, the residential population of this area has remained stable. The 1990 population is estimated at 2,672 persons.

In Chinatown, revitalization and urbanization efforts caused the virtual elimination of the residential population in the mauka portion (Census Tract 51) in the 1960s, followed by the addition of 1,600 residents in new multi-family housing units developed by the City during the 1970s. In the 1980s, this area has continued to grow that by 1990 there were 2,399 persons. The makai portion of Chinatown, or Census Tract 52, also has a fluctuating residential population. In the 1960s, growth was modest at 1.3 percent a year. Although the population decreased in the 1970s, this area's population almost tripled between 1980 and 1988, as new multi-family housing projects were constructed in the 1980s. Based on the 1990 Census, there are now an estimated 2,480 persons in this area.

Based on the 1980 U.S. Census, the residential units in the area are virtually all in multiple-unit buildings and small, in comparison to the City and County norm. The average number of persons per household is much lower than in the City and County as a whole. In all the study area tracts, most units were occupied by renters. On the Downtown side of the study area most
units were condominiums. In most of the study area, 1980 rents were below the City and County average. This is in part because of the relatively high density of government-subsidized housing in the area.

According to City estimates, the study area contained 4,831 residential units in 1989. Virtually all of these units continue to be multi-family units, with over half (57 percent) of the units in Chinatown.

2. POPULATION AND FAMILY CHARACTERISTICS

The 1980 Census shows that the people of the study area were relatively older when compared to the islandwide population. In much of the study area, a large part of the 1980 population lived in non-family households. Throughout the study area, the average number of persons per family was below the City and County average. In all tracts, the majority of the 1980 population was not Hawaii-born, though the population of different tracts vary in background.

The Downtown sub-area and the Chinatown sub-area communities differed in several respects. In the Downtown sub-area, the population was relatively well-educated and affluent. Median family incomes in the makai portion of Downtown were well above the Oahu average in 1980, while mauka incomes were close to the average. In both tracts, few families had incomes below the poverty line. Most families in the Downtown Sub-area did not have children in the household in 1980. Caucasians formed the largest ethnic group in this area. While many residents were Hawaii-born, a high
percentage were from other states. The proportion of the population who had lived in the same house five years previously was low, mostly because of the then new residential units.

In the Chinatown sub-area, most residents were far less affluent in 1980. The proportion of both family and non-family households below the poverty line in Census Tracts 51 and 52 were well above the Oahu averages. Also, many residents had relatively less schooling.

3. EMPLOYMENT AND LABOR FORCE CHARACTERISTICS

In 1985, approximately 42,580 people worked in the study area. Over 36,000 people, or 85 percent, worked in the Central Business District which is mostly Census Tract 40. In Chinatown, there were 4,653 jobs mostly in retail, at 28 percent, and service, at 25 percent.

The 1980 Census showed residents in the Downtown side of the study area were likely to have relatively high-status and well paid occupations. Laborers and service workers were numerous on the Chinatown side. Labor force participation was high among Downtown sub-area residents, while many more adults were not in the labor force on the Chinatown side. Unemployment was relatively high in Chinatown. Although residents of the study area live near Honolulu's financial and government center, they had to spend about as much time getting to work as did other Oahu residents in 1980.
4. SCHOOLS

Primary and secondary public schools which service the project site area are Kaiulani Elementary School, Central Intermediate School and McKinley High School. Kaiulani Elementary School is located on King Street, adjacent to Honolulu Community College. Central Intermediate School is located on the block bounded by Pali Highway, Kukui Street, Queen Emma Street, and Vineyard Boulevard. McKinley High School is on the corner of King and Pensacola Streets, adjacent to the Neal Blaisdell Center. The Department of Education (DOE) has indicated that Kaiulani Elementary, Central Intermediate and McKinley High Schools have adequate capacity to accommodate the increase in enrollment projected for the project. The projection is based on the assumption that residents will be single or those with few children. The following projection is provided by DOE:

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Projected Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiulani Elementary School</td>
<td>K-5</td>
<td>10</td>
</tr>
<tr>
<td>Central Intermediate School</td>
<td>6-8</td>
<td>4</td>
</tr>
<tr>
<td>McKinley High School</td>
<td>9-12</td>
<td>6</td>
</tr>
</tbody>
</table>

5. PARKS AND RECREATIONAL FACILITIES

The Kekaulike Project is accessible to a variety of parks, playgrounds and open spaces with facilities for both active and passive activities. Foster Botanic Garden and Aala International Park provide passive recreational activities in the area. Neighborhood playgrounds are provided by Kamamalu and Beretania Playgrounds. Passive recreational areas and open space
facilities are provided at Emma Square, Kamalii Park, Wilcox Mini Park and Chinatown Gateway Plaza. Maunakea Mall, which is located near the project site mauka or Kekaulike Street, contains an open courtyard in the center of the mall allowing passive recreational activities. Pauahi Recreational Center, a two-story 6,000 square foot facility, provides for both active and passive recreational activities in the area.

6. POLICE AND FIRE PROTECTION

Fire Station: The project will be serviced by the Central Fire Station, an engine company, located at the intersection of Beretania and Fort Streets approximately 0.5 mile east of the site. The Kakaako and Kuakini Fire Stations, both of which are engine and ladder companies, are also available to respond to an initial fire alarm in the Downtown area.

Police Station: The project area is located within the Honolulu Metropolitan Police District I which extends from Hawaii Kai to Pearl City. District I headquarters is currently located in Pawaa, but will be relocating in 1991 to a facility on Alapai Street between Beretania and Hotel Streets where the bus depot is presently located. In addition, the Downtown Substation was recently established at Nuuanu and Hotel Streets near the project site. At any given time, a total of six to eight officers patrol the study area in Cushman vehicles, automobiles, and on foot.
7. HEALTH CARE SERVICES

The project will have adequate access to medical services from:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Location</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queens Hospital</td>
<td>Punchbowl Street</td>
<td>0.75 mile</td>
</tr>
<tr>
<td>Straub Clinic</td>
<td>King and Ward Street</td>
<td>1.50 miles</td>
</tr>
<tr>
<td>St. Francis Hospital</td>
<td>Puumui Street</td>
<td>1.25 miles</td>
</tr>
<tr>
<td>Kuakini Hospital</td>
<td>Kuakini Street</td>
<td>1.00 mile</td>
</tr>
</tbody>
</table>

These medical facilities are located only 3 to 10 minutes away by car and provide a full range of services, including 24-hour emergency service. Mobile emergency care is provided by the City's 10 ambulance units and three contractual ambulance units.
IV. RELATIONSHIP TO PLANS, POLICIES AND CONTROLS

This section discusses the Federal, State of Hawaii and City and County of Honolulu plans, policies, and controls which affect the proposed project.

A. NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED - SECTION 106

Provisions of the National Historic Preservation Act of 1966, as amended, apply to the Kekaulike Revitalization Project. It has been determined that the project, funded in part from the Community Development Block Grant (CDBG) Program of the U.S. Department of Housing and Urban Development (HUD), will have an effect upon properties included in or eligible for the National Register of Historic Places.

On May 17, 1991, the City transmitted descriptions of the project and an analysis of its anticipated impacts on archaeological and historic resources to the Hawaii State Historic Preservation Officer (SHPO) and other interested parties pursuant to the regulations, 36 CFR Part 800, implementing Section 106 of the National Historic Preservation Act, 16 U.S.C. 470(f). A list of consulted parties and copies of the responses received as of July 3, 1991 is included in Chapter XII Consulted Comments Received and Responses.

Following collection and review of input from the interested parties in the EIS process, the City and SHPO will draft a Memorandum of Agreement in accordance with 36 CFR section 800.6(a)(1)(i) based on a determination that the project will have an adverse effect upon the historic character of the Chinatown Historic District.

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The Memorandum of Agreement, with stipulations to take into account the effect of the project, will be transmitted to the Advisory Council on Historic Preservation for review and approval.

As a required signatory to the building permit, the SHPO will review the project building permit application. An archaeologist acceptable to the SHPO will be hired to study the site prior to any demolition or construction activity and will be retained for the duration of the construction activity. The monitoring of construction activities shall be in accordance with 36 CFR 800.11(b). Should any archaeological resources be discovered, the City will follow the provisions of the Advisory Council regulations ((36 CFR 800.11(a)).

B. HAWAII STATE PLAN

The Hawaii State Plan, embodied in Chapter 226, Hawaii Revised Statutes, serves as a guide for goals, objectives, policies and priorities for the State. The State Plan provides a basis for determining priorities and allocating limited resources and improve coordination of State and County plans, policies, programs, programs, projects and regulatory activities.

The proposed project will help increase and encourage the physical, social and economic opportunities for the State of Hawaii. The area and its amenities will appeal to residents and visitors alike because of its historic Chinatown and Honolulu waterfront location.
Section 226-6 Planning for the State economy in general shall be directed toward achievement of the following objectives:

(a)(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawaii people.

The project will create numerous short-term and long-term employment opportunities. Short-term employment will be available during the construction period. In the long-term increased physical, social and economic opportunities will result with the development of new residential and commercial spaces. Additional job opportunities will be created by the increased commercial area and renovations planned for the buildings in the area.

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

(b)(6) Encourage design and construction practices that enhance the physical qualities of Hawaii communities.

(b)(7) Encourage urban developments in close proximity to existing services and facilities.

The Kekaulike Revitalization Project will be designed in a manner to preserve the architectural character of the historic Chinatown District and enhance its physical appearance. The project takes advantage of existing infrastructure and its proximity to all community services.

Section 226-19 Objective and policies for socio-cultural advancement - housing.

(b)(2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income and gap-group households.
(b)(3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style and size of housing.

(b)(6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.

The project will provide for a more intensive use of the site. The Kekaulike Parking Lot and commercial establishments will be redeveloped to provide an increased supply of residential units.

The Kekaulike Revitalization Project will provide 76 of its 154 new housing units for low and moderate income and gap group households. The remaining 78 units will be provided at market prices. The project will include a range of studio and one-bedroom units.

Located in the heart of Chinatown and adjacent to the Downtown Business District, residents will be provided convenient access to employment, services and shops.

C. STATE FUNCTIONAL PLANS

The preparation of fourteen functional plans was required by the State Plan to provide more detail by addressing functional areas at a statewide level. The functional plan areas include agriculture, conservation lands, education, energy, health, higher education, historic preservation, housing, recreation, tourism, water resources development, transportation, and the recently included plans on employment and human services. The following are related objectives, policies and implementing actions:
State Housing Functional Plan

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

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

The City and County of Honolulu proposes to develop 76 affordable rental units on the site ewa of Kekaulike Street. Low to moderate income groups are expected to benefit from the below-market rental units. Financing for the project will be through the City Community Development Block Grant and general obligation bond funds in the City Capital Improvements Program budget.

Policy E(3): Where feasible, acquire privately owned lands that are suitable for housing development.

Implementing Action E(3)(b): Locate privately owned lands suitable for residential development and either purchase or condemn for future housing development.

The City will acquire one privately-owned parcel for the residential/commercial complex on the Ewa block. All of four and portions of two privately-owned parcels on the Diamond Head block will be acquired for Phase I development.

Historic Preservation Functional Plan

Objective B: Compilation of an inventory that adequately locates and describes a significant portion of Hawaii historic properties.

Objective C: Implementation of adequate legal measures to minimize adverse impacts to significant historic properties.
Included in the project planning and environmental assessment phase is an inventory and assessment of the historic buildings in the area and potential relationship and impacts of the proposed developments. Care will be taken to ensure that the design and renovation programs will be compatible with the historic character of the Chinatown District.

D. STATE LAND USE DISTRICT CLASSIFICATION

Pursuant to the Hawaii Land Use Law of Chapter 205, Hawaii Revised Statutes, all land in the State are classified in four districts by the State Land Use Commission: Urban, Agricultural, Conservation, and Rural. The project site and the surrounding area are within the Urban District. The project is consistent and compatible with this land use designation.

E. CITY AND COUNTY OF HONOLULU GENERAL PLAN

The General Plan for the City and County of Honolulu provides a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of the people of Oahu. Using a 20-year time horizon, broad policies are also specified to facilitate attainment of the objectives of the Plan.

POPULATION

OBJECTIVE C - To establish a pattern of population distribution that will allow the people of Oahu to live and work in harmony.

POLICY 1: Facilitate the full development of the primary urban center.
The proposed development, located in Oahu Primary Urban Center, will replace underutilized and deteriorated commercial, residential, and parking facilities and increase residential and employment opportunities for the area.

**HOUSING**

**OBJECTIVE A** - To provide decent housing for all the people of Oahu at prices they can afford.

**POLICY 3**: Encourage innovative residential development which will result in lower costs, added convenience and privacy, and the more efficient use of streets and utilities.

**POLICY 12**: Encourage the production and maintenance of affordable rental housing.

The proposed redevelopment will include 76 affordable rental units located on the block Ewa of Kekaulike Street. The mixed-use development will maximize residential and commercial opportunities using the existing and available infrastructure.

**PHYSICAL DEVELOPMENT AND URBAN DESIGN**

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

**POLICY 5**: Provide for more compact development and intensive use of urban lands where compatible with the physical and social character of existing communities.

The municipal parking lot will be replaced by commercial, residential and parking facilities providing for a more intensive use of the area.
OBJECTIVE B: To develop Honolulu (Waialae-Kahala to Halawa), Aiea, and Pearl City as the Island primary urban center.

POLICY 1: Stimulate development in the primary urban center by means of the City and County capital-improvement program and State and Federal grant and loan programs.

POLICY 3: 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.

POLICY 4: Provide downtown Honolulu and other major business centers with a well-balanced mixture of uses.

POLICY 5: Encourage the development of attractive residential communities in downtown and other business centers.

The proposed project provides for the redevelopment of an area which is underutilized and in need of rehabilitation. Mixed uses and design controls will ensure that compatibility with the existing character of the Chinatown area will be maintained. Available Federal grant programs will be used to support the development.

F. CITY AND COUNTY DEVELOPMENT PLAN

The Development Plans help to implement the objectives and policies of the General Plan by providing relatively detailed development schemes 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. As shown in Figure 15, the PUC Land Use Map designates the project site as Commercial. Although the land use designation is Commercial, the
KEKAULIKE REVITALIZATION
PROJECT

Figure 15
DEVELOPMENT PLAN LAND USE MAP

Prepared for:
DEPARTMENT OF HOUSING
AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
Prepared by:
Development Plan Special Provisions provide allowances for mixed-use development in designated areas which are adequately served by public facilities and accessible to major transportation corridors.

The PUC Public Facilities Map designates the Kekaulike Parking lot as Government Building/Modification (GB/M). (See Figure 16).

The Downtown Honolulu area bounded by Nuuanu Stream, Vineyard Boulevard, Alakea Street and Honolulu Harbor is designated for Commercial Emphasis Mixed-Use and establishes land use priorities in the sub-areas of Financial, Kukui and Chinatown Districts, and the Aloha Tower-Honolulu Harbor area. With regard to Chinatown:

*The Chinatown District shall be redeveloped with emphasis on historic preservation, architectural character, and adaptive re-use. The retail-commercial function shall be strengthened.*

G. CITY AND COUNTY OF HONOLULU LAND USE ORDINANCE

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 zoned BMX-4 Central Business Mixed-Use District (Figure 17) with a Floor Area Ratio (FAR) of 4.0 but with a maximum height limitation of 40 feet. The objective of BMX-4 Central Business Mixed-Use district is to set apart
KEKAULIKE REVITALIZATION PROJECT

Figure 16
DEVELOPMENT PLAN PUBLIC FACILITIES MAP

Prepared for:
DEPARTMENT OF HOUSING
AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

Prepared by:
that portion of Honolulu which forms the City center for financial, office, and
government activities and housing. It provides the highest land use intensity for
integrating commerce, business and housing.

Special Districts

The Chinatown Special District was established in recognition of Chinatown historic
role in the growth of the city, its architectural significance as reflected in its
placement on the National Register of Historic Places, and its dynamic ethnic
population and business community. The Special District designation ensures the
compatibility of new development with Chinatown historic significance and
architectural characteristics, particularly those which were dominant during the
1880s to 1940s.

The Kekaulike Revitalization Project is fully consistent with the objectives of the
Special District, which include:

A. Help promote the long-term economic viability of the Chinatown District as a
unique community of retail, office, and residential uses.

B. Retain the low-rise urban form and character of the historic interior core of
Chinatown while allowing for moderate redevelopment at the mauka and makai
edges of the District.

C. Retain and enhance pedestrian-oriented commercial uses and building design,
particularly on the ground level.

D. Preserve and restore, to the extent possible, buildings and sites of historic,
cultural, and/or architectural significance, and encourage new development
which is compatible with and complements these buildings and sites, primarily
through building materials and finishes, architectural detailing, and provisions
for pedestrian amenities, such as storefront windows and historic signage details.
E. Improve traffic circulation with emphasis on pedestrian linkages within and connecting outside Chinatown.

F. Retain makai view corridors as a visual means of maintaining the historic link between Chinatown and the harbor.

The entire project site also lies within the Historic Core Precinct of the Chinatown Special District, an area which is subject to more stringent development standards. New structures within this precinct cannot exceed 40 feet in height. Buildings on the same block must have a continuous street facade except for necessary driveways and entryways. Ground floor spaces should be used exclusively for retail commercial uses, or light food manufacturing of an ethnic nature. Dwelling units are exempt from off-street parking requirements. The architectural guidelines recommend the use of brick, stone, and wood materials, retaining colors of natural materials, and building facades with representative architectural features of structures in the area. A Special District Permit is required from the Department of Land Utilization.

H. PARK DEDICATION ORDINANCE

Since the proposed project will include rental housing units, the project will be subject to compliance with the Park Dedication Ordinance No. 4621. The requirements may be satisfied through the provision of park land, payment of fees equal to the land area required, provision of privately maintained parks and playgrounds, or any combination equal to the dedication requirements.

Based on the park dedication requirement of 110 square feet per housing unit, approximately 16,940 square feet of park area is required for the development. Proposed open space and park areas include two garden courts separating the three apartment structures on the Diamond Head (Phase I) block, one garden court in

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tye "U"-shaped apartment structure on the Ewa (Phase II) block, and the landscaped Kekaulike Mall. While every attempt will be made to comply with the requirements, exemptions may need to be sought pursuant to the affordable housing provisions of Chapter 201E, Hawaii Revised Statutes.
ANTICIPATED IMPACTS AND
PROPOSED MITIGATION MEASURES
V. ANTICIPATED IMPACTS AND PROPOSED MITIGATION MEASURES

A. SHORT-TERM CONSTRUCTION RELATED IMPACTS

1. FLORA AND FAUNA

The site has been extensively modified by development, and there are no endangered species of flora or fauna in the area to be affected by the project. Landscaping of the proposed pedestrian mall and the garden courts within the mixed-use structure will introduce new plant species to the area. These are expected to attract birdlife common to urban areas.

2. AIR QUALITY

During the construction phase, carbon monoxide and nitrogen oxide emissions from the engine exhausts will occur from on-site construction equipment and from construction workers and equipment travelling to and from the worksite.

The short-term effects on air quality during construction will be mitigated by compliance with the Department of Health Administrative Rules, Title 11, Chapter 60, Air Pollution Control. Control measures to reduce fugitive dust include frequent wetting down of loose soil areas with water, oil or suitable dust retardant chemicals and covering of dirt-hauling trucks. Watering the area twice a day is estimated to reduce dust emissions by up to 50 percent. Paving of the parking areas and establishment of landscaping early in the construction schedule will also help to control dust. Increased vehicular
emissions due to disruption of traffic by construction equipment and/or commuting construction workers can be alleviated by moving the equipment and personnel to the site during off-peak traffic hours.

3. NOISE

Noise from construction activities will be unavoidable during the construction period. Noise levels are anticipated to reach 80 to 90 dba within 50 feet of the construction site. The commercial establishments and apartment units within 100 feet of the construction site are predicted to experience the highest noise levels.

Mitigative measures include compliance with the State Department of Health Administrative Rules on Vehicular Noise Control for Oahu (Title 11, Chapter 42) and Community Noise Control for Oahu (Title 11, Chapter 43). The State of Hawaii Department of Health’s noise control regulation requires a permit for construction activities which emit noise in excess of 95 dba.

Other mitigation measures to minimize construction noise include the use of muffled equipment and adherence to the guidelines for the hours of heavy equipment operation as set forth by DOH noise control regulations.

4. TRAFFIC AND PARKING

The existing 83 public parking stalls at the Kekaulike Parking Lot site will be temporarily lost during construction of the proposed project. The stalls will be replaced upon completion of the project. Recommended roadway improvements also include removal of selected parking stalls along Maunakea
Street. Parking structures in the vicinity of the project including Kukui Plaza and Hale Pauahi lots and street parking are available for displacees of the project.

In the long-term time frame, the proposed project will increase the number of public parking stalls. During construction, however, there would be a temporary shortage of stalls which could hurt businesses in the area. This situation would be worsened if there is simultaneous development of other parking lots in the study area.

The worst case scenario is six-month period in late 1992/early 1993, at which time up to four parking lots would be under construction (Alakea, Kaahumānu, Kekaulike, and Smith-Maunakea). The City will pursue a staggered construction schedule to minimize hardship on Chinatown patrons and businesses.

According to the Department's inventory of available public parking stalls in the Downtown/Chinatown area, current projections indicate that the inventory of 2,249 stalls will decrease at most by approximately 108 to 343 stalls at various times during the period January 1992 through June 1993. Thereafter, the parking inventory is projected to increase to a final inventory of approximately 2,689 stalls upon completion of all redevelopment projects on or about April 1994.

As recommended by the Social Impact Study, the City could also explore special parking arrangements with private garages in the study area. For example, private garage operators could have reduced rates during certain times, such as weekends and weekday mornings. Another example is the use
of "parking passes." The City and/or Chinatown merchants could sell inexpensive parking passes which would be usable in certain private garages.

The project will conform with the Revised Ordinances of Honolulu, Chapter 20, Article 5 to the maximum extent practicable regarding allocation of funds for roadside improvements of parcels abutting a public roadway. Corner rounding at curb return will also be included in development.

5. WATER QUALITY AND DRAINAGE

The dominant soil type for the area is Ewa silty clay loam. The soil on site will determine procedures and techniques in the construction of the foundation. The soils also have good bearing capabilities and can easily be trenched for drainage and underground utilities. Additional soil analysis is necessary for the preliminary design phase.

During the short-term construction period, storm runoff may carry increased amounts of sediment into the storm drain system due to erosion from exposed soils. This runoff could potentially impact the water quality of nearshore waters in the area. Adherence to the requirements of the Grading Ordinance should adequately mitigate this impact and minimal impact is expected from excavation of the site for the redevelopment project.

Conversion of Kekaulike Street to a mall may require the elimination of existing curbs, necessitating development of an alternative method to control direct storm runoff into the municipal drainage system.
Since the project does not include work in navigable waters or adjacent wetlands, a Department of the Army permit is not required.

6. HISTORIC BUILDINGS

Many of the existing buildings in the vicinity of the project site are constructed of unreinforced soft brick with low strength. Vibrations through pile driving, and/or lateral shifting during excavation could cause uneven settlement and long-term damage to nearby historic buildings, as follows:

1) Use of impact pile drivers for sheet piles or soldier piles could cause excessive vibration on nearby structures. If piles are required, drilled pile holes or vibratory pile drivers, rather than impact drivers, shall be used to minimize vibrations.

2) Use of large backhoes to break hard coralline materials with excessive pounding could also cause vibration to be transmitted to nearby structures. The potential impacts shall be mitigated by limiting backhoe pounding and/or pre-drilling the material before pounding.

3) Excavation itself could result in the lateral movement of shoring and bracing, or the bottom of the excavation could heave, either of which could cause uneven settlement of adjacent buildings. To minimize potential impacts, excavation shoring and bracing will be checked to ensure adequacy, and the ground nearby monitored before, during, and after construction for settlement.
Specific mitigation measures would have to be worked out for each historic building affected, depending on their foundations, the soils in the area, and other factors. Monitoring shall include photo documentation of the buildings adjacent to the project site, prior to construction, to establish a base for assessing any cracking or other damage to the building due to construction activity.

Soils shall be further investigated for potential foundation impacts and mitigation measures. Investigations could include soil borings at locations directly adjacent to the historic structures.

Construction on both sections of the project site will create dust and other debris which will settle on the nearby buildings. This debris could damage building materials and obscure details on historic buildings, and it detracts from their appearance. This type of impact has occurred with other new construction in Chinatown. The construction debris impact will be mitigated by cleaning the historic buildings in the area after construction is complete, using methods appropriate to the building materials, some of which are fragile.

7. ARCHAEOLOGICAL RESOURCES

Potential subsurface features likely to be disturbed by the development are listed as a prehistoric graveyard site and Pehu's Fishpond partially located on the project site.

Mitigative measures that will be observed to recover potential archaeological resources include preliminary archaeological data recovery to determine test
areas and procedures which entail monitoring of core sample borings during the construction design stage and during the removal of existing structures and pavement.

Test pits at the graveyard site and a test trench at Pehu's Fishpond site to recover possible historic data will be pursued. In the event that early artifacts and features are discovered, the treatment and disposition of these rare materials and features must take priority. Security during evenings and weekends will be provided during the excavation phase to protect valuable archaeological resources.

Prior to construction, a combined surface and subsurface reconnaissance survey will be undertaken to identify all sites and features of possible archaeological significance within the project area. The principal objectives of the archaeological survey would be to:

- identify, find and locate, all sites within the project area;
- evaluate the potential significance of all identified archaeological remains;
- determine the possible impacts of proposed development upon the identified remains; and
- define the scope of any subsequent archaeological work that might be necessary or appropriate.

Implement the mitigation plan and data recovery program, including the preparation of a final report acceptable to the State Historic Preservation office.

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The following specific tasks will accomplish the objectives:

1) Conduct archaeological background and historical documentary research, including interviews with available knowledgeable informants.

2) Conduct sample coverage subsurface reconnaissance survey by coring of the project area: 1-2 cores for smaller parcels, 4-5 cores for larger parcels.

3) For the potential graveyard site near the corner of King and Maunakea Streets, removal of the parking lot pavement will be monitored by an archaeologist. Conduct test excavations at this site to determine the extent and approximate number of individuals interred there. If significant sites or burials are determined to be present, consultations with the State Historic Preservation Office and the Oahu Burial Council to determine the appropriate course of action will be pursued.

4) Conduct test excavations for potential archaeological resources at the Pehu’s Fishpond site near the corner of River and Hotel Streets.

5) Analyze background research data and field data using pollen analysis, radiocarbon, volcanic glass, and hydration dating or polynological analysis as appropriate.
6) Identify all historic sites on the parcels, evaluate their significance, and assess project impacts.

7) If significant sites are present prepare a mitigation/preservation plan, which could involve a combination of data recovery and preservation, and produce a report acceptable to the SHPO.

The significance of all archaeological remains identified in the project area will be assessed in terms of the National Register criteria contained in the Code of Federal Regulations (36 CFR Part 60.6) which are used to evaluate eligibility for both the Hawaii State and National Register of Historic Places.

8. EMPLOYMENT

Short-term employment will be created by the proposed development in the form of construction jobs for the development of the mixed-use structures. The number of construction jobs generated may be roughly estimated from the construction costs involved in the proposed development. In 1989, there was one direct construction job per year for each $107,000 of construction, based on construction job counts and the State general excise tax base for contracting (DBED, 1990).

The estimated construction cost for Phase I and II development is $30,000,000. The direct employment to be generated by the proposed development is therefore approximately 70 construction jobs per year, assuming a four-year construction timetable.
9. POLICE

Coordination with the Police Department during construction to ensure public safety in the areas of parking, traffic congestion, noise and dust control are recommended.

During construction, standard barriers and posted signs will be erected for pedestrian safety. Additional off-duty policemen to direct traffic for construction equipment moving in and out of the project site may be required.
B. POTENTIAL LONG-TERM IMPACTS

1. TRAFFIC

The Kekaulike Revitalization Project is not expected to significantly affect the overall future traffic conditions in the vicinity of project site. Table 1 summarizes the existing and future traffic conditions from the intersection analysis. A standard saturation flow rate of 1,800 vehicles per hour of green time per lane was used before adjustments for the operational features and traffic-related conditions of individual intersections. The potential for undesirable traffic conditions exists at the intersection of Maunakea and King Streets near the proposed driveway to the project’s parking garage. Traffic volumes entering and exiting the Maunakea Street driveway are expected to increase substantially which could intensify congestion caused by vehicles exiting the driveway and attempting to turn left at King Street. Traffic using the left turn lane on the makai approach on Maunakea Street is expected to exceed capacity and also increase traffic congestion. Although a change in signal timings could reduce the intersection volume-to-capacity ratio to slightly below one, traffic would continue to experience significant delays on Maunakea Street.

Possible mitigative measures for the makai approach of Maunakea Street between Hotel Street and King Street include the provision of an additional lane to create three lanes: a left-turn-only lane, a combination left-through lane and an exclusive through lane. Also, to minimize safety problems, the conversion of Maunakea Street makai of King Street to a one-way street makai bound is under consideration.
<table>
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* = Vehicle-to-capacity ratio for lane group > 1.2

To further improve the volume-to-capacity ratio and reduce delay on the Maunakea Street approach, the following measures are under consideration: a) elimination of the pedestrian crosswalk on the makai/kokohead corner, b) removal of the loading zone on Maunakea Street, c) removal of three to four parking spaces on the kokohead side of Maunakea Street, and d) restriping of the existing pavement. Initially, the third lane and restrictions on Maunakea Street could be limited to only the morning and afternoon peak traffic periods with the time period expanded if necessary. No additional roadway construction is required since available roadway width is adequate to provide three lanes at this approach.

Improvements will also be sought in the vicinity of the proposed garage driveway entrance/exit on Maunakea Street. Disruptions to the traffic flowing past the project driveway created by vehicles entering into the project will be minimized by lengthening the ewa-most lane on Maunakea Street. This would require removing several parallel parking spaces on the ewa side of Maunakea Street mauka of the proposed entrance. A recessed entry may also be considered depending on entrance control.

Because of the restrictive sight distance, additional or overhead signage shall be provided to identify to motorists the entrance to the parking structure and to warn of exiting vehicles.

**Rapid Transit.** Plans for routing the Honolulu Rapid Transit System underground near the project site are underway at this time by the City and County of Honolulu. The proposed Rapid Transit System alignment may pass underground through the Chinatown District into the Central Business District along Hotel Street. A transit station is proposed between Nuuanu and Bethel.
Streets near the Chinatown Gateway Plaza. Hotel Street may eventually be converted to a pedestrian mall. The proposed operation date of the Rapid Transit System is 1997. It is anticipated that the Kekaulike Revitalization Project will be fully constructed and operational before construction starts on the Rapid Transit System.

Future residents of the Kekaulike Revitalization Project are expected to use the Rapid Transit System as well as continuing to use the City bus system as their primary means of transportation. In the near term, residents and commuters of the project would impact the City bus system by potentially increasing ridership. The additional ridership would likely be in proportion to the net additional residential units and commercial space provided by the project.

2. AIR QUALITY

The primary long-term air pollution impact from the project is expected to be due to vehicular traffic associated with the project. Commercial/retail activities on the site will generate more traffic to and from the parking areas and on the adjacent streets. The primary concern will be the potential increase in carbon monoxide concentrations along roadways leading to and from the proposed development, and within the complex itself.

Mathematical modeling of projected vehicular traffic emissions and atmospheric dispersion estimates of those emissions indicate that carbon monoxide (CO) concentrations would increase at some locations within proximity to the project. The predicted 1-hour CO impacts would be in compliance with the Federal Ambient Air Quality Standards (AAQS), but
would exceed the 8-hour standard near the Nimitz Highway and River Street intersection. The stringent State 1-hour and 8-hour CO ambient standards are exceeded at all locations. The low State standard is probably exceeded at many intersections within the State that experience moderate traffic flow.

The long-term effect on air quality posed by the underground parking garage will be mitigated by providing adequate natural and mechanical ventilation. Maximum natural ventilation will be achieved by opening as much of the structure as practical, especially to those sides which face the direction of the tradewind. Exhaust will be vented away from pedestrian areas. The use and continued maintenance of contaminant sensors to monitor air pollution concentrations and to control ventilation equipment will also lessen the potential for air quality problems.

Some mitigation will occur with the implementation of more stringent Federal requirements on automotive gasoline emissions. A possible long-term mitigation measure is the implementation of the proposed rapid transit system which may affect automobile usage downtown. Roadway improvements will further reduce vehicular emissions caused by traffic congestion within the project vicinity.

Some long-term impacts could potentially occur as a result of emissions from power generating facilities supplying the project with electricity and from the burning of waste materials generated by the project. It appears likely that any impacts would be relatively insignificant since the anticipated volume of such emissions would be less than 1 percent of current Oahu emissions.
Indirect emissions from project electrical demand could be reduced by utilizing alternate energy (solar) designs. This could include solar water heaters, positioning residential commercial windows to maximize indoor light without sacrificing indoor heat, and landscaping for shade to help reduce air conditioning use.

3. NOISE

The future traffic noise levels in the vicinity of the proposed project were evaluated for their potential impacts and their relationship to current FHA/HUD noise standards. The traffic noise level increases along the roadway sections in the immediate vicinity of the project site were calculated. Following project buildout by 1994, increases in traffic noise of 0.3 to 0.8 $L_{dn}$ units are predicted to occur as a result of project and non-project traffic. Table 2 compares existing and with-project noise levels along adjacent roadways.

Along King Street, traffic noise levels are expected to increase by 0.3 to 0.4 $L_{dn}$, primarily from non-project traffic. Bus noise along Hotel Street was assumed not to experience any significant increases. Traffic on Hotel and King Streets are expected to be the dominant sources of noise. Along River and Maunakea Streets, where traffic noises are lower, project traffic will add approximately 0.4 to 0.5 $L_{dn}$ units of noise in the immediate vicinity of the project. These increases in noise levels are not considered to be significant.

Impacts from traffic noise are likely at the proposed residential units which face King, Hotel, and Maunakea Streets, and at some of the units which face Kekaulike Mall if the visual lines-of-sight are not blocked by adjoining
<table>
<thead>
<tr>
<th>Location</th>
<th>1991 Existing AM Peak Hour Traffic</th>
<th>1994 AM Peak Hour Traffic With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Speed (MPH) VPH Hourly Lost in dB</td>
<td>Speed (MPH) VPH Hourly Lost in dB</td>
</tr>
<tr>
<td></td>
<td>Auto MT HT All Veh</td>
<td>Auto MT HT All Veh</td>
</tr>
<tr>
<td>1. King Street NW of River Street</td>
<td>39 2,151 67.8 63.3 70.4 72.8</td>
<td>38 2,345 68.0 64.0 70.9 72.9</td>
</tr>
<tr>
<td>2. King Street NW of Kekeultte Street</td>
<td>38 2,221 67.2 63.3 70.2 72.5</td>
<td>38 2,184 67.6 63.6 70.5 72.8</td>
</tr>
<tr>
<td>3. King Street NW of Maunakea Street</td>
<td>36 1,987 67.2 63.2 70.1 72.4</td>
<td>36 2,110 67.6 63.6 70.4 72.7</td>
</tr>
<tr>
<td>4. Hotel Street Bus Mall</td>
<td>32 91 0.0 0.0 70.1 70.1</td>
<td>32 91 0.0 0.0 70.1 70.1</td>
</tr>
<tr>
<td>5. Maunakea Street NE of King Street</td>
<td>20 575 52.3 49.6 50.1 55.7</td>
<td>28 844 63.0 59.8 60.9 65.4</td>
</tr>
<tr>
<td>6. River Street NE of King Street</td>
<td>20 267 50.3 48.3 55.0 57.4</td>
<td>20 417 50.7 50.1 56.0 57.9</td>
</tr>
</tbody>
</table>

* AM peak hour and 50 feet from roadway centerline.

The following assumed traffic mixes of autos, medium trucks, and heavy vehicles were used for existing and future conditions:

a. Along King Street: 84% autos, 2.5% medium trucks, and 3.4% heavy trucks and buses.
b. Along Hotel Street: 0% autos, 0% medium trucks, and 100% heavy trucks and buses.
c. Along River Street: 92.6% autos, 4.4% medium trucks, and 2.7% heavy trucks and buses.
c. Along Maunakea Street: 80.5% autos, 3% medium trucks, and 0.5% heavy trucks and buses.

Source: Y. Elvis & Associates
buildings. An interior noise level of 45 Ldn is the maximum recommended level of interior noise which minimizes risks of adverse health and welfare effects.

For those units which are exposed to noise levels between 65 and 70 Ldn, exterior to interior noise reduction is possible through total enclosure and air-conditioning of the units. Alternately, designs could incorporate the use of window sound attenuators or treated ventilation openings to mitigate the high traffic noise levels in compliance in FHA/HUD noise standards.

Risks of adverse noise impacts from the underground parking garage are also expected to be low due to the containment of tire squeal and door slam noise below grade. The recommended use of asphalt, or brush concrete finish on the circulation driveways within the underground parking garage should minimize the occurrences of tire squeal noise. On-site mechanical equipment such as air conditioners or garage exhaust fans may require sound attenuation treatment.

**Aircraft Noise.** Adverse noise impacts for aircraft traffic originating from Honolulu International Airport are not expected to be significant compared to the existing and future levels of traffic noise. The State Department of Transportation, Airports Division, aircraft noise contours over Downtown Honolulu for Calendar Year 1987, 1992 and 2007 indicate that the project site is located between the 55 and 60 Ldn contours. Aircraft noise at these levels are considered to be compatible for land use planning purposes where dwelling units are located. These contours were developed and published following the most recent Honolulu International Airport Master Plan Update and Part 150 Noise Compatibility Study.
4. WATER QUALITY AND SUPPLY

There are no long term impacts anticipated on ground or surface water quality from the proposed project. Water for the project site is provided by the Honolulu Board of Water Supply (BWS) through a network of water lines in the surrounding roadways.

Using the BWS Water System Standards, the proposed project's estimated water demand will be 61,600 gallons per day (gpd). The project's maximum daily and peak hour demands were calculated at 92,400 gpd and 184,800 gpd respectively. The existing 6-inch water main on Kekaulike Street between King and Hotel Streets will be upgraded to an 8-inch main. Water meters and reduced pressure principal backflow prevention devices will be installed as necessary. Water availability will be determined at the time of building permit application. The proposed project is subject to applicable water system facility charges imposed on all new developments.

5. WASTEWATER

According to the Department of Public Works' design standards, the average wastewater flow for the proposed project is estimated at 44,812 gpd. The maximum wastewater flow is estimated at 215,436 gpd and the peak flow is estimated at 432,747 gpd. Based on preliminary consultation with the Department of Public Works, the development will be connecting with the 8-inch sewer line on King Street, and eventually processed and disposed at the Sand Island Wastewater Treatment Plant. Further discussion with the DPW will be pursued during the design phase of the project to assure
adequate capacity and to determine if there are any additional sewage disposal requirements. The Division of Wastewater Management has approved the project's "Application for Sewer Connection".

6. DRAINAGE

Due to the already developed nature of the project site, there would be no significant increase in storm runoff from the redeveloped site. Runoff will be directed towards catch basins and outlets at King Street. As may be necessary in consultation with the Department of Public Works, a drainage study will be developed to determine whether any additional drainage improvements will be required.

7. UTILITIES

Preliminary consultation has been initiated with the Hawaiian Electric Company, Gasco, Inc., and Hawaiian Telephone Company. Electrical, gas, and telephone systems are deemed adequate for the proposed project. Hook-ups to the respective systems will be coordinated with the utility companies to minimize any potential conflicts with the proposed development. Utility lines will be relocated as required to accommodate the parking structure beneath Kekaulike Street.

8. HISTORIC BUILDINGS

The period for which Chinatown is significant is largely the early 1900s. Few 19th century buildings survived the fire of 1900 and the post World War II
buildings generally do not contribute to the character of the district. The project involves the demolition of historic buildings, recent buildings, and portions of structures.

The historic buildings to be demolished are the wooden buildings on the Ewa block of the project site (Phase II). The wooden complex is historically significant as an example of the building pattern once common in Chinatown, with the main building along the streetfront and the secondary buildings in the rear.

The replacement of this building with another wooden structure would not be economically feasible. As a mitigation measure for the loss of the last remaining large historic wooden structure in Chinatown the possibility of designing a wood veneer building will be investigated. Photographic documentation and building drawings will be prepared as an aid to preserving a record of the architectural character of the original structure.

The three buildings on the block of the Kekaulike parking lot that are slated for demolition date from the 1960s. Portions of the rear of two buildings have historic architectural character. If the new building’s shops include traditional uses, such as the herb store, crack seed store, and Chinese grocery store that are in the buildings to be demolished, the overall effect on the cultural significance of the district would be positive.

The overall effect of the Diamond Head portion of the project on the Chinatown Historic District is positive, since continuous facades will replace the gaps created by the surface parking lot and empty lot. The new building will be four stories, with a maximum height of 40 feet above existing grades.

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However, the top one or two floors of the new structure will be stepped back to help reduce the apparent height of the building and to relate better to the existing two- and three-story buildings in the block. The new building, which will be larger than any other on the block, will be designed to appear as a series of separate buildings with contiguous facades.

The four buildings for which facade renovations are planned date from the 1950s and 1960s. These include three buildings on the Ewa side of Kekaulike Street and one building at the corner of King and Maunakea Streets. The expected redesigns would improve the appearance of these building, with decorative rooflines, canopies, new windows, modified storefronts, and the use of brick.

9. SOCIO-ECONOMIC IMPACTS

A social impact assessment study for the redevelopment of the Kekaulike area was conducted by Earthplan in April 1991 and is summarized in this section (See Appendix F). The types and locations of residential development proposed for the study area indicate that the demographic differences between Downtown and Chinatown residents will continue both in the short and long-term time frame.

Proposed changes for the Chinatown area are mostly City-initiated. The City and County of Honolulu is proposing the (1) the redevelopment of the Smith-Maunakea parking lot (234 residential units and ground floor commercial uses); (2) the redevelopment of the Smith-Beretania parking lot (passive
park, child care, commercial and office space); (3) the Foster Garden Estates (1,600 residential units); and (4) the rehabilitation of Pauahi Hale and Winston Hale.

As of April 1991, the only project under construction in Chinatown is the River-Nimitz Housing Project. Located at the corner of River Street and Nimitz Highway, this City project includes ground floor retail spaces and residential units.

As the City increases rental units in Chinatown, there will be more renters of the low and moderate income category, as well as more elderly people. People who can afford market rents will also live in Chinatown and, except for the Harbor Court development at the former Kaahumanu parking structure, the Honolulu Park Place mauka of Beretania Street, and planned sales units at Foster Garden Estates, no other private homeownership is expected in Chinatown.

a. Community Issues and Concerns

The theme central to most of the Downtown Neighborhood Board discussions held over the last three years is the need to create a more livable environment for residents in this high density and mixed use community. The Board strongly advocated more open space, more recreation areas, and more resident-oriented public services and facilities. In addition, the Board supported efforts which would increase the safety and efficiency of Downtown vehicular and pedestrian systems.
As developments were introduced, the Board reiterated the need for more
downtown parks; the need to encourage more affluent people to live in this
area; the need for active recreational areas; and the need to minimize
displacement of small businesses. The Neighborhood Board also strongly
discouraged displacement of public parking because of the need to serve
Downtown businesses and their clientele.

There are a number of business-oriented organizations in Chinatown,
including the Chinatown Merchants Association, the Chinese Chamber of
Commerce, and the Downtown River Pauahi Merchants Association. PACE,
which is also known as People Against Chinatown Evictions, is currently
working on outreach and advocacy services for low and middle income
Chinatown families. The United Chinese Society and the Association for
Chinese from Vietnam, Laos and Cambodia are culturally-oriented. Of these
organizations, only People Against Chinatown Evictions has taken a position
on the proposed project.

Based on interviews conducted with residents, owners, business persons, and
community leaders, there were positive feelings about Chinatown due to its
sense of neighborhood, cultural diversity and assimilation. While mostly
favorable towards the current redevelopment of Chinatown, expressed
corns included increased costs and rents, crime, and apprehensions about
neighborhood change.

b. **Concerns About the Redevelopment**

**Affordability and Displacement** -- The strongest and most frequent concern
among those interviewed was that the rents of the new and rehabilitated
buildings may be beyond the reach of current residents and business lessees. They feared that displacement would occur, even if there were opportunities for on-site relocation.

**Mixed Reaction Toward Redevelopment** -- Concern is that, even though redevelopment would greatly improve the area, it would alter the ambience and neighborhood qualities. Such change was seen as inevitable to most, but was understandably viewed with apprehension by those who would be personally affected. Potential displacees expressed the greatest concern, while regional organizational representatives tended to have a long-range appreciation of proposed changes.

**Housing Types** -- People who are on or near the project site, or those who are involved in social service in Chinatown, liked the affordable housing proposed by the project. In fact, there was a desire to see more affordable units to make sure that all on-site residents are accommodated. Regional organizational persons expressed a desire for more market units because they felt that more expensive units would help revitalize the area.

**City as Developer** -- There were two types of concerns related to the City's role as developer of this project. First, there was a general feeling that the City has not been sharing project information in a timely fashion. Second, informants were split about whether the City should be a developer in principle. There were feelings that City participation is the only way affordability can be achieved; at the other end of the spectrum was the concern that the City is not as efficient as the private developer.
Commercial Components -- The commercial component was mostly appreciated, with some wanting to make sure that (1) on-site businesses can afford the new spaces and (2) this does not create an oversupply of commercial space. Parking and traffic patterns were major concerns. The temporary elimination of parking during construction was a big problem for nearby and on-site businesses, since parking is already at a premium in Chinatown. Loading and unloading was also a concern, as well as the single ingress/egress on Maunakea Street. The development of Kekaulike Street into a pedestrian mall worried nearby businesses because of loading logistics.

c. Displacement Impacts

Direct impacts will result from the complete redevelopment of certain portions of the project site. Based on information supplied by landowners, a total of 50 residential households will be displaced by the redevelopment, including 9 households in the Diamond Head portion of the project site and 41 in the Ewa portion. These are all single-person households, except for one 2-person household. Thus, there are 51 potential displaces.

Indirect displacement can occur even when a building will not be demolished. If a building is rehabilitated, the owner may need to raise the rents. Increased rents will prove to be a hardship for some residents as well as businesses, and such people would need to move. The extent of such indirect impacts, however, are unknown at this time.

A wide variety of businesses appear to be affected by the proposed project, including a Chinese herb shop and acupuncturist office, two jewelry shops,
tailor, dress shop, an accessory store, offices, Chinese seed store and grocery, two bars, florist, food factory, sundries store, barber shop, retail and trade store, pool hall, and restaurant.

To minimize displacement caused directly by the proposed action, two types of mitigation are needed.

**Coordination:** The City will provide every opportunity for all existing on-site residents threatened by demolition to move into the new on-site units, including any affected residents on the Diamond Head block. At the completion of Phase II, all of the existing households would be able to move into the Ewa complex, as it appears that the 79 units in Phase II to be allocated to displaced households can adequately house the 50 affected households.

The relocation needs of on-site businesses would need to be assessed so that disruption can be minimized and business can resume as efficiently as possible. Because it may be too disruptive for a business operation to move twice (move off-site during construction and back on-site after construction), business owners may choose to either (1) postpone activity until construction is completed or (2) relocate off-site.

**Relocation Benefits:** The Uniform Relocation Assistance and Real Property Acquisition Policies Act entitles all displaced persons to relocation services and payments. Both residential and business displacees are entitled to relocation services. Displaced residential tenants who have lived in a unit at least 90 days before the initiation of negotiations are entitled to have the City pay for moving expenses either through reimbursement or according to
a graduated scale of payments based on the number of rooms. Such tenants
can also receive down payment assistance or rental assistance payment up to
$4,000.

Displaced businesses have two options. One option is to have the City
reimburse all actually incurred and reasonable moving expenses. The other
option is to be paid an amount equal to the average annual net earnings,
before taxes for the last two tax years, not to exceed $20,000.

Commercial and residential tenants relocating outside of the project site will
be allocated relocation assistance. Those tenants relocating within the project
will not be entitled to relocation benefits, but will be entitled to
reimbursement of moving expenses.

To mitigate potential indirect displacement, the City could extend the needs
assessment to include indirect displacees. As recommended by the Social
Impact Assessment Study, for example, the City could explore possibilities of
minimizing rent increases for current tenants of buildings scheduled for
rehabilitation. Possible alternatives include subsidies to the landowner or
management company to help defray the costs, and rent vouchers to current
tenants.

d. Resident Population Impact

The potential residential population increase resulting from the project
depends on how many units will be reserved for on-site residents. It is
estimated that 50 units may be needed for the relocation of on-site residents
living in buildings which would be demolished. This leaves 104 units for other
people. Based on the preliminary 1990 household size of 1.85 persons, the project could increase the resident population by approximately 200 persons. The impact on the study area is minimal. The addition of 200 translates to a two percent increase over the 1990 area population of 8,542 and the projected near-term population of 9,890 persons.

e. Regional Impact

Affordability is a key ingredient in ensuring that the new on-site commercial activity is compatible with the Chinatown ambiance. The Social Impact Study indicates that the City needs to find ways to (1) provide incentives for existing businesses, particularly on-site establishments, to relocate in the new commercial complex, and (2) maintain affordable levels of lease rent in the new facilities. Further, businesses in the rehabilitated buildings need to be able to afford any increase in rent.

Affordability is an especially crucial aspect in the housing component. The new units in Phase II of the proposed project will mean better living conditions for existing on-site residents. Residents may be eligible for rental assistance under the federal Section 8 Program, which enables qualified households to pay only 30 percent of income for rent. Note that the market units proposed for the project is consistent with the desire of some community members to diversify the types of housing in Chinatown.

The gathering place function of the project site can be addressed in a number of ways. The most basic way is to make sure that access to the new complexes is visually apparent and that people are welcome to visit on-site shops and restaurants. Second, gathering places can also be designed into the
project. The Maunakea Marketplace, for example, contains a courtyard and internal eating areas where people often socialize. Third, the City could promote a portion of the project site for gathering by dedicating some indoor space for social activities.

f. Long Term Employment

The proposed development includes approximately 14,836 square feet of leasable commercial space on the ground levels of the new complexes. Based on 200 square feet per retail employee in the Downtown area, long term direct employment to be generated by the project is estimated at 74 retail employees. An additional 5 employees are generated by support functions such as maintenance and delivery (Peat, Marwick, Main, 1988).

10. SCENIC AND VISUAL IMPACTS

Minimal adverse impacts on viewplanes will result from development of the proposed structures. Existing mauka-makai viewplanes are already restricted by buildings located along Hotel and King Streets. The project will not obstruct the makai view along Maunakea Street. The pedestrian mall along Kekaulike Street will provide additional open space and makai views along this corridor.

The project will adhere to the 40-foot height limitation and design standards of the Chinatown Special District. Building designs, landscaping, and the rehabilitation of surrounding buildings will greatly enhance the overall appearance of this area of Chinatown.
11. PUBLIC SERVICES AND FACILITIES

a. Recreation

The project will include two landscaped garden courts on the Kekaulike parking structure and one landscaped courtyard in the Ewa complex to provide landscaping and seating areas for passive recreational activities. The Kekaulike pedestrian mall will be developed to provide landscaping and rest areas for passive recreation. The project will also attempt to comply with the City’s Park Dedication Ordinance to the fullest extent possible. Exemptions from the requirements of the Park Dedication Ordinance pursuant to Chapter 201E, Hawaii Revised Statutes, will be sought if compliance with this ordinance is not possible.

The parks nearest the project site are the Aala Park and Beretania Community Park. These are located across Nuuanu Stream and are within reasonable walking distance. Residents can also use the Pauahi Community Service Facility which is an indoor facility intended for seniors. While the project will not adversely affect these facilities, the addition of more residents to the area will increase the need for park space. The Social Impact Study recommends that City plans be formulated for meeting the recreational needs of future residents. However, spatial limitations and efforts to provide affordable housing units preclude development of high density indoor recreational facilities, such as a gymnasium, indoor interchangeable courts and community meeting rooms. There are expected to be fewer children and smaller households given the studio and one-bedroom designs of the proposed units.
Based on the present maintenance of Fort Street Mall by the Department of Parks and Recreational Grounds Maintenance Division, it is expected that the proposed Kekaulike Street Mall will be maintained by the same agency. In the event the Ground Maintenance Division is unable to provide maintenance support of the mall, arrangements will be made with another City agency.

b. **Fire Protection**

Fire protection services are deemed adequate for the area and should accommodate the proposed development. Prior to the commencement of the project, building and construction plans will be submitted to the building and fire departments for permit review and approval.

c. **Police Protection**

The Honolulu Police Department has indicated that police protection services can accommodate the proposed development. The downtown substation located on the corner of Nuuanu and Hotel Streets will provide adequate protection for the area. On-site security measures including (1) well-designed and lighted areas, (2) building security, and (3) an attendant-operated parking structure can further assist in reducing and preventing crime.

d. **Public Parking**

There will be a temporary loss of 83 public parking stalls during the construction period. However, upon completion of Phase I, approximately

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174 parking stalls will be made available for public and commercial uses. Hours of operation and parking rates will be consistent with the hours of service and rates charged at other City lots.
ALTERNATIVES TO THE PROPOSED ACTION
VI. ALTERNATIVES TO THE PROPOSED ACTION

A. NO ACTION ALTERNATIVE

Under the no-action alternative, there will be continued use of the City-owned municipal parking lot by the general public and use of the privately owned adjacent properties by the owners and tenants. Existing apartments and retail establishments on the ewa block will be retained, but in a deteriorated condition. Given the numbers of small landowners, irregular shape and small land area of typical parcels in the locality, it is probable that the area would continue to be underutilized, and none of the important benefits of the project would be realized. These benefits include:

1. Revitalization and infill of a major portion of the Chinatown District;

2. Provision of approximately 154 residential units in close proximity to public transportation and major employment and service destinations;

3. Additional and renovated commercial space to increase the "critical mass" of businesses in the area;

4. Approximately 174 parking stalls to replace the existing 83 stalls to provide parking for customers of the area's businesses; and

5. Provision of a landscaped mall and open areas providing passive recreational opportunities and visual relief from the surrounding urban development.
City and County of Honolulu plans for the downtown Honolulu area call for the development of the primary urban core to the fullest extent practicable to encourage urban growth in existing urban areas and to utilize existing resources efficiently. The no-action alternative would result in the re-programming of project funds to other sites elsewhere. Further, it would allow deteriorating structures to remain on valuable, highly visible parcels in the Chinatown area of downtown Honolulu resulting in the loss of potential economic benefits to businesses in the area and tax revenues for the State and County governments.

B. ALTERNATIVE LOCATIONS

The City and County has actively pursued the redevelopment of all municipal parking lots in the Central Business District. Two recent examples are the mixed use projects of Chinatown Gateway Plaza on Hotel and Bethel Streets and River-Nimitz on Nimitz Highway. Due to the lack of large developable sites in the downtown area and the expected escalation of land values, all seven municipal parking lots in the downtown area are planned to be developed to provide additional residential and commercial space.

C. DEVELOPMENT OF ONE PHASE ONLY

Development of Phase I only is possible and would result in the provision of approximately 78 rental units, 8,322 square feet of commercial space, and 174 parking stalls.
However, omission of Phase II would remove the opportunity to provide an additional 76 rental units and 6,514 square feet of commercial space. Not constructing Phase II immediately following Phase I would eliminate the opportunity to provide housing for Phase II's displacees in Phase I.

D. PRIVATE REDEVELOPMENT

Private redevelopment of the Phase I site is unlikely given the numbers of small landowners, irregular shapes and small sizes of the privately owned parcels. Private redevelopment of the Phase II site is possible given its relatively large buildable area. However, it is improbable that such redevelopment would provide affordable housing or relocation assistance for existing occupants.

E. HIGHER DENSITY DEVELOPMENT

Development guidelines for the historic core of the Chinatown District limit building heights to 40 feet. A higher density development could entail surpassing the 40-foot height limitation or eliminating of the proposed building stepbacks. Exceeding the height limit would enable the provision of additional housing, but would clearly be contrary to the City policy established restricting building heights to 40 feet within the historic core precinct. Without the stepback design, the four-story structures would still meet the 40-foot height limit but be visually incompatible with adjacent two- and three-story buildings.
VII. IRREVERSIBLE AND IRRRETRIEVABLE COMMITMENTS

The project development will result in a commitment of land for a long-term period. Once in a higher density residential/commercial use, it is unlikely that the land will be reverted to a lower usage in the distant future.

The project will result in the provision of long-term housing units for residents of Hawaii, expanded commercial opportunities for small businesses and additional public parking for Chinatown customers. Revenues from residential and commercial rents and parking fees will retire the construction debt and in the long term generate additional revenues for the City treasury.

The proposed development will require an irretrievable and irreversible commitment of a number of resources for its completion. These resources will include capital, materials, manpower, and energy. Financial, material, and manpower resources will be irretrievably committed to the planning, design and construction of the improvements. Energy and water are other valuable resources which will be required for the completion and operation of the project.
PROBABLE ADVERSE ENVIRONMENTAL EFFECTS
VIII. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS

The proposed development involves no significant adverse impacts to the environment. The entire site is urbanized. No adverse biological, archaeological, and socio-economic impacts are expected. Potential visual impacts as well as adverse impacts on air quality, noise, traffic, water quality, drainage, wastewater, historic buildings and on community residents and businesses will be mitigated by the project plans.

The demolition of historic wooden structures on the Ewa block of the project site has been identified as an adverse impact. The wooden structures, however, are over 85 years old, and cannot be maintained with only minor repairs. The possibility of designing a wood veneer building will be investigated as a mitigation measure for the loss of the last remaining large historic wood frame structure in Chinatown. Other measures including photographic documentation and preparation of building drawings will be employed as an aid in preserving a record of the original architectural character of the building.
IX. SUMMARY OF UNRESOLVED ISSUES

Unresolved issues at this time include the potential inclusion of a parcel situated on the Ewa block at the corner of Hotel and Kekaulike Streets, TMK 1-7-03: 33.

Detailed design features of the project remain to be finalized and may undergo revisions based on response to citizen input and to conform to applicable permit and other requirements.

Rent schedules for the affordable housing component and commercial space have yet to be determined. The City will be seeking ways to 1) provide incentives for existing businesses, particularly on-site establishments, to relocate in the new commercial complex, and 2) maintain affordable levels of lease rent in the new facilities.

The preparation of a relocation plan for businesses and tenants will be developed in accordance with federal and state requirements.

The Pehu's fishpond and the potential graveyard site will require subsurface testing to determine the presence and disposition of archaeological and historic resources.

Finally, under the provisions of Chapter 201E, Hawaii Revised Statutes, there is the possible need to pursue exemptions from land use and other permit requirements.
REFERENCES


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ORGANIZATIONS AND INDIVIDUALS
ASSISTING IN PREPARATION OF THE EIS
XI. ORGANIZATIONS AND INDIVIDUALS ASSISTING IN PREPARATION OF THE EIS

EIS COORDINATION AND PREPARATION

Earl K. Matsukawa
Rodney Y. Funakoshi
Lauren Nagata
Malcolm Ching

ARCHITECT

Architects Hawaii Ltd.
Stanley Yasumoto
Tom Young
Jennifer Wakazuru
Kendall Ellingwood

AIR QUALITY STUDY

Environmental Technologies, Inc.
Ralph Moltzau
Jim Mikula

TRAFFIC IMPACT STUDY

Wilbur Smith and Associates
Bryant T. Brothers
Rick Ryabick

NOISE STUDY

Y. Ebisu & Associates
Yoichi Ebisu

HISTORIC BUILDINGS STUDY

Spencer Mason Architects
Ann Yoklavich
Glenn Mason

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XII. CONSULTATION COMMENTS RECEIVED AND RESPONSES

A. ARCHAEOLOGICAL AND HISTORICAL RESOURCES

A description of the project and an analysis of anticipated impacts on archaeological and historic resources were transmitted to the following agencies. A total of 6 comments were received as of July 3, 1991.

Mr. Gordan Furutani, Manager
Department of Housing and Urban Development
300 Ala Moana Boulevard, Room 3318
Box 50007
Honolulu, Hawaii 96850-4991

Mr. William W. Paty, Chairman
State of Hawaii
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Ms. Lynne Matusow, Chairperson
Downtown Neighborhood Board No. 13
City Hall, Room 400
Honolulu, Hawaii 96813

Mr. Sanford Murata, Chairperson
Preservation Review Committee
Historic Hawai'i Foundation
P.O. Box 1638
Honolulu, Hawaii 96806

Mr. Theodore A. Gardugue, President
Honolulu Chapter
The American Institute of Architects
1128 Nuuanu Avenue
Honolulu, Hawaii 96817
Mr. Sun Hung Wong
Chinatown Merchants Association
P. O. Box 108
Honolulu, Hawaii 96810

Mr. Ted Li
Association of Chinese from Vietnam, Cambodia and Laos
3449-A Paalea Street
Honolulu, Hawaii 96816

Mr. Robert Gerell
Gerell Management, Inc.
841 Bishop Street, Suite 1625
Honolulu, Hawaii 96813

Mr. William A. Grant
Executive Director
Downtown Improvement Association
700 Bishop Street, Suite 1005
Honolulu, Hawaii 96813

Mr. Robert Fink, Chief
Western Division
Advisory Council on Historic Preservation
730 Simms Street, Room 450
Golden, Colorado 80401

Mr. Edward Ching
146 E. Hind Drive
Honolulu, Hawaii 96821

Mr. Hon Young Wong
76 North King Street, #215
Honolulu, Hawaii 96815
JUN 24 1971

Mr. Michael N. Scarfone
Director
Department of Housing
and Community Development
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Dear Mr. Scarfone:

SUBJECT: Kakalike Parking Lot Pe-Development Project
National Historic Preservation Act,
Section 106 Review
Memorandum of Agreement: Request for Comment

This responds to your letter dated May 17, 1971, that requests comments to assist you in preparing a Memorandum of Agreement (MOA) on the Kakalike Parking Lot Pe-Development Project. We have reviewed your letter and its attachments for the U.S. Department of Housing and Urban Development (HUD) concerns and compliance with Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on this review, we have the following comments:

1. We have no comments on the substantive issues you plan to cover in the MOA.

2. It is suggested that you confirm with the State Historic Preservation Officer that the buildings scheduled for demolition do not require a Determination of No Adverse Effect before you prepare the MOA.

3. If you need any assistance in preparing the MOA, you may want to contact Frank Johnson, Environmental Officer, on my staff.

4. The design of new structures in the project area must be consistent with 24 CFR Part 80: Non-discrimination Based on Handicap in Federally Assisted Programs and Activities of the Department of Housing and Urban Development and the Uniform Accessibility Standards.

5. Individuals or businesses displaced or forced to move as a direct result of rehabilitation, demolition or acquisition for a HUD-assisted project are entitled to relocation payments and other assistance under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (UPA).

If you have any questions or need any assistance, please do not hesitate to contact my staff at 541-1327.

Very sincerely yours,

[Signature]

Patty A. Nicholas
Director
Community Planning and Development Division
Michael Scarfone, Director  
Department of Housing and Community Development  
City and County of Honolulu  
850 South King Street  
Honolulu, Hawai‘i 96813  
JUL 2 1999  

Dear Mr. Scarfone:  

SUBJECT: Keahamikee Parking Lot Redevelopment Project, National Historic Preservation Act, Section 106 Review Prior to Memorandum of Agreement  
Honolulu, O‘ahu  

HISTORIC PRESERVATION PROGRAM CONCEPTS:  

Archaeological Concerns  

The proposed mitigation measures clearly outline some of the principal objectives of the historical survey. These include 1) identification of all historic sites; 2) evaluation of the significance of historic sites present at the parcel; and 3) identification of the impacts that the project will have on the significant historic sites and 4) definition of the scope of any subsequent mitigation plan. To this list, we would add commitments to carry out the mitigation plan and to produce a report that this office finds acceptable.  

The specific tasks noted in the proposed mitigation measures follow closely the language of the draft environmental impact statement, which we found a bit confusing and would have committed the City and County to an excessive level of field investigation. We would suggest modifying the specific tasks noted in the RIS with the following: Most of item 3 has already been completed by Dean Harst at Bishop Museum and is included in the draft RIS as Appendix E. Informant interviews remain to be accomplished. The scope of item 2 seems unusually large. Unless cores in each of the larger parcels and 1 or 2 in the smaller parcels, with the exception of the possible graveyard area, which should not be cored. This would result in about 10 or 25 cores for the entire project area (or estimate that the plan in the draft RIS would have resulted in the drilling of about 500 cores). Also, it should be noted that the possible graveyard area is not disturbed by this process. Once the evaluation is complete, possible graves should be undertaken to ascertain the extent and approximate number of individuals interred there. If skeletal remains are present, then the findings will have to be submitted to the Oahu Island Burial Council, which has the authority to determine if the burials are to be preserved in place or relocated. Should any skeletal remains be determined to have a non-Hawaiian ethnic identity, our department will determine whether they are to be preserved in place or relocated.  

Test excavation in the vicinity of the fishpond would result in the initial stage of investigation. After these tasks are complete, cores will be cored and analyzed for carbon dating to determine the composition and age of the fishpond sample. The test excavation is necessary to determine if the fishpond is the same as that identified in the draft RIS. The test excavation should be limited to the area of the fishpond identified in the draft RIS. The area of the fishpond identified in the draft RIS would be excavated to determine the extent of the fishpond and the presence of any structural remains. The test excavation should be limited to the area of the fishpond identified in the draft RIS. The area of the fishpond identified in the draft RIS would be excavated to determine the extent of the fishpond and the presence of any structural remains.  

At this point a mitigation plan could be drawn up. Successful execution of the plan, which may involve a combination of data recovery and preservation, and production of acceptable reports of the work would end the historic preservation review process for this project.  

Architectural Concerns  

The proposed mitigation measures should also address measures for the work which affects historic buildings. Per Attachment C, "Analysis of the Existing Built Environment and Potential Impacts of the Keahamikee Redevelopment Project" the following areas should be addressed:  

Demolition of the buildings on DU-3: 1-5 (AO) will be considered an adverse effect. To mitigate the demolition measured drawings and photographs documentation, according to historic American building survey standards, will need to be provided.  

M)mitation measures relating to the Proposed New Construction: Construction impacts should be included and the photograph documentation of the historic buildings adjacent to the project site, prior to construction should be emphasized. Also, the building material should be of similar material, i.e., wood.  

Thank you for the opportunity to review the Keahamikee Redevelopment Project. Should you have any questions, please have your staff contact the Historic Preservation Division.  

Very truly yours,  

WILLIAM N. PATE Chairperson  
State Historic Preservation Officer  

Michael W. Scarfone  
Page 2
June 7, 1991

Mr. Michael 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:

The members of our Preservation Review Committee appreciated the opportunity of receiving a presentation of the City and County's proposed Kaka'ako Development within the two blocks bounded by Maunakea, King, River and Hotel Streets.

We appreciate the care taken by the City and County to address and reflect the design character, traditional building fabric, historic uses and overall context of the project's immediate surroundings in particular and Chinatown in general. We feel these efforts are in keeping with the Chinatown Special District objectives included in the Land Use Ordinance.

We would like to encourage you, your staff and your consultants in your efforts to follow through on this focus as you move from conceptual to schematic and eventually final design. We suggest that the final character be a 1990's reflection of the historic architectural character rather than an attempt at direct duplication. We suggest the Maunakea Marketplace development as a successful example.

The Maunakea Marketplace has come to serve as a contemporary urban equivalent of the plantation town general store. Social interaction similar to that in front of the general store is occurring in the project's courtyard, at its main Hotel Street entry and at the bus shelter across Hotel Street. As the pedestrian mall is developed on Kaka'ako Street to link the Oahu Mall with the Maunakea Market, we suggest it be designed with such social character in mind. The character of the mall and its street furniture should encourage social interaction.

We note mention of trellises on the upper levels of the street facades. The nature of upper story setbacks should reflect the traditional building fabric in Chinatown. Likewise a standard driveway curb cut seems more appropriate than the break in sidewalk indicated at the garage entrance on Maunakea Street.

Thank you for the opportunity to review and comment on this project.

Sincerely yours,

[Signature]

Sakaid Murata
Chair
Preservation Review Committee

cc: Donald Clegg
Benjamin Lee
John Reid
Don Hibbard, Ph.D.
PRC Members
Phyllis G. Fox
June 21, 1991

Mr. Michael Scarfone, Director
Department of Housing & Community Development
City & County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

RE: Kukuiolike Parking Lot Redevelopment Project
National Historic Preservation Act, Section 106 Review Memorandum of Agreement: Requested Comments

Dear Mr. Scarfone:

The members of our Urban Design and Transportation Committee appreciated the opportunity to review concept drawings for the City and County's proposed Kukuiolike Development within the two blocks bounded by Maukaakea, King, River and Hotel Streets.

We appreciate the care taken to address and reflect the design character, traditional building fabric, historic uses and overall context of the project's immediate surroundings in particular and Chinatown in general. We feel these efforts are in keeping with the Chinatown Special District objectives included in the Land Use Ordinance.

We would like to encourage you, your staff and your consultants in your efforts to follow through on this focus as you move from conceptual to schematic and eventually final design. We suggest that the final character be a 1980's reflection of the historic architectural character rather than an attempt at direct duplication. We suggest the Maukaakea Marketplace development as a successful example.

The Maukaakea Marketplace has further come to serve as a contemporary urban equivalent of the plantation town general store. Social interaction similar to that in front of the general store is occurring in the project's courtyard, at its main Hotel Street entry and at the bus shelter across Hotel Street. As the pedestrian mall is developed on Kukuiolike Street to link the Oahu Market with the Maukaakea Market, we suggest it be designed with such social character in mind. The character of the mall and its street furniture should encourage social interaction.

Mr. Michael Scarfone
Kukuiolike Parking Lot Redevelopment
Section 106 Review Comments
June 21, 1991
Page 2

We note mention of trellises on the upper levels of the street facades. The nature of upper story setbacks should reflect the traditional building fabric in Chinatown. Trellises with an abundance of planting would not. Likewise a standard driveway curb cut seems more appropriate than the break in sidewalk indicated at the garage entrance on Maukaakea Street.

Thank you for the opportunity to review and comment on this project. We look forward to further involvement in the Section 106 process for the Kukuiolike Parking Lot Redevelopment project.

Sincerely yours,

Glen E. Hanson, AIA
President

cc: Donald Glegg
Benjamin Lee
Don Hibbard
June 12, 1991

Mr. Michael Scarfone
Department of Housing and Urban Development
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

REF: Kekaulike Parking Lot Redevelopment Project

Dear Mr. Scarfone:

On May 20, 1991, we received notification of the referenced undertaking, support documentation and your request for our comments. We understand that several aspects of the project are currently in an early planning stage, but we agree that sufficient information is available to anticipate that the effects of the undertaking should be considered to be adverse. We also agree that a Memorandum of Agreement (MOA) should be developed with the State Historic Preservation Officer (SHPO) which specifies mitigation measures and the products that will be generated to address the effects of the undertaking.

We appreciate the thoroughness of planning documents generated to date. We do not anticipate that the Council needs to participate in the consultation that will lead to the MOA. However, we remain available to contribute to that effort if requested.

We request that the Council be provided an opportunity to review and comment on final plans, including any treatment plans developed for mitigation. These plans may be provided for comment prior to MOA, whichever conforms best to project scheduling and the results of consultation.

Thank you for notifying us of this undertaking. If we can be of further assistance, please contact Alan Stanfill at (303) 231-5320 or FTS 554-5320.

Sincerely,

Claude Wiseley
Director, Western Office of Project Review

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June 5, 1991

Mr. Michael Scarfone
Department of Housing and Urban Development
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Subject: Kekaulike Parking Lot Redevelopment Project

National Historic Preservation Act, Section 106 Review
Memorandum of Agreement

A copy of your letter to the AIA requesting comments on the above project's impact on historic resources was recently brought to our attention. It contains a minor, but potentially misleading, typographical error which we would like to mention.

On Page 2 of your letter you refer to the report by our firm titled “Analysis of the Existing Built Environment and Potential Impacts of the Kekaulike Redevelopment Project,” and say that according to this report, “most of the buildings to be demolished have no historic or architectural significance, and are vacant structures with utilitarian design.” In reviewing our report, we believe the word “vacant” must be a typo for the word “recent,” which we used in our report on page 10. The description of the buildings to be demolished as recent and utilitarian was in reference to the Diamond Head Block of the project only. None of the structures to be demolished are vacant, and the typographical error in your letter may give a false impression. The uses of the buildings, as we note on page 57 of our report are “typical ground floor commercial uses common to Chinatown.”

Thank you for allowing us to bring this matter to your attention.

Sincerely yours,

SPENCER MASON ARCHITECTS

Glenn E. Mason, AIA
Vice President
B. ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

The following government and private agencies were consulted and comments solicited for the Environmental Impact Statement Preparation Notice. A total of 28 comments were received.

A double asterisk (**) indicates comments to which substantive responses were required. Both comment and response letters are reproduced in this section.

A single asterisk (*) indicates letters offering "no comments" and for which no responses were provided.

Federal Agencies

** U.S. Army Corps of Engineers
* U.S. Department of Interior - Fish and Wildlife Service
** U.S. Department of Housing and Urban Development

State Agencies

* Department of Health
** Department of Land and Natural Resources
* Department of Business and Economic Development
  Office of State Planning
** Department of Transportation
  Environmental Center, University of Hawaii
* Office of Environmental Quality Control
  Department of Agriculture
** Department of Education
** Land Use Commission
City and County of Honolulu

** Board of Water Supply
** Department of General Planning
** Department of Land Utilization
** Department of Public Works
** Department of Transportation Services
  Building Department
** Department of Parks and Recreation
** Fire Department
** Police Department
Department of Finance

Private Organizations

** Hawaiian Electric Company
** GTE Hawaiian Tel
** PRI Gasco, Inc.
  American Lung Association
  Downtown Improvement Association
** Downtown Neighborhood Board No. 13
  Chinese Chamber of Commerce
  Downtown Business Council
** American Institute of Architects Hawaii Society
** Historic Hawai‘i Foundation Mainstreet
** Lum Yip Kee, Limited
  Design Advisory Committee
  Hawaii Theatre Center
  Chinatown Merchants Association
  United Chinese Societies
February 26, 1991

Mr. Ernest Kosaka, Field Supervisor
U.S. Department of the Interior
Fish and Wildlife Service
Pacific Islands Office
P.O. Box 50167
Honolulu, Hawaii 96850

Subject: Environmental Impact Statement Preparation Notice
Kekaulike Revitalization Project

Dear Mr. Kosaka:

Thank you for your letter of August 2, 1990 regarding the subject project. Your letter will be incorporated in the Draft Environmental Impact Statement.

Sincerely,

Michael H. Scarfone
Director
DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
PO BOX 230
AUGUST 13, 1990

Mr. Michael N. Scarfone
Director
Planning Division

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

Dear Mr. Scarfone:

Thank you for the opportunity to review the Environmental Impact Preparation Notice for the proposed Kekaulike Parking Lot Redevelopment Project, Honolulu. The following comments are offered:

a. A Department of the Army permit is not required for the project.

b. The flood hazard information presented on page 4 of the document is correct.

Sincerely,

Kai Takao
Director of Engineering

February 26, 1991

Mr. Kai Takao, Director of Engineering
Department of the Army
U.S. Army Engineer District, Honolulu
Building 230
Honolulu, Hawaii 96850-5440

Attention: Planning Division

Subject: Environmental Impact Statement Preparation Notice
Kekaulike Redevelopment Project

Dear Mr. Cheung:

Thank you for your letter of August 13, 1990 regarding the subject project. Your verification of flood hazard designation and confirmation that the Department of the Army permit is not required will be incorporated in the Draft Environmental Impact Statement.

Sincerely,

Michael N. Scarfone
Director
Mr. Michael H. 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: Environmental Impact Statement Preparation Notice  
Kekaulike Parking Lot Redevelopment Project, Honolulu

This responds to your request for comments for consideration as you prepare an Environmental Impact Statement for the development of the Kekaulike Parking Lot. We understand that the proposed project will provide for off-street parking, 15,000 square feet of retail space, approximately 100 rental units, and a pedestrian walk between Hotel and King Streets. It is also our understanding that Community Development Block Grant Funds are available for the project.

The following comments would apply to CDBG assisted actions:

1. The project is located within the Special Design District of Chinatown that is on the National Register of Historic Places, therefore, coordination with the State Historic Preservation Office during the preliminary design stages is important to achieve compliance with Section 106 of the National Historic Preservation Act of 1966 as amended.

2. Noise generated by vehicular traffic should be analyzed to determine if mitigative measures are necessary. Noise levels should be expressed in terms of Ldn based on current and projected traffic volumes.

3. The project should make a consistency determination with the Hawaii Coastal Zone Management Plan.

4. The design of the apartment building should be consistent with 24 CFR Part 56: Non-Discrimination Based on Handicap in Federally Assisted Programs and Activities of the Department of Housing and Urban Development.

If you have any questions, you may call Frank Johnson at 541-1327.

Very sincerely yours,

Calvin Law  
Director  
Community Planning and Development Division

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU  

Mr. Frank Johnson, Director  
Community Planning and Development Division  
U.S. Department of Housing and Urban Development  
Honolulu Office, Region IX  
Box 50007  
Honolulu, Hawaii 96850-4991

Subject: Environmental Impact Statement Preparation Notice  
Kekaulike Revitalization Project  
HOK: 1-7-1, various

Dear Mr. Johnson:

Thank you for your letter of August 2, 1990 (Reference 90-258) regarding the subject project. The following is in response to your concerns regarding the Community Development Block Grant (CDBG) actions:

1. The project will comply with Section 106 of the National Historic Preservation Act of 1966 as amended.

2. A detailed traffic noise study has been undertaken to address the noise levels and mitigative measures as a result of the project. The Traffic Noise Study will be included in the Draft Environmental Impact Statement (DEIS).

3. A consistency determination will be filed with Hawaii Coastal Zone Management Program.

4. Buildings will be designed in accordance with 24 CFR Part 56: Non-Discrimination Based on Handicap in Federally Assisted Programs and Activities of the Department of Housing and Urban Development.

Your letter and discussion of concerns will be included in the DEIS.

Sincerely,

Ed Kakeo

Michael H. Scarfone  
Director
To: Michael N. Scarfone, Director  
Department of Housing & Community Development  
City & County of Honolulu

From: Deputy Director for Environmental Health

Subject: Comments to Environmental Impact Statement
Preparation Notice for Ke'ahuku Parking Lot
Redevelopment TMC: 1-7-3: 7, 20, 22, 24, 32, 33, 34, 35, 36, 91, p. 25, 92

In preparation of the Environmental Impact Statement for the subject project, the following noise concerns should be addressed:

1. There are reservations toward the proposed project due to potential noise impacts resulting from the integration of commercial and residential uses.
   a. Noise from activities associated with commercial facilities including heavy vehicles utilized for delivery and services may have adverse impacts on residents within the development.
   b. Vehicular noise emissions from parking structures, particularly noise resulting from tire squeals, may also have negative impacts.

2. Mitigative measures should be incorporated into the development design in order to minimize the potential noise impacts indicated above.

3. Through facility design, sound levels emanating from stationary equipment such as air conditioning units, exhaust fans, pumps and generators must be attenuated to meet the allowable levels of Title 11, Administrative Rules, Chapter 43, Community Noise Control for Oahu.

February 26, 1991

Bruce S. Anderson, Ph.D.  
Deputy Director for Environmental Health  
Department of Health  
P.O. Box 3370  
Honolulu, Hawaii 96801

Subject: Environmental Impact Statement Preparation Notice  
Ke'ahuku Revitalization Project  
TMC: 1-7-3: various

Dear Dr. Anderson:

Thank you for your letter of September 10, 1990 (Reference EPSD 2-165) regarding the subject project. Your letter and discussion of concerns relative to potential noise impacts and mitigative measures will be included in the Draft Environmental Impact Statement (DEIS). A detailed noise study addressing impacts to residents from heavy vehicles and emissions from the parking garage will also be included in the DEIS.

As required in Title 11, Administrative Rules, Chapter 43, Community Noise Control for Oahu, facility designs to minimize potential noise impacts will be incorporated.

Sincerely,

Michael N. Scarfone  
Director
July 25, 1990

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: EISPU for the Proposed Mahaulike Parking Lot Redevelopment Project, Honolulu

We have no comments to offer on the subject EISPU except to confirm that the subject sites are designated within the State Land Use Urban District.

Thank you for the opportunity to comment.

Sincerely,

ESTHER UEDA
Executive Officer

February 26, 1991

Ms. Esther Ueda
Executive Officer
Land Use Commission
Room 104, Old Federal Building
330 Merchant Street
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement Preparation Notice
Kakooak Revitalization Project
UWS: 1-17-32; various

Dear Ms. Ueda:

Thank you for your letter of July 25, 1990 regarding the subject project. Your letter and confirmation regarding the State land use designation will be included in the Draft Environmental Impact Statement.

Sincerely,

Michael N. Scarfone
Director
August 2, 1990

Mr. Michael K. Scarfone, Director
Department of Planning and Community Development
City and County of Honolulu
650 So. King Street
Honolulu, HI 96813

Dear Mr. Scarfone:

Subject: Environmental Impact Statement Draft Notice
Kahului Redevelopment Project
Honolulu, Hawaii

Our review of the subject project indicates that based on a
proposed 100 rental units, it may have the following impact on
enrollment projections at the following schools:

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamehameha Elementary</td>
<td>K-5</td>
<td>10</td>
</tr>
<tr>
<td>Central Intermediate</td>
<td>6-8</td>
<td>4</td>
</tr>
<tr>
<td>McKinley High School</td>
<td>9-12</td>
<td>6</td>
</tr>
</tbody>
</table>

The small number of projected students can be accommodated at all
of the schools. It is our understanding that the residents will
be mostly single persons or those with few children.

Thank you for the opportunity to comment.

If there are any questions, please call the Facilities Branch at
737-4743.

Sincerely,

Charles T. Toguchi,
Superintendent

cc: H. Imai
J. Kim
August 21, 1990

The Honorable Michael M. Scarfone
Director
Department of Housing and Community Development
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Subject: Chapter 343, Hawaii Revised Statutes Environmental Impact Statement Preparation Notice Proposed Kaka’ako Parking Lot Redevelopment Project, Honolulu

The Office of Environmental Quality Control would like to be a consulted party during the preparation of the EIS on the above referenced document. Thank you for the opportunity to participate in this project.

Sincerely,

[Signature]

Bruce S. Anderson, Ph.D.
Acting Interim Director

February 26, 1991

Bruce S. Anderson, Ph.D.
Acting Director
Office of Environmental Quality Control
465 South King Street, Room 104
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement Preparation Notice Kaka’ako Revitalization Project

Dear Dr. Anderson:

Thank you for your letter of August 21, 1990 regarding the subject project. As requested you will be listed as a consulted party and your letter will be included in the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael M. Scarfone
Director
July 25, 1990

Mr. Michael N. Scarfone
Director
Department of Housing and Community Development
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

RE: Chapter 343, Hawaii Revised Statutes
Environmental Impact Statement Preparation Notice
Proposed Kekaulike Parking Lot Redevelopment Project, Honolulu

With reference to the above named project, the Department of Business, Economic Development & Tourism has no comments to offer at this time.

Thank you for the opportunity to comment.

Sincerely,

[Signature]

for Roger A. Ulveling

Effective July 1, 1990 the department name has been changed to Department of Business, Economic Development & Tourism
Honorable Michael Scarfone

Additional monitoring of the surface removal of existing structures and pavement. Existing subsurface foundations and utility service pipes should be left in-situ until after archaeological testing and determination, to avoid further disturbance of archaeological resources.

c. Backhoe assisted- or hand-excavation testing is recommended, following retrieval of core analysis, to be determined in conjunction with known feature locations.

A complete data recovery plan will be formulated contingent upon the results of this initial testing phase.

Illegal destruction of archaeological sites and removal of artifacts by collectors are common, especially in downtown Honolulu. These usually occur during nighttime hours and weekends when project work ceases and project personnel are absent. High fencing, alarm systems and armed patrol of the entire site during these periods will be necessary.

An "urban forestry" or landscape plan is highly recommended for this project.

Thank you again for your cooperation in this matter. Please feel free to call me or Jay Lowbeck at our office of Conservation and Environmental Affairs, if 548-7837, if you have any questions.

Very truly yours,

William M. Poty

The Honorable Michael H. Scarfone
Department of Housing & Community Development
City and County of Honolulu
650 S. King Street
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Subject: EIS Preparation Notice for the Proposed Kauaikei Project at Honolulu, Hawaii:
TMK 1-7-03: 20

The proposed project lies within the Chinatown Historical District (State Site No. 80-14-990) which was placed on the National Register of Historic Places on January 17, 1983.

Although the area has long been urbanized, various projects have revealed rich subsurface cultural deposits. We understand that there presently are buildings on most of the project area. These need to be demolished and the land cleared before construction of the proposed four-story building for a parking lot, retail space and rental units.

In conjunction with construction redevelopment, several phases of archaeological monitoring and testing are necessary to protect potential archaeological data and resources. Recommended preliminary archaeological data recovery during the earlier phases to assist in determining test areas and procedures are as follows:

a. Monitoring of core sample borings during the construction design stage to recover data on depths of fill, stratigraphic sequences, and context.

File No.: 91-50
Doc. No.: 9109E

SEP 10 1990

William M. Poty, Commissioner
State of Hawaii, Land and Natural Resources
February 26, 1991

Mr. William M. Paty, Chairperson
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Subject: Environmental Impact Statement Preparation Notice
Kekaulike Revitalization Project
HMT-1A-1-27.7.0 Versus

Dear Mr. Paty:

Thank you for your letter of September 10, 1990 (Reference OCEA-29) regarding the subject project. Your letter and discussion of concerns will be addressed in the Draft Environmental Impact Statement (DEIS).

Your concerns regarding the area's archaeological and historical resources will be addressed in the archaeological and historical studies, currently being prepared by consultants, or otherwise included in the DEIS. Archaeological testing and monitoring as well as security systems to protect significant archaeological resources will be provided during development.

Appropriate landscaping will be incorporated in the development.

Sincerely,

Michael W. Scarfone
Director

Mr. Michael W. Scarfone, Director
Department of Housing and Community Development
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Chapter 343, Hawaii Revised Statutes
Environmental Impact Statement Preparation Notice
Proposed Kekaulike Parking Lot Redevelopment Project

Thank you for your letter of July 19, 1990, requesting our review of the proposed project.

We have the following comments:

1. We will require the developer to submit a Traffic Impact Analysis Report (TIAR) defining the roadway requirements, potential traffic problems and mitigating measures to correct/minimize any facility deficiencies. The report should analyze the intersections of Haiman Highway with River Street, Kekaulike Street, Makawao Street, Smith Street, Nuuanu Avenue, and Bethel Street.

2. This project should be coordinated with the Aloha Tower Complex and the Kaisunnu Parking Structure Redevelopment (Bethel and Haiman).

3. We will also require the developer to submit plans for required improvements to our State facilities or any construction work within our highway right-of-way for our review and approval. All costs incurred for the required improvements shall be borne by the developer.

Very truly yours,

Edward V. Hiraoka
Director of Transportation
February 26, 1991

Mr. Edward Y. Hirata, Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Subject: Environmental Impact Statement Preparation Notice
Kaka‘ako Revitalization Project
DMU 1-7.3, various

Dear Mr. Hirata:

Thank you for your letter of August 7, 1990 (Reference HW-PS 2.2082) regarding the subject project. In response to your comments:

1. A Traffic Impact Study will be included in the Draft Environmental Impact Statement (DEIS). This report addresses potential traffic-related problems resulting from the project and provides mitigative measures to ensure minimal impact to the area. Nimitz-Smith, Nimitz-Mukauu and Nimitz-Obalal Street intersections are included in the study. The development is anticipated to have little or no impact at the Nimitz-Kaka‘ako and Nimitz-Maunaeku Street intersections and is, therefore, not covered in the Traffic Impact Study. However, the Traffic Study does address the King-Kaka‘ako and King-Maunaeku Street intersections located in closer proximity to the project site.

2. The Kaka‘ako Revitalization Project will be coordinated with the Aloha Tower Complex, Kahanamoku Parking Structure Redevelopment and other related facilities in the project vicinity.

3. Plans for improvements to State facilities or highway right-of-way will be submitted to the Department of Transportation as required.

Sincerely,

Michael N. Scarfone
Director

Letter to Mr. Edward Y. Hirata
Page 2
February 26, 1991

Your letter and a discussion of transportational concerns will be incorporated in the DEIS.

Sincerely,

Michael N. Scarfone
Director
August 10, 1990

TO:  MICHAEL N. SCARZONE, DIRECTOR
     DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM:  KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER
     BOARD OF WATER SUPPLY

SUBJECT: YOUR MEMORANDUM OF JULY 19, 1990 REGARDING THE
         ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR
         THE PROPOSED KUKUWAI PARKING LOT REDEVELOPMENT
         PROJECT, HONOLULU, HAWAII

We have the following comments for the proposed project:

1. The existing 6-inch water main on Kukuwai Street between King and Hotel
   Streets is undersized and should be upgraded to an 8-inch main.

2. The availability of water will be determined when the building permit
   application is submitted for our review and approval.

3. The developer will be required to apply any applicable Water System
   Facilities Charges (WSFC) when the building permit application is
   approved. Qualifying WSFC credits shall be given for existing services
   provided an inventory of existing plumbing fixtures units are made and
   recorded prior to demolition.

If you have any questions on this matter, please contact Beat Kidoba at 527-5325.

Sincerely

cc: H. Hayashi
    K. Hayashi
    Customer Service
    D. Doll
    A. Higa
    B. Kidoba

99-1804
August 24, 1990

MEMORANDUM

TO: MICHAEL M. SCARFORE, DIRECTOR
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: DONALD A. CLEGG, DIRECTOR

SUBJECT: Environmental Impact Statement Preparation Notice
Proposed Kekaulike Parking Lot Redevelopment Project, Honolulu

This Department appreciates the opportunity to be a consulted party in regard to the preparation of the Environmental Impact Statement (EIS) referenced above. At this time, we have four comments on the project:

1. The entire site is located within the "Historic Core Precinct," not only a portion of the site as noted on page 7, paragraph 7 of the EIS preparation notice; thus the 40-foot height limit and the other design guidelines apply throughout the entire project site.

2. The EIS should address auto and service vehicular circulation patterns, both pre- and post-development.

3. The EIS should address coastal and harbor views that might be affected by the proposed project.

4. The EIS should discuss alternatives associated with developing the blocks separately. In addition, the EIS should identify how much parking and retail space will be located on each block.

If you have any questions, please contact Tom Elsen at 523-4468. Thank you.

DONALD A. CLEGG
DIRECTOR OF LAND UTILIZATION

OC:msc 152N

February 26, 1991

Mr. Donald A. Clegg, Director
Department of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement Preparation Notice
Kekaulike Revitalization Project

Dear Mr. Clegg:

Thank you for your letter of August 24, 1990 (Reference LU7/90-45941(HC)) regarding the subject project. As requested, the Department of Land Utilization will be listed as a consulted party. In response to your comments:

1. We acknowledge that the entire site is subject to the requirements of the Historic Core Precinct, and will be designed in accordance with the guidelines to the maximum extent practicable.

2. A traffic study will be included in the Draft Environmental Impact Statement (DEIS) detailing existing and projected vehicular circulation patterns.

3. Impacts to viewsheds will be discussed in the DEIS, although no adverse impacts are anticipated. View corridors will be improved, especially on Kekaulike Mall, and the 40-foot height limit of the development will not impact any significant views.

4. A detailed description of the project phasing and proposed site plan and land uses will be included in the DEIS.

MICHAEL M. SCARFORE
DIRECTOR
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

GAIL M. KAYE
Deputy Director
Letter to Mr. Donald A. Clegg
Page 2
February 26, 1991

Your letter and discussion of concerns will be included in the Draft Environmental Impact Statement.

Sincerely,

Michael W. Scarfone
Director

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU
1000 KAPALAMA STREET
HONOLULU, HAWAII 96813

August 13, 1990

MEMORANDUM

TO:  MICHAEL N. SCHMIDT, DIRECTOR
      DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM:  BENJAMIN LEE, CHIEF PLANNING OFFICER
        DEPARTMENT OF GENERAL PLANNING

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR KEKAULIKE PARKING LOT REDEVELOPMENT

Thank you for the opportunity to review and comment on the Environmental Impact Statement Preparation Notice (EISP) for the Kekaulike Parking Lot Redevelopment. We offer the following comments for your consideration.

1. According to the EISP, the 150 residents and 24 businesses displaced by the project will receive relocation benefits and priority for occupancy in the redeveloped residential and commercial space.

   The Draft EIS should discuss the prospective rents in the redevelopment, their affordability for displaced wishing to return to this locale, as well as how this will be accomplished, e.g., rent subsidies.

2. The preferred rapid transit alignment runs underground along Hotel Street through the Central Business District. If the transit line is installed as planned, this corridor will inevitably be commercially revitalized. The proposed project is near a transit station, enhancing its residential desirability.

   The Draft EIS should discuss the amount of residential and retail rental space that will be dedicated to “affordable” use, considering the enhanced value of the site given its proximity to a transit station.
3. The proposed project is located in the Historic Core Precinct of the Chinatown Special District. Its architectural significance is reflected in its placement on the National Register of Historic Places. Development guidelines encourage the preservation and restoration of significant buildings and sites. New buildings should be compatible with, and complement these buildings and sites.

The project's conceptual scheme contains elements in harmony with district standards, e.g., ground-floor retail space, pedestrian walkways, low-rise mixed use. We compliment the developer on their efforts thus far, and hope their structural designs continue to reflect the integration of design district standards.

Among other considerations, Land Use Ordinance standards (1989, 7.60-1) suggest creating architectural linkages to existing structures. "... primarily through building materials and finishes, architectural detailing, and provisions for pedestrian amenities, such as storefront windows and historic signage details." (GO, pp. 5-53, 54. Architectural solutions for achieving Chinatown district design goals should be discussed in the Draft EIS.

4. Present vehicular access to the Kekaulike Parking lot is from Maunakea and Kekaulike Streets.

The proposed pedestrian mall will presumably eliminate the Kekaulike Street access.

The Draft EIS's Traffic Impact Analysis should discuss parking lot ingress and egress and any impacts on the construction of the rapid transit system.

5. We understand that this is a Chapter 2016 project. The draft EIS should list any exemptions required from Development Plan, zoning code and building code requirements. For example, if the proposed pedestrian mall/promenade will require closure of Kekaulike Street between Hotel and King Streets, a Development Plan Land Use change from Roadway to Park and a Public Facilities Map change to add a Park (pedestrian mall) symbol will be required.
February 26, 1991

Mr. Benjamin B. Lee
Chief Planning Officer
Department of General Planning
650 South King Street
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement Preparation Notice

Kekaulike Revitalization Project

Dear Mr. Lee:

Thank you for your letter of August 13, 1990 (Reference RK 7/90-2041) regarding the subject project. Your letter and discussion of concerns relative to displacement and relocation, rapid transit, Historic District, traffic impacts, and compliance with land use policies will be addressed in the Draft Environmental Impact Statement (DEIS). In response to your comments:

1. The temporary displacement of residents and businesses including mitigative measures will be addressed in the DEIS. A social impact study is being conducted to assess the impacts of the redevelopment.

2. The DEIS and Traffic Study will address the project's relationship to the proposed rapid transit line.

3. Current plans for building design include a continuous canopy; and complementing architectural detailing and finishes. Building designs will be consistent and compatible with existing structures in the Chinatown Special District.

4. A traffic study will be incorporated into the DEIS detailing possible traffic impacts and mitigative measures as a result of the City's proposed rapid transit system and the project's conversion of Kekaulike Street to a pedestrian mall. The parking garage ingress and egress will be off of Nuuanu Street.

5. As may be necessary, the DEIS will discuss any exemptions which are required from the Development Plan, zoning code and building code requirements.

Sincerely,

Michael N. Scarfone
Director
FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

August 16, 1990

TO: MICHAEL H. SCARFOE, DIRECTOR
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: DONALD S. M. CHAUG, FIRE DEPUTY CHIEF

SUBJECT: CHAPTER 243, HAWAII REVISED STATUTES
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
PROPOSED REKULIKE PARKING LOT REDEVELOPMENT PROJECT, HONOLULU

We have reviewed the application for the above subject request and have no objections to the proposal.

Submit construction plans to the building and fire departments for permit review and approval prior to commencement of the project.

Should additional information or assistance be required, you may contact Captain August E. F. Rame or Fire Inspector Michael Aki of our Fire Prevention Bureau at 523-4186.

DONALD S. M. CHAUG
Fire Deputy Chief

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

February 26, 1991

MEMORANDUM

TO: Lionel E. Cama, Fire Chief
Honolulu Fire Department

FROM: Michael N. Scarfone

SUBJECT: Environmental Impact Statement Preparation Notice
Rekulike Revitalization Project
Tax Map Key: 1-7-3; Various

Thank you for your letter of August 16, 1990 regarding the subject project. Your letter and information provided will be included in the Draft Environmental Impact Statement. Construction plans will be submitted to the City and County of Honolulu Building and Fire Departments for approval.

MICHAEL N. SCARFOE
Director
August 14, 1990

MEMORANDUM

TO:  MICHAEL W. SCARFONE, DIRECTOR
     DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM:  SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER

SUBJECT:  ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE (EISPNI)
     KEAUA LIKE PARKING LOT REDEVELOPMENT PROJECT
     TRA: 1-7-71 20

We have reviewed the subject EISPNI and have the following comments:
1. We have no objections to the proposed parking lot
   redevelopment project.
2. The development should be connected to the sewer line on
   King Street.
3. Streets should be improved to City standards and existing
   number of parking stalls should be maintained for merchants.

SAM CALLEJO
Director and Chief Engineer

February 26, 1991

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

Subject: Environmental Impact Statement Preparation Notice
     Keaau Like Revitalization Project
     TRA: 1-7-71 20

Dear Mr. Callejo:

Thank you for your letter of August 14, 1990 (Reference ENV 90-150
(449)) regarding the subject project. Your letter and information
provided will be incorporated in the Draft Environmental Impact
Statement.

As recommended, the development's sewer system will be connected to the
King Street sewer line. Streets will be improved to City standards.
The redeveloped parking facility will contain 83 replacement stalls plus
85 additional stalls for commercial use.

Sincerely,

Michael H. Scarfone
Director
TO:    MICHAEL N. SCARFONE, DIRECTOR
       DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM:  WALTER M. OZAWA, DIRECTOR

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT (EIS) PREPARATION NOTICE FOR PROPOSED KERAILIKE PARKING LOT REDEVELOPMENT PROJECT

August 20, 1990

Since the proposed project will include rental housing units, the project will be subject to compliance with the Park Dedication Ordinance No. 4621.

The project will also be subject to compliance with the open space and landscaping standards as specified in the Chinatown Special District design controls.

Should you have any questions, please contact Doug Miller of our Advance Planning Branch at extension 4884.

WALTER M. OZAWA, DIRECTOR

---

March 15, 1991

Mr. Walter M. Ozawa, Director
Department of Parks and Recreation
650 South King Street
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement Preparation Notice
Kerailike Revitalization Project
HRS. 1-7-74, variant.

Dear Mr. Ozawa:

Thank you for your letter of August 20, 1990 regarding the subject project. Your letter and information concerning appropriate land use policies and requirements will be addressed in the Draft Environmental Impact Statement.

We will be coordinating our project plans with your department in attempting to meet the Park Dedication Ordinance standards. In the event we are unable to fully comply, however, appropriate exemptions may need to be sought pursuant to Chapter 201E, Hawaii Revised Statutes.

Sincerely,

[Signature]

Michael M. Scarfone
Director
February 26, 1991

Chief Michael S. Nakamura
Chief of Police
Police Department
1455 South Beretania Street
Honolulu, Hawaii 96814

Subject: Environmental Impact Statement Preparation Notice
Keaulike Revitalization Project

Dear Mr. Nakamura:

Thank you for your letter of August 14, 1990 (Reference HS-LK) regarding the subject project. Mitigative measures to ensure public safety and
comfort relative to parking, traffic congestion, noise, and dust during
redevelopment will be addressed in the Draft Environmental Impact
Statement (DEIS).

While all construction impacts cannot be fully mitigated, the
construction will occur in phases to minimize overall disruption in the
area. Impacts from construction such as noise and dust can be mitigated
somewhat with the use of properly muffled equipment. Limitation of work
to weekdays, and occasional watering of exposed areas to control
fugitive dust. We will coordinate project activities with your
department to ensure public safety and comfort.

Sincerely,

Michael H. Scarfone

Director

Chief Michael S. Nakamura
Chief of Police
Police Department
1455 South Beretania Street
Honolulu, Hawaii 96814

Subject: Environmental Impact Statement Preparation Notice
Keaulike Revitalization Project

TO: MICHAEL H. SCARFONE, DIRECTOR
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: MICHAEL S. HAKUMURA, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
PROPOSED KEAULIKE PARKING LOT REDEVELOPMENT PROJECT

We have reviewed the preliminary information about the proposed
Keaulike Parking Lot Redevelopment Project in Chinatown, and we
welcome redevelopment in this area.

During the estimated 15 months of the construction phase, the
project will aggravate the parking problem in the downtown area,
as well as increase traffic congestion, noise, and dust. Please
keep us informed as to how these problems will be mitigated to
ensure public safety and comfort.

Thank you for the opportunity to comment.

MICHAEL S. HAKUMURA
Chief of Police

JOSEPH ARENO
Assistant Chief of Police
Support Services Bureau
MEMO TO: MICHAEL SCARFONE, DIRECTOR
DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT

FROM: HERBERT K. MURAOKA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION
NOTICE (EISPN) — PROPOSED KIRAUHINE PARKING
LOT REDEVELOPMENT PROJECT

July 25, 1990

This is in response to your memo dated July 19, 1990.

We have reviewed the subject EISPN and have no comments to offer.

Thank you for the opportunity to review the EISPN.

HERBERT K. MURAOKA
Director and Building Superintendent

CC: J. Narada

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DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

February 26, 1991

Mr. Herbert K. Muraoka
Director and Building Superintendent
Building Department
650 South King Street
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement Preparation Notice
Kakaako Revitalization Project

Dear Mr. Muraoka:

Thank you for your letter of July 25, 1990 (Reference PB 90-610) regarding the subject project. Your letter will be included in the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael N. Scarfone
Director
MEMORANDUM

TO: GAIL HAIO, ACTING DIRECTOR
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: ALFRED J. THIEDE, DIRECTOR

SUBJECT: KEMAH PARKING LOT REDEVELOPMENT
EIS PREPARATION NOTICE

This is in response to your memorandum dated July 19, 1990 informing us of your intent to prepare an environmental impact statement for the subject project.

Our department should be consulted during the preparation of the EIS. In addition to the traffic impact study, the following issues should also be addressed and discussed with the respective Divisions/Branches:

1. The preferred alternative for the rapid transit alignment is along Hotel Street. Our Rapid Transit Development Division should be contacted in this regard.

2. Provisions for and the location of public parking within the project site should be discussed with our Parking Branch.

3. The location and number of access points to the project should be discussed with our Traffic Engineering Division.

cc: Rapid Transit Development Division

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

August 16, 1990

MEMORANDUM

TO: Joseph Hapold, Director
Department of Transportation Services

FROM: Michael N. Scarfone

SUBJECT: Environmental Impact Statement Preparation Notice
Kekaha Kauai Revitalization Project
Tax Map Key: 1-7-3; Various

Thank you for your letter of August 16, 1990 (Reference TE-4061 PL 09-1.235) regarding the subject project. Your letter and discussion of concerns will be addressed in the Traffic Impact Study or otherwise included in the Draft Environmental Impact Statement.

As requested, you will be listed as a consulted party and the appropriate division within the Department of Transportation Services will be consulted during the preparation of the EIS.

Michael N. Scarfone
Director

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

February 26, 1991
August 20, 1990

Mr. Michael N. Scarfone, Director
Department of Housing and Community Development
City and County of Honolulu
650 K. King Street, 1st Floor
Honolulu, HI 96813

Re: EIS Drop Noise, Kaka‘akee Parking Lot

Dear Mike:

The Downtown Neighborhood Board has the following comments:

1. You mention that the City has long range plans for a 20 foot widening of King Street. Given the narrow sidewalks, how can the road be widened without demolishing some of the buildings?

2. The project area is in the 34th Representative District, not the 35th.

3. On page 5 you mention that since 1980 the residential population of this area has remained stable. We disagree. Since 1980 the following residential projects have opened: Smith Seniors, Honolulu Tower, Hale Pua‘ali, and Pa‘ukini Elderly. Chinatown Gateway, River Nani, and Honolulu Park Place are scheduled to open by year end.

4. On page 6 you state the project will displace approximately 150 residences and 24 businesses. What relocation benefits will they receive? Will they be able to relocate back on site when the improvements are completed?

5. On page 7 you indicate that traffic impact, air quality, noise, and archaeological resource studies will be done. What are you doing a social impact study?

6. On page 8 you list goals to be consulted. People Against Chinatown Exclusion should be added to your list.

7. Of major concern to the Board is the 40 foot height limit. We understand that you plan to adhere to the limit for the historic core project. We are, however, aware of efforts by the development community to increase the height of the project by as much as two stories. The rationale is that another 20-40 feet is not much. However, 20 feet is 50%, and we do not view that as a move without much. Much work was put into setting up the Chinatown Special District and the new rules have been in effect for less than two years. Also, this is one of the visualCPF points from Chinatown as an approach from the direction of the airport. The Downtown Neighborhood Board is opposed to any increase in the height limit for this project unless there is a new look at the special district as a whole and the DDC is charged to reflect new limits for the entire central core. We also believe that it would be unfair to allow certain buildings in the central core to increase the height of their properties while others would be forbidden to do so.

Sincerely,

Lyane Hattori, Chairman

February 26, 1991

Ms. Lynne Hattori, Chairperson
Downtown Neighborhood Board No. 13
City Hall, Room 400
Honolulu, Hawaii 96813

Dear Ms. Hattori:

Subject: Environmental Impact Statement Preparation Notice
Kaka‘akee Revitalization Project

Tax Map Key: 1-7-3: Various

Thank you for your letter of August 20, 1990 regarding the subject project. In response to your comments:

1. Redevelopment is not being planned along King Street at this time. Future road widening would require additional rights-of-way and could affect existing buildings.

2. The project is acknowledged as being within the 34th Representative District.

3. As you have noted, since 1980, there has been an influx of residents due to an increase in residential projects in the area. The increase in residential population reflected in these projects will be cited in the Draft EIS.

4. Displaced residents from the Ho‘eli Wai Wong property will be allowed to temporarily relocate to housing units developed at the Kaka‘akee Parking Lot site. Upon redevelopment of the Ho‘eli Wai Wong site, these residents would be able to relocate back.

5. Displaced businesses and residents affected by the project will be afforded relocation benefits.

A social impact study as well as traffic, air quality, noise, and archaeological studies will be included in the Draft EIS. The social impact statement will be prepared to assess the impacts to residences and businesses in the project vicinity.
6. People Against Chinatown Evictions will be included as a consulted party.
7. The Kakaako Revitalization Project will adhere to the 40-foot height limit in compliance to the Chinatown Special District design guidelines.

Your letter and discussion of concerns will be addressed as appropriate in the DEIS.

Sincerely,

[Signature]

Michael N. Scarfone
Director
August 13, 1990

Mr. Michael N. Scarfone
Director
Department of Housing and Community Development
650 South King Street, 5th Floor
Honolulu, HI 96813

RE: Chapter 343, Hawai‘i Revised Statutes
Environmental Impact Statement Preparation Notice
Proposed Kaka‘ako Parking Lot Redevelopment Project, Honolulu

Dear Mr. Scarfone:

We appreciate the opportunity to review and comment on the above EIS FN and have special concern about the project because of its location in the Chinatown Historic District which is listed on both the State and National Registers of Historic Places.

We urge you to base your decisions for any development in this area on the invaluable historic character and resources which can be found nowhere else in our state.

We would also like to ascertain that the Federal 106 process will be carefully followed to assure the protection of this historic area.

We would prefer emphasis be given to housing over parking as this use is more in character with Chinatown. We encourage you to stay within the existing 40’ height limit.

Please keep us informed as your plans develop. We would be happy to provide resources to you in the process.

Sincerely yours,

Sanford Murata
Chairman
Preservation Review Committee

February 26, 1991

Mr. Sanford Murata, Chairman
Preservation Review Committee
Historic Hawai‘i Foundation
P.O. Box 1638
Honolulu, Hawaii 96806

Subject: Environmental Impact Statement Preparation Notice
Kaka‘ako Revitalization Project
1991-1-7-25-various

Dear Mr. Murata:

Thank you for your letter of August 13, 1990 regarding the subject project. The project will adhere to the 40-foot height limit specified in the Chinatown Special District design guidelines. Archaeological and Historical Studies have been undertaken to further ensure preservation of the area’s valuable resources. These studies will be included in the forthcoming Draft EIS. Please be assured also that the City will comply with the requirements of Section 106 of the National Historic Preservation Act.

Sincerely,

Michael M. Scarfone
Director

P.O. Box 1638 Honolulu, HI 96806  Telephone (808) 534-6854 Fax (808) 534-4494  1989-1990 Mildred Alama, Inc., 2001-5, 2nd Floor Honolulu, HI 96813
Department of Housing and Community Development
880 South King Street, 8th Floor
Honolulu, Hawaii 96813

Attention Michael M. Scarfone, Director

Dear Mr. Scarfone:

Environmental Impact Statement Preparation Notice
Proposed Keaaua Parking Lot Redevelopment

We received the Environmental Impact Statement (EIS) Preparation Notice for the Keaaua Parking Lot Redevelopment Project in Honolulu. It is our understanding that the project proposes to build approximately 15,000 square feet of retail space on the ground level, approximately 300 rental units on the 2nd, 3rd and 6th floors, and a pedestrian mall for Keaaua Street. We fully support this development and revitalization of Chinatown.

Since construction is expected to begin in July 1991, we would appreciate all the detailed information about the proposed project construction. This would enable us to plan for the necessary telephone service requirements. You may contact our Building Industry Consultant, Herb Ports at 733-5608 for the support structure requirements.

Enclosed is the site plan for the project which you provided us with. Note that we have moved Hawaiian Telephone facilities (i.e., poles, conduits, and manholes) near the proposed site. If these facilities need to be altered during construction, please refer back to us.

Thank you for the information you have provided, and we look forward to hearing from you again in the near future. Should you have any questions or concerns, please feel free to contact engineer Tamas Panimal at 836-8273.

Sincerely,

Mr. Tibayan
OSP Supervising Engineer

February 26, 1991

Mr. B. Tibayan
OSP Supervising Engineer

OSW Hawaiian Telephone Company Inc.
P.O. Box 2200
Honolulu, Hawaii 96811

Subject: Environmental Impact Statement Preparation Notice
Keaaua Revitalization Project

Dear Mr. Tibayan:

Thank you for your letter of October 2, 1990 regarding the subject project. Your letter and information regarding Hawaiian Telephone facilities which you provided will be included in the Draft Environmental Impact Statement.

The construction schedule for the Keaaua Revitalization Project has been postponed beyond the July 1991 date originally estimated. However, we will keep your office informed of project plans so that necessary telephone service requirements can be anticipated.

Sincerely,

Michael M. Scarfone
Director
Mr. Michael M. Scarfone  
Director  
Department of Housing and  
Community Development  
656 South King Street, 2nd Floor  
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Subject: Chapter 343, Hawaii Revised Statutes  
Environmental Impact Statement Preparation Notice  
Proposed Kaka'ako Parking Lot Redevelopment Project,  
Honolulu

We have reviewed the subject EIS and feel that the project should  
have a minimal impact on our existing facilities.

Sincerely,

[Signature]

[Note: The sender's name is not legible.]

February 26, 1991

Mr. William A. Bonnet, Manager  
Environmental Department  
Hawaiian Electric Company, Inc.  
P.O. Box 2750  
Honolulu, Hawaii 96816-0010

Subject: Environmental Impact Statement Preparation Notice  
Kaka'ako Revitalization Project  
HUK-17.0, section

Dear Mr. Bonnet:

Thank you for your letter of August 22, 1990 (Reference ENV 2-1 JA/G)  
regarding the subject project. Your letter and information provided  
will be included in the Draft Environmental Impact Statement.

Sincerely,

[Signature]

[Note: The sender's name is not legible.]

[Stamp: Hawaiian Electric Company]
August 20, 1990

City and County of Honolulu
Department of Housing and Community Development
660 South King Street, 5th Floor
Honolulu, Hawaii 96813

Attention: Mr. Michael N. Scarfone
Director

Gentlemen:

Subject: Chapter 343, Hawaii Revised Statutes
Environmental Impact Statement Preparation Notice
Proposed Kaka'ako Parking Lot Redevelopment Project

In response to your letter of July 19, 1990. We do not have any comments regarding the environmental impact statement.

Please be advised that Gasco maintains an underground gas utility system in the project vicinity, which serves a group of customers in the area and is interconnected with the utility network in the Chinatown area. We would appreciate the consideration of your planners and consultants during the project planning and design process to provide the necessary coordination during construction and minimize any potential conflicts with the proposed construction.

We thank you for the opportunity to comment on the preparation of the EIS. Should there be any questions, or if additional information is required, please call me at 547-3574.

Very truly yours,

Edwin H. Saw
Manager, Engineering

DEIS2.ltr
August 20, 1990

Rays Sakai, Project Director
Department of Housing and Community Development
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, HI 96813

Re: 110-133 Kovich Hotel Street, Honolulu (Inu-First-Div., 1-7-31-25)

Dear Mr. Sakai,

Thank you for the opportunity for us to meet with you, C粥希信， and Nick Karasoke on August 10, 1990 regarding your proposed partial taking of our above-referenced property in conjunction with your Kaka'ako Parking Lot Redevelopment Project.

Although we know you have asked organizations in Chinatown to respond by August 23, 1990 to your proposed project as part of your environmental impact statement assessment, we would like to reserve our comments until you have had the chance to determine whether you still wish to acquire any portion of our property, and if so, specifically which portion.

As we have discussed with you, we are very concerned about your proposed severance of our property, particularly as it would adversely impact the integrity and value of the remainder portion. We are also concerned about the costs of designing additional rehabilitation requirements that might be applicable thereto.

At our meeting we furnished you with a copy of our original blueprint drawings in order that you might consider the above concerns in detail. We look forward to hearing from you soon regarding your further study of this matter.

Aloha,

Wing Tek Loom

cc: Robert H. Gerrell,
Gerrell & Associates, Ltd.
Robert S. Takumai,
Johnson Takumai Toshiaki Lowrey

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
300 South King Street, Honolulu, HI 96813

April 8, 1991

Mr. Wing Tek Loom, Secretary
Lum Yip Kee, Limited
P.O. Box 1876
Honolulu, Hawaii 96805-1876

Subject: Environmental Impact Statement Preparation Notice
Kaka'ako Revitalization Project

Dear Mr. Loom:

This is in response to your letter of August 20, 1990 in which you stated your concerns regarding the proposed project. The forthcoming Draft EIS will present conceptual plans which may allay some of your concerns.

The proposal to acquire a portion of your property may consider costs to repair the remaining portion of the building, severance compensation, if any, for the remaining portion of the property, and relocation benefits for your lease. We intend to keep you apprised of our progress and would be pleased to discuss this further with you if you wish.

Sincerely,

Michael N. Scarfone
Director
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

February 26, 1991

Mr. William A. Grant, AIA
Executive Director
Downtown Improvement Association
700 Bishop Street, Suite 1003
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement Preparation Notice
Kekaulike Revitalization Project

Dear Mr. Grant:

Thank you for your letter of July 23, 1990 regarding the subject project. As requested, you will be listed as a consulted party and your letter will be included in the Draft Environmental Impact Statement.

Sincerely,

Michael N. Scarfone
Director

July 23, 1990

Mr. Michael N. Scarfone, Director

Department of Housing and Community Development
City and County of Honolulu
830 South King Street
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Thank you for notifying us of the City's intent to proceed with an Environmental Impact Statement for the Kekaulike Parking Lot Redevelopment Project.

DIA would like to be consulted during its preparation.

Very truly yours,

William A. Grant, AIA
Executive Director

WAG:kmd
August 27, 1990

Mr. Michael V. Scarfone, Director
Department of Housing and Community Development
City and County of Honolulu
650 South King Street, 6th Floor
Honolulu, Hawaii 96813

Re: KEKAULIKE PARKING LOT REDEVELOPMENT PROJECT ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Dear Mr. Scarfone:

We appreciate the opportunity to review the EIS Preparation notice for the Kekaulike Parking Lot Redevelopment.

We support the redevelopment of the Kekaulike Parking Lot and surrounding sites as defined in the EIS Preparation Notice if done totally within the height limits and other requirements for the Historic Core Precinct of the Chinatown Special District as specified in the current Special District Regulations of the Land Use Ordinance.

We look forward to further definition of the project scope and its potential impacts in the Draft EIS. As part of this effort we recommend that the EIS look into the significance of the Tong Building on the northeast corner of Kekaulike and Hotel.

Sincerely,

Ted Forde
Theodore A. Cardoza, AIA
President, Honolulu Chapter

February 26, 1991

Mr. Glenn E. Mason, AIA
President, Honolulu Chapter
the American Institute of Architects
1120 Hauola Avenue
Honolulu, Hawaii 96817

Dear Mr. Mason:

Subject: Environmental Impact Statement Preparation Notice
Kekaulike Revitalization Project
Tax Map Key: 1-7-33: Varous

Thank you for your letter of August 22, 1990 regarding the subject project. Your letter and discussion of concerns relative to the project's compliance with the Chinatown Special District requirements and project impacts will be addressed in the Draft Environmental Impact Statement (DEIS).

The project will comply with the 40-foot height limit established for the Chinatown Special District. A historical study will also be incorporated in the DEIS addressing buildings associated with the Kekaulike Revitalization Project.

Sincerely,

Karl Lauts
MICHAEL H. SCARFONE
Director
July 27, 1990

Mr. Michael H. Scarfone, Director
Department of Housing and Community Development
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Subject: Chapter 343, Hawaii Revised Statutes
Environmental Impact Statement Preparation Notice
Proposed Retail-like Parking Lot Redevelopment Project, Honolulu

Dear Mr. Scarfone:

The attached letter was forwarded to me by Rob Crone who is no longer on the Design Advisory Committee. The Committee would welcome being consulted during the preparation of the EIS and would appreciate updated information on this project as it becomes available.

Thank you for bringing this project to our attention.

Sincerely,

Henry Eng, AICP
Land Planning Coordinator

Attachment
jir: 3933k

March 15, 1991

Mr. Henry Eng
Design Advisory Committee
The Estate of James Campbell
828 Fort Street Mall, Suite 500
Honolulu, Hawaii 96813-4200

Subject: Environmental Impact Statement Preparation Notice
Renaissance revitalization Project

Dear Mr. Eng:

Thank you for your letter of July 27, 1990 regarding the subject project. As requested, you will be listed as a consulted party and your letter will be included in the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael H. Scarfone
Director
C. DRAFT ENVIRONMENTAL IMPACT STATEMENT

The following government and private agencies were consulted and comments solicited in the preparation of the Draft Environmental Impact Statement. A total of 26 comments were received.

A double asterisk (**) indicates comments to which substantive responses were required. Both comment and response letters are reproduced in this section.

A single asterisk (*) indicates letters offering "no comments" and for which no responses were provided.

Federal Agencies

- Regional Division USEPA Region IX
- U.S. Army Corps of Engineers
- U.S. Department of Interior - Fish and Wildlife Service
- U.S. Department of Housing and Urban Development
- U.S. Coast Guard
- U.S. Geological Survey
- Soil Conservation Service
- U.S. Navy
- Environmental Protection Agency

State Agencies

- Department of Health
- Department of Land and Natural Resources
- Department of Business and Economic Development
- Office of State Planning
- Department of Transportation
- Department of Environmental Quality Control
- Office of Environmental Health
- Water Resources Research Center, University of Hawaii
- Department of Agriculture

XII-42
Department of Education
* Department of Accounting and General Services
* Department of Defense
Department of Hawaiian Home Lands
** Housing Finance & Development Corporation
  State Energy Office
  Office of Hawaiian Affairs

City and County of Honolulu

** Board of Water Supply
* Department of General Planning
* Department of Land Utilization
** Department of Public Works
  Department of Transportation Services
* Building Department
** Department of Parks and Recreation
* Fire Department
* Police Department
  Department of Finance

Private Organizations

** Hawaiian Electric Company
** GTE Hawaiian Tel
  PRI Gasco, Inc.
  American Lung Association
** Downtown Improvement Association
** Downtown Neighborhood Board No. 13
  Chinese Chamber of Commerce
  Downtown Business Council
American Institute of Architects Hawaii Society
Historic Hawai'i Foundation Mainstreet
Hawaii Theatre Center
Chinatown Merchants Association
  United Chinese Societies
** People Against Chinatown Evictions
  Lum Yip Kee, Limited
  Design Advisory Committee

XII-43
Planning Division

May 30, 1991

Mr. Matthew Higashida
Department of General Planning
City and County of Honolulu
650 South King Street, 8th Floor
Honolulu, Hawaii 96813

Dear Mr. Higashida:

We have reviewed the Draft Environmental Impact Statement for the Kekaulike Revitalization Project, Honolulu. Our previous comments in response to the Preparation Notice (letter dated August 13, 1990) have been incorporated into the document. We have no additional comments.

Sincerely,

[Signature]

Acting Director of Engineering

Copies Furnished:
Department of Housing & Community Development
Attn: Ms. Eileen Park
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Attn: Ms. Lauren Nagata
P.O. Box 3330
Honolulu, Hawaii 96814

Office of Environmental Quality Control
State of Hawaii
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

July 3, 1991

Mr. Clarence Fujii
Acting Director of Engineering
Department of the Army
U.S. Army Engineer District, Honolulu
Building 230
Honolulu, Hawaii 96858-5440

Subject: Draft Environmental Impact Statement
Kekaulike Revitalization Project

Dear Mr. Fujii:

Thank you for your letter of May 30, 1991 to Mr. Matthew Higashida, Department of General Planning indicating no additional comments on the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael H. Scarfone
Director
MAY 14, 1991

Mr. Matthew Higashida
Department of General Planning
City and County of Honolulu
550 South King Street, 4th Floor
Honolulu, Hawaii 96813

Dear Mr. Higashida:

Mr. Robert Smith, Field Supervisor
United States Department of the Interior
Fish and Wildlife Service, Pacific Islands Office
P.O. Box 50187
Honolulu, Hawaii 96850

Subject: Draft Environmental Impact Statement
Nakaulu Revitalization Project

Dear Mr. Smith:

The proposed project will have little adverse impact on fish and wildlife resources within our jurisdiction. In view of this, we have no objection to your issuance of a permit for this project.

Sincerely,

Robert P. Smith
Field Supervisor
Pacific Islands Office

cc: Eileen Nakano, DHCP

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

July 3, 1991

Mr. Robert Smith, Field Supervisor
United States Department of the Interior
Fish and Wildlife Service, Pacific Islands Office
P.O. Box 50187
Honolulu, Hawaii 96850

Subject: Draft Environmental Impact Statement
Nakaulu Revitalization Project

Dear Mr. Smith:

Thank you for your letter of May 14, 1991 to the Department of General Planning indicating that the project will have little adverse impact on fish and wildlife resources in the area. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

Michael M. Scarfone
Director
DEPARTMENT OF THE NAVY
COMMANDER
NAVAL BASE PEARL HARBOR
BOX 110
PEARL HARBOR, HAWAII 96840-5020

Department of General Planning
City & County of Honolulu
Attn: Mr. Matthew Higashida
650 South King St., 8th Floor
Honolulu, Hawaii 96813

Gentlemen:

KEKAULIKE REVITALIZATION PROJECT

We reviewed the subject DEIS and 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
Assistant Base Civil Engineer

Copy to:
CSC Dept. of Hwy & Comr Dev
Wilson Okamoto & Assoc., Inc.
DOCC (w/DEIS)

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

Mr. W. K. Liu
Assistant Base Civil Engineer
Department of the Navy
Naval Base Pearl Harbor, Box 110
Pearl Harbor, Hawaii 96840-5020

Subject: Draft Environmental Impact Statement
Keaaualike Revitalization Project
NDT: 3-7-31; various

July 3, 1991

Mr. W. K. Liu

Thank you for your letter of May 1, 1991 (Reference 11010 Ser 0072/0995) indicating no comments on the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

Gail Kinah
Director

Michael H. Scarfone
July 3, 1991

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

Subject: Draft Environmental Impact Statement
Rehabilitation Revitalization Project
HDC 1-7-3. various

Dear Mr. Meyer:

Thank you for your letter of May 8, 1991 indicating that your office has no additional comments regarding the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael H. Scarfone
Director
May 24, 1991

Dear Sir/Madam:

Subject: Draft Environmental Impact Statement (EIS) - Kaka'ako Revitalization Project, Honolulu, HI

We have reviewed the above-mentioned document and have no comments to offer at this time. We would appreciate the opportunity to review the final EIS.

Sincerely,

Warren N. Lee
State Conservationist

cc:
Mr. Michael N. Scarfone, Director, Department of Housing & Community Development, City & County of Honolulu, 650 South King Street, Honolulu, Hawaii 96813
Office of Environmental Quality Control, 220 South King Street, Fourth Floor, Honolulu, Hawaii 96813

July 3, 1991

Mr. Warren N. Lee
State Conservationist
United States Department of Agriculture
Soil Conservation Service
P.O. Box 50004
Honolulu, Hawaii 96850

Subject: Draft Environmental Impact Statement
Kaka'ako Revitalization Project

Dear Mr. Lee:

Thank you for your letter of May 24, 1991 to Wilson Okamoto and Associates indicating no comments on the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

Michael N. Scarfone
Director
The Draft EIS makes appropriate historic preservation compliance commitments: 1) to identify all historic sites present at the parcels; 2) to evaluate the significance of historic sites present at the parcels; 3) to determine the impacts of the project on the significant historic sites; 4) to delineate the scope of any subsequent mitigation plan. Although it may be considered an obvious final step, this list should be added commitments to carry out the mitigation plan and to produce a report that the Historic Preservation Office finds acceptable.

We believe that the section beginning on page 87 that lists the tasks that will accomplish these commitments needs to be revised. Most of the tasks have already been completed by Gwen Hurst at Bishop Museum and is included in the Draft EIS as Appendix F. Inefficient interviews remain to be accomplished. The scope of the tasks is unreasonable. Unless cores every 10 feet are required for architectural reasons, we would suggest that 4 or 5 cores in each of the larger parcels and 1 or 2 in the smaller parcels, with the exception of the possible graveyard area, which should not be cored. This would result in about 20 or 25 cores for the entire project area (we estimated that the plan in the Draft EIS would have resulted in the drilling of about 500 cores). Also at this stage an archaeologist should monitor the removal of asphalt at the parking lot to ensure that the possible graveyard is not disturbed by this process. Once the pavement is removed then test excavations at the possible graveyard should be undertaken to ascertain its extent and approximate number of individuals interred there. If skeletal remains are present, and should there be Hawaiian, then the findings will have to be submitted to the Oahu Island Burial Council, which has the authority to determine if the burials are to be preserved in place or relocated. Should any skeletal remains be determined to have a non-Hawaiian ethnic identity, our department will determine whether they are to be preserved in place or relocated after consulting with appropriate organizations associated with the specific ethnic group.

Test excavation in the vicinity of the fishpond would round out the initial stage of investigation. After these tasks are complete and cores are described, cultural deposits identified, and perhaps a few samples submitted for radiocarbon dating it should be possible to identify all of the historic sites at the parcel, evaluate their significance, and assess the impact that the project will have upon them.

At this point a mitigation/preservation plan could be drawn up. Successful execution of the plan, which may involve a combination of data recovery and preservation and production of acceptable reports of the work would end the historic preservation review process for this project.
We suggest that the Final EIS address these matters in a clear and straightforward fashion.

In addition, the EIS notes that the project will involve federal funds and will have to comply with the federal historic preservation process. The Draft EIS correctly anticipates the need for the preparation of a Memorandum of Agreement (MOA) as a part of the process, however, does not specifically note the need for this MOA is based on a determination that the project will have an adverse effect upon the historic character of the Chinatown Historic District.

Architectural Concerns

Again, the Draft EIS, notes that historic preservation review processes will be followed, and notes that the historic wood buildings on the lower block are historically significant and will be demolished. This will have an adverse effect upon the character of the Chinatown Historic District, and we recommend that the replacement of this building with another frame structure be given strong consideration as a part of the mitigation measures to be included within the MOA. Other measures would include the photographic documentation with a large format (at least 4 x 5) camera of the building and the preparation of measured drawings, in the event the original drawings no longer exist.

The Land Management Division indicates that on the Site Plan (Figure 3) a narrow roadway leading off King Street into the project shown colored in yellow on the attached tax map key no. 1-7-3 is owned by the City and County of Honolulu. It is an old public roadway that is owned by the County pursuant to Chapter 264, Sections One and Two of the Hawaii Revised Statutes. This is the section that conveys ownership of all roadways that are not State Highways to the City.

Also, on page 3-6 dealing with land ownership, this roadway is not listed as being owned by anyone and it is included in the project.

Thank you for your cooperation in this matter. Please feel free to call me or Roy Schoener at our Office of Conservation and Environmental Affairs, at 548-7507, if you have questions.

Very truly yours,

Willie Matsumoto

cc: Department of Housing & Community Development
    Wilson Ono & Associates, Inc. GEOC

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

July 3, 1991

Mr. William W. Paky, Chairperson
Department of Land and Natural Resources
P.O. Box 621
Honolulu Hawaii 96809

Subject: Draft Environmental Impact Statement
        Kaka'ako Revitalization Project
        MPS: 1-7-3-5 Various

Dear Mr. Paky:

Thank you for your letter of June 10, 1991 to the Department of General Planning (Reference OCEA:191) regarding the subject project. The following is submitted for your consideration.

Archaeological Concerns

Regarding compliance commitments to historic preservation, the Final Environmental Impact Statement (EIS) will incorporate additional commitments to carry out mitigation plans including a report acceptable to the Historic Preservation Office.

Your detailed review and recommendations concerning archaeological data recovery and monitoring are appreciated. The Final EIS will be revised to incorporate your suggestions, including:

- 4-5 core borings for larger parcels
- 1-2 core borings for smaller parcels except for the greystone site
- Archaeological monitoring for removal of the asphalt at the parking lot site
- Test excavations at the greystone site to determine the number of individuals interred
- Submission of test findings to the appropriate agencies
- Test excavations at Puu's Fishpond site

From this data, historic and cultural significance of the sites will be evaluated and an assessment of the project's impact including mitigation/preservation measures will be prepared. We will also note that in the Memorandum of Agreement for the federal historic preservation process is based on a determination of adverse effects on the historic character of the Chinatown Historic District.
Letter to Mr. William W. Paty, Chairperson
Page 5
July 3, 1991

Architectural Concerns

We acknowledge the significance of the historic wooden building on the
East Block but its replacement with another wooden building would not be
economically feasible. In lieu thereof, a wood veneer finish on the
proposed buildings for development is being investigated as part of the
mitigation measures to maintain the architectural character of the
buildings. Other measures including photographic documentation and
preparation of building drawings will be employed as an aid in
preserving the original architectural character of the building.

Land Management Concerns

Your comment regarding inclusion of the narrow roadway off King Street
leading into the project has been noted. This information will be
incorporated in the final EIS.

We greatly appreciate your time and efforts in reviewing the Draft
Environmental Impact Statement.

Sincerely,

[Signature]
Michael N. Scarfone
Director
The Honorable Benjamin Lee
Chief Planning Officer
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Lee:

Subject: Draft Environmental Impact Statement
Kakaʻako Revitilization Project
Honolulu, Hawaii

We have reviewed the draft Environmental Impact Statement (EIS) for the proposed mixed-use residential and commercial redevelopment within the Chinatown District, which will consist of several projects: 1) Development of mixed-use complexes consisting of approximately 78 one-bedroom residential and studio market residential units, approximately 178 parking stalls, and 8,322 square feet of leasable commercial space; 2) Redevelopment of interior parcels on the east side of Fekula Street to support 78 studio rental units for low and moderate income housing, and approximately 6,514 square feet of commercial space; 3) Development of a landscaped pedestrian mall; and 4) Rehabilitation of adjacent and surrounding properties.

We have reviewed the subject project and have no comments to offer at this time.

Thank you for the opportunity to comment.

Sincerely,

Michael N. Scarfone
Director

cc: Department of Housing & Community Development
   (Attn: Mrs. Eileen Mark)
   (Attn: Mrs. Lauren Nagata)
   Oahu
TO:       Mr. Matthew Higashida       
          Dept. of General Planning       
          City and County of Honolulu       

FROM:     [Signature]       
          Executive Director       

SUBJECT:  Draft Environmental Impact Statement for the Proposed       
          Kekaulike Revitalization Project

Thank you for the opportunity to review the subject report. We are supportive of your efforts to expand affordable housing opportunities in the City and County of Honolulu.

JRC/JT:shk

Cc: Dept. of Housing and Community Development       
    Office of Environmental Quality Control

July 5, 1991

Mr. Joseph F. Conant
Executive Director
Housing Finance and Development Corporation
Seven Waterfront Plaza, Suite 300
500 Ala Moana Boulevard
Honolulu, Hawaii 96813

Dear Mr. Conant:

Subject: Draft Environmental Impact Statement       
          Kekaulike Revitalization Project

Thank you for your letter of June 17, 1991 (Reference       
91:F65/29055) to the Department of General Planning       
regarding the subject project. We appreciate your taking the       
time to review the Draft Environmental Impact Statement and       
look forward to your continuing participation and support of       
our affordable housing projects.

Sincerely,

[Signature]

MICHELLE H. SCARFOGIE
Director
June 7, 1991

Mr. Verna Wingate
Department of General Planning
City and County of Honolulu
650 South King Street, 8th Floor
Honolulu, Hawaii 96813

Dear Mr. Wingate:

This is written in reference to the Draft Environmental Impact Statement for the Kakaako Revitalization Project. The Office of Environmental Quality Control (OEQC) has no substantive comments to offer at this time. Thank you for the opportunity to comment.

Very truly yours,

[Signature]

[Name]

Director

CC: Department of Housing and Community Development
    Wilson Okane and Associates, Inc.

July 3, 1991

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

Subject: Draft Environmental Impact Statement
Kakaako Revitalization Project
TMC: 1-7-3; various

Dear Mr. Choy:

Thank you for your letter of June 7, 1991 to the Department of General Planning indicating no comments regarding the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael N. Scarfone
Director
MAY 8 1991

City and County of Honolulu
Department of General Planning
650 South King Street, 6th Floor
Honolulu, Hawaii 96813

Attention: Mr. Matthew Higashida

Gentlemen:

Subject: Kaka'ako Revitalization Project
DEIS

Thank you for the opportunity to review the subject document. We have no comments to offer.

Should there be any questions, please have your staff contact Mr. Ralph Tukamoto of the Planning Branch at 548-7192.

Very truly yours,

[Signature]

TEODAR TOMIOSSA
State Public Works Engineer

RT: bk
cc: Department of Housing and Community Development
   Wilson Okamoto and Associates, Inc.
   Office of Environmental Quality Control

July 3, 1991

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

Subject: Draft Environmental Impact Statement
Kaka'ako Revitalization Project
IHC: 1-7-3: various

Dear Mr. Tomimaga:

Thank you for your letter of May 8, 1991 to the Department of General Planning (Reference (P)1404.1) indicating no comments regarding the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael N. Scarfome
Director
Engineering Office

Mr. Matthew Higashida
Department of General Planning
City and County of Honolulu
650 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Higashida

Kekaulike Revitalization Project

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
Lieutenant Colonel
Hawaii Air National Guard
Contracting & Engineering Officer

CC: Ms. Eileen Mark
      Dept of Housing & Comm. Dev.
      Ms. Lauren Nagata
      OCOO w/EIS

Jerry H. Matsuda, Lieutenant Colonel
Hawaii Air National Guard
Contracting & Engineering Officer
Department of Defense
Office of the Adjutant General
2440 Diamond Head Road
Honolulu, Hawaii 96816-4495

July 3, 1991

Subject: Draft Environmental Impact Statement
        Kekaulike Revitalization Project

Dear Lieutenant Colonel Matsuda:

Thank you for your letter of May 6, 1991 to the Department of General Planning indicating no comments regarding the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael N. Scarfone
Director
May 6, 1991

Department of General Planning
Municipal Office Building, 8th Floor
650 South King Street
Honolulu, Hawaii 96813

Attention: Matthew Higashida

Dear Sir:

Subject: Kekaulike Revitalization Project
Honolulu, Hawaii
TRC: 1-7-317, 22, 23, 24, 25, 32, 33, 34, 35, 36, 91, 92

We wish to inform you that we have no comments to offer on the subject environmental impact statement.

Thank you for the opportunity to review the document.

Sincerely,

Maurice H. Kaya
Energy Program Administrator

PM: kkeis33

cc: Department of Housing and Community Development
    Office of Environmental Quality Control

July 3, 1991

Mr. Maurice H. Kaya
Energy Program Administrator
Department of Business, Economic Development & Tourism
Energy Division
335 Merchant Street, Room 110
Honolulu, Hawaii 96813

Subject: Draft Environmental Impact Statement
Kekaulike Revitalization Project
TRC: 1-7-317, 22, 23, 24, 25, 32, 33, 34, 35, 36, 91, 92

Dear Mr. Kaya:

Thank you for your letter of May 6, 1991 to the Department of General Planning indicating no comments regarding the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

Maurice H. Kaya
Energy Program Administrator

Michael H. Scarfone
Director
Mr. Matthew Higashida
Department of General Planning
City and County of Honolulu
450 South King Street
Honolulu, Hawaii 96813
Dear Mr. Higashida,

May 30, 1991

The Environmental Impact Statement (EIS) for the MakaiKai Revitalization Project highlights the impact on the environment.

The above referenced project includes a 78 residential units, 8,322 square feet of commercial space, 174 parking stalls, and a pedestrian walkway in Phase I, and 76 residential units, and 6,514 square feet of commercial space.

The Environmental Center has reviewed this Draft EIS with the assistance of Kathleen Wilson, Urban and Regional Planning; George S. Fowles, Civil Engineer; Tomoko Saitoh, Property Management; and Les Littles, Environmental Center.

Air Quality

The software used by the consultant (MCM/24 and CAL23A) yields some counter-intuitive results, specifically that future levels of pollution will be lower than present levels despite the fact that: 1) most of the air pollution is due to automobile traffic, and 2) higher traffic volumes are expected. The Draft EIS’s pollution projection, therefore, are suspect.

Noise Impact

Our reviewers found the assessment to be lacking in aircraft noise data. This source should be discussed due to the proximity of a major airport and the proposal contains residential units.

Transportation Impacts

While finding that the Traffic Impact Assessment Report (TIA) is adequate, we note the absence of any intersection analysis. What are the signal timings? Could better signal timings improve future traffic flows? What saturation flows are used? A calibrated saturation flow table would be very useful in this regard.

The reduction of parking spaces in this part of town during the construction period could be significant given the overlap of development activities at this and several sites. Table 9 of the Social Impact Assessment conducted for the Kalakaua Avenue Project (copy attached for your convenience) indicates that public parking could be reduced by as much as 73 percent. Mitigation measures, such as greater staggering of construction schedules of these projects, should be discussed in the final EIS.

Social Impacts

Our reviewers found that several issues need to be clarified in the Social Impact Assessment (SIA). Page 68 indicates some uncertainty whether tenants who are relocated on-site are entitled to relocation assistance. This observation should be included in the discussion of mitigative measures within the main part of the EIS.

Page 45 estimates that 76 residential units will be lost. On page 47 it is stated that these displaced households can be adequately housed in the new studio apartments proposed for Phase II. Are all those displaced currently occupying studio apartments, or will any 1, 2, or 3 bedroom units be lost? A description of the existing units and the size of the families displaced should be included in the final EIS.

Page 50 gives a sample of the current rental rates. In order to assess the affordability of the proposed low-moderate priced units, the final EIS should also discuss the expected rental rates in the area as well.

On page V-25 of the main text, the term "last resort" units needs to be clarified.

Thank you for this opportunity to comment.

[Signature]

OCE: OHE

OSH CIBH Housing & Community Development
Wilson Chamot & Associates, Inc.
George S. Fowles
Kathleen Wilson
Tomoko Saitoh

An Equal Opportunity, Affirmative Action Employer
John T. Harrison, Ph.D.
July 9, 1991

Noise Study contained in Appendix C of the Draft EIS and conclusions regarding potential environmental noise impacts associated with the project and those regarding possible mitigation measures remain valid.

Transportation Impacts

Detailed "operational level" analyses were made for the 10 intersections listed in the Traffic Impact Assessment Report. The resultant computer printout summaries for the 62 conditions analyzed were not included because of the specialized technical nature of the material and the volume of material involved. The summaries, which included the traffic signal timing information, were provided to reviewing agencies upon request. You may also request them if you wish to review the analyses.

The Traffic Study did not attempt to modify individual intersection signal timings throughout the area to improve traffic flow. Traffic signals in the project area are controlled by the City's Central Computerized Control system which adjusts intersection timings to reflect future changes in traffic flows. The Traffic Study was developed to identify significant impacts from the project and investigate different signal timings at locations where the project would have a significant impact on operations.

The project's principal impact is at the intersection of Maunakea and King Street. A change in signal timings could reduce the intersection volume-to-capacity ratio to slightly below one, but traffic would continue to experience significant delays [Level of Service "F"] on Maunakea Street. Therefore, the traffic study recommended restriction of the curb loading and parking between the project driveway and King Street, and the striping of this section for a third lane to provide acceptable traffic conditions. Initially, the third lane and curb use restriction could be limited to only the morning and afternoon peak traffic periods with the time period expanded if necessary. A standard saturation flow rate of 1,000 vehicles per hour of green time per lane was used before adjustments for the operational features and traffic-related conditions of individual intersections.

The potential impacts on the inventory of public parking stalls caused by the redevelopment of the Kakaako and other municipal parking lots will be addressed in the final EIS. According to the Department's inventory of available public parking stalls in the Downtown/Chinatown area, current projects indicate that the inventory of 2,229 stalls will decrease at most by approximately 100 to 240 stalls at various times during the period of May 1991 through June 1993. Thereafter, the parking inventory is projected to increase to a final inventory of
approximately 2,409 stalls upon completion of all redevelopment projects on or about April 1994.

Social Impacts

Residential and commercial displacees who relocate outside of the Fokaulto project site will be eligible for relocation benefits. Those who relocate within the project site will not be eligible for relocation benefits but will be eligible for reimbursement of moving expenses either through reimbursement or according to a graduated scale of payments based on the number of rooms. Displacement projections will be clarified in the Final EIS. Residential displacees are currently occupying rooms; no 1, 2 or 3 bedroom units will be lost. Tenant information from landlords so far shows that the 81 potential residential displacees include 49 single individuals and only one 2-person household. Thus, the 70 relocation units in the Phase II development will provide adequate housing for the project displacees.

The expected rental rates for units in the proposed development are as yet undetermined. Based on a market study for the Fokaulto Redevelopment Project prepared by KPNO Kent Harville (December 1988), rental rates were projected to be approximately $542 for studio units (electricity and telephone excluded), and $658 for one-bedroom units by 1994. It should be noted that qualified lower-income households renting these units will be eligible for rental assistance through the federal Section 8 Rental Assistance Program. With Section 8 assistance, tenants are required to pay no more than 30 percent of their adjusted gross income for rent. Therefore, it is conceivable that with Section 8 assistance, residents of the new units will be paying as much or less for a new unit than the rents currently being paid for existing units.

The term "last resort" refers to units to be developed by the City to replace units occupied by displaced households.

We greatly appreciate your time and efforts in reviewing the Draft Environmental Impact Statement.

Sincerely,

Michael H. Scarboro
Director
May 17, 1991

TO: MICHAEL N. SCARFOE, DIRECTOR
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: DONALD A. CLEGG, DIRECTOR

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) PROPOSED KAUAIKE PARKING LOT REDEVELOPMENT PROJECT, HONOLULU

We have reviewed the subject EIS, and have no comments at this time on the proposed development, in the subject area.

Thank you for the opportunity to comment. Should you have any questions, please contact Art Challesbee at 523-4107.

DONALD A. CLEGG
Director of Land Utilization

DAC:1g

July 3, 1991

MEMORANDUM

TO: MR. DONALD A. CLEGG, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM: MICHAEL N. SCARFOE, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT KAUAIKE REVITALIZATION PROJECT

THC-177-137

Thank you for your letter of May 17, 1991 (LU 05/91-2622(AC)) indicating no additional comments at this time for the proposed development. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

MICHAEL N. SCARFOE
Director
MEMORANDUM

TO:    MICHAEL N. SCARFORE, DIRECTOR
       DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM:  BENJAMIN B. LEE, CHIEF PLANNING OFFICER
       DEPARTMENT OF GENERAL PLANNING

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
         FOR KAKALIKE PARKING LOT REDEVELOPMENT

We have reviewed the Draft Environmental Impact Statement
(DEIS) for the proposed Kakalike Parking Lot Redevelopment
project, and find that you have addressed all comments and
requests.

Should you have any questions, please call Verne Winnquist of
our staff at 527-5044.

Ben

BENJAMIN B. LEE
Chief Planning Officer

MEMORANDUM

TO:    MR. BENJAMIN B. LEE, CHIEF PLANNING OFFICER
       DEPARTMENT OF GENERAL PLANNING

FROM:  MICHAEL N. SCARFORE, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
         KAKALIKE REVITALIZATION PROJECT

Thank you for your letter of May 29, 1991 (Reference VW 4/91-1373) in
which you noted that the Draft Environmental Impact Statement appears to
address all comments and requests. We greatly appreciate your taking
the time to review the Draft Environmental Impact Statement.

Geil Kau

MICHAEL N. SCARFORE
Director
TO: DONALD A. CLEGG, DIRECTOR
   DEPARTMENT OF LAND UTILIZATION

FROM: WALTER M. OZAWA, DIRECTOR

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT (EIS)
KEKAULAKEA REVITALIZATION PROJECT
TAX MAP REV 1-7-3: 17 ET AL

We have reviewed the EIS for the Kekaulike Revitalization Project and make the following comments and recommendations.

The recreational needs and park dedication requirements for the project have been addressed in the report. We wish to clarify, however, that the garden courts in Phase II are located on the second level and are not applicable for private park credit as stated under Rule 10(3) of the Park Dedication Rules and Regulations.

Private park sites shall be on ground level and shall not be covered in order to be applicable for private park credit.

We request a copy of the final EIS when available.

Thank you for the opportunity to comment on the EIS.

WALTER M. OZAWA, Director

cc: DEPT. OF HOUSING & COMMUNITY DEVELOPMENT
     WRIGHT & HAY, INC.
     Office Information 1-7-3: 991


TO: MR. WALTER M. OZAWA, DIRECTOR
   DEPARTMENT OF PARKS AND RECREATION

FROM: MICHAEL H. SCARFOE, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
KEKAULAKEA REVITALIZATION PROJECT
TAX: 1-7-3: VARIOUS

Thank you for your letter of May 10, 1991 to the Department of Land Utilization regarding the subject project. Your comments advising us that the garden courts located on the second level of Phase I do not qualify for public park credit under the Park Dedication Rules and Regulations have been noted and will also be transmitted to the project designers. Please be advised, however, that the garden court in Phase II is located at ground level. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.
June 21, 1991

TO: BENJAMIN B. LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

ATTN: VERN WINQUIST

FROM: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE KEOAULI REVITALIZATION PROJECT, TMK: 1-7: 17, 22-25, 22-36, 31, 92

Thank you for the opportunity to review and comment on the DEIS for the redevelopment project.

We have reevaluated the portion of the project which proposes to convert the section at Keaoaulike Street between King and Hotel Streets into a pedestrian mall and have the following comments and recommendations to offer:

1. The 6-inch main along Keaoaulike Street in the proposed mall area should be abandoned. This will require the 8-inch main on Hotel Street between River and Maunalua Streets to be replaced with a 12-inch main, and the 12 existing water services currently connected to the 6-inch main to be connected to the new main.

2. The replacement of the 6-inch main with an 8-inch main in the mall, although still an alternative, is not acceptable.

3. Final design of the proposed project's off-site water system should be coordinated with, and approved by the BWS.

4. If a 3-inch or larger meter is required, the construction plans for the meter installation should also be submitted for our review and approval.

5. BWS-approved reduced pressure principle backflow prevention devices will be required immediately after each water meter.


If you have any questions, please contact Bert Kosaka at 527-5235.

cc: Department of Housing and Community Development - Attn: Eileen Mark
Wilton Okamoto and Associates, Inc. - Attn: Lauren Nagata
OEQC
July 3, 1991

Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
650 South Beretania Street
Honolulu Hawaii 96813

Subject: Draft Environmental Impact Statement
Kekaulike Revitalization Project

Dear Mr. Hayashida:

Thank you for your letter of June 21, 1991 to the Department of General Planning regarding the subject project.

1-2. As recommended, we will pursue upgrading the 8-inch main on Hotel Street to a 12-inch main, and abandon the 6-inch main on Kekaulike Street.

3. Final design of the project’s off-site water system will be coordinated with and submitted to your department for approval.

4. Should a 3-inch or larger water meter be required, the construction plans for the meter installation will be submitted for review and approval.

5. Reduced pressure principal backflow prevention devices will be installed after each water meter.

6. We acknowledge the reference to your letter of August 10, 1990 regarding the determination of the availability of water supply when the building permit application is submitted for review and approval.

We greatly appreciate you taking the time to review the Draft Environmental Impact Statement.

Sincerely,

Michael H. Scarfone
Director
MEMO TO: BENJAMIN LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

ATTN: MATTHEW HICASHIDA

FROM: HERBERT K. MURAOA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: KENAULI'I REVITALIZATION PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

May 6, 1991

We have reviewed the DEIS for the subject project and have no comments to offer.

HERBERT K. MURAOA
Director and Building Superintendent

CC: J. Harada
Housing & Comm. Development Dept.
(Elaine Park)
Wilson Okamoto & Assoc. (Lauren Nagata)
Office of Environmental Quality Control

MEMORANDUM

TO: MR. HERBERT K. MURAOA, DIRECTOR AND BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM: MICHAEL N. SCARFORE, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
KENAULI'I REVITALIZATION PROJECT
INKL 1:7-3, VERS 001

July 3, 1991

Thank you for your letter of May 6, 1991 to the Department of General Planning indicating that you have no comments regarding the subject project. We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

MICHAEL N. SCARFORE
Director
TO: BENJAMIN B. LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

ATTN: MATTHEW HIGASHIDA

FROM: LIONEL E. CAMARA, FIRE CHIEF

SUBJECT: WAIKELE REHABILITATION PROJECT, HONOLULU, HAWAII

MEM: 1-7-3:17,22-25,27-30,31-92

We have reviewed the subject material provided and have no additional comments.

Should you have any questions, please contact Acting Assistant Chief Attilio Leonard of our Administrative Services Bureau at 943-3030.

LIONEL E. CAMARA
Fire Chief

Arlington

Copy to: Eileen Mark (HUCO)
Lauren Nagata (Wilson Okamoto & Assoc.)
Environmental Quality Control

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MEMORANDUM

TO: MR. LIONEL E. CAMARA, FIRE CHIEF
FIRE DEPARTMENT

FROM: MICHAEL H. SCAFARONE, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT WAIKELE REHABILITATION PROJECT

DATE: 1-7-31, YARDS

Thank you for your letter of May 8, 1991 to the Department of General Planning indicating no additional comments regarding the subject project. We greatly appreciate you taking the time to review the Draft Environmental Impact Statement.

Sincerely,

MICHAEL H. SCAFARONE
Director
TO: BENJAMIN B. LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

FROM: MICHAEL S. HAKUMURA, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: KAKAOLIKE REVITALIZATION PROJECT

May 31, 1991

We have reviewed the environmental impact statement for the Kakaulike Revitalization Project. It addresses the concerns that we had previously expressed, and we have no additional comments. Thank you for the opportunity to review this proposal.

MICHAEL S. HAKUMURA
Chief of Police

By /s/ K. A. Fuji
EARU N. FUJII
Acting Assistant Chief of Police
Support Services Bureau

cc: Dept. of Housing and Community Development
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU

May 13, 1991

MEMORANDUM

TO: BENJAMIN B. LEE, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

FROM: SAM CALLEJO, DIRECTOR AND CHIEF ENGINEER

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)
KEELOKI REHABILITATION PROJECT
TRIP 1-7-6, 17-20-29, 32-36, 91 AND 92

We have reviewed the subject DEIS and have the following comments:

1. An "Application for Sewer Connection" form should be submitted to the Division of Wastewater Management for approval.
2. Agreements should be made prior to construction such that the agency responsible will have the opportunity to review improvements before implementation.
3. Who will maintain the mall?
4. The proposed development may be required to conform with Ordinance No. 2412, as amended.
5. Corner rounding at curb return will be required.

SIGNED

SAM CALLEJO
Director and Chief Engineer

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

July 3, 1991

MEMORANDUM

TO: HR. S. SCARFONE, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: MICHAEL H. SCARFONE, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT (KEELOKI REHABILITATION PROJECT)

Thank you for your letter of May 13, 1991 to the Department of General Planning (Reference LW 91-101(448)) regarding the subject project.

1. The "Application for Sewer Connection" has been approved by the Division of Wastewater Management.
2. We intend to fully coordinate our efforts in the design phase with affected City agencies to minimize any adverse public facility impacts. Appropriate opportunity will be afforded in review of our design and construction plans.
3. Based on the present maintenance of Fort Street Mall by the Department of Parks and Recreation Grounds Maintenance Division, it may be expected that the proposed Kee-loki Street Mall will also be maintained by this agency. In the event the Department of Parks and Recreation Grounds Maintenance Division is unable to provide maintenance support for the mall, arrangements will be made with another agency within the City's jurisdiction.
4. The project will conform with the Revised Ordinance of Honolulu, Chapter 20, Article 5 (Ordinance No. 24-12, as amended) to the maximum extent practicable regarding allocation of funds for roadside improvements of parcels abutting a public roadway.
5. Corner rounding at curb return will be included as part of the requirements for project development.
Letter to Mr. Sam Callojo, Director and Chief Engineer  
Page 2  
July 3, 1991

We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

[Signature]

MICHAEL H. SCARFONE  
CFO  
Director
June 19, 1991

Mr. Michael Scarfone
Director, Department of Housing and Community Development
653 South Alina Street, 5th Floor
Honolulu, HI 96813

Mr. Kehaulani Parking Lot DEIS

To Mr. Scarfone:

The Downtown Neighborhood Board has reviewed the above-referenced DEIS and has the following comments:

The DEIS says we can use several park sites in the area—Kaka'ako Botanical Gardens, Ala Wai Park, and Chinatown Gateway. Parents will not let their children go there. The Kaimuki Playground is proposed. The Koko Head Community Park is owned by its adjacent neighbors. We have been told by Mr. Andrews Cathedral that Queen Emma square may be private. In any event, it is on the Cathedral grounds and no one is aware that it is public space. Kapiolani Park has been removed and may be abolished as part of the Pacific National Center.

Kamehameha Park Gateway are public parks with waterfalls and Kawaikini has a prohibits area also. Reference is made to the Kaimuki Mall. What is it?

The Pauahi Community Service Facility is mainly for seniors and is an indoor center with no active recreation. There is no need for active recreation in the downtown area.

We share the concerns mentioned in the DEIS concerning indirect displacement of businesses and tenants and agree that they need to be found to minimize any increases for both groups. We also agree with the DEIS comments that the City needs to make plans for the recreation needs of its residents. We object to any exceptions for the public dedication ordinance. If the needs cannot be met on site we support the funds which would be deposited toward park dedication and be applied to parks serving downtown residents preferably the Smith Rectenna parking lot redevelopment or the Zippy's block, which the Board has (may advocate be turned into a park. We also believe that Central Intermediate must remain a school and it appears that the Department of Education will continue to maintain it as such.

A main omission from the DEIS is a City parking plan. Several lots will be closed at the same time, taking hundreds of parking spaces out of the available inventory. Yet, while there has been talk of a plan we have not seen one. This needs to be addressed in the FES.

While there is no reserved parking for residents, we believe that they should have the option to rent monthly space. We would also like to know if the parking rates will be the same at now and whether the lot will be open to the public 24 hours a day or closed at night, as at Chinatown Gateway.

Downtown Neighborhood Board No. 13

Chairman

cc: Department of General Planning

Wilson Okamoto

DEIS
MEMORANDUM

TO:   MS. LYNN MATSUQ, CHAIRPERSON
       DOWNTOWN NEIGHBORHOOD BOARD NO. 13

FROM:  MICHAEL H. SCARFOE, DIRECTOR

SUBJECT:  DRAFT ENVIRONMENTAL IMPACT STATEMENT
           KUKUKUI REDEVELOPMENT PROJECT

Thank you for your letter of June 10, 1991 regarding the subject project. The following is submitted in response to your expressed concerns.

Recreational Facilities

We recognize the need for more active community recreational facilities in the downtown area. However, spatial limitations and efforts to provide affordable housing units preclude development of active recreational facilities such as a gymnasium or playing field on the project site. Given the type of units which are being designed, studies smaller households. Accordingly, the proposed development incorporates recreational needs.

"Hauhaha Mall" is a reference to Hauhaha Marketplace, located directly north of Kakaako Street. Numerous shops and businesses lease space within a two-story structure which contains an open courtyard in the center of the mall. This reference will be clarified in the final EIS.

Parking Facilities

The potential impacts on the inventory of public parking stalls caused by the redevelopment of the Kukuiwai and other municipal parking lots will be addressed in the Final Environmental Impact Statement (EIS). For your information, the Department maintains an updated inventory of available public parking stalls in the Downtown/Chinatown area. Current projections indicate that the current inventory of 2,240 stalls will decrease at most by approximately 108 to 243 stalls at various times during the period January 1992 through June 1993. Thereafter, the parking inventory is projected to increase to a final inventory of approximately 2,469 stalls upon completion of all redevelopment projects on or about April 1994.

Residents within the project area would not have reserved parking within the project site, although provisions to rent parking stalls will certainly be considered. The facility’s hours of operation and parking rates will be consistent with those of other City lots.

Historic Buildings

Damage to nearby historic buildings during construction is a potential adverse impact of development but care will be taken at every opportunity to protect these structures. Mitigative measures which were recommended by an architectural consultant and were discussed in the Draft EIS will be carried out to ensure protection of these nearby historic buildings. These mitigative measures include the use of "drilled pile holes or vibratory pile drivers rather than impact drivers and limiting backhoes pounding to minimize vibrations; and monitoring the foundation before, during, and after construction to minimize lateral movement."

We greatly appreciate your time and efforts in reviewing the Draft Environmental Impact Statement.

[Signature]
MICHAEL H. SCARFOE
Director
April 30, 1991

Dear Mr. Tibayan,

We recently received a copy of the Environmental Impact Statement (EIS) prepared by Selmon, Kaua'i & Associates pertaining to the Kaka'ako Revitalization Project. The EIS thoroughly describes the project and its impact on the surrounding area.

We understand that the project encompasses two blocks bounded by King, North, Mina, and Pau street. The development plans include approximately 282 residential units, 427 square feet of commercial space, 154 parking stalls, and the conversion of Kaka'ako street into a pedestrian mall. The second phase proposes an additional 66 residential units and approximately 611 square feet of commercial space. Construction is scheduled to begin the first quarter of the first phase in scheduled for the second quarter of 1994.

We had earlier sent drawings indicating Hawaiian Telephone facilities near the project site. This should give you an indication of the facilities that will be affected. We would appreciate receiving a copy of the EIS as soon as it becomes available to determine the exact impact to Hawaiian Telephone facilities.

Our building consultant firm (322-5695) will be able to provide specific information on the support structures necessary for service to the various buildings contained in the project.

Please contact engineer Tony Paniat at 321-4371 for correspondence on this project.

Sincerely,

Michael R. Sciarone
Director

July 3, 1991

Mr. B. Tibayan
GSP Supervising Engineer
GTE Hawaiian Telephone Company, Inc.
P.O. Box 3230
Honolulu Hawaii 96813

Subject: Draft Environmental Impact Statement
Kaka'ako Revitalization Project

Dear Mr. Tibayan:

Thank you for your letter of April 30, 1991 regarding the subject project. The draft identifying the location of Hawaiian Telephone facilities at the project site has been transmitted to the project designers. In order to minimize potential impacts to Hawaiian Telephone facilities, we will endeavor to fully coordinate our design and construction planning efforts with your engineers.

We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

Michael R. Sciarone
Director
May 20, 1991

Mr. Michael H. Scarfone
Director, Department of Housing and Community Development
City & County of Honolulu
650 South King St.
Honolulu, Hawaii 96813

Dear Mr. Scarfone:

Subject: Draft Environmental Impact Statement (DEIS) for Kakaako Revitalization Project

We have reviewed the subject DEIS, and have the following comments regarding the pedestrian mall on Kakaako Street. The Consultant shall be advised that energized cables in ductlines exist along Kakaako Street and are to remain in place during construction. We would appreciate coordinating the work with your planner and consultant during the design phase in order to minimize any inconvenience during the construction phase. Should you have any questions, please call Patrick Caldar at 543-7771.

Sincerely,

[Signature]


July 3, 1991

Mr. William A. Bonnet, Manager
Environmental Department
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96804-0011

Subject: Draft Environmental Impact Statement
Kakaako Revitalization Project

Dear Mr. Bonnet:

Thank you for your letter of May 20, 1991 [Reference ENV 2-1] regarding the subject project. The information regarding the location of energized cables in ductlines along Kakaako Street has been transmitted to project designers. The disposition of the electrical lines along Kakaako Street will depend on the final design of the parking structure. We intend to fully coordinate our efforts with your facilities engineers during the design phase to minimize conflicts during the construction phase.

We greatly appreciate your taking the time to review the Draft Environmental Impact Statement.

Sincerely,

[Signature]

Michael H. Scarfone
Director
June 5, 1991

Mr. Michael N. Scarfone, Director
Department of Housing and Community Development
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Re: Maunakea-Kekaulike Draft EIS

Dear Mr. Scarfone:

The Downtown Improvement Association, Executive Committee has reviewed the plans for the Kekaulike Revitalization Project with Michael Shirma of your staff and Architects Hawaii and has the following comments:

- creating a shopping mall out of Kekaulike Street will result in a major maintenance responsibility for the City. Staff and cleaning equipment will need to be provided and stored. Electrical and water outlets will also be needed. Refuse pickup should be frequent and a central trash storage facility provided.
- public restrooms must be provided and safely operated, if the Mall is to be successful. A loading zone for delivery vehicles will be needed.
- the transit station location should be changed from Chinatown Gateway Plaza to Maunakea Street in order to serve the Kekaulike Mall and the larger market district. The retail food shopper in Chinatown is a frequent transit rider. This change should be coordinated with DTSA.

In general the DIA Executive Committee supports the project, finds the design highly compatible with the Chinatown Historic District and hopes the City will proceed with construction promptly.

Very truly yours,

William A. Grant, AIA
Executive Director

July 3, 1991

William A. Grant, AIA
Executive Director
Downtown Improvement Association
700 Bishop Street, Suite 1005
Honolulu, Hawaii 96813

Subject: Draft Environmental Impact Statement
Kekaulike Revitalization Project
DNS: 1-7-3: Various

Dear Mr. Grant:

Thank you for your letter of June 4, 1991 regarding the subject project. We offer the following in response to your expressed concerns.

1. Arrangements will be made with the appropriate City agency for ongoing maintenance of the mall. Based on the present maintenance of Fort Street Mall by the Department of Parks and Recreation Grounds Maintenance Division, it is expected that the Kekaulike Mall will also be maintained by this agency.

2. The provision of a public restroom for the Mall has been noted. It may not be feasible, however, for one to be incorporated in the mall design due to the potential sanitation and maintenance problems it would create. Service lamps will be provided in each of the complexes for delivery to commercial establishments.

3. Your suggestion for relocating the proposed transit station near the Chinatown Gateway Plaza to Maunakea Street has been noted.

We greatly appreciate your taking the time to review the Draft Environmental Impact Statement and look forward to your continuing participation and support.

Sincerely,

Michael N. Scarfone
Director
Dear Mr. Scarfone:

Approximately 160 households will be directly affected by this proposed project. Most, if not all, of these residents are low-income, surviving on fixed incomes. They are all very concerned about the impending evictions and the lack of provisions for relocation into decent, permanent, low-income housing. The proposed number of low-income units in the DEIS is only 70 single room occupancy units. This will not accommodate all of the displaced nor will it take care of multi-member households.

Because this project is the last City sponsored project in Chinatown in the foreseeable future, we feel that this will be the last opportunity to get low-income housing in the area. This is especially true since we are seeing a trend whereby private developers are paying premiums in the City and to the State so that they will not have to provide the required low-income units in their projects.

While we support the concept of 'Mixed Housing' with low-income and market combined, in this instance we recommend that the entire project be low-income only. All of the recent City projects in Chinatown have been mixed, (Hale Mahu, Chinatown Gateway, River-Hawe) with approximately 20% of the units designated low-income and 80% moderate and market.

The greatest need in the State and in Chinatown is for low-income housing. Chinatown, historically, has been a place where recent immigrants, retired plantation workers, and others could find a cheap place to live. We do not believe that our proposal for low-income housing will create a threat to low-income people in Chinatown, as it has been suggested by some City officials. In fact, present-day Chinatown is more economically diverse than ever before. The danger is that with the continued gentrification of Chinatown, and the correspondant increase in rents and the price of goods and services, low-income residents will be squeezed out unless the City provides the relocation housing needed.

To summarize, we propose the following:

1. All units within the project will be designated low-income.

2. All of the tenants who will be displaced as a result of this development will be relocated into permanent decent low-income housing in the project.

3. DHCD will work with FACE in developing the kind of housing that best serves the needs of the affected tenants.

4. FACE will oppose all evictions and relocation offers unless the above criteria is met.

Sincerely,

Christine R. Brown
for FACE Steering Committee
July 5, 1991

Ms. Christine R. Brown
People Against Chinatown Eviction
1170 Nuuanu Avenue, #603
Honolulu, Hawaii 96817

Dear Ms. Brown:

Subject: Draft Environmental Impact Statement (EIS)
     Kakaako Revitalization Project
     PER: 1-7-3; Variance

Thank you for your letter of June 25, 1991 regarding the subject project.

The Department shares PACE's concerns regarding the need for affordable housing in Chinatown and the potential displacement of lower-income residents by the proposed project. To address these concerns, project plans call for the development of replacement housing units in which to relocate those tenants displaced as a result of the redevelopment activities. All qualified displaced persons will be relocated to permanent housing within the project to the maximum extent possible.

The Department is attempting to maximize the numbers of lower-income units to be included in the project; however, projected development and operating costs dictate that these be a continuation of market and lower-income units in order for the project to be financially feasible to undertake. The number of lower-income units to be developed, currently estimated at approximately 36 studio units, appears to be insufficient to accommodate the anticipated residential displaces. Records provided to the City by affected property owners indicate that there are 51 residential tenants of record, including 50 single individuals and one 7-person household, who are expected to be displaced by the project.

We also wish to inform you that the project is not "the last City-sponsored project in Chinatown in the foreseeable future ...." Please note that we are currently planning the Smith-Hanalei Garage...
Air Quality Analysis

For the Proposed Kaka'ako Revitalization Project

Honolulu, Oahu, Hawaii

Prepared For:
Wilson Okamoto & Associates
P.O. Box 3530
1150 South King Street
Honolulu, Hawaii 96811

By:
Environmental Technologies, Inc.
737 Bishop Street, 22nd Floor
Honolulu, Hawaii 96813

February 1991
Revised, April 1991

Executive Summary

The City and County of Honolulu Department of Housing and Community Development is proposing to redevelop an area on Kaka'ako Street within the Nani Koa Town district in downtown Honolulu, Oahu, Hawaii. As part of the requirements of the Environmental Impact Statement for the project, an air quality analysis was conducted.

The analysis addressed potential short-term direct and indirect air quality impacts of fugitive dust, carbon monoxide (CO) and nitrogen oxides (NOx) due to project construction. In addition, long-term CO air quality impacts associated with motor vehicle traffic on nearby roadway intersections were determined with computerized emission and dispersion models. These impacts were also evaluated for three scenarios: Year 1991 with present conditions; Year 1994 without the project; and Year 1994 with the project.

The results of the short-term impact assessments indicated that fugitive dust emissions would be minimized by establishing a dust control plan during the construction phase. This plan would include frequent wetting of demolition and bare dirt surfaces and paving of parking areas or landscaping in the earlier construction phase. In addition, CO and NOx emissions from vehicular and stationary construction equipment are expected to be insignificant when compared to vehicular emissions on nearby roadways. These insignificant CO and NOx construction-related impacts would further be mitigated by moving the heavy construction equipment as well as controlling construction workers during low traffic periods.

The results of long-term CO impact assessment for all scenarios indicate that the predicted 1-hour CO impacts are well below the National Ambient Air Quality Standard (NAAQS) of 40,000 micrograms per cubic meter (μg/m³). However, the predicted 1-hour CO impacts for the three scenarios may exceed the State of Hawaii Ambient Air Quality Standard (SAAQS) of 10,000 μg/m³ on occasion at receptor locations within the project area. In comparison, the 8-hour SAAQS of 5,000 μg/m³ may be exceeded at several locations. These CO impacts could be mitigated by school/business hours to off-peak hours.
1.0 Introduction and Project Description

The City and County of Honolulu (C & C) Department of Housing and Community Development is proposing to redevelop an area on Kauaike Street within the historic Chinatown district in downtown Honolulu (see Figure 1).

The project involves the partial redevelopment of two parcels of land along the Ewa and Kokohead sides of Kauaike Street. The project plans, as proposed by the C & C, consist of constructing two new building structures providing residential and commercial space, a parking garage and a pedestrian mall. The pedestrian mall will be created by closing the short section of Kauaike Street Mauka of King Street. The plans indicate that the Kokohead block development will consist of 8,300 square feet of commercial space on the first floor, 174 total parking stalls on the ground floor and two underground levels, and 78 apartment units on floors 2 through 5. In addition, the Ewa block development will consist of 6,500 square feet of commercial space on the ground floor and 78 apartment units on the upper floors. The project is expected to be fully constructed and occupied by January, 1994.

The purpose of this study is to describe existing air quality conditions in the project area and to assess potential short- and long-term direct and indirect air quality impacts that could occur from the subsequent construction activities involved in the development. In addition, measures to mitigate associated impacts are also suggested where appropriate.

2.0 Climatology

The air quality of a given location is affected by both the regional and local climatology. The wind speed, wind direction, ambient temperature, atmospheric turbulence, mixing height and rainfall influence air quality. The climate of the Hawaiian Islands is generally moderate throughout most of the year; however, differences in the climatological parameters occur from location to location. The mountainous topography within Hawaii contributes to significant differences in regional and local climate conditions.

The Hawaiian Islands are located within the northeast trade wind belt which is generated by the semi-permanent Pacific High pressure system located to the north and east of the island chain. Oahu, the island of Oahu, the Koolau and Waianae Mountain Ranges are situated nearly perpendicular to the trade wind flow. This orientation accounts for much of the local climatological variation on Oahu. The proposed project is located in downtown Honolulu and is in a coastal area seaward of the Koolau Mountains. The long-term meteorological data recorded at the Honolulu International Airport which is located approximately 3.5 miles to the northwest is deemed representative of the site.

The wind speed and direction frequency data provided in Table 1 from the Honolulu International Airport indicates that the annual prevailing wind direction for this seaward area of Oahu is east-northeast. The annual summary indicates that 37.6 percent of the time the wind is blowing from this direction and approximately 25 percent of the time the wind is blowing from the northeast quadrant. The southerly wind components are infrequent and occur mostly in winter during kona storms. The wind speeds average about 10 knots (12 mph) with a range between 5 and 15 knots (0 and 17 mph). The surface winds in Honolulu and within the project area are similar to those at the airport, however they would likely be channeled and deflected at some locations due to the numerous high-rise buildings.
### Table 1
Annual Wind Speed and Direction Frequency Distribution (Percent) Based on Honolulu International Airport

<table>
<thead>
<tr>
<th>Wind Direction</th>
<th>Wind Speed (Knots)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>0-3</td>
<td>4.8</td>
</tr>
<tr>
<td>NNE</td>
<td>0.2</td>
<td>4.7</td>
</tr>
<tr>
<td>NE</td>
<td>0.3</td>
<td>3.8</td>
</tr>
<tr>
<td>ENE</td>
<td>0.2</td>
<td>23.0</td>
</tr>
<tr>
<td>E</td>
<td>0.1</td>
<td>4.1</td>
</tr>
<tr>
<td>ESE</td>
<td>0.6</td>
<td>6.1</td>
</tr>
<tr>
<td>SE</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>SSE</td>
<td>0.1</td>
<td>1.1</td>
</tr>
<tr>
<td>S</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>SSW</td>
<td>0.0</td>
<td>0.3</td>
</tr>
<tr>
<td>SW</td>
<td>0.0</td>
<td>1.5</td>
</tr>
<tr>
<td>WSW</td>
<td>0.0</td>
<td>1.5</td>
</tr>
<tr>
<td>W</td>
<td>0.0</td>
<td>1.2</td>
</tr>
<tr>
<td>NW</td>
<td>0.2</td>
<td>1.1</td>
</tr>
<tr>
<td>NWK</td>
<td>0.0</td>
<td>2.0</td>
</tr>
<tr>
<td>CALM</td>
<td>2.5</td>
<td>2.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5.4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes:

Air pollutants emitted by motor vehicles, photochemical smog and height of effluent plumes are a function of air temperature. Cooler temperatures will result in an increase of automobile pollutant emissions but suppress any formation of photochemical smog and ground-level concentrations from elevated plumes. The annual and diurnal temperature variations in Hawaii are a function of trade wind exposure, terrain elevation and distance from the coastline. The average temperatures near sea level are warmer than those in elevated terrain. Areas exposed to trade winds have very small temperature variations while leeward and island locations have greater variation. The average daily minimum and maximum temperatures at the Honolulu airport were 70°F and 84°F, respectively. The absolute minimum and maximum temperatures at the airport were 53°F and 97°F. It is expected that temperatures in the downtown project area would be slightly higher than the airport due to the localized urban heating effects.

Atmospheric turbulence is small-scale random atmospheric motion, which causes air pollutants to be dispersed as a function of distance and time from the emission source. Turbulence is a result of thermal and mechanical forces in the atmosphere. The conventional way to measure and describe it is in terms of the Pasquill-Gifford stability classification scheme. There are six stability classes with Class 1 or 2 being the most unstable (turbulent) and Class 6 or 7 the most stable. In general, stability Class 3 conditions provide the best dispersion of air pollutants while stability Class 6 is the worst condition. Honolulu, which is an urban area and influenced by the lower-level slightly unstable air mass associated with the tropical Pacific waters, will typically experience a stability class no greater than Class 4 (neutral condition).

The mixing height is the height above the earth's surface through which vigorous vertical mixing occurs. Mixing heights that are relatively low to the surface can produce high ground-level air pollutant concentrations when pollutants emitted or near the surface become trapped within the shallow mixing layer. In Hawaii, mixing heights are quite high because of the vigorous mechanical mixing associated with the trade winds and the temperature moderating effect of the ocean. Reduced mixing heights aslant occur when they do occur, however, they will be mainly at inland locations and possibly along coastal areas in early morning hours after a clear, cool windless night. Coastal areas such as Honolulu can also experience low mixing heights when severe sea breeze conditions advect cooler ocean air over warmer land. The mixing heights in the state are generally above 3000 feet (900 meters). It is expected that low mixing heights in downtown Honolulu would be inhibited by urban effects.

Rainfall has a positive effect on air quality in that it helps to "washout" and "suppress" water soluble gaseous pollutants and fugitive dust matter. Downtown Honolulu is a leeward location near sea level and experiences a relatively dry climate. The annual average rainfall in Honolulu is 24 inches. Monthly rainfall amounts may vary from a trace to well over 20 inches. The driest months typically occur during the summer season.

### 3.0 Air Quality

#### 3.1 Air Quality Standards

Ambient air quality concentrations are regulated by both national and state of Hawaii standards. The National Ambient Air Quality Standards (NAAQS) are defined in Section 40, Part 50 of the Code of Federal Regulations, while the State of Hawaii Ambient Air Quality Standards (SAADSS) are defined in Chapter 11-53 of the Hawaii Administrative Rules. Table 2 provides a summary of both the applicable NAAQS and SAADSS. The SAADSS have been patterned after the NAAQS and are currently established for six pollutants. These pollutants include: particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone and lead.
### Table 2
State of Hawaii and National Ambient Air Quality Standards

<table>
<thead>
<tr>
<th>POLLUTANT</th>
<th>AVERAGING PERIOD</th>
<th>National Standards</th>
<th>Hawaiian Standards</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Primary</td>
<td>Secondary</td>
</tr>
<tr>
<td>Particulate Matter (PM)</td>
<td>24-Hour</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150</td>
<td>60</td>
</tr>
<tr>
<td>Particulate Matter Less Than 10 Microns (PM-10)</td>
<td>24-Hour</td>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>3-Hour</td>
<td>None</td>
<td>1,300</td>
</tr>
<tr>
<td></td>
<td>24-Hour</td>
<td>365</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>None</td>
<td>1,300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td>Annual</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>1-Hour</td>
<td>40,000</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>8-Hour</td>
<td>10,000</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td>Ozone (O₃)</td>
<td>1-Hour</td>
<td>235</td>
<td>235</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>Calendar Quarter</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Quarter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. The PM and PM-10 standards are based on a geometric mean.
2. The National Primary, Secondary, and State of Hawaii standards are not to be exceeded more than once per year.

The NAAQS are also stated in terms of primary and secondary standards. The primary standards are designed to protect the public health by an adequate margin of safety. The secondary standards are designed to protect public welfare from any known or anticipated adverse health effects. The Hawaii SAAQS are given in terms of a single standard that is defined to protect public health and welfare as well as prevent significant deterioration of the ambient air quality.

The NAAQS and SAAQS specify maximum allowable concentrations for specific air pollutants for varying averaging times (e.g., 1 to 24-hour). The SAAQS in some cases are more stringent than the applicable NAAQS. Specifically, the 1-hour carbon monoxide Hawaii SAAQS is four times as stringent as the carbon monoxide NAAQS.

The U.S. Environmental Protection Agency (EPA) periodically reviews and reevaluates the NAAQS in light of research reports more recent than those used when the NAAQS were originally promulgated. Recently, the NAAQS for particulate matter have been revised to address the respirable fraction with particulate diameters less than 10 microns (PM-10). Hawaii has not specified any changes to the existing 24-hour standard, but the new NAAQS will prevail where the states have not promulgated their own more stringent levels.

### 3.2 Existing Air Quality

The existing air quality within the proposed project area is primarily affected by mobile sources, industrial and/or natural sources and distant agricultural sources. A source specific air pollutant emission summary for the City and County of Honolulu compiled in 1980 is presented in Table 3. It is expected that the emissions at this time would be higher for all categories. The mineral products industry was the significant source category for particulate matter. Sulfur oxides emissions were primarily from the fossil fuel fired power plants while motor vehicles accounted for the majority of nitrogen oxides, carbon monoxide and hydrocarbons.

The project area is located near the heavily traveled Hilo-Nanam Highway. Nitrogen oxide and carbon monoxide emissions from motor vehicles on this highway would be affected over the project site during the intrusion Kona winds.

The Hawaiian Electric Company, Inc. (HECO) Honolulu Power Plant is located in proximity to the project area. This steam-electric generating facility consists of two units fired by low sulfur fuel oil. The existing air quality in the project vicinity could be affected by nitrogen oxides and sulfur oxides. HECO is planning to phase these units out and eventually shut down the plant during a 1994-1996 timeframe.

Natural sources of air pollutants, which are difficult to quantify, could also affect the project area. These include ocean (sea spray salt), vegetation (allergens), wind blown dust and volcanic gases advected from the island of Hawaii. The Hawaii State Department of Health (DOH) has conducted ambient air quality monitoring at numerous locations throughout Oahu. Table 4 provides an annual summary of air quality measurements that were recorded at monitoring stations in proximity to the project location during the six-year period 1985 through 1990.

Sulfur Dioxide (SO₂) monitoring data in the vicinity of downtown Honolulu is not available. However, SO₂ was monitored at a site located in the Campbell Industrial Park several miles west of the project site. SO₂ concentrations were recorded at 24-hour averages every sixth day. The highest 24-hour concentration recorded during this period was 49 micrograms per cubic meter (μg/m³) with daily mean values at or below 5 μg/m³ the past four years. There has been never been an exceedance of the State of Hawaii National 24-hour ambient standard during this six-year period at this station.
Table 3
Summary of Air Pollution Emissions Inventory for City and County of Honolulu

<table>
<thead>
<tr>
<th>SOURCE CATEGORY</th>
<th>EMISSIONS (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PM</td>
</tr>
<tr>
<td>Electric Power Plants</td>
<td>2,092</td>
</tr>
<tr>
<td>Gas Utilities</td>
<td>14</td>
</tr>
<tr>
<td>Fuel Combustion in Agricultural Industry</td>
<td>1,018</td>
</tr>
<tr>
<td>Refinery Industry</td>
<td>622</td>
</tr>
<tr>
<td>Petroleum Storage</td>
<td>0</td>
</tr>
<tr>
<td>Metallurgical Industry</td>
<td>28</td>
</tr>
<tr>
<td>Mineral Products Industry</td>
<td>0,884</td>
</tr>
<tr>
<td>Municipal Incineration</td>
<td>42</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>1,413</td>
</tr>
<tr>
<td>Construction, Farm and Industrial Vehicles</td>
<td>184</td>
</tr>
<tr>
<td>Aircraft</td>
<td>382</td>
</tr>
<tr>
<td>Vessels</td>
<td>42</td>
</tr>
<tr>
<td>Agricultural Field Burning</td>
<td>1,259</td>
</tr>
<tr>
<td>TOTALS</td>
<td>16,190</td>
</tr>
</tbody>
</table>

Notes:
1. The emissions inventory is based on State of Hawaii, Department of Health statistics for period in 1980. This is only available database according to conversation with Ms. A. Tau, Department of Health, on January 3, 1991.

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Table 4
Annual Summaries of Background Air Quality Concentrations From Ambient Monitoring Stations Nearest Keahole Revitalization Project

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PM/Barbers Point</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 24-Hour Value</td>
<td>48</td>
<td>10</td>
<td>13</td>
<td>19</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Average 24-Hour Value</td>
<td>24</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td></td>
</tr>
<tr>
<td>Number of State of Hawaii Exceedances</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PM/Downtown Honolulu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 24-Hour Value</td>
<td>48</td>
<td>61</td>
<td>59</td>
<td>45</td>
<td>48</td>
<td>45</td>
<td></td>
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<tr>
<td>Average 24-Hour Value</td>
<td>24</td>
<td>25</td>
<td>25</td>
<td>26</td>
<td>30</td>
<td>33</td>
<td></td>
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<tr>
<td>Number of State of Hawaii Exceedances</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PM-10/Lihia</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 24-Hour Value</td>
<td>52</td>
<td>35</td>
<td>33</td>
<td>25</td>
<td>32</td>
<td>19</td>
<td></td>
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<tr>
<td>Average 24-Hour Value</td>
<td>23</td>
<td>18</td>
<td>17</td>
<td>16</td>
<td>16</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Number of State of Hawaii Exceedances</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
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<tr>
<td>CO/Downtown Honolulu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 1-Hour Value</td>
<td>10,400</td>
<td>13,500</td>
<td>11,100</td>
<td>7,400</td>
<td>7,800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Daily 1-Hour Maximum Value</td>
<td>1,500</td>
<td>2,200</td>
<td>1,700</td>
<td>2,000</td>
<td>1,900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of State of Hawaii 1-Hour Exceedances</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO/Barbers Point</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 8-Hour Value</td>
<td>4,400</td>
<td>4,700</td>
<td>3,300</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Average Daily 8-Hour Maximum Value</td>
<td>1,300</td>
<td>1,400</td>
<td>1,200</td>
<td></td>
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</table>
### Table 4 (cont’d)

**Annual Summaries of Background Air Quality Concentrations**

From Ambient Monitoring Stations Nearest Redevelopment/Revitalization Project

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>O₃/Sand Island</strong></td>
<td></td>
<td></td>
<td></td>
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<td>Highest 1-Hour Value</td>
<td>129 88 84 84</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Daily 1-Hour Max Value</td>
<td>43 39 38</td>
<td>15</td>
<td></td>
<td></td>
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<td>Number of State of Hawaii Exceedances</td>
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<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lead/Downtown Honolulu</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 24-Hour Value</td>
<td>0.3 0.2 0.2 0.2</td>
<td>0.1 0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Average Quarterly Value</td>
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<td>0 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. N.A. - Not applicable. There is no Hawaii State Standard for PM-10 particulates.
2. The annual ambient air quality summaries were obtained from the State of Hawaii Department of Health.
3. The 1990 air quality concentrations are based on a six-month period from January through June.

Total suspended particulate matter (PM) is monitored in downtown Honolulu and in proximity to the project area. The highest 24-hour average PM concentration recorded during the 1985 through 1990 period was 81 ug/m³. The mean daily concentrations during this period were less than 30 ug/m³. These values are well below the state standard of 150 ug/m³.

Particulate matter less than 10 microns in size (PM-10) is monitored at the Kaiser Medical Center located approximately 1.5 miles north of the project. The highest 24-hour average concentration recorded during the 1985 through 1990 period was 53 ug/m³. The average daily concentrations were generally less than 25 ug/m³. This monitored data is well below the national ambient standard at 150 ug/m³.

Carbon monoxide (CO) concentrations are determined at the DOH building in downtown Honolulu. The maximum 1-hour CO concentration recorded during the 1985 through 1990 period was 15,000 ug/m³. The average daily maximum 1-hour concentrations during the same period are approximately 2,000 ug/m³. Exceedances of the 1-hour ambient state standard of 10,000 ug/m³ occurred in 1985, 1986 and 1987. The maximum 8-hour concentration during this period was 4,700 ug/m³. The average daily maximum 8-hour value was about 1,300 ug/m³. Exceedances of the 8-hour ambient state standard of 5,000 ug/m³ have not been recorded.

Ambient ozone (O₃) measurements have been recorded at the DOH Sand Island Station located approximately 0.5 mile north of the project site. Except for 1985, the maximum 1-hour O₃ concentration recorded during 1986 and 1987 has averaged about 50 ug/m³. Exceedances of the state 1-hour ambient O₃ standard of 100 ug/m³ have not occurred since 1985.

Ambient lead concentrations were recorded at the DOH downtown monitoring station from 1985 through 1990. The average quarterly concentrations during this period were at or below the detection limit. Exceedances of the state quarterly average standard of 1.5 ug/m³ have never been recorded.

Nitrogen dioxide (NO₂) monitoring was discontinued by the DOH in 1976. Concentrations were measured from 1971 through 1976 at Barber’s Point and annual mean values ranged from 11 to 29 ug/m³. These concentrations are well below the applicable state and national standards of 100 ug/m³ and 70 ug/m³ respectively.

### 4.0 Short-Term Project Impacts

The short-term direct and indirect air quality impacts associated with the project can result from project construction. Fugitive dust from demolition work, vehicle movement, soil excavation and vehicular exhaust emissions from on-site construction equipment are the primary construction

The fogline dust excursion may occur during the demolition and removal of existing structures on the site and during site preparation (i.e., grading and dirt-moving activities). A fugitive dust emission rate for these construction activities is difficult to estimate. An emission estimate based on an EPA AP-42 document (USEPA, 1988) provides an approximate estimate for uncontrolled fugitive dust emissions from construction activities of 1.5 tons per acre per month under medium activity, a moderate soil salt content (30%), and precipitation/evaporation P/E Index of 50. It is likely that uncontrolled fugitive emissions in downtown Honolulu would probably be greater since the P/E index would be higher due to its drier climate. The State of Hawaii air quality regulations permits...
visible emissions of fugitive dust from construction activities at the project property line. As a result, a dust control plan for the construction phase is essential.

Fugitive dust control can usually be accomplished by frequent wetting of demolition and bare-dirt surfaces. The control regulations also require that moving open-body trucks be covered at all times if their materials are likely to generate airborne dust. Paving of parking areas or landscaping in the early construction phase can also reduce the potential for fugitive dust emissions.

Vehicular and stationary construction equipment will emit air pollutants from exhausts. Diesel-powered equipment is the primary source contributor. Nitrogen oxides (NOx) emissions from diesel engines are usually greater when compared to gasoline-powered engines. However, the standard for nitrogen dioxide (NO2) is based on an annual basis and is not likely to be exceeded due to short-term construction equipment emissions. The carbon monoxide (CO) emissions from diesel engines are low and would be insignificant when compared to gas-powered vehicular emissions on roadways.

Slow-moving construction vehicles on nearby/associated roadways within/around the project could obstruct traffic flow that results in vehicular emissions increase. However, this impact can be mitigated by moving the heavy construction equipment during low traffic periods. This approach would also reduce quality impacts due to project construction can be mitigated.

5.0 Long-Term Project Impacts

5.1 Roadway Traffic

The proposed project will increase motor vehicle traffic on nearby roadways and thereby be an indirect air pollution source. Gasoline-fueled engines are sources of CO and NOx, and those low-burning leaded gasoline contribute lead to the atmosphere. The consumption of leaded gasoline in newer automobiles is now prohibited, and as older vehicles are replaced from the roadways through attrition, lead emissions will be approaching zero. As discussed in Section 3.0, 1999. As a result, ambient lead is not considered a problem in the state.

The potential long-term indirect air quality impacts due to the increased roadway traffic were evaluated for CO with computerized emission and dispersion models. This approach is similar to the air quality analysis performed for the Kahaluu Parking Structure Development (Kahaluu, 1990). CO was chosen because it is the most stable as well as most abundant pollutant generated by motor vehicles. In addition, CO is often considered a minor problem while NOx is typically of regional concern. This is reflected in the NAAQS where CO is defined on a short-term basis (1-hour and 8-hour average) while NOx is based on an annual average.

In this project, three scenarios were selected for the CO modeling study:

- **Year 1991 with present conditions**
- **Year 1994 without the project, and**
- **Year 1994 with the project.**

In the modeling study, critical receptors located in proximity to the project were identified for analysis. Roadway intersections are of great concern because of traffic congestion and the vehicular emissions associated with traffic cycling (i.e., decelerating, stopping, queuing, and accelerating). In this study, three key intersections identified in the traffic study were also selected for the air quality analysis. These include: Nimah Highway at River Street, King Street and River Street, and King Street at Keahole Street. The traffic impact assessment report (Wibber Smith Associates, 1991) for the project describes the present and future conditions and configurations of these intersections in detail.

The purpose of the modeling study is to estimate the existing and projected levels of the maximum 1-hour average CO concentrations and compare them to the NAAQS and SAADs. The traffic study conducted indicates that the volumes generally are or will be higher during the afternoon peak hour than during the morning peak period. The worst-case emissions and meteorological dispersion conditions usually occur during the morning hours. However, due to effects from vehicle cold start and queuing at intersections, both morning and afternoon peak traffic hours were examined to ensure that worst-case concentrations were identified.

EPA's MOBILE4 (EPA, 1989) emission model was used to calculate a composite vehicular CO emissions for each year studied. A key input to MOBILE4 is vehicle mix. Based on recent Honolulu CO vehicle registration figures, the present and projected vehicle mix in the project area is estimated to be 91.6% light-duty gasoline-powered vehicles, 4.2% light-duty gas-powered trucks and vans, 0.5% heavy-duty gasoline-powered vehicles, 1.8% heavy-duty diesel-powered vehicles, 1.6% heavy-duty diesel-powered trucks and buses, and 1.0% motorcycles.

A certain percentage of the vehicles used by the MOBILE4 model is classified as being in a cold or hot start mode. Motor vehicles operating in a cold or hot start mode emit excess CO. The allowable operating temperatures for motor vehicles are reached after approximately four miles of driving. For the total traffic operating within the project area, it was assumed that during the morning peak hour about 25% of the vehicles would be operating in the cold start mode and about 5% in the hot start mode. For the afternoon peak hour, the cold start mode was assumed to be 50 percent and 10 percent respectively. These operational modes were estimated on a California Department of Transportation report (Benson) and taken into consideration in the modeling/ambient traffic in the project area.

Another input into MOBILE4 is the ambient temperature used for the emission calculation. Ambient temperatures of 59 °F and 68 °F were used for the morning and afternoon peak hour emission computations, respectively. These values are conservative assumptions since morning/afternoon ambient temperatures will generally be warmer and MOBILE4 emission estimates are inversely proportional to ambient temperature.

The predicted CO emissions from MOBILE4 were input to the latest version of the CALINE4 (CA DOT, 1985) dispersion model. CALINE4, developed by the California Transportation Department utilizes traffic movement and emissions site geometry and meteorology to predict 1-hour average pollutant concentrations along roadways.

The input peak traffic data used were obtained from the traffic study conducted by Wibber Smith Associates. The traffic volumes presented in the study for the future case include project traffic as well as traffic from other growth that is expected to occur by 1994. Traffic queueing estimates were made based on EPA guidelines (USEPA, 1974) and traffic observations at specified intersections. All modeling analysis assumed a maximum vehicle speed of 30 mph either due to posted speed limits or congested traffic conditions. Deceleration and acceleration times of 10 and 12 seconds were assumed.
The modeled roadways were set up to reflect roadway geometry, physical dimensions and operating characteristics. Since pedestrian walkways in the project area are located close to the traveled roadways, model receptor sites were located approximately 1-7 feet (0.3-2 meters) from edge of roadways near intersections studied. Receptor heights were positioned at 5 feet (1.5 meters) above ground to simulate a normal breathing zone.

The many high-rise buildings located in downtown Honolulu have created street canyons which result in channeling of the wind and may reduce the dispersion of air pollutants emitted by motor vehicles traversing the project area. As a result, CALINE4 was run with and without the street canyon option. Higher concentrations were predicted by the run which did not use the street canyon option.

The input meteorological conditions used for this study were defined to provide worst-case impacts. An atmospheric stability class category 4 was assumed for both morning and afternoon cases. This stability category is the most conservative that can be used in urban locations. A surface roughness length of 10 feet (3 meters) was assumed. Although mixing heights are generally expected to be above 3,000 feet (920 meters), a conservative flow height of 1,000 feet (300 meters) was utilized to limit vertical mixing dispersion and provide a higher predicted concentration. The worst-case wind conditions were defined as wind speed of 2.2 mph (one meter per second) with wind direction resulting in highest predicted impact.

Background contributions of CO from sources on distant roadways not directly considered in the analyses were accounted for by adding a background concentration of 1 ppm to all predicted CO concentrations.

Table 5 provides a summary of the predicted worst case 1-hour morning and afternoon CO concentrations for the three scenarios: year 1991 with present conditions, year 1994 without the project, and year 1994 with the project. The locations of these worst-case 1-hour concentrations all occurred at or very near the indicated intersections.

Table 5: Worst-Case 1-Hour CO Impacts (ug/m³)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>PM</td>
<td>AM</td>
</tr>
<tr>
<td>Nimitz at River</td>
<td>15,220</td>
<td>18,590</td>
<td>13,361</td>
</tr>
<tr>
<td>King at River</td>
<td>9,062</td>
<td>9,411</td>
<td>7,500</td>
</tr>
<tr>
<td>King at Maunakea</td>
<td>8,713</td>
<td>9,284</td>
<td>7,551</td>
</tr>
</tbody>
</table>

Notes:
1. The National Ambient Air Quality Standard (NAAQS) and State of Hawaii Ambient Air Quality Standards (SAAQS) are 40,000 ug/m³ and 10,000 ug/m³, respectively.
The worst-case 8-hour CO impacts were determined by multiplying the worst-case 1-hour CO values by a persistence factor of 0.6. This factor considers two factors: (1) meteorological dispersion conditions are more variable for an eight-hour period than for a one-hour period (greater dispersion provides better condition) and (2) traffic volumes averaged over eight hours are much lower than for a peak hour period. DOH monitoring data indicate a 1-hour to 8-hour persistence factor between 0.4 and 0.5. A recent modeling study (AWMA, 1998) concluded that a 1-hour to 8-hour persistence factor could range from 0.4 to 0.5. EPA guidelines (USEPA, 1978) recommend using a range from 0.6 to 0.7 and modeling analyses prepared for the Kakaʻako Parking Structure Development (KPSD, 1992) utilized a persistence factor of 0.5. Upon consideration of this information a 1-hour to 8-hour persistence factor of 0.6 is deemed appropriate for this application.

The estimated peak 8-hour impacts are presented in Table 6. For the 1993 present case, the predicted worst-case 8-hour CO impact was 8,295 ug/m³ and occurred at the Kaimuki Highway and River Street intersection. The other two locations ranged from 6,680 ug/m³ to 8,307 ug/m³, respectively. The peak impacts for 1994 would be expected to reach the project would be expected to reach 8,130 ug/m³ and 8,207 ug/m³, respectively, and also occurred at the Kaimuki and River Street intersection.

In comparing these results to the applicable standards, it appears that the 8-hour SAAGS of 5,000 ug/m³ may be exceeded at several locations and the NAAGS could be exceeded near the Kaimuki Highway and River Street intersection.

5.2 Parking Structure

An existing above ground C & C parking lot is located on the proposed Kakaʻako development site and has a capacity of 83 stalls. Access to the lot for entering and exiting vehicles is currently permitted from both Kaimuki Street and Maunakea Street.

The proposed project calls for the replacement of the current 83 parking stalls with a parking structure containing approximately 174 parking stalls. The proposed parking facility will have one level of at-grade parking and two levels of underground parking. The at-grade parking level would be naturally ventilated while the two basement parking levels will require mechanical ventilation.

The Threshold Limit Values (TLV) set by the American Conference on Governmental Industrial Hygienists (ACGIH, 1985) for industrial work places are often used as guidelines for enclosed structures. The ACGIH TLV for CO is given in terms of a time-weighted average concentration of 55 mg/m³ (85,000 ppm) for an 8-hour period and 45-hour work week. In addition, a TLV short-term exposure of 440 mg/m³ (440,000 ppm) is specified for a 15-minute period.

The American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) has standards pertaining to ventilation for indoor air quality (ASHRAE, 1988). The ASHRAE recommends that enclosed parking structures/parkway be designed to provide 1.50 cubic feet per minute (cfm) of outdoor air per square feet of space within the parking area.

In the absence of any construction drawings, it has been assumed that the two below ground parking levels will have a combined floor area of about 7,500 square feet (75) and accommodate about 50 stalls on each level. In addition, it is assumed that the at-grade level will have a floor area of about 4,500 ft² and will handle the remaining 74 automobiles. Utilizing the ASHRAE outdoor air requirement for enclosed parking structures, the two below ground levels will require about 5,625 cfm each. It is assumed that wind speeds of 1 mph or lower should provide adequate natural ventilation for the at-grade level when the wind direction is from the north, east or west (trade winds) or the infrequent southerly direction (kona winds).

<table>
<thead>
<tr>
<th>YEAR AND SCENARIO</th>
<th>1993 Present</th>
<th>1993 Without Project</th>
<th>1994 With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaimuki at River</td>
<td>7,610</td>
<td>9,295</td>
<td>6,681</td>
</tr>
<tr>
<td></td>
<td>8,130</td>
<td>6,739</td>
<td>8,307</td>
</tr>
<tr>
<td>King at Maunakea</td>
<td>4,513</td>
<td>4,705</td>
<td>3,950</td>
</tr>
<tr>
<td></td>
<td>3,950</td>
<td>3,950</td>
<td>4,124</td>
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<td></td>
<td>4,356</td>
<td>4,647</td>
<td>3,716</td>
</tr>
<tr>
<td></td>
<td>3,716</td>
<td>3,544</td>
<td>3,924</td>
</tr>
</tbody>
</table>

Notes:
1. The National Ambient Air Quality Standard (NAAGS) and State of Hawaii Ambient Air Quality Standards (SAAGS) are 10,000 ug/m³ and 5,000 ug/m³, respectively.
For the below ground parking level, both fresh air intake fans and exhaust fans will probably be necessary to provide adequate ventilation. If fresh air intake fans are utilized, intake vents should be located as far away from roadway traffic fumes as is practical. Exhaust vents should be located so as to avoid recirculation and to ensure that exhaust air is diluted by at least a factor of 10 by the time it reaches outside pedestrian areas.

5.3 Electrical Demand

The proposed project would also cause indirect emissions from the Hawaiian Electric Company (HECO) generating facilities as a consequence of increased electrical power usage. It is expected that the annual electrical demand of the project when fully developed is not expected to exceed 7 million kilowatt-hour. This increased power demand would most likely be provided by HECO oil-fired generating facilities located on Oahu. In order to meet the electrical needs of the proposed project, the HECO facilities will be required to burn more fuel resulting in increased emissions of air pollution at these facilities. Table 7 presents estimates of the indirect air pollution emissions that would result from the project demand assuming all electrical power is provided by burning more fuel oil at HECO facilities. If the power were supplied by coal or solid waste burning facilities, emissions would likely be greater.

5.4 Solid Waste Disposal

It is assumed that solid waste generated by the complex project will be less than 1 ton refuse per day. The majority of the refuse will be trucked to either a landfill or an incinerator at another location for disposal. If all the refuse is landfilled, air pollution emissions will be due to exhaust fumes and fugitive dust from trucks and heavy equipment used to place the refuse in the landfill. However, if all or part of the refuse is burned at a waste-to-energy facility such as H-Power, the disposal of solid waste will result in the generation of particulate, carbon monoxide and other emissions. Table 8 provides emission factors for controlled emission associated with municipal refuse incinerators. It should be noted that if total waste from the project is utilized by the H-Power facility, this would reduce the emissions from HECO's generating facility and a waste incinerator which would be required to dispose of waste from this project.

6.0 Summary of Impacts and Mitigation Considerations

6.1 Summary

The major short-term impact will be potential emissions of fugitive dust due to project construction. It was estimated that uncontrolled fugitive dust emissions would amount to no more than 1.2 tons per acre per month. During the construction, carbon monoxide (CO) and nitrogen oxide (NOx) emissions will occur from on-site construction equipment and from construction vehicle vehicles traveling to and from the project.

Increased motor vehicle travel resulting from the project will cause the major long-term air pollution impact. Mathematical modeling of projected vehicular traffic emissions and atmospheric dispersion estimates of these emissions indicate that CO concentrations would increase at some locations within proximity of the project. The predicted 8-hour CO impacts would be in compliance with the EPA's 1-hour CO NAAQS. However, the predicted 8-hour CO impacts exceed EPA's 8-hour NAAQS near the Nanua Highway and River Street intersection. The stringent Hawaii 1-hour and 8-hour CO ambient standards are exceeded at all receptor locations for all scenarios. The low state standard is probably exceeded at many intersections within the state that experience moderate traffic flow.

<table>
<thead>
<tr>
<th>POLLUTANT</th>
<th>EMISSION RATE INCREASE (TONS/YEAR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>18.0</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>1.5</td>
</tr>
<tr>
<td>Volatile Organic</td>
<td>&lt;1.0</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Notes:
1. Emission rate increase is based on EPA AP-42 emission factors for industrial boilers. Emission increase assumes electrical demand of 7 million kWh/year and low sulfur fuel of 0.5 percent by weight to generate power.
### Table 8

Uncontrolled Air Pollution Emission Factors
For Municipal Refuse Incinerators (b/ton)
and Estimated Uncontrolled Annual Emissions Increase After Project

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Uncontrolled Emission Factor (b/ton)</th>
<th>Estimated Uncontrolled Project Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulates</td>
<td>14</td>
<td>6,110</td>
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<tr>
<td>Sulfur Dioxide</td>
<td>2.5</td>
<td>913</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>35</td>
<td>12,275</td>
</tr>
<tr>
<td>Organics</td>
<td>1.9</td>
<td>54</td>
</tr>
<tr>
<td>Nitrogen Oxides</td>
<td>3</td>
<td>1,005</td>
</tr>
</tbody>
</table>

Notes:
1. Emission Factors are based on EPA AP-42 document.

CO concentrations for the above ground levels of the parking structure will be maintained by natural ventilation. The below ground level will require mechanical ventilation to maintain safe ambient CO levels.

Other long-term impacts could occur due to indirect emissions from power generating facilities supplying the project with electrical needs. However, it would appear that any impacts would be insignificant since emissions from supplying the project with electrical power would be less than one percent of the existing emissions on Dallas.

#### 6.2 Probable Mitigative Measures

A regular dust-sweeping program and crowding of dirt-loading trucks will be mandatory to mitigate fugitive dust emissions from construction activities. Watering twice per day could substantially suppress dust emissions. In addition, paving parking areas and early construction landscaping could also help to control the fugitive dust. On-site vehicle emissions could also be reduced by moving equipment and personnel during off-peak hours.

Traffic-related air pollution can be mitigated by reducing traffic and improving roadways. The roadway improvements mentioned in the traffic impact study would be implemented to move traffic efficiently through the project area. Air pollution impacts due to vehicular emissions can be controlled by reducing traffic, using mass transit, carpooling, and adjusting local school/business hours to off-peak hours. In addition, cleaner-burning fuels as well as e--state motor vehicle inspection and maintenance programs would further reduce emissions.

The CO concentrations in the proposed parking structure can be minimized by providing adequate mechanical ventilation for the below ground level. Enhancing natural ventilation can be achieved by leaving the air grade level open to the prevailing winds. Mechanical ventilation capacity will air should be vented at least 10 feet above ground level and/or away from pedestrian areas to avoid fumigation of pedestrians and recirculation within the structure. Using pollutant sensors to monitor levels and control the ventilation system will further lessen potential air quality problems.

Indirect emissions from project electrical demand could be reduced by utilizing alternate energy technologies, positioning residential commercial windows for shade to help reduce energy demand.
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Cooper, 1989

Neal, 1990

Newall, 1990

USEPA, 1978

USEPA, 1988

USEPA, 1989
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NOISE STUDY
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CHAPTER I. SUMMARY

The existing and future traffic noise levels in the vicinity of the proposed Kaka'ako Revitalization Project in Downtown Honolulu were evaluated for their potential impacts and their relationship to current FHA/HUD noise standards. The traffic noise level increases along the roadway sections in the immediate vicinity of the project site were calculated. Following project build-out by CY 1994, increases in traffic noise of 0.1 to 0.5 Ldn units are predicted to occur as a result of project plus non-project traffic.

Along King Street, traffic noise levels are expected to increase by 0.1 to 0.4 Ldn, primarily as a result of non-project traffic. It was assumed that bus noise along the Hotel Street Mall will not increase significantly by CY 1994. Traffic on King and Hotel Streets are, and will continue to be, the dominant sources of noise in the project area. Along River and Maunakea Streets, where traffic noise levels are lower, traffic noise levels are expected to increase by approximately 0.2 to 0.5 Ldn by CY 1994 primarily as a result of project traffic. Project traffic will add approximately 0.4 to 0.5 Ldn additional units of noise along River and Maunakea Streets in the immediate vicinity of the project. The increases in traffic noise levels resulting from project generated traffic are not considered to be significant.

It may not be possible to obtain adequate setback of the project's residential units from the centerlines of King and Hotel Streets so as to meet FHA/HUD noise standards if the visual lines of sight are not blocked by adjoining buildings. Because of this, impacts from traffic noise are possible at the project's dwelling units, and particularly those which have direct lines-of-sight to King and/or Hotel Streets. Because these units are not expected to be in the luxury category, mitigation of high traffic noise levels through the use of closure and air conditioning may not be feasible. The possible use of sound attenuating windows are an alternate means of mitigating high traffic noise levels.

Unavoidable, but temporary, noise impacts will occur during the construction of the proposed project, particularly during the excavation and possible pile driving activities on the project site. Because construction activities are predicted to be audible within the project and at adjoining properties, the quality of the acoustic environment may be degraded to unacceptable levels during periods of construction. Mitigation measures to reduce construction noise to inaudible levels will not be practical in all cases, but the use of quiet equipment and State Department of Health construction noise permit procedures are recommended as standard mitigation measures.

Risks of adverse noise impacts from the underground parking garage are also expected to be low due to the containment of tire squeal and door slam noise below grade. The recommended use of asphalt, or brush concrete finish on the circulation driveways within the underground parking garage and upper level parking lots should minimize the occurrences of tire squeal noise. On-site mechanical equipment, such as air conditioners or garage exhaust fans may require sound attenuation treatment.
CHAPTER II. PURPOSE

The primary objective of this study was to describe the existing and future traffic noise environment in the environs of the proposed Keahaulani Revitalization Project in Downtown Honolulu on the island of Oahu. Traffic noise level increases and impacts associated with the proposed development were to be determined within the project site as well as along the public roadways expected to service the project traffic. A specific objective was to determine future traffic noise level increases associated with both project and non-project traffic, and the potential noise impacts associated with these increases. Assessments of possible future impacts from short term construction noise and from other site sources were also included as noise study objectives. Recommendations for minimizing potential noise impacts were also to be provided as required.

CHAPTER III. NOISE DESCRIPTORS AND THEIR RELATIONSHIP TO LAND USE COMPATIBILITY

The noise descriptor currently used by federal agencies (such as FHWA/HUD) to assess environmental noise is the Day-Night Average Sound Level (Ldn). This descriptor incorporates a 24-hour average of instantaneous A-Weighted Sound Levels as read on a standard Sound Level Meter. By definition, the minimum averaging period for the Ldn descriptor is 24 hours. Additionally, sound levels which occur during the nighttime hours of 10:00 PM to 7:00 AM are increased by 10 decibels (dB) prior to computing the 24-hour average by the Ldn descriptor. A more complete list of noise descriptors is provided in APPENDIX B to this report.

TABLE 1, derived from Reference 1, presents current federal noise standards and acceptability criteria for residential land uses. Land use compatibility guidelines for various levels of environmental noise as measured by the Ldn descriptor system are shown in FIGURE 1. As a general rule, noise levels of 55 Ldn or less occur in rural areas, or in areas which are removed from high volume roadways. In urbanized areas which are shielded from high volume streets, Ldn levels generally range from 55 to 65 Ldn, and are usually controlled by motor vehicle traffic noise. Residences which front major roadways are generally exposed to levels of 65 Ldn, and as high as 75 Ldn when the roadway is a high speed freeway. The range of background ambient noise levels at other urbanized areas on Oahu are shown in FIGURE 2. In the project area, traffic noise levels associated with King and Hotel Streets are typically greater than 65 Ldn along the Night-of-Day, and these two streets carry the dominant traffic noise sources in the project area.

For the purposes of determining noise acceptability for funding assistance from federal agencies (FHWA/HUD and VA), an exterior noise level of 65 Ldn or lower is considered acceptable. This standard is applied nationally (Reference 2), including Hawaii.
TABLE 1

EXTERIOR NOISE EXPOSURE CLASSIFICATION
(RESIDENTIAL LAND USE)

<table>
<thead>
<tr>
<th>NOISE EXPOSURE CLASS</th>
<th>DAY-NIGHT SOUND LEVEL</th>
<th>EQUIVALENT SOUND LEVEL</th>
<th>FEDERAL(1) STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal Exposure</td>
<td>Not Exceeding 55 Ldn</td>
<td>Not Exceeding 55 Leq</td>
<td>Unconditionally Acceptable</td>
</tr>
<tr>
<td>Moderate Exposure</td>
<td>Above 55 Ldn</td>
<td>Above 55 Leq</td>
<td>Acceptable(2)</td>
</tr>
<tr>
<td></td>
<td>But NotAbove 65 Ldn</td>
<td>But Not Above 65 Leq</td>
<td></td>
</tr>
<tr>
<td>Significant Exposure</td>
<td>Above 65 Ldn</td>
<td>Above 65 Leq</td>
<td>Normally Unacceptable</td>
</tr>
<tr>
<td></td>
<td>But Not Above 75 Ldn</td>
<td>But Not Above 75 Leq</td>
<td></td>
</tr>
<tr>
<td>Severe Exposure</td>
<td>Above 75 Ldn</td>
<td>Above 75 Leq</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>

Notes: (1) Federal Housing Administration, Veterans Administration, Department of Defense, and Department of Transportation.
(2) FHWA uses the Leq instead of the Ldn descriptor. For planning purposes, both are approximated if: (a) heavy truck do not exceed 10 percent of total traffic flow in vehicles per 24 hours, and (b) traffic between 12:00 PM and 7:00 AM does not exceed 15 percent of average daily traffic flow in vehicles per 24 hours. The noise mitigation threshold used by FHWA for residences is 67 Leq.

---

![Figure 1](source: American National Standards Institute 53.23-1980)
Because of our open-living conditions, the predominant use of naturally ventilated dwellings, and the relatively low exterior-to-interior sound attenuation afforded by these naturally ventilated structures, an exterior noise level of 65 Ldn does not eliminate all risks of noise impacts. Because of these factors, and as recommended in Reference 3, a lower level of 55 Ldn is considered as the "Unconditionally Acceptable" (or "Near-Zero Risk") level of exterior noise. However, after considering the cost and feasibility of applying the lower level of 55 Ldn, government agencies such as FHA/VA and VA have selected 65 Ldn as a more appropriate regulatory standard.

For commercial, industrial, and other non-noise sensitive land uses, exterior noise levels as high as 75 Ldn are generally considered acceptable. Exceptions to this occur when naturally ventilated office and other commercial establishments are exposed to exterior levels which exceed 65 Ldn.

On the island of Oahu, the State Department of Health (DOH) regulates noise from fixed mechanical equipment, motor vehicles, and construction activities. Noise resulting from construction activities are regulated by the DOH through the issuance of permits for allowing excessive noise during limited time periods. Noise from other on-site sources, such as mechanical equipment, are also regulated by the State DOH. The State DOH noise regulations are expressed in maximum allowable property line noise limits rather than Ldn (see Reference 4). Although they are not directly comparable to noise criteria expressed in Ldn, State DOH noise limits for residential, commercial, and industrial lands equate to approximately 55, 60, and 70 Ldn, respectively.

It should be noted that the noise compatibility guidelines and relationships to the Ldn noise descriptor may not be applicable to impulsive noise sources such as pile drivers. The use of penalty factors (such as adding 10 dB to measured sound levels or the use of C-Weighting filters) have been proposed. However, the relationships between levels of impulsive noise sources and land
use compatibility have not been as firmly established as have the relationships for non-impulsive sources. The State DOH limits for impulsive sounds which exceed 120 impulses in any 20 minute period are 10 dB above the limits for non-impulsive sounds. If impulsive sounds do not exceed 120 impulses in any 20 minute time period, there are no regulatory limits on their sound levels under the State DOH regulations.

CHAPTER IV. GENERAL STUDY METHODOLOGY

Existing traffic noise levels were measured at four locations in the project environs to provide a basis for developing the project's traffic noise contributions along the roadways which will serve the proposed development. The locations of the measurement sites are shown in FIGURE 3. Noise measurements were performed during the month of December 1990. The results of the traffic noise measurements were compared with calculations of existing traffic noise levels to validate the computer model used. The traffic noise measurement results, and their comparisons with computer model predictions of existing traffic noise levels are summarized in TABLE 2.

Traffic noise calculations for the existing conditions as well as noise predictions for the Year 2004 were performed using the Federal Highway Administration (FHWA) Noise Prediction Model (Reference 9). Traffic data entered into the noise prediction model were: hourly traffic volumes, average vehicle speeds, estimates of traffic mix, and hard ground propagation loss factor.

The traffic study for the project (Reference 6), and City and County of Honolulu Department of Transportation Services counts on King, Maunakea, and Hotel Streets (References 7 thru 9) were also used as additional sources of data inputs to the model. For existing and future traffic on King Street, it was assumed that the average noise levels, or Leq(h), during the AM peak hour were 0.5 dB less than the 24-hour Ldn. For River and Maunakea Streets, it was assumed the average noise levels during the AM peak hour were 4 Ldn less than the 24-hour Ldn. These assumptions were based on computations of both the hourly Leq and the 24-hour Ldn of traffic noise on King and Maunakea Streets (see FIGURE 4 and 5). Along the Hotel Street Bus Mall, the average noise levels during the AM peak hour were 0.8 dB less than the 24-hour Ldn.

Traffic noise calculations for both the existing and future conditions in the project environs were developed for ground level
<table>
<thead>
<tr>
<th>Location</th>
<th>Time of Day (EST)</th>
<th>Speed (MPH)</th>
<th>Hourly Traffic Volume</th>
<th>Measured Leq (dB)</th>
<th>Predicted Leq (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. 25 FT from the center-line of King Street. (12/18/90)</td>
<td>0700</td>
<td>35</td>
<td>2,147</td>
<td>76.1</td>
<td>76.1</td>
</tr>
<tr>
<td></td>
<td>0800</td>
<td></td>
<td>59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. 25 FT from the center-line of River Street. (12/18/90)</td>
<td>0915</td>
<td>20</td>
<td>274</td>
<td>72.0</td>
<td>70.4</td>
</tr>
<tr>
<td></td>
<td>0815</td>
<td></td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. 25 FT from the center-line of H Match Street. (12/18/90)</td>
<td>1600</td>
<td>20</td>
<td>423</td>
<td>66.2</td>
<td>64.5</td>
</tr>
<tr>
<td></td>
<td>1700</td>
<td></td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. 25 FT from the center-line of Hotel Street. (12/18/90)</td>
<td>1615</td>
<td>32</td>
<td>1</td>
<td>72.8</td>
<td>72.4</td>
</tr>
<tr>
<td></td>
<td>1715</td>
<td></td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
and elevated receptors without the benefit of shielding effects.
Traffic noise levels were calculated for future conditions with
and without the proposed mixed use project. The forecasted chang-
es in traffic noise levels over existing levels were calculated
for both future scenarios, and noise impact risks evaluated. The
relative contributions of non-project and project traffic to the
total noise levels were also calculated, and an evaluation of pos-
sible traffic noise impacts was made.
Calculations of average exterior and interior noise levels
from construction activities were performed for typical naturally
ventilated and air conditioned dwellings. Predicted noise levels
were compared with existing background ambient noise levels, and
the potential for noise impacts was assessed. Potential noise im-
pacts from the on-site parking garage, mechanical equipment, and
commercial operations were also discussed, and mitigation measures
recommended.

CHAPTER V. EXISTING NOISE ENVIRONMENT

The existing traffic noise levels in the project eniron-
ons along King and Hotel Streets are in the "Significant Exposure,
Normally Unacceptable" category in the project enironons. Along
Maunakea and River Streets, existing traffic noise levels are also
in the "Significant Exposure, Normally Unacceptable" category due
to the influence of traffic noise from King and Hotel Streets. In
the interior portions of the project site, where direct line-of-
sight conditions to King or Hotel Street do not exist due to ob-
s tructions by existing buildings, the existing traffic noise levels
are lower and in the "Moderate Exposure, Acceptable" category.
The results of the December 1990 traffic and background ambi-
 enent noise measurements are summarized in TABLE 2, with measurement
 locations identified in FIGURE 3. All measurement sites were lo-
 cated at street level. As shown in TABLE 2, correlation between
 measured and predicted traffic noise levels were good at all me-
asurements sites.

Results of calculations of existing (CY 1991) traffic noise
levels during the AM peak hour period are shown in TABLE 3. The
results of the calculations apply at 50 FT distances from the cen-
terlines of the roadway sections in the project enironons. Calcu-
lated setback distances from these roadways to the existing 65,
70, and 75 Ldn contours are shown in TABLE 4. Along River and
Maunakea Streets, existing traffic noise levels and noise contour
setback distances are generally greater than those indicated in
TABLES 3 and 4 due to the added noise contributions from King and
Hotel Streets when direct line-of-sight conditions exist to these
noisier streets. As indicated in the tables, the existing noise
levels associated with traffic on King and Hotel Streets are very
high and are greater than 65 Ldn.
The traffic noise levels shown in the tables only apply when
unobstructed line-of-sight conditions exist to the roadways.
These conditions would generally occur at short (25 to 100 FT)
TABLE 3
COMPARISONS OF EXISTING AND 1994 TRAFFIC NOISE LEVELS
AARON ACCESS ROADS TO PROJECT SITE
(AM PEAK HOUR AND 50 FT FROM ROADWAY CENTERLINES)

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>SPEED</th>
<th>65 Ldn</th>
<th>70 Ldn</th>
<th>75 Ldn</th>
<th>ALL VEH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(MPH)</td>
<td>AUTO</td>
<td>HT</td>
<td>HT</td>
<td>ALL VEH</td>
</tr>
<tr>
<td>EXISTING (CT 1991) AM PEAK HR. TRAFFIC:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>King St. NW of River St.</td>
<td>36</td>
<td>2,151</td>
<td>67.6</td>
<td>63.6</td>
<td>70.4</td>
</tr>
<tr>
<td>King St. NW of Kekaulike St.</td>
<td>36</td>
<td>2,161</td>
<td>67.3</td>
<td>63.3</td>
<td>70.3</td>
</tr>
<tr>
<td>King St. NW of Maunakea St.</td>
<td>36</td>
<td>1,567</td>
<td>67.2</td>
<td>63.2</td>
<td>70.1</td>
</tr>
<tr>
<td>Hotel St. Bus Mall</td>
<td>32</td>
<td>91</td>
<td>0.0</td>
<td>0.0</td>
<td>70.1</td>
</tr>
<tr>
<td>Maunakea St. NE of King St.</td>
<td>20</td>
<td>575</td>
<td>50.3</td>
<td>49.0</td>
<td>50.1</td>
</tr>
<tr>
<td>River St. NE of King St.</td>
<td>20</td>
<td>367</td>
<td>50.2</td>
<td>49.5</td>
<td>55.5</td>
</tr>
</tbody>
</table>

CT 1994 AM PEAK HR. TRAFFIC WITH THE PROJECT:

<table>
<thead>
<tr>
<th>STREET SECTION</th>
<th>65 Ldn SETBACK (FT)</th>
<th>70 Ldn SETBACK (FT)</th>
<th>75 Ldn SETBACK (FT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>King St. NW of River St.</td>
<td>EXISTING CT 1994</td>
<td>EXISTING CT 1994</td>
<td>EXISTING CT 1994</td>
</tr>
<tr>
<td>King St. NW of Kekaulike St.</td>
<td>339</td>
<td>376</td>
<td>107</td>
</tr>
<tr>
<td>King St. NW of Maunakea St.</td>
<td>318</td>
<td>341</td>
<td>101</td>
</tr>
<tr>
<td>Hotel St. Bus Mall</td>
<td>310</td>
<td>333</td>
<td>98</td>
</tr>
<tr>
<td>Maunakea St. NE of King St.</td>
<td>196</td>
<td>196</td>
<td>62</td>
</tr>
<tr>
<td>River St. NE of King St.</td>
<td>15</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Hotel Street Bus Mall</td>
<td>33</td>
<td>33</td>
<td>101</td>
</tr>
</tbody>
</table>

Note:

1. The following assumed traffic mixes of autos, medium trucks, and heavy vehicles were used for existing and future conditions:

a. Along King Street: 94% autos, 2.4% medium trucks, and 3.6% heavy trucks and buses.

b. Along Hotel Street: 9% autos, 0% medium trucks, and 100% heavy trucks and buses.

c. Along River Street: 92.9% autos, 4.4% medium trucks, and 2.7% heavy trucks and buses.

d. Along Maunakea Street: 96.5% autos, 3.3% medium trucks, and 0.2% heavy trucks and buses.

TABLE 4
EXISTING AND 1994 DISTANCES TO 65, 70, AND 75 Ldn CONTOURS

Note:

1. All setback distances are from the roadways' centerline.
2. See TABLE 3 for traffic volume, speed, and mix assumptions.
3. Setback distances are for unobstructed line-of-sight conditions.
4. Hard ground conditions assumed along all roadways.
5. Ldn assumed to be 0.5 dB greater than AM Peak Hour Ldn along King St.
6. Ldn assumed to be 0.8 dB greater than AM Peak Hour Ldn along Hotel St.
7. Ldn assumed to be 4.6 dB greater than AM Peak Hour Ldn along River and Maunakea Streets.
distances to a roadway, within any flat, open space along the roadway, and at distant, but elevated locations above the roadway. The existing traffic noise levels shown in the tables should be reduced by 3 to 5 dB (or Ldn) if partial shielding (line-of-sight obstruction) exists between the roadway and the receptor location. If the receptor is located behind a major obstruction (large building), the noise levels in the tables and figures should be reduced by 5 to 10 dB.

CHAPTER VI. FUTURE TRAFFIC NOISE ENVIRONMENT

Predictions of future traffic noise levels were made using the traffic volume assignments of Reference 4 for CY 1994 with and without the proposed project. The future projections of project plus non-project traffic noise levels on the roadways which would service the project are shown in TABLE 3 for the AM peak hour of traffic. As indicated in TABLE 3, traffic noise levels are predicted to increase by 0.3 to 0.8 dB during the AM peak hour along King, Haunakea, and River Streets. Future noise levels along the Hotel Street Bus Mall were assumed to remain unchanged from current values. These predictions assume that average vehicle speeds and traffic mix will not change from current conditions. The dominant traffic noise sources in the project area will continue to be general traffic noise along King Street and bus noise along the Hotel Street Mall, but the increases in the levels of these noise sources following project build-out are not expected to be significant.

TABLE 4 summarizes the predicted setback distances to the 65, 70, and 75 Ldn traffic noise contour lines along the roadways servicing the project and attributable to both project plus non-project traffic by CY 1994. The setback distances in TABLE 4 do not include the beneficial effects of noise shielding from buildings, or the detrimental effects of additive contributions of noise from intersecting streets or reflections from building walls. As indicated in TABLE 4, relatively large setback distances to the 65 and 70 Ldn contours from the centerlines of King and Hotel Streets are predicted to continue to exist in CY 1994.

TABLE 5 presents the predicted increases in traffic noise levels associated with non-project and project traffic by CY 1994, and as measured by the Ldn descriptor system. As indicated in TABLE 5, the increases in traffic noise along King Street and attributable to project traffic are predicted to be insignificant. Larger increases of 0.4 to 0.5 Ldn are expected from project traf-
TABLE 3
CALCULATIONS OF PROJECT AND NON-PROJECT TRAFFIC NOISE CONTRIBUTIONS (CY 1994)

<table>
<thead>
<tr>
<th>STREET SECTION</th>
<th>NON-PROJECT TRAFFIC</th>
<th>PROJECT TRAFFIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>King Street NW of River St.</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>King Street NW of Keaulike St.</td>
<td>0.3</td>
<td>-0.0</td>
</tr>
<tr>
<td>King Street NW of Maunakea St.</td>
<td>0.3</td>
<td>-0.0</td>
</tr>
<tr>
<td>Hotel Street Bus Mall</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Maunakea Street NE of King St.</td>
<td>0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>River Street NE of King St.</td>
<td>0.2</td>
<td>0.4</td>
</tr>
</tbody>
</table>

The table above shows the noise level increases (L10) due to project traffic compared to non-project traffic. The noise levels are measured in L10 (Leq), which is the average sound level over a specified time period.

Noise on River and Maunakea Streets. However, total traffic noise levels along River and Maunakea Streets are expected to be similar to existing levels due to the dominating influence of noise from King and Hotel Streets. Traffic noise increases attributable to project traffic will be difficult to measure and are predicted to be insignificant.

Calculations of future traffic noise levels at potential residential units of the project were performed based on available plans. Only commercial units are proposed to be located at ground floor level, with residential units located at the second thru fourth floor levels. The locations of the second floor residential units where noise level calculations were performed are shown in FIGURE 6. The results of the calculations are shown in TABLE 6. Receptors were assumed to be located along the north exterior walls of Units #6, #11, and #17 and along the south exterior walls of Units #16, #22, and #28. Noise calculations were performed for receiver elevations of 5', 19', 28', and 36' above ground level.

Based on the results of TABLE 6, it was concluded that all residential units which front King, Hotel, or Maunakea Streets will probably be exposed to exterior noise levels greater than 65 Ldn, and will be in the "Significant Exposure, Normally Unacceptable" category. Units which front Keaulike Street will also be exposed to levels in excess of 65 Ldn, unless they are located in the center of the block near Unit #11. Unit #16, and those directly above it (Units #19) may be exposed to levels of 76 Ldn due to their close proximity to King Street. The interior residential units on the third and fourth floors should be adequately shielded from traffic noise, and should be within the "Moderate Exposure, Acceptable" category.
### Table 6

**Predicted Future Traffic Noise Levels vs. Receptor Location and Elevation**

<table>
<thead>
<tr>
<th>Receptor Location</th>
<th>Noise Source</th>
<th>Field of View</th>
<th>Miles to Exposure</th>
<th>L95 vs. Elevation (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5' / 10' / 20' / 30'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit #5</td>
<td>King Street</td>
<td>22'</td>
<td>63 / 70 / 80 / 86.6</td>
<td></td>
</tr>
<tr>
<td>Unit #6</td>
<td>Hotel Street</td>
<td>61'</td>
<td>63.5 / 69.4 / 66.3 / 60.2</td>
<td></td>
</tr>
<tr>
<td>Unit #11</td>
<td>King Street</td>
<td>160'</td>
<td>60.5 / 60.4 / 60.4 / 60.4</td>
<td></td>
</tr>
<tr>
<td>Unit #11</td>
<td>Hotel Street</td>
<td>126'</td>
<td>61.5 / 61.4 / 61.4 / 61.4</td>
<td></td>
</tr>
<tr>
<td>Unit #17</td>
<td>King Street</td>
<td>80'</td>
<td>66.9 / 66.8 / 66.8 / 66.8</td>
<td></td>
</tr>
<tr>
<td>Unit #17</td>
<td>Hotel Street</td>
<td>230'</td>
<td>51.3 / 51.0 / 51.0 / 51.0</td>
<td></td>
</tr>
<tr>
<td>Unit #19</td>
<td>King Street</td>
<td>177'</td>
<td>60.7 / 60.5 / 60.5 / 60.5</td>
<td></td>
</tr>
<tr>
<td>Unit #19</td>
<td>Hotel Street</td>
<td>250'</td>
<td>60.8 / 60.7 / 60.7 / 60.6</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>King Street</td>
<td>111'</td>
<td>60.7 / 60.5 / 60.5 / 60.5</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>Hotel Street</td>
<td>220'</td>
<td>57.1 / 57.1 / 57.1 / 57.0</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>Mahon Run St.</td>
<td>25'</td>
<td>63.3 / 63.0 / 62.6 / 62.2</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>Mahon Run St.</td>
<td>25'</td>
<td>60.9 / 60.7 / 60.7 / 60.6</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>Mahon Run St.</td>
<td>100'</td>
<td>57.1 / 57.1 / 57.1 / 57.0</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>Mahon Run St.</td>
<td>220'</td>
<td>60.7 / 60.5 / 60.5 / 60.5</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>Mahon Run St.</td>
<td>25'</td>
<td>63.3 / 63.0 / 62.6 / 62.2</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>Mahon Run St.</td>
<td>100'</td>
<td>60.9 / 60.7 / 60.7 / 60.6</td>
<td></td>
</tr>
<tr>
<td>Unit #23</td>
<td>Mahon Run St.</td>
<td>220'</td>
<td>60.7 / 60.5 / 60.5 / 60.5</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 6**

*2nd Floor Residential Units Where Noise Predictions Were Performed*
CHAPTER VII. DISCUSSION OF PROJECT RELATED NOISE IMPACTS AND POSSIBLE MITIGATION MEASURES

Traffic Noise. Impacts from traffic noise are possible at the proposed project dwelling units which face King, Hotel, and Maunakea Streets, and at some of the project dwelling units which face Kekaulike Mall. Similar conclusions will also apply to dwelling units which front River Street. For those units which are exposed to exterior noise levels greater than 70 Lin, minimum exterior-to-interior noise reductions of approximately 25 dB are required to achieve an interior noise level of 45 Lin, which is the maximum recommended level of interior noise which minimizes risks of adverse health and welfare effects. This level of exterior-to-interior noise reduction is not difficult to obtain with standard construction materials and methods, but requires total closure and air conditioning. For those units which are exposed to exterior noise levels between 65 and 70 Lin, window sound attenuators or treated ventilation openings are possible means of mitigating the high traffic noise levels and meeting FHA/HUD noise standards.

Parking Garage and Other On-Site Sources. The parking garage and commercial areas are expected to be separated from the residential units. The underground parking garage and commercial areas will occupy the lower levels, while the residential units will occupy the upper levels. This vertical separation should be adequate to minimize potential noise conflicts within this mixed use project. Audible squeal noise from the circulation and parking areas of the project are possible. Tire squeal noise can usually be controlled through the use of a brushed or other coarse finish on the circulation driveways, and this type of treatment is recommended as a mitigation measure.

Mechanical equipment, such as air conditioning chillers or cooling towers, kitchen exhaust fans, and garage ventilation fans are the primary on-site noise sources expected to be located on the project site. This equipment, singly or together, has the potential of exceeding the allowable property line noise limits of the State DOH noise regulations (Reference 4). The State DOH noise limits which apply along the property boundaries of apartment or business districts are 60 dB and 50 dB during the daytime and nighttime periods, respectively. Typical noise levels of untreated mechanical equipment are significantly higher (by at least 10 dB) than the allowable DOH noise limits, such that sound attenuation treatment of the mechanical equipment will probably be required for compliance with DOH regulations. In addition, compliance with the Octave Band limits as contained within Honolulu's Land Use Ordinance (Section 3.100) will be required. Because the residual background ambient noise levels in the project area are similar to the State DOH noise limits, compliance with the DOH noise limits should minimize risks of adverse noise impacts on neighboring properties and within the project area.

General Construction Noise. Audible construction noise will probably be unavoidable during the entire project construction period. The total time period for construction is unknown, but it is anticipated that the actual work will be moving from one location on the project site to another during that period. Actual length of exposure to construction noise at any receptor location will probably be less than the total construction period for the entire project. Typical levels of exterior noise from construction activity (excluding pile driving activity) are shown in FIGURE 7. The impulsive noise levels of impact pile drivers are approximately 15 dB higher than the levels shown in FIGURE 7, while the intermittent noise levels of vibratory pile drivers are at the upper end of the noise level ranges depicted in the figure. Typical levels of construction noise inside naturally ventilated and air conditioned structures are approximately 10 and 20 dB less, respectively, than the levels shown in FIGURE 7. The business establishments and apartment units within the neighboring buildings are predicted to experience the highest noise levels during
construction activities due to their close proximity (within 100 ft) to the construction site. Adverse impacts from construction noise are not expected to be in the "public health and welfare" category due to the temporary nature of the work and due to the administrative controls available for regulation of construction noise.

Mitigation of construction noise to inaudible levels will not be practical in all cases due to the intensity of construction noise sources (80 to 90+ dB at 50 ft distance), and due to the exterior nature of the work (pile driving, grading and earth moving, trenching, concrete pouring, hammering, etc.). The use of properly muffled construction equipment should be required on the job site.

The incorporation of State Department of Health construction noise limits and curfew times, which are applicable on the island of Oahu (Reference 4), are other noise mitigation measures which are normally applied to construction activities. TABLE 7 depicts the allowed hours of construction for normal construction noise (levels which do not exceed 95 dB at the project's property line) and for construction noise which exceeds 95 dB at the project's property line. Noisy construction activities are not allowed on holidays, Saturdays, Sundays, during the early morning, and during the late evening periods under the DOH permit procedures.
### TABLE 7

**AVAILABLE WORK HOURS UNDER DOH PERMIT PROCEDURES FOR CONSTRUCTION NOISE**

<table>
<thead>
<tr>
<th>Day</th>
<th>Normal Permit</th>
<th>Weekend Permit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekdays</td>
<td>55.0</td>
<td>11/0</td>
</tr>
<tr>
<td>Sat/Sun</td>
<td>60.0</td>
<td>60.0 hrs</td>
</tr>
<tr>
<td>Weekly</td>
<td>60.0</td>
<td></td>
</tr>
</tbody>
</table>

#### APPENDIX A. NOISE IMPACT REFERENCES

4. "Title 11, Administrative Rules, Chapter 43, Community Noise Control for Oahu"; Hawai'i State Department of Health; November 6, 1981.
6. Traffic Data and Assignments for Kaka'ako Revitalization Project (Draft); Wilbur Smith Associates; December 1990.
7. October 31 to November 1, 1990; 24-Hour Traffic Counts; Meter 9667; King Street Northwest of Maunakea Street; Department of Transportation Services; City and County of Honolulu.
8. October 31 to November 1, 1990; 24-Hour Traffic Counts; Meter 9330; Maunakea Street Northeast of King Street; Department of Transportation Services; City and County of Honolulu.
9. Transmittal from Wilbur Smith Associates dated 1/7/91 containing Hotel Street Bus Volumes.
APPENDIX B

EXCERPTS FROM EPA'S ACOUSTIC TERMINOLOGY GUIDE

Noise Level Units

The recommended symbols for the commonly used acoustics descriptors based on A-weighting are contained in Table I. As noted in previous sections, aedes are derived from the A-weighted sound level, almost all descriptor symbols whose reference is contained in Table I.

When acoustics measures include weighting networks other than A and measuring other than pressure, the acoustics data are not usually expressed in terms of sound pressure level in the same way that the A-weighted sound level is. Instead, an expression in terms of the equivalent continuous sound level at a reference level of 0.0 microbars should be used. The level at which the noise is measured should also be stated.

Table I also contains a list of the commonly used symbols for acoustics descriptor symbols, along with the corresponding A-weighted descriptors.

Table I

<table>
<thead>
<tr>
<th>TERM</th>
<th>SYMBOL</th>
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<tbody>
<tr>
<td>A-Weighted Sound Level</td>
<td>L_A</td>
</tr>
<tr>
<td>A-Weighted Sound Power Level</td>
<td>L_WA</td>
</tr>
<tr>
<td>Maximum A-Weighted Sound Level</td>
<td>L_max</td>
</tr>
<tr>
<td>Peak A-Weighted Sound Level</td>
<td>L_ApK</td>
</tr>
<tr>
<td>Level Exceeded x% of the Time</td>
<td>L_x</td>
</tr>
<tr>
<td>Equivalent Sound Level</td>
<td>L_eq</td>
</tr>
<tr>
<td>Equivalent Sound Level over Time (f)</td>
<td>L_eq(Y)</td>
</tr>
<tr>
<td>Day Sound Level</td>
<td>L_d</td>
</tr>
<tr>
<td>Night Sound Level</td>
<td>L_n</td>
</tr>
<tr>
<td>Day-Night Sound Level</td>
<td>L_dn</td>
</tr>
<tr>
<td>Yearly Day-Night Sound Level</td>
<td>L_dn(Y)</td>
</tr>
<tr>
<td>Sound Exposure Level</td>
<td>L_SE</td>
</tr>
</tbody>
</table>

(1) Unless otherwise specified, time is in hours (e.g., the hourly equivalent level is L_1h).

SOURCE: EPA ACOUSTIC TERMINOLOGY GUIDE, BNA 8-14-78, NOISE REGULATION REPORTER.
## APPENDIX B (CONTINUED)

**TABLE II**

RECOMMENDED DESCRIPTOR LIST

<table>
<thead>
<tr>
<th>TERM</th>
<th>A-WEIGHTING</th>
<th>ALTERNATIVE(1)</th>
<th>OTHER(2)</th>
<th>A-WEIGHTING</th>
<th>WEIGHTING</th>
<th>UNWEIGHTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sound (Pressure) (3) Level</td>
<td>$L_A$</td>
<td>$L_{PA}$</td>
<td>$L_B$</td>
<td>$L_{PB}$</td>
<td>$L_p$</td>
<td></td>
</tr>
<tr>
<td>2. Sound Power Level</td>
<td>$L_{WA}$</td>
<td>$L_{WB}$</td>
<td></td>
<td>$L_w$</td>
<td></td>
<td></td>
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<tr>
<td>3. Max. Sound Level</td>
<td>$L_{max}$</td>
<td>$L_{Amax}$</td>
<td>$L_{Bmax}$</td>
<td>$L_{pmax}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Peak Sound (Pressure) Level</td>
<td>$L_{Apk}$</td>
<td>$L_{Bpk}$</td>
<td>$L_{p}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Level Exceeded x% of the time</td>
<td>$L_x$</td>
<td>$L_{Ax}$</td>
<td>$L_{Bx}$</td>
<td>$L_{px}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Equivalent Sound Level</td>
<td>$L_{eq}$</td>
<td>$L_{Aeq}$</td>
<td>$L_{Beq}$</td>
<td>$L_{peq}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Equivalent Sound Level (4) Over Time(T)</td>
<td>$L_{eq}(T)$</td>
<td>$L_{Aeq(T)}$</td>
<td>$L_{Beq(T)}$</td>
<td>$L_{peq(T)}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Day Sound Level</td>
<td>$L_d$</td>
<td></td>
<td>$L_{Ad}$</td>
<td>$L_{pd}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Night Sound Level</td>
<td>$L_n$</td>
<td>$L_{An}$</td>
<td>$L_{Bn}$</td>
<td>$L_{pn}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Day-Night Sound Level</td>
<td>$L_{dn}$</td>
<td>$L_{Adn}$</td>
<td>$L_{Bdn}$</td>
<td>$L_{pnd}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Yearly Day-Night Sound Level</td>
<td>$L_{dn}(Y)$</td>
<td>$L_{Adn(Y)}$</td>
<td>$L_{Bdn(Y)}$</td>
<td>$L_{pndn(Y)}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Sound Exposure Level</td>
<td>$L_S$</td>
<td>$L_{SA}$</td>
<td>$L_{SB}$</td>
<td>$L_{Sp}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Energy Average value over (non-time domain) set of observations</td>
<td>$L_{eq(e)}$</td>
<td>$L_{Aeq(e)}$</td>
<td>$L_{Beq(e)}$</td>
<td>$L_{peq(e)}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Level exceeded x% of the total set of (non-time domain) observations</td>
<td>$L_{x(e)}$</td>
<td>$L_{Ax(e)}$</td>
<td>$L_{Bx(e)}$</td>
<td>$L_{px(e)}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Average $L_x$ value</td>
<td>$L_x$</td>
<td>$L_{Ax}$</td>
<td>$L_{Bx}$</td>
<td>$L_{px}$</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) "Alternative" symbols may be used to assure clarity or consistency.
(2) Only B-weighting shown. Applies also to C,D,E-..-weighting.
(3) The term "pressure" is used only for the unweighted level.
(4) Unless otherwise specified, time is in hours (e.g., the hourly equivalent level in $L_{dn}$). Time may be specified in non-qualitative term (e.g., could be specified as $L_{dn}(T)$) to mean the weighting cycle not of a existing machine.
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<td>4-7</td>
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<tr>
<td>5. TRAFFIC MITIGATION MEASURES</td>
<td>5-1</td>
</tr>
</tbody>
</table>

APPENDIX A
1. INTRODUCTION

The Kaka‘ako Revitalization Project is a proposed commercial/residential facility located within the historic Chinatown district of Honolulu. The project entails the partial redevelopment of two blocks along the ewa and kokohele sides of Kaka‘ako Street. (See Figure 1 for the project location). Currently, 24 businesses and housing for 150 residents occupy the project site along with an 83-stall city-owned parking lot.

The present plans for the project, as proposed by the City and County of Honolulu, consists of constructing two new building structures providing residential and commercial space, a parking garage and a pedestrian mall. The pedestrian mall will be created by closing the short section of Kaka‘ako Street across of King Street. Current plans indicate the kokohele block development will consist of 78 apartment units on floors two through five, 6,322 square feet of commercial space on the first floor and 174 total parking stalls on the basement, first and second floors. In addition, the ewa block development will consist of 78 apartment units on the upper floors and 6,514 square feet of commercial space on the ground floor. The project is expected to be fully constructed and occupied by January, 1994.

The purpose of this traffic study is to assess the potential impacts that the project-generated traffic and project-related circulation changes will have on the traffic conditions of the adjacent roadway system. This study will address:

1. Forecasted future traffic volume increases and traffic movement changes on adjacent roadways and intersections providing access to the project site;

2. The project potential impact on the quality of traffic flow at the following 10 signalized intersections:
   - Beretania/Queen;
   - Beretania/Maunakea;
   - King/Queen;
   - King/Kaka‘ako;
3. The assessment of potential traffic problems, and the identification of mitigation measures to minimize undesirable traffic conditions as a result of the project; and

4. Proposed parking lot vehicular ingress/egress.

The following chapters of this report involve the examination of three traffic conditions at the project study area. Each condition is developed and evaluated using traffic engineering principles and methods.

First, existing traffic conditions on adjacent roadways at the project site are researched, collected and evaluated. Second, future traffic conditions without the project are estimated and evaluated. Third, future traffic conditions with the project-generated traffic are estimated, evaluated and compared to the other conditions to identify potential problems created by the project.

Mitigation measures are investigated to minimize the undesirable traffic conditions related to the project.
2. EXISTING TRAFFIC CONDITIONS

The proposed project site is divided by Kekaulike Street into a kokohead block plus an ewa block development. The ewa parcel is located at the makai/ewa corner of Hotel Street and Kekaulike Street. The kokohead block is located between Kekaulike Street and Maunakea Street with portions of the property at the corners of Hotel/Kekaulike and Maunakea/King Streets. The adjacent ewa block is located between Kekaulike Street and River Street with major portions of the property tangent to Hotel Street and Kekaulike Street.

Currently occupying the project site are 24 small businesses and housing for 150 residents. Furthermore, on the project site exists an 83-stall city-owned parking lot primarily used by patrons and workers of nearby businesses. Businesses in the general area consist of many restaurants, various fish, meat and vegetable markets, and numerous antique jewelry, art, lei and gift shops.

Existing Roadway System and Parking Facility

The study area for this project is bounded by Beretania Street, Nimitz Highway, River Street, and Bethel Street. The roadway network within the project study area is a street grid configuration comprised of several major arterial class roadways plus secondary or collector roadways.

Major arterial roadways under study in the project area primarily carry ewa- and kokohead bound through traffic. These roadways are characterized by heavy traffic volumes and by roadway geometry of at least four traffic lanes or greater. The arterials in the study area are identified as follows:

1. **Beretania Street** - This six-lane arterial is one-way ewa bound through the Downtown area to Maunakea Street, where it becomes a two-way street with four-lanes ewa bound and two lanes kokohead bound. Major bus routes travel ewa bound on Beretania Street.

2. **King Street** - King Street is a major one-way arterial with four lanes kokohead bound. Major bus routes exist along King Street. Significant pedestrian volumes were observed to occur along King Street in the Chinatown area. Parallel parking is permitted during nighttime hours and weekends in the mauka-most lane.

3. **Nimitz Avenue** - This is an eight-lane major two-way arterial with four lanes ewa bound and four lanes kokohead bound.

Several secondary roadways provide access to the local businesses in the Chinatown District and distribute traffic to the major arterial roadways that carry through traffic. The secondary roadways in the study area carry kokohead/ewa bound and mauka/makai bound traffic and are identified as follows:

1. **River Street** - This two-lane secondary two-way roadway services mauka/makai bound traffic. At major intersections River Street is pavement marked to 3 or 4 lanes. Parallel parking is permitted on some portions of the street.

2. **Kekaulike Street** - This two-lane secondary one-way roadway services makai bound traffic makai of King Street and becomes two-way mauka of King Street. Parallel parking is permitted. Mauka of King Street, parallel parking on Kekaulike consists of six parking spaces and short-term loading zones.

3. **Maunakea Street** - This two-lane secondary one-way roadway services mauka bound traffic mauka of King Street and becomes two-way makai of King Street. Parallel parking is permitted.

4. **Smith Street** - This two-lane secondary one-way roadway services makai bound traffic.

5. **Nanakuli Avenue** - This three-lane secondary one-way roadway services makai bound traffic. Double left-turn lanes and a single right-turn lane to ewa-
Existing Traffic Volumes

Weekday traffic movement counts were obtained from various existing sources. Wilbur Smith Associates conducted traffic movement counts for the intersection of Maunakea Street/King Street. Additional types of traffic data were also collected such as signal timings, pedestrian counts, bus counts and parking lot turnover counts. All traffic observations were performed in the period from November 28, 1990 through December 4, 1990. The current 1991 traffic volumes for the weekday AM and PM peak hour volumes are shown in Figures 2 and 3, respectively.

Adjacent Roadway System Traffic Volumes

Average Daily Traffic Volumes (ADT) on the major arterial roadways of Nimitz Highway, King Street and Beretania Street are currently in the range of 65,000 vehicles, 20,000 vehicles and 26,000 vehicles respectively. Peak hour traffic volumes along these roadways for the weekday AM and PM peak periods vary between 1,200 and 3,000 vehicles per travel direction. Peak hour volumes occur from 7:15 AM - 8:15 AM and 4:15 PM - 5:15 PM. The largest traffic turning movements into the project area in the AM and PM peak hours occur from Nimitz Highway at the Bethel, Smith and River Streets intersection and from Beretania Street at the Maunakea and River Streets intersections. Turning movements at these locations vary from 100 to 300 vehicles per movement. Through traffic on King Street near the project site ranges from 1,700 to 1,900 vehicles per hour.

On secondary streets, ADT volumes vary in the range of 2,000 to 12,000 vehicles with Nuuanu Avenue having the highest ADT of 12,000 vehicles and Maunakea Street having 9,000 vehicles at the project site. Peak hour traffic turning volumes along the secondary roadways at the intersections with the major arterial roadways entering and leaving the project area are in the range of 100 to 300 vehicles.

Left turning movements at the Maunakea and King Streets intersection are nearly the same in both the AM and PM peak hours at about 300 vehicles. However, the through movement at this intersection shows considerable variability with the AM volume about twice the
PM volume. The highest turning movement volumes in the project study area occur at the Nimitz Highway/Nuanu Avenue intersection in the AM and PM peak hours.

Parking Facility Traffic Volumes

Traffic data was collected on the existing 83 stall parking lot by counting vehicles during peak traffic hours entering the lot and parking and vehicles pulling out of a stall and exiting. Entering and exiting occurs at both access points on Kekauoia and Manoa Road Streets. Non-parking vehicles observed passing through the lot were minor although the majority of these trips were passenger drop offs. A few of the pass through trips were loading/unloading small trucks and vans likely servicing local businesses.

During the AM peak period, the parking lot was observed to fill very quickly with 100 vehicles entering and 44 vehicles exiting. A vehicle trip rate per parking stall was calculated by dividing the number of inbound and outbound trips by the current number of existing 83 parking stalls. Inbound and outbound trip rates of 1.2 trips/stall and 0.53 trips/stall, respectively, were calculated from the traffic counts.

Unlike the AM peak hour period, the PM peak hour parking lot usage was observed to be balanced with 84 and 53 vehicles entering and exiting the parking facility, respectively. Inbound and outbound trip rates of 1.01 trips/stall and 1.12 trips/stall respectively were calculated. These parking lot turnover rates will be used in a later chapter to estimate the traffic generated by the new project.

Evaluation of Existing Traffic Conditions

Using the traffic volumes developed earlier in this chapter [shown in Figures 2 and 3] that represent the existing weekday traffic volumes, a traffic analysis was performed to determine the existing traffic conditions. The traffic analysis in this report includes 10 intersections in the project study area. These intersections were chosen for analysis as being the most likely intersections to be impacted by the Kekauoia Revitalization Project and by future developments included in the project study area.

A computerized analysis was performed for the existing traffic volumes to determine how the intersections are functioning under the current traffic control of intersection geometry, traffic signal timing and phasings. Comprehensive traffic factors were included as inputs in the analysis from previously collected data such as bus stops, parallel parking maneuvers and pedestrian crossing volumes. The intersections' characteristics of volume/capacity (V/C) ratios, average vehicle delay and level-of-service (LOS) were determined using the Operational Analysis methodology as described in the 1985 Highway Capacity Manual. The LOS criteria for signalized intersection evaluation on traffic flow conditions and measure of traffic congestion and delay is explained in Appendix A.

The summary of current traffic operations during the weekday AM and PM peak hour periods is summarized in Table 1. The traffic analysis indicates that nearly all the intersections are currently operating at acceptable level-of-service ratings in the ranges of LOS A to LOS D. Six intersections were calculated to have a level of service of B or better in the AM and PM peak hour periods. The analysis indicates theoretical volume-to-capacity ratios generally indicate low to moderate intersection capacity usage.

The analysis further indicates two intersections to be currently operating at undesirable traffic conditions. The NimitzRiver and Nimitz/Nuanu intersections were identified as having level-of-service ratings of LOS F. Although the overall volume-to-capacity ratios for these intersections were determined to be below 1.0, the LOS F rating was caused by one or more traffic movements having a volume-to-capacity ratio greater than 1.2. The analysis methodology can not calculate a delay or define a level-of-service where one or more lanes have a calculated volume-to-capacity ratio greater than 1.2. The level-of-service of such a condition is considered LOS F. The southbound approaches at Nimitz/River and Nimitz/Nuanu intersections, where large turning movements occur, are indicated to have volume-to-capacity ratios greater than V/C 1.2. In general, lane groups having V/C ratios near 1.0 significantly influence overall level of service, delay and volume-to-capacity ratios.
Table 1

1991 EXISTING TRAFFIC INTERSECTION ANALYSIS SUMMARY
Kahului Revitalization Project
Traffic Impact Study

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VC</td>
<td>Delay</td>
</tr>
<tr>
<td>1. Beretania/River</td>
<td>0.63</td>
<td>6.0</td>
</tr>
<tr>
<td>2. Beretania/Maunakea</td>
<td>0.90</td>
<td>14.0</td>
</tr>
<tr>
<td>3. King/River</td>
<td>0.60</td>
<td>7.6</td>
</tr>
<tr>
<td>4. King/Kahului</td>
<td>0.50</td>
<td>4.7</td>
</tr>
<tr>
<td>5. King/Maunakea</td>
<td>0.68</td>
<td>11.2</td>
</tr>
<tr>
<td>6. King/Swein</td>
<td>0.50</td>
<td>4.3</td>
</tr>
<tr>
<td>7. Niniki/River</td>
<td>0.80</td>
<td>*</td>
</tr>
<tr>
<td>8. Niniki/Swein</td>
<td>0.53</td>
<td>1.2</td>
</tr>
<tr>
<td>9. Niniki/Namani</td>
<td>0.75</td>
<td>15.0</td>
</tr>
<tr>
<td>10. Niniki/Bethel</td>
<td>0.07</td>
<td>8.5</td>
</tr>
</tbody>
</table>

* = Vehicle-to-capacity for a lane group >1.2, methodology limits exceeded.


Field Observations

Field observations of existing traffic operations through the project study area were conducted. Field observations are useful in identifying vehicle delays and traffic circulation problems that cannot be identified or reflected in a capacity analysis. Overall, the major arterial roadway system was observed to function at level of service levels less than the theoretical capacity analysis indicators. Occasional instances were observed of signal cycle failure on the King Street and Niniki Street arterials. Although the existing intersection analyses for these arterials show the intersections have the capacity to service the current traffic volumes with little traffic congestion or delays, traffic capacity problems existing beyond the project study area are most likely influencing the traffic flow conditions within the project study area.

Signal cycle failure was commonly observed, particularly for vehicles turning left from Maunakea Street to King Street. Traffic stackup was observed to occur beyond the Hotel Street intersection to the Pauahi Street intersection. Further observation of the left turn movement from Maunakea Street indicated driver hesitations induced by right turning vehicles from the makai approach of Maunakea Street. In addition, left and right turning vehicles were observed to be delayed by pedestrians crossing King Street during that phase of traffic movement. The observed effects of driver hesitation due to the simultaneous right and left turns by opposing vehicles, coupled with pedestrian crossings of King Street, added considerable delay to vehicles turning from Maunakea Street. These effects are not fully reflected in the HCM analysis and the resultant V/C ratio, delay time, or levels-of-service.

Furthermore, traffic behavior of interest in the project area occurred at the existing parking lot entrances and exits on Maunakea Street. Sight distance for vehicles turning into the lot is very limited at the driveway entrance, vehicles entering the lot driveway slow to very low speeds, delaying through vehicles on Maunakea Street. Furthermore, parking of vehicles out of the parking lot, because of searching vehicles, occurred, which created blockage of the makai bound through lane of Maunakea Street. Exiting vehicles from the parking lot Maunakea Street exit were sometimes blocked in by the signal light traffic and unable to merge into the Maunakea Street traffic stream.

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2.7
Vehicles trying to maneuver out of the existing Maunakea Street parking lot driveway into the far left-turning lane on Maunakea Street had difficulty completing this maneuver during congested periods. These vehicles would often pull into and block the main direction through traffic lane while waiting for a gap in traffic using the left-turn lane.

3. 1994 TRAFFIC CONDITIONS WITHOUT THE PROPOSED PROJECT

The Kakuluakia Revitalization Project is currently planned to be constructed and occupied by January, 1994. Therefore, the beginning of 1994 is the traffic forecast year used in this analysis.

The purpose of this chapter is to estimate the future traffic volumes and analyze the traffic conditions expected to occur without development of the study project. The traffic analysis in this chapter will be used to compare to another set of traffic conditions developed in the next chapter which includes project traffic.

The future traffic volumes without the project were estimated to reflect historic traffic growth characteristics in the study area, and those known planned developments that will occur within the study area by 1994. A computer analysis was conducted for the key intersections using the estimated traffic volumes.

**Yield Traffic Growth Rate**

Historical traffic volumes were researched through past yearly traffic counts or through other sources such as recently published traffic reports. The examination of past traffic volumes showed significant monthly as well as yearly traffic volume fluctuations on adjacent roadways. Growth rates from year to year could be negative or positive. However, over a 10-year period of time a minimal long-term growth rate of two percent was determined. A growth factor was calculated, based on the forecast year of the analysis, and multiplied to the existing traffic volumes to obtain an average estimate of the yearly traffic volume increases to the time of the study project.

**Planned Developments In Project Area**

Future land use redevelopments in the project area were identified that are expected to influence future traffic volumes in the project area within the project time frame. These developments are listed in Table 2 along with an estimate of the traffic generated by these projects. The generated traffic volumes were...
obtained from other traffic impact reports recently published on projects in the project study area. The largest traffic generator is the Harbor Court with about 500 total additional vehicle trips added in the AM and PM peak hours. The next highest trip generator is the Maunakea-Smith Parking Lot Redevelopment with an additional 200 trips in the project area. This project is located near the Kakaako Redevelopment Project and is expected to have the greatest impacts of all the planned developments in the immediate vicinity of the project. The locations of the planned developments by number designation are shown in Figures 4 and 5.

<table>
<thead>
<tr>
<th>No.</th>
<th>Development</th>
<th>Land Use</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chinatown Gateway Plaza</td>
<td>Commercial Office</td>
<td>54</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Waikiki Court Redevelopment Parking</td>
<td>Office</td>
<td>708</td>
<td>70</td>
</tr>
<tr>
<td>3</td>
<td>River St/Waikiki Hwy Apartments</td>
<td>Residential</td>
<td>77</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>Maunakea-Smith Parking Lot Redevelopment</td>
<td>Commercial Residential</td>
<td>115</td>
<td>101</td>
</tr>
</tbody>
</table>

**Future Traffic Volumes**

Future traffic volumes without the proposed project were estimated using the existing traffic volumes, the yearly traffic growth factor and the planned developments in the project area. The yearly traffic growth rate was used to compute a two-year growth factor. The growth factor was applied to all the existing traffic volumes from Figures 2 and 3. The resulting traffic volumes estimate two years of traffic growth in the project study area to the estimated completion date of the project in 1994.

The traffic generated from planned developments in the project area was distributed to the general roadway network and assigned to traffic movements at the 10 critical intersections analyzed in this report. The traffic generated from the projects was distributed to the major arterial roadways based on the proportion each carries of the total traffic entering and leaving the study area. The distribution factors for this project were calculated using peak hourly volumes of arterials inbound to and outbound from the project area.
Table 5

PROJECT-GENERATED TRAFFIC BY LAND USE
Kokoluua Revitalization Project Traffic Impact Study

<table>
<thead>
<tr>
<th>Parcel</th>
<th>Description</th>
<th>Total Units</th>
<th>AM Peak Hour</th>
<th></th>
<th>PM Peak Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rate</td>
<td>Total</td>
<td>Inbound</td>
<td>Outbound</td>
</tr>
<tr>
<td>Kokohead</td>
<td>Residential Units</td>
<td>78 RU</td>
<td>0.440</td>
<td>35</td>
<td>6</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>8,322 SF</td>
<td>2.31</td>
<td>19</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Ewa</td>
<td>Residential Units</td>
<td>78 RU</td>
<td>0.440</td>
<td>34</td>
<td>5</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Commercial</td>
<td>8,514 SF</td>
<td>2.31</td>
<td>15</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>38</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Kokohead*</td>
<td>Parking Stalls</td>
<td>174 cc.</td>
<td>0.21</td>
<td></td>
<td>0.39</td>
<td></td>
</tr>
</tbody>
</table>

*Kokohead Parking Garage

Distribution factors were calculated for Bannock, Nimitz, King, Nuuanu and Maunakea Streets. The planned development project-generated traffic was multiplied by the distribution factors which allocated the traffic to the outer limits of the general roadway network. The process of assignment of the distributed traffic to the 10 critical intersections analyzed in the project involved identifying the following information for each project:

1. Project driveway locations;
2. Traffic controls and roadway directions throughout the project study area; and
3. Logical vehicle routes inbound to and outbound from each project based on the adjacent roadway system.

Based on the identification of these factors, the traffic generated by the planned developments was assigned throughout the project study area roadway network and study intersections.

The resulting planned development traffic volumes assigned throughout the project area were added to the grown existing traffic volumes. The resulting weekday AM and PM traffic volumes are shown in Figures 4 and 5 respectively. Total future traffic increases over existing traffic volumes generally indicate an increase of 10% to 20%. Increased turning movements at nearly 50% occur at the intersections of Nimitz Highway with Beale, Nuuanu and Smith Streets. The large increases are attributed to the Harbor Cour and Chinatown Gateway Projects.

Evaluation of Future Traffic Conditions

Future traffic conditions were analyzed using the same methodology used to evaluate the existing traffic volumes in the previous chapter. The results of the analysis are summarized in Table 3. As compared to the existing traffic analysis, numerical changes in the theoretical signalized intersection factors were minor. Volume-to-capacity ratio values at all ten project area intersections increased by an additional value in the range of 0.02 to 0.12. Intersection delay increased, minor, at an additional rate of 0.3 to 0.5 seconds. Overall, intersection level-of-service remained at the same level or deteriorated by one level of service. Intersections previously identified as being sensitive to turning traffic movements because of high lane group V/C ratio developed rating level-of-service ratings. The Nimitz/Nuuanu Intersection during the AM period and the Nimitz/Kahului Streets intersection during the AM and PM periods exhibited significant change in delay and level-of-service ratings from the existing analysis, although the volume-to-capacity ratios changed very little. This condition is created whenever a lane group volume-to-capacity ratio exceeds 1.2, indicating a level-of-service of LOS F for that approach and the potential for undesirable traffic conditions developing.

Other problems revealed in the analysis involved amplifying previously identified problems. In general, critical approaches on intersections, particularly those having high turning volumes, exhibited increases in delay and corresponding decreases in level-of-service.

The findings of the analysis for the Maunakea/King Street intersection is of particular interest being the closest intersection to the site and likely the most impacted. Although the overall level-of-service is LOS B for AM and PM operations for existing traffic volumes and future traffic volumes without the project, the approach level of service remains at LOS D for traffic conditions near the proposed project site driveway.
Table 3

<table>
<thead>
<tr>
<th>Intersection</th>
<th>All Peak Hour</th>
<th>Full Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V/C</td>
<td>Delay</td>
</tr>
<tr>
<td></td>
<td>V/C</td>
<td>Delay</td>
</tr>
<tr>
<td>1. Beretania/Shea</td>
<td>0.48</td>
<td>9.5</td>
</tr>
<tr>
<td>2. Beretania/Ala moana</td>
<td>0.88</td>
<td>15.9</td>
</tr>
<tr>
<td>3. King/Shea</td>
<td>0.71</td>
<td>9.8</td>
</tr>
<tr>
<td>4. King/Poa'ihee</td>
<td>0.59</td>
<td>8.9</td>
</tr>
<tr>
<td>5. King/Moanalii</td>
<td>0.72</td>
<td>13.4</td>
</tr>
<tr>
<td>6. King/Silvers</td>
<td>0.57</td>
<td>6.8</td>
</tr>
<tr>
<td>7. Moanalii/Shea</td>
<td>0.83</td>
<td>+</td>
</tr>
<tr>
<td>8. Moanalii/Silvers</td>
<td>0.50</td>
<td>+</td>
</tr>
<tr>
<td>9. Moanalii/Bishop</td>
<td>0.70</td>
<td>+</td>
</tr>
<tr>
<td>10. Moanalii/Shea</td>
<td>0.60</td>
<td>1.4</td>
</tr>
</tbody>
</table>

* = Vehicle-to-capacity for a lane group >1.2, methodology limits exceeded.

Value Smith Assistant January 1986.

4. 1984 Traffic Conditions with Proposed Project

The Kaka'ako Revitalization Project involves the revitalization of a two-block area, as planned by the City and County of Honolulu Department of Housing and Community Development. Completion of project construction and full occupancy and facility use is currently projected by January, 1984.

The project consists of constructing two new building structures providing residential and commercial space, parking garage and a pedestrian mall. The project site is located along the Kaka'ako and Moanalii side of Kaka'ako Street. Current plans indicate that the Kaka'ako block development will consist of 78 apartment units, 5,522 square feet of commercial space on the ground floor, and a 174 stall parking garage. In addition, the Moanalii block development will consist of 78 apartment units, and an estimated 6,514 square feet of commercial space on the ground floor.

Current plans by vehicular ingress/egress to the project, as well as pedestrian circulation and roadway modifications consist of the following:

1. There will be one access point to the project parking facility. Vehicular entrance and exit will occur to and from Moanalii Street at a proposed driveway location near the present Kaka'ako parking lot driveways.

2. Kaka'ako Street between King Street will be closed and converted into a pedestrian mall. Loading/unloading for local or project business will be permitted.

3. The King Street traffic signal at Kaka'ako Street will remain to provide a projected pedestrian crossing.

4. Control of entering and exiting of the parking structure will be provided by a cashier attendant.

The purpose of this chapter is to investigate and determine what traffic impacts occur as a result of the Kaka'ako Revitalization Project. Assessment of project traffic impacts is accomplished by comparison between the traffic analysis in this chapter with those in previous chapters.
Project trip generation rates for estimating the future traffic for the project were developed from the existing usage of the Kaka'ako Parking Lot and expressed as vehicle trips per parking stall. This type of generation rate was preferred to estimate the traffic generation for the project for the following reasons:

1. It is observed that parking demand greatly exceeds supply in the Chinatown area;

2. The existing parking facility is used for a wide diversity of trip purposes, based on the local businesses in the Chinatown District, the future parking facility is very likely to be used in the same manner as the existing lot is used today; and

3. This type of rate will most likely result in an estimated larger number of vehicle trips, and hence a more conservative analysis, than the use of rates reflecting residential and retail floor area.

The proposed Kaka'ako project will contain 174 parking stalls. Currently, 112 parking stalls already exist at the parking lot. Additional parking and loading zones displaced by the project occur on the portion of Kaka'ako Street that is to be converted to a pedestrian mall which currently contain six parking spaces and several loading zones. Parking potential on Kaka'ako Street totals about 13 vehicles. Traffic generation by the project is based on the following assumptions:

1. The current parking demand obtained by current field counts at the existing parking lot with 63 stalls will exist for the future parking facility with 174 stalls.

2. The net increase in parking stalls from the existing lot 174 - 83 = 91 additional stalls will be used to determine additional trips to and from the new facility.

3. The vehicle parking displaced by the conversion of Kaka'ako to a pedestrian mall will be absorbed into the proposed facility. The 10 displaced stalls were not subtracted from the proposed 174 stalls so the 91 additional stall figure will create a conservative estimate.

4. Traffic volumes entering and exiting in the vicinity of the area access to the existing parking lot at the Kaka'ako Street and King Street intersection are considered to become rerouted trips once Kaka'ako Street is closed. These trips are reassigned to enter and exit from the proposed project driveway off Maunakea. These trips are not considered project generated trips although they do increase traffic movements at the Maunakea/King Street and River/King Street intersection and the traffic at the proposed access point to the project off Maunakea Street.

5. The parking structure is completely open to the public and there are no spaces reserved for residents.

6. All traffic generated by the project inbound to and outbound from the project site occurs from the proposed Maunakea Street Driveway. Based on the above assumptions, the parking rates and project generated trips were calculated and shown in Table 4.

<table>
<thead>
<tr>
<th>Trip</th>
<th>AM Rate</th>
<th>AM Vol</th>
<th>PM Rate</th>
<th>PM Vol</th>
<th>AM Rate</th>
<th>AM Vol</th>
<th>PM Rate</th>
<th>PM Vol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inbound</td>
<td>1.70</td>
<td>187</td>
<td>1.51</td>
<td>166</td>
<td>1.70</td>
<td>187</td>
<td>1.51</td>
<td>166</td>
</tr>
<tr>
<td>Outbound</td>
<td>1.53</td>
<td>132</td>
<td>1.53</td>
<td>132</td>
<td>1.53</td>
<td>132</td>
<td>1.53</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>(1)</td>
<td>Based on 83 stall parking lot.</td>
<td>(2)</td>
<td>Based on 174 stall parking garage.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The alternative method to determine trip rates for the project traffic was developed on the basis of trip generation by land use as shown in Table 5. It is observed that trip rates per stall were less than or nearly equal to field counted rates used in Table 4. However, under the circumstances that parking demand certainly exceeds supply in the Chinatown area and that the land use rates do not consider the other businesses and patrons that could possibly use the facility, the current parking turnover rates were considered a more accurate use of existing and future parking in the Chinatown District.

As shown in Table 6, the current number of vehicles using the Maunakea Street driveway in the AM are 68 inbound and 24 outbound. Future volumes indicate AM inbound of 218 and outbound of 105 represent increases of two to four times the current traffic using these driveways. Likewise the existing PM vehicle of 53 inbound and 52 outbound, compared to 1994 forecasted volumes of 115 inbound and 703 outbound.
represent increases of three to four times the current volumes. These increases could potentially increase traffic congestion at the future driveway location of Maunalua Street.

Table 6: KAEALULI PARKING GARAGE DRIVEWAY TRAFFIC

<table>
<thead>
<tr>
<th></th>
<th>Existing Traffic (vph)</th>
<th>Future Traffic (vph)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM PM</td>
<td>AM PM</td>
</tr>
<tr>
<td>Inbound</td>
<td>64 84</td>
<td>214 125</td>
</tr>
<tr>
<td>Outbound</td>
<td>21 82</td>
<td>120 202</td>
</tr>
</tbody>
</table>

(1) Existing traffic movements on the balanced driveway.
(2) Future traffic movements on the balanced driveway.

Distribution and Assignment of Project Traffic

The project traffic was distributed to arterials in proportion to peak hour traffic volumes inbound and outbound on each arterial into the project area. The distributed traffic was then assigned to the ten critical intersections in the project area. Assignment was accomplished by localizing the logical vehicle routes inbound and outbound of the project driveway, taking into consideration the location of the project driveway and traffic controls and roadway directions through the project study area.

Future Estimated Traffic Volumes

With the project traffic assigned to various traffic movements throughout the project area, future traffic volumes were estimated. The estimation was completed by adding the traffic volumes shown in Figures 4 and 5 to the project assigned volumes. The resultant weekday AM and PM volumes for the future traffic volumes with the project are shown in Figures 6 and 7, respectively.

Traffic movement changes as a planned part of this project and assumptions concerning these changes are as follows:

1. Kaealulu Street results in King Street is closed and converted to a pedestrian mall. Traffic movements from this roadway section are eliminated. Traffic using this portion of Kaealulu Street is assumed to become rerouted trips. These rerouted trips include vehicles using the parking spaces and waiting zones on Kaealulu Street and vehicles using the existing parking lot.

2. Access to the new parking structure is from Maunalua Street only. All project generated trips and rerouted trips are assumed to terminate at or originate from this location.

Comparison of the 1994 project to Without Project traffic volumes indicates that there would be minimal increases expected for the majority of roadways. The most significantly affected intersection is the Maunalua/King Streets intersection. During AM and PM peak hours, traffic volumes for the left-turn on the main approach of Maunalua Street are estimated to increase 12% and 32% respectively. AM and PM traffic volumes for these approaches are very similar in magnitude with through movement volumes of 203 and 270 vehicles respectively, and turning movement volumes of 405 and 415 vehicles respectively.

Evaluation for Future Traffic Volumes

The estimated 1994 traffic volumes with the project in Figures 6 and 7 were analyzed using the identical set of traffic control factors per intersection as the previous analyses of existing and Future Without Project traffic volumes. A side-by-side comparison of analysis results is shown in Table 7.

The most critical comparison is between the 1994 Without Project and 1994 With Project analyses tables, which generally show only slight increases in volume-to-capacity ratios and vehicle delay times with the project. The exception is the King/Kaealulu Street intersection, which shows a decrease in volume-to-capacity ratio, a decrease in vehicle delay, and improved level of service due to the elimination of conflicting traffic movements at that intersection. The analysis indicates that only the Maunalua/King Street intersection is expected to experience a deterioration in its level of service from LOS B in both AM and PM in the Future Without Project analysis to LOS C in both AM and PM in the Future With Project analysis. Furthermore, the Maunalua/King Street Intersection shows the largest increases in the volume-to-capacity ratios of all the intersections analyzed, although the increase is considered to be very minor.

Future Public Transit

Plans for constructing an underground Rapid Transit System near the project site are underway at this time by the City and County of Honolulu. The proposed Rapid Transit System alignment will pass underground through the Chinatown District into the Central Business District along Hotel Street. A transit station is proposed between Nuuanu and Bethel Streets. Hotel Street may eventually be converted to a
<table>
<thead>
<tr>
<th>Intersection</th>
<th>1991 Existing AM Peak Hour</th>
<th>1994 Without Project AM Peak Hour</th>
<th>1994 With Project AM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VC</td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1. Beretania/River</td>
<td>0.43</td>
<td>7.6</td>
<td>B</td>
</tr>
<tr>
<td>2. Beretania/Malanaka</td>
<td>0.60</td>
<td>14.9</td>
<td>B</td>
</tr>
<tr>
<td>3. Koolau/River</td>
<td>0.55</td>
<td>7.6</td>
<td>B</td>
</tr>
<tr>
<td>4. Koolau/Malauaika</td>
<td>0.50</td>
<td>4.7</td>
<td>A</td>
</tr>
<tr>
<td>5. Koolau/Malauaika</td>
<td>0.68</td>
<td>11.2</td>
<td>B</td>
</tr>
<tr>
<td>6. Koolau/Malauaika</td>
<td>0.50</td>
<td>4.2</td>
<td>A</td>
</tr>
<tr>
<td>7. Kimball/River</td>
<td>0.80</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>8. Kimball/Kalani</td>
<td>0.70</td>
<td>15.0</td>
<td>C</td>
</tr>
<tr>
<td>9. Kimball/Smith</td>
<td>0.67</td>
<td>8.5</td>
<td>B</td>
</tr>
<tr>
<td>10. Kimball/Smith</td>
<td>0.53</td>
<td>1.2</td>
<td>A</td>
</tr>
</tbody>
</table>

** = Vehicle-to-capacity ratio for lane group >1.2

The proposed operation date of the Rapid Transit System in this area is 1997. It is anticipated that the Kaka'ako Revitalization Project will be fully constructed and operational before construction starts on the Rapid Transit System.

Future residents of the Kaka'ako Revitalization Project are expected to use the Rapid Transit System as well as continuing to use the city bus system as their primary means of transportation. In the near future, residents and commuters of the Kaka'ako Revitalization Project would impact the City bus system by potentially increasing ridership. The additional ridership would likely be in proportion to the net additional residential units and commercial space provided by the project.

5. TRAFFIC MITIGATION MEASURES

The intersection capacity analyses indicate that the Kaka'ako Revitalization Project has a potential for significant impacts on overall future traffic conditions in the project study area. However, the potential for localized undesirable traffic conditions exists as a result of the project at the intersection of Maunakea and King Streets near the proposed driveway to the project. Several traffic conditions and traffic volume and circulation pattern changes occur in the immediate vicinity of the site that create concerns for the future of traffic flow at or near the project entrance. They are as follows:

1. Traffic volumes entering and exiting the site at the proposed Maunakea Street driveway are expected to nearly triple or quadruple over that which currently occurs at exiting driveways. This potentially could intensify the existing conflicts and congestion caused by vehicles exiting the parking lot driveway and attempting to cross the through lane to turn left at King Street.

2. The makai bound traffic using the left turn lane on the Maunakea Street approach to King Street is expected to exceed capacity. This approach is expected to operate with increased traffic congestion and delay in the future.

Both of these conditions indicate the potential for traffic problems on the Maunakea Street approach to King Street. Mitigative measures for this improving intersection operations are suggested as follows:

- Provide an additional lane to create three lanes, a left-turn-only lane, a combination left-through lane and an exclusive through lane for makai bound traffic on the Maunakea approach to King Street. However, under this adjustment, Maunakea Street makai of King Street should be converted to a one-way street makai bound to avoid safety problems. To increase the capacity of the double left, the pedestrian crosswalk could be eliminated between the makai/kokohead corner and the left lane storage increased by redriving the existing pavement and removing three to four parallel parking spaces on the kokohead side of Maunakea Street. The double left and through lane improves the volume-to-capacity ratio and significantly reduces delay on the approach. No additional roadway construction is required since available roadway width is adequate to provide three lanes at this approach. However, a lane zone would have to be eliminated on Maunakea Street.
Mitigation measures concerning the project driveway entrance are suggested as follows:

1. Disruptions to the traffic flowing past the project driveway created by vehicles entering into the project could be minimized by lengthening the eave-most lane on Maunakea Street. This action would require removing several parallel parking spaces on the eave side of Maunakea Street near the proposed entrance. A recessed entry may also be considered depending on the entrance control.

2. Because of the restrictive sight distance, additional signage or overhead signage should be provided to identify the entrance to the parking structure and to warn of exiting vehicles.

LEVEL OF SERVICE “A” - VC = 0 TO 0.60
Describes operations with very low delay, i.e., less than 5 seconds per vehicle. This occurs when signal progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all.

LEVEL OF SERVICE “B” - VC = 0.61 TO 0.70
Describes operations with delays in the range of 5 to 15 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS “A”, creating higher levels of average delay.

LEVEL OF SERVICE “C” - VC = 0.71 TO 0.80
Describes operations with delay in the range of 15 to 25 seconds per vehicle. Occasionally vehicles may wait more than one red signal phase. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.

LEVEL OF SERVICE “D” - VC = 0.81 TO 0.90
Describes operations with delay in the range of 25 to 40 seconds per vehicle. At LOS “D”, the influence of congestion becomes more noticeable. Many vehicles stop, and the proportion of vehicles not stopping declines. Noticeable numbers of vehicles fail to clear signal during the first green phase.

LEVEL OF SERVICE “E” - VC = 0.91 TO 1.00
Describes operations with delay in the range of 40 to 60 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high VC ratios. Vehicles frequently fail to clear the signal during the first green phase.

LEVEL OF SERVICE “F” - VC GREATER THAN 1.00
Describes operations with delay in excess of 60 seconds per vehicle. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection.


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WQA

SIGNALIZED INTERSECTION
LEVEL OF SERVICE DIAGRAM
KokuaAa Rehabilitation Project Traffic Impact Study

APPROX.
A
DRAFT

ANALYSIS OF THE
EXISTING BUILT ENVIRONMENT
AND POTENTIAL IMPACTS

of the
KEKAULIKE REDEVELOPMENT PROJECT

Prepared by:
Spencer Mason Architects
1050 Smith Street
Honolulu, Hawaii

Prepared for:
Wilson Okamoto & Associates
and
the City and County of Honolulu
Department of Housing and Community Development

March 1991

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CHINATOWN HISTORIC DISTRICT

General History

The project site is located in Chinatown, long recognized as one of the most significant districts in Honolulu for its historic, cultural and architectural values. The history of the district, despite its name, has not been linked exclusively with residents of Chinese ancestry, but has served as a business and residential area for many immigrant groups in Hawaii, as well as for native Hawaiians. The Sanborn Company’s fire insurance maps (1914-1927) drew a boundary line between “Oriental/Native” and “White” residential and business areas (a zig-zag generally running between Fort and Nuuanu Streets). Chinatown developed after the original settlement of Honolulu which grew around the Fort, the King’s Palace, and Kawaiahao Church. Chinatown lay to the west of the original settlement, and its other physical boundaries were the waterfront and Nuuanu Stream. The Chinese were the first ethnic group imported on a large scale to work in Hawaii’s sugar plantations, and China was the major source for laborers from 1852 until the 1880s. Many Chinese, and later members of other ethnic groups, who completed their contracts on the plantations did not return to their birthplace. They often set up businesses in this part of Honolulu. In the 1869 Honolulu directory there were 69 businesses with Chinese owners, most in this area of town.1 By the turn of the century over 170 businesses and thousands of residents were Japanese.2 After another decade many Filipinos who had left the plantations settled in Chinatown. Many other ethnic groups were represented in the businesses and residents of Chinatown throughout its history.
The district in the nineteenth century was overcrowded, with mostly wooden buildings, narrow and crooked streets, and inadequate sanitation. There were two devastating fires in Chinatown. The first was in 1886 and burned 30 acres of buildings. The rebuilding was swift, and some street straightening and new building laws were enforced, but there were no sewer lines installed in the area. Chinatown soon grew crowded, again with mostly wooden buildings and inadequate plumbing and unmaintained cesspools. Bubonic plague developed in this breeding ground. Health officials believed burning was the only way to rid the area of the disease and "systematic" burning of blocks or portions of blocks was undertaken when a person with the plague was discovered living there. However, on January 20, 1900 wind whipped the sparks of a "controlled" fire and it spread to demolish most of Chinatown (see Figure A and Photo 1A). Thousands of residents and hundreds of businesses lost essentially all they owned.

There were suggestions in the newspaper within a week after the fire to use the burned Chinatown area partly as a park and partly as a white man's business quarter, and that a new and sanitary Chinatown be constructed elsewhere in the Ewa suburbs. However, the Legislature did not respond to the call for such drastic changes in Chinatown, but passed a bill in 1900 which set up a claims commission. The regulations proposed for this commission, which included a $20 filing fee for each claim, were protested strenuously by the destitute fire victims. Another reason for setting up a different review court was explained by Thrum.

...
rent or use of property, or loss of profits through interruption of business was eligible to be claimed. Residents, business owners, and building owners filed claims for losses that itemize costs for personal effects, store contents, and buildings burnt in the fire. The number of claims filed was 6,784, totaling $3,175,132.90. After hearings and adjudications, the sum of $1,473,173 was awarded to claimants. In 1903, the federal government provided $1,000,000 and the remainder was paid by bonds issued by the Territory.

As a result of the fire almost all of the buildings in Chinatown, and all of the buildings on the project site, date from after 1900. Partly in reaction to the fires, many of Chinatown's 20th century structures were built of masonry. Brick, stucco, and lava rock were the major fire-resistant materials used, but some utilitarian buildings were also constructed of metal. Nevertheless, quite a number of buildings erected in the years immediately after the fire were wooden. However, most were replaced or condemned over the decades, and only a few wooden buildings have survived to this date. Although there is much diversity among the older buildings of Chinatown, there is a unity of architectural character among the buildings built in the early 20th century. Most are two or three stories tall, with sidewalk canopies, contiguous facades, and vertically oriented double-hung windows on the upper floor(s), often with segmental-arched heads. There remain several block-long streetscapes that are examples of the architecture of these early decades. Most structures built after World War II were designed with no sensitivity to the existing architectural character of the district. However, even these modern structures often house traditional businesses, such as herb shops, lei stands, oriental restaurants, noodle factories, import stores.

**Chinatown National Register District and Special District**

The special historic, cultural, and architectural values of Chinatown were recognized by its placement on the National Register of Historic Places in January 1973. The architectural significance derives more from the grouping of similar buildings than from individually distinctive structures. There is a great variety in the design details, but a general compatibility results because of the shared scale.

The City and County of Honolulu has had renewal plans for the Chinatown area from at least 1971. The 1971 plan by the Honolulu Redevelopment Agency was called the Chinatown General Neighborhood Renewal Plan. The City has also commissioned several studies of the Chinatown area: Chinatown: A Plan for Renewal prepared by Daniel, Mann, Johnson & Mendenhall (undated, but apparently early 1970s); Chinatown Historic Preservation Plan by Aotani & Hartwell Associates, Inc. (1974); and Chinatown Revitalization Plan by Peat Marwick, Mitchell & Co. (1981). Several different versions of special zoning regulations have been enacted for the area also. At present the provisions of Section 7.60 of the Land Use Ordinance regulate development within the Chinatown Special District, whose boundaries are slightly different from the National Register Chinatown historic district boundaries, as shown in Figure B.
Project Site

The project site lies entirely within both the Chinatown National Register historic district and the City and County of Honolulu's Chinatown Special District. The site consists of portions of two adjacent blocks, and a block of Kekaulike Street which will be turned into a mall, as shown in Figure 9.

The Diamond Head block is bounded by Hotel, Maunakea, King, and Kekaulike Streets. The project will be built almost entirely on the City-owned land now used as a surface parking lot. Portions of adjoining parcels and four small lots (TMK 1-7-3: 91, 22, 23, and 24) are also part of the project site. The three buildings, and two rear projections to be demolished on this half of the project site largely date from the 1960s or later. One parcel (TMK 1-7-3: 22) is a vacant lot.

The Ewa block is bounded by Kekaulike, King, River, and Hotel Streets. The project will occupy one large parcel on this block, TMK 1-7-03: 32, owned by the Wong family. There are presently several wooden structures and carports of wood and metal on this parcel that would be demolished. The two main buildings and many of the smaller structures date from about 1905 and are described further below.

The project also involves facade redesigns of four 1950s and 1960s buildings that abut the project site. When these buildings were originally designed there was no effort to make them blend into their setting. The proposed facade changes will make the style of these buildings more compatible with the historic architecture of Chinatown.

Descriptions below include the buildings which form the immediate environment of the project as well as those which will be most obviously affected by it. First, the buildings and portions of buildings to be demolished for this project are discussed, then the buildings to have facade rehabilitations are described as they presently appear. In following sections, the buildings abutting the project site and the buildings immediately across the street from the proposed new construction are also discussed.
Buildings to be demolished

Diamond Head Block

Three buildings and the rear projections of two buildings will be demolished on this portion of the project site. None of these have historic or architectural significance, and most are recent structures with utilitarian designs.

One of the buildings to be demolished is on Maunakea Street near the King Street intersection (TMK 1-7-03: 91). This two-story concrete-block structure was built in 1966 (Photo 1). It has an herb store on the first floor and offices above. The storefront is modern with aluminum-frame glass door and windows, concrete block below the window level. Another door on the makai side of the building provides access to the upper floor. A transom band of jalousie windows stretches across the entire facade. Above this band is a flat concrete canopy. The second-floor facade is divided into four sections. In three of the four sections there are pairs of jalousie windows above square plywood panels, painted white. The fourth section has two unpainted plywood panels with an window air-conditioner unit inserted in the upper half and supported on braces resting on the canopy. An extension of the shed roof forms a canopy-like projection over the second story. The mauka side of the building is a blank wall of concrete block. The rear elevation has a low one-story addition abutting the main building just below a ribbon of blocked-up windows. There are two bands of awning windows on the second floor, with an air conditioning unit replacing one of the eight windows. The building has no decorative features except for the signage in Chinese characters on the main facade. Although a modern structure, its height and width proportions echo the older buildings in the district.
Photo 1. Herb store (TMK 1-7-03: 91)
Two buildings adjacent to the vacant lot at the corner of Hotel and Kekaulike Streets will also be demolished for this project. These buildings are modern, utilitarian structures, which have some features in common with the historic architecture of the district.

The building facing Kekaulike Street (TMK 1-7-03: 22) is a two-story structure of cast-in-place concrete, with concrete block infill (Photo 2). It dates from 1961. It has two stores on the ground floor and rooms above. The storefronts each have one large plate glass window and a glass-in-wood frame door. The central entrance to the second floor has a floor-to-ceiling metal grid gate. On the second floor there is a decorative block screen above the gate. While the walls below the storefront windows are concrete block, under the second-floor jalousie windows there are painted panels. An air-conditioning unit has been installed in one of the four sections of jalousie windows to either side of the central block screen. There is a flat canopy over the first floor and a canopy-like projection over the second floor. The concrete-block side walls facing the parking lot is windowless. There is a small jalousie window high on the first-floor mauka wall. This small rectangular building does not follow the slightly angled property lines, but almost fills the lot.

A three-story building facing Hotel Street (Photo 3) will also be demolished (TMK 1-7-03: 24). It was built with a cast-in-place concrete frame and concrete block infill. The second and third stories of this 1963 building are T-shaped in plan. The ground floor is used as a night club, and its facade is mostly covered with narrow vertical wood strips, but there are stuccoed piers at each end on this level with entrees to the upper floors. Above the flat, cantilevered canopy, the facade is divided into four bays. The two central bays have three strips of floor-to-ceiling wood jalousie windows and the two end bays are filled with decorative concrete block. The beams of the frame project slightly beyond the planes of the front and rear facades. The name of the nightclub, ELSIE'S, projects from the facade with each letter in a separate square. The rear facade of this building faces the City and County parking lot. About a third of this facade is concrete block infill in the structural frame. On the second and
third floors are two mirror-image units; each unit has triplet floor-to-ceiling wood jalousie windows, and one window with wood jalousies on the top half and a metal panel on the lower half. On the ground floor, there are only two triplet window sashes, with sills about six feet above the floor. There is also a recessed doorway on this rear facade, which cannot function as an exit due to the fence for the City and County parking lot running along the back property/building line. The side elevations of the first floor are built of plain concrete block. The recessed sections of the second and third floors provide for access, light, and air for the rooms on the upper level. The walkway on the third level is narrower than the second floor's which functions more as a lanai. These walkways have simple metal railings. Many of the doors and windows onto these walkways have been altered, but the original windows were four-over-four metal sash of the awning type and many of the doors have two lights with wire glass.

The rear projections on TMK 1-7-03: 25 and 92 will also be demolished for this project. The projection on the former, the Lum Yip Kee Building, may have been built at the same time as the original building (1937), but appears as an addition because it projects from the main portion of the building (Photo 4). It follows the property shape, which resulted from the consolidation of two lots, one of which was deeper than the other. The two-story projection is stuccoed concrete block. Most of the windows are steel frame, with multi-pane (six or eight) awning sections over fixed (three- or four-pane) sections. On the rear of the second floor is a covered lanai. The color scheme of the projection is light yellow stucco, with pink and blue accents on piping and window sash, etc. The projection on TMK 1-7-03: 92 was constructed in the 1980s and is built of concrete block (Photo 5). This one-story addition has a flat roof and no openings on two sides. The mauka side of the addition has an awning and a wood facade. A wooden gate provides rear access to this property.
Photo 4. Lum Yip Kee Building, rear projection

Photo 5. Rear projection on TMK 1-7-03: 92)
Flea Block

The buildings on TMK 1-7-03: 32 owned by the Wong family will also be demolished for this project. These buildings have more significance than the structures to be demolished in the Diamond Head block, due to their age, social history, and material of construction.

The age of the buildings can be estimated from fire maps, historic photographs, and city directories. There is a photo (Photo 6A) of a building at the corner of Hotel and River Streets that can be dated 1902, because the Hop Sing Restaurant, whose sign is visible, was listed with the address 187 N. Hotel Street only in the 1902 Honolulu City Directory. The photo cannot date before August 31, 1901, which was the opening day of the streetcar system. The photo shows that this building is not the same as the present structure, for two reasons. First, the corner near River Street, is a right angle, not obtuse like the existing building. Also, the horizontal boards on the facade of the building in the 1902 photo are narrower than the present ones, and show a mid-width groove that the present building's boards (Photo 6) do not have. Fire maps and newspaper articles confirm that this site was rebuilt twice in the early 1900s. The 1900 fire map was updated about 1905, and this map shows the building with its present footprint, following the obtuse River Street/Hotel Street angle, as does the 1906 fire map. The 1900/1905 map does not show the two-story building in the courtyard (Photo 7), but it is on the 1906 map. Most of the outbuildings were shown on the 1900/1905 map.

The historic information on the buildings on TMK 1-7-03: 32 was gleaned from the early fire maps and fire claims. The main building on Hotel Street was labelled as the Armstrong building on the 1900/05 map. At the turn of the century the property was owned by James Armstrong, who was a contractor. He filed fire claims in 1901, for several wooden buildings situated on Hotel Street. His claim for $4,565.00 included a "2 story frame building used as stores and residences, size 44' x 84', containing seven stores downstairs and fourteen rooms upstairs" as well as listing three residential buildings, and bathroom, kitchen, water closet,
Photo 6A. 1901-02 Building on corner of Hotel and River Streets
Source: Bishop Museum Visual Collection, L. E. Edgeworth, Photographer
Photo 6. Armstrong/Wong Building

Photo 7. Two-story bldg. in courtyard of TMK 1-7-03: 32
and workshop structures. He had fire insurance on this building but stated in his claim he had received no insurance money. The fire claim commission awarded $2,565.00 for this complex of buildings and $266.70 for grocery merchandise he lost in the buildings as a consequence of the fire.14 He apparently rebuilt on the property in 1901 or early 1902. The 1901-2 building was again a victim of fire. The fire had started in the building across Hotel Street from the Armstrong building at three in the morning. The Pacific Commercial Advertiser reported:

The wind was blowing from the north and as soon as the fire showed at the front it caught on the makai side of the street.

...On the makai side of Hotel street the block corner of River was the property of James Armstrong, which, in conjunction with that of Charles Merrifield, occupied the entire front to Kekaulike street. ...All the buildings burned were two-story frame structures.15

The next day's paper also reported that the fire was started by a cat; also:

One of the owners of the property destroyed, James Armstrong, the Pearl City rancher, was at his home in Puunui [area around Wyllie and Lilina Streets], and sat watching the play of the fire ignorant of the fact that it was his own building that was furnishing the fuel. ...The Armstrong Block cost $6,000 and was insured for $4,000.16

A new building was constructed on the Armstrong site again almost immediately. The August 26, 1902 Hawaiian Gazette reported that the landowners on both sides of Hotel Street planned to rebuild "brick structures, of one story in height, so built, however, that they may be put up to three stories in the future if there is a demand for rooms."17 This article also noted that the "principal thing which stands in the way of immediate work is the rate for money," and that the "difference in price [from a wood structure?] is nearly 100 per cent." By October these property owners had changed their minds about rebuilding in brick:

Most of the lots on which stood buildings destroyed by fire recently are now being filled with structures of the same character that they held before. The frame buildings are of no better character and are aimed to offer the identical advantages that were afforded by the former structures. There is some talk of better buildings further up Hotel street, but at River street there is no change in the form or character.18

Both times Armstrong rebuilt in a pattern similar to the 19th century buildings on the property, with the two-story commercial/residential building along Hotel Street and other residential and outbuildings behind.

The Shigir Drug Store was one of the long-term tenants in the building, from 1907 to 1954.19 An ad for the drug store in the 1907 city directory is shown in Figure D. A 1936 photo (Photo 6B) and a photo dated 1910 in the Bishop Museum Visual Collection files shows it occupied the prominent corner location, although the 1906 fire map locates the drug store in the middle of the building, and a saloon on the corner.

These buildings are among the few remaining wooden buildings in Chinatown, probably the oldest wooden buildings, and certainly the last with such an imposing presence. The main building creates a unique streetscape in Chinatown. The arrangement of the rooms in the main building is distinctive; most are reached by a short hall perpendicular to the rear lanai. Several shared sinks have been installed along the lanai, as the rooms have no plumbing. The courtyard area of the property is also unique, with a two-story residential structure, many single-story bathroom and kitchen outbuildings (Photo 8) with roofed connections to the main building, as well as several carports. An axonometric view of the buildings on the parcel is shown in Figure E.

The prevalence of wooden buildings and the typical jumble of buildings in the interior of Chinatown's blocks is evident from the early 20th century fire maps. The Armstrong/Wong complex is one of the few extant examples of the way people lived in Chinatown. The recognition of the typical material and the building style of the district is seen in a 1905 article:

Chinatown has again been largely built up of wood, and is getting more and more congested; a building added here, a cook house there, a shed in another place (for this is the way Chinatown grows).20

The Armstrong/Wong buildings have survived more than 85 years, but few other wooden structures with outbuildings are seen in Chinatown. Due to both prejudice about the material and rules against this style of building, most wooden structures and the secondary buildings in the block interiors have been removed.
Photo 6B. Armstrong/Wong Building in 1936
Source: Bishop Museum Visual Collections, Williams Studio

Photo 8. Outbuildings on TMK 1-7-03: 32
The main building has three sections. All are built of the same wood siding and corrugated metal roofing. The portion closest to Kekaulike Street has a roof slightly higher than the middle section. The roof of the middle and the Ewa thirds of the building are at the same level, but only the Ewa third of the building has a basement.\(^1\) Also, the boards of the facade of the Ewa third do not align with the middle third (see Photo 6B). However, it was all built around October 1902, and is considered one building. The building is two stories, except for a one-story section at the intersection of Hotel and River Streets. This was also originally two stories, but there was a fire in the upper floor in 1975. After the fire, the second story in this section was not rebuilt; a new roof was installed over the intact first floor.\(^2\) The facades along Hotel and River Streets are built of 8 1/2-inch horizontal drop siding. The rear wall has narrower horizontal tongue and groove siding. The new upper-level side wall, that was built after the second-floor burned, and the parapet of the one-story section is built of vertical siding. The storefront level has been greatly altered and displays a wide variety of materials and shop entrance designs. The second-floor windows have been altered also. Additional openings of varying sizes and placement have been cut and modern jalousie windows have been installed in most. There are a few one-over-one double-hung windows. Near the Diamond Head end of the building, there is a band of five two-pane transom windows spanning three windows and two sections of wall. The rear facade shows an accretion of materials and design changes over the years, but the basic outline of the second-floor open-air walkway with wood railing is still evident.

The two-story building in the courtyard is built of vertical tongue and groove boards and has a roof of corrugated metal. The roof form is gable. A hipped extension has been built over the lanai on the Ewa end of the building, which was not part of the original design. Shed-roof extensions of corrugated metal project from the building and other alterations to the building are evident.

The small one-story outbuildings are built with a variety of wood panels and boards, and all have shed roofs of corrugated metal. The carpents are corrugated metal roofing panels supported on metal or wood frames.
Buildings to be Rehabilitated

The facade of the building on the mauka/Ewa corner of Maunakea and King Streets (TMK 1-7-03: 17) will be rehabilitated, with a design more compatible to the area. The present structure was built in 1956 (Photo 9), and replaced the corner section of the 1902 Y. Anin Building which wrapped around King and Maunakea Streets (Photo 9A). The existing building is two stories, but, with its flat roof, has a much lower roofline than the Y. Anin Building. The existing building's canopy height is the same as the adjacent original section of the building, but it is a flat concrete canopy, rather than the traditional sloped canopy of corrugated metal. The fenestration of the 1956 building is totally different from the original building. The modern three-part windows have rectangular fixed panes above and below square casement sections. Air conditioning units have been installed in several of these windows. The second floor windows do not align with those in the adjacent section of the original building, and the angled sun screens of corrugated metal are a design element that does not blend with the character of Chinatown architecture. The storefront level design is also modern and uses inappropriate materials, such as the expanded metal mesh over the transom windows.

The facades of three adjacent buildings in the Ewa block of the project site are to be rehabilitated (TMK 1-7-03: 36, 35 & 34). These three buildings were built in 1953, 1960, and 1963, respectively. They are very utilitarian in appearance (Photos 10, 11 & 12). They are all built of concrete block, but the two 2-story buildings have a stucco finish on their upper facades, and split-face concrete bricks below the storefront windows. All three buildings use some decorative concrete blocks on their facades.

The buildings on TMK 1-7-03: 34 & 35 have stores on the first level and rooms above. These two buildings also have flat concrete canopies over the first-floor and smaller canopy-like projections over the second-floor windows. The windows are all jalousie type. The building on TMK 1-7-03: 35 is sited slightly farther back from the street than the adjacent buildings.
Photo 9A. 1902 Young Anin Building
Source: Bishop Museum Visual Collections

Photo 9. Present Building on TMK 1-7-03: 17
Photo 10. Building on TMK 1-7-03: 36
Photo 11. Building on TMK 1-7-03: 35

Photo 12. Building on TMK 1-7-03: 34
The four-story "City Villa" building on TMK 1-7-03: 36 has studio apartments on each floor. This building has a fortress-like appearance because there are no windows on the street facade. The decorative screen of concrete blocks is set at an angle to the street to allow small windows in a recess on one side only, creating an off-balance feeling to the facade. The building has no canopy. The entrance is slightly recessed from the plane of the facade. The glass-in-aluminum-frame door occupies the southern third of the entrance, while two fixed glass panes and a floor-to-ceiling jalousie window fill the other two thirds.

Buildings Adjacent to the Project Site

Adjacent to the Diamond Head Block of the Project Site

Maunakea Street between Hotel and King Streets

There are two buildings mauka of the project site on Maunakea Street which may be affected although no demolition or remodeling is proposed. One building, on TMK 1-7-03: 76 & 77, now houses Cindy's Lei Shoppe and Hop Hing Market, and the other is the Wo Fat Building on TMK 1-7-03: 28, which is on the corner of Maunakea and Hotel Streets. These buildings date from different decades and display different design styles.

The building on TMK 1-7-03: 76 & 77 (Photo 13) was part of the Young Anin Building (Photo 9A), constructed in 1902, that extended from this point all the way down Maunakea Street and wrapped around King Street.23 [Another section of the H.L. Kerr-designed Young Anin Building remains on King Street, on TMKs 1-7-03: 18, 92 & 90.] The red brick on this part of the Young Anin Building remains unpainted on the second-floor facade. Decorative brickwork is seen in the dentil cornice, segmental arches over the windows, horizontal bands above and under the windows, and the pilaster forms on each side of this building. On the side wall adjacent to the project, the first-story brickwork has been painted, and the second-story wall has a stucco covering. New construction will abut this windowless wall. On the mauka wall the red brick is unpainted, and
Photo 13. Building on TMK 1-7-03: 76 & 77
there is a small circular ventilation opening near the roofline. In two of
the upper facade window openings, numerous air conditioning and fan units
have replaced the original two-over-two double-hung windows. The
storefront level has also been extensively remodeled. It is presently
designed to be very open, with only the original brick piers at the street
front. There is a second-floor lanai at the rear of this building, as well as
one-story additions of brick and concrete block materials. The proposed
project will abut the rear and makai sides of the building.

The Wo Fat Building was built in 1937-8. The restaurant had been on that
corner location since before the 1900 fire. The building's architect was
Y.T. Char and the contractor was W.S. Ching. Comparing the present-day
appearance (Photo 14) to a photo from 1945 (Photo 14A) shows that the
third floor was expanded and altered, a second tower was added, and
jalousie windows replaced the original ornate paired casement windows
on the second floor since that date. The decorative features, and bright
reds and greens of this building have a decidedly oriental flavor that
marked a departure from the western-influenced commercial brick and
lava rock buildings common in the Chinatown buildings of the early 20th
century. The ornamental curved roofs, brackets, and window pane patterns
were all innovative design features. The building blends in, however,
because it keeps Chinatown's traditional scale and openings' pattern, as
well as the important continuous canopy. The third floor of the Wo Fat
building was originally designed with a step-back from the two-story
facade, and the open-air area was used for roof-garden dining. Originally
an orchestra was housed in the corner tower on the third floor and the
roofed area was the dance pavilion.

King Street between Maunakea and Kekaulike Streets

The project will abut the rear of this block of two-story brick buildings.
As described earlier, the project will also involve facade remodeling for
the incongruous building at the corner of Maunakea and King Streets. The
three early 20th-century brick buildings along this block of King Street
are described below.
Photo 14A. 1945 Photo of Wo Fat Building
Source: Bishop Museum Visual Collections, R. J. Baker, Photographer

Photo 14. Wo Fat Building
Photo 15. Remainder of Y. Anin Building
The building on TMKs 1-7-03: 16, 92 & 99 (photo 15) is part of the 1902 Young Anin Building (Photo 9A) which formerly wrapped around Maunakea Street to connect to the building that Cindy's Lei Shop is in (Photo 13). The King Street section, however, is three times as wide as the remaining Maunakea Street portion of the Young Anin Building. Each of the three bays has four windows on the second-floor and is divided by brick pilasters. The pilaster on the Diamond Head end of this building is not quite complete due to the construction of the modern building at the corner. The brick in two of the three bays has been painted. Like the now-separate building on Maunakea Street, this building has the same decorative brickwork in the cornice, segmental arches over the windows, horizontal bands above and under the windows; these bands include dentils and courses set at a 45-degree angle. Many of the dentils in the cornice are missing. Although one building in architectural design, it is divided in ownership. The basement formerly was one large space, but a gypsum board wall was erected in the 1980s along the ownership line. The original basement walls are built of random lava rock. Two thirds of this building was renovated in 1993. Work included restoration of the canopy and the second-floor two-over-two double-hung windows, and installation of storefronts appropriate to the period of the building. The Ewa third of the building has jalousie windows on the second-floor facade, and a modern storefront design. The rear of the building also shows the difference in ownership. The Ewa third of the building originally had greater depth than the other sections, but when the City built the parking lot in the interior of this block it acquired the rear half of this portion of the building. Its rear facade is now faced with corrugated metal. As discussed above, the rear addition on the middle third of the building will be removed for this project.

The Young Anin Block was designed by prominent Honolulu architect H. L. Kerr. In addition to its architectural significance as a contributing building to the district, it is also important as one of the first large brick buildings to rise in the aftermath of the Chinatown fire of 1900. The newspaper described the depth of the block 50 feet and said the block contained 16 stores, each with a basement and a "store room" on the second floor. Kerr arrived in Honolulu in 1898 and by 1902 he had designed many business blocks and had been identified with the promotion of new and important industries, the most notable one being the manufacture of Honolulu brick, which is now being extensively carried on.26

The significance of the building also derives from its association with Young Anin, "one of Honolulu's pioneer Chinese residents."27 Young Anin arrived in Honolulu in 1889 at age 21. He was a pioneer in launching the rice industry in Hawaii, being one of the first planters of the great Chinese staff of life in these islands.28 Besides the rice plantations and real estate development, his business also included a fish market. The building now known as Oahu Market, designed in 1905 (also by H. L. Kerr),29 is noted as Anin's Fish Market on the 1900-05 fire insurance map.29

The building on TMK 1-7-03: 19 (Photo 16) has been extensively changed from its original appearance. It dates from circa 1905 and is called the Hop Sing Building on the 1900/1905 fire map.30 The four storefronts were remodeled in the 1960s with angled storefronts. The canopy is not original and all of the second-floor windows have been altered. Vents and/or air conditioning units have been placed in all of the windows. In 1984 two of the four storefronts were redesigned in a style more compatible with Chinatown. Also, the original form of the second-floor facade, with unpainted common-bond brick and eight segmental arch window openings, had never been changed. Above the windows are original cornice divisions, formed by three courses of brick surrounded by a rectangular recess. Below the belt course under the windows, the brick is painted. The rear of the building shows a patchwork of closed-up window and door openings (Photo 17). New and incongruous metal-sash awning windows were installed in the second-floor rear wall.

The building at the mauka/Diamond Head corner of Kekaulike and King Streets (TMK 1-7-03: 75) has its name and date in the curved brick parapet facing King Street — "1900 / L. AH LEONG BLOCK" (Photo 18). Lau Ah Leong was a prominent merchant in Chinatown. His life history was noted in a lengthy article after his death.31 He came to Hawaii as a cook, at age 20 in 1876 from Kwangtung, China. He soon started a store in Kohala on the Big Island, but then moved to Honolulu where his business and real estate investments expanded. The foundation of his fortune was
Photo 16. Front of Hop Sing Building

Photo 17. Rear of Hop Sing Building
Photo 18. L. Ah Leong Building
considered this store, at a highly visible location across from two Chinatown fish markets. His prominence was proven by the many who attended his funeral (thousands according to the Honolulu Star Bulletin, while hundreds were reported in the Honolulu Advertiser). The two-story red-brick building he built was rehabilitated in the early 1980s. The building has a low-ceiling basement with lava rock walls laid in a rubble masonry fashion. The first-floor storefronts on King Street were restored to an early 20th century style. Four brick columns at the corners define the structural support for the building; the intermediate brick columns are also expressed on the two street facades. The King Street facade is definitely the primary elevation, with greater ornament in the roofline, and due to the opening of the stores to this street. The roofline decorations include two triangles, built of brick, topping the corner columns of the King Street facade. These were stuccoed over in the 1980s renovation. The decorative bands of brickwork at the cornice, as well as above and below the second-floor windows, wrap around both street facades. The Kekaulike Street facade has one large and one small segmental arch opening; the larger near the corner, and the smaller one leading to the second-floor stairway. The mauka elevation was previously hidden by an adjoining building, whose outline is defined by the excess mortar on this rough wall. This rear facade has a stopped parapet. There is a passage between this building and the Hop Sing Building. The corrugated metal canopy is supported by simple triangulated brackets, wrapping around both street facades of the building. The second-floor windows facing the streets are spaced two to a bay. The segmental arches of those two-over-two double-hung windows are created by three rows of bricks.

Hokalani Street between Maunakea and Kekaulike Streets

The project will abut the Lum Yip Kee Building (Photo 19) on two sides. The date on the facade of this building is 1936, and along with the name of the building is in Art Moderne style lettering that reflects the period. Although this building and the adjacent Wo Fat Building were both built in
Photo 19. Lum Yip Kee Building
the late 1930s, the stylistic similarities they display are more Oriental-inspired than Art Moderne influenced. Both have colorful stucco facades, tile-roofed cornices, and towers with upturned corners. In addition to the lettering, a touch of the Art Moderne style is seen in the incised horizontal lines in the stucco of the facade, and the black tile of the wall under the storefront windows. The Lum Yip Kee Building has three stories, with the second and third stories of about equal height. This contrasts with the high-ceilinged second-floor of the Wo Fat Building, but the overall height of the two buildings is about the same. The facade of Lum Yip Kee has seven pairs of double-hung windows on both the second and third floors. These windows are divided horizontally into two-over-two sash, unlike the vertically divided windows of earlier buildings in Chinatown. There are small concrete cornice-like projections over the second- and third-floor windows, and two pairs of second-floor windows have projections at the sill level. The canopy has been altered over the years; now there is a ribbed-metal canopy supported by L-section triangular braces. This replaced a flat canopy which had clerestory windows above. The storefronts were recently restored with traditional wood-frame doors and windows. The rear facade of this building is only two stories tall. The metal-sash windows on the rear and sides have multi-pane awning sections over fixed pane sections. The rear projection from this building, described earlier, is to be demolished. The alley facade between the Lum Yip Kee and Wo Fat Building is cluttered with pipes, mechanical ducts, wires, and air-conditioning units.

The building was built by Lum Yip Kee, whose life is an example of a successful Chinese immigrant. He came to Hawaii in 1885-6, at age 19 and worked here for three years, then returned to China to marry. He came back to Hawaii about 1893, becoming a "well known merchant in the polo business," and eventually president of Liberty Bank.22 This bank was organized by Chinese merchants in 1922. Lum Yip Kee was also very active in many Chinese organizations. He owned a grocery store at 1130 Maunakea Street that was destroyed in a 1926 fire, and rebuilt the extant building at that address that bears his name also. This building, another major project, was constructed about ten years later, when he was in his seventies.

Adjacent to the Ewa Block of the Project Site

Corner of Kekaulike and Hotel Streets

The Lung Doo Chung Sin Tong Building on the corner of Hotel and River Streets (TMK 1-7-03: 33) is a modern building but with elements common to the historic district. It has a tile-roofed tower at the corner with upturned eaves (Photo 20). This 1933 building also has a scalloped concrete canopy cantilevered over the Hotel Street sidewalk, and a traditional moon-gate entrance to the tower stairway, with geometric-patterned metal gates. The remainder of the building uses very conventional 1960s materials and designs -- concrete block, stucco, decorative block, and jalousie windows. The canopy-like projections over the jalousie windows are flat. There are two flag poles supported on the Hotel Street facade. Now painted in a very subdued palette, the building was previously very vivid in hues and pattern. The structure retains a strong design character.

Corner of Kekaulike and King Streets

The one-story building on the corner of Kekaulike and King Streets (Photo 21) occupies a portion of TMK 1-7-03: 28. The date of this building is not known. Tax office records indicate a 1911 date, but a building of this footprint was at this location as early as 1906. The building has been remodeled in the 1980s, with modern metal-frame storefront windows and doors installed, as well as a ribbed-metal canopy that is continuous with the canopy of the adjacent building on King Street. The stucco walls above the canopy are slightly higher on the King Street and mauka ends of the building.

King Street between Kekaulike and River Streets

Now construction on the Ewa block will abut the rear of two other buildings fronting King Street. The two-story building on TMK 1-7-03: 28 is distinctive for the bend in its facade, following the obtuse angle in the roadway line (Photo 22). Some of the bricks at this angle are shaved, to avoid awkward projections. The building was extensively
Photo 20. Lung Doo Chung Sin Tong Building
Photo 21. One-story Building on TMK 1-7-03: 28

Photo 22. Two-story Building on TMK 1-7-03: 28
remodeled in the 1980s. The brick shell of the circa 1905 building was not changed, but almost everything else was altered. The segmental arches over the windows and the ornamental brickwork at the cornice and under the windows remains; however, a new ribbed-metal canopy, new storefronts, and new window sash were installed.

The building on TMKs 1-7-03: 29 and 66 is divided by tax plats and ownership, but is architecturally unified in design (Photo 23). The King Street facade of this circa 1905 brick building is stuccoed with a plain, uncolored plaster. The basement is built with coral block and lava rock foundation walls; floors and roof structure are wood. The canopy is roofed with corrugated metal, supported by simple steel brackets, and edged with ornamental jigsaw-cut shapes. About half of the original storefronts remained when the restoration of the building was undertaken in 1984; thus, the other storefronts were made to match. The windows were also restored to match the few remaining originals. The second-floor windows on the King Street facade are one-over-one double hung, with flat lintels. The two-over-two double-hung windows on the second-floor rear facade have segmental arches. The spacing of the upper windows in the King Street facade is unusual. In the Ewa end there are two sets of paired windows; all the other ten are single windows, that are fairly regularly spaced. However, the window spacing does not correspond with the absolute regularity of the cornice ornamentation, which has six recessed panels between pilaster-like vertical shapes. In the rear of the building there is a one-story addition, built of brick with a concrete slab floor and corrugated metal roofing. Mechanical equipment is located on this addition's roof and the rear wall of the two-story structure. The wall along the alley leading to TMK 1-7-03: 32 is built of very soft brick, some of which is deteriorating.
Photo 23. Building on TMK 1-7-03: 29 & 66
Corner of King and River Streets

New construction will be adjacent to the side and rear of the building on the corner of King and River Streets. The Chang Block (Photo 24) stretches over TMKs 1-7-03: 30, 31, 72, 73 & 74, but is a unified architectural design.

Ching Lum was the original name of the building. The tax map records indicate the building dates from 1904; this is corroborated by fire maps and city directories. Ching Lum, a Chinese immigrant who was superintendent of Oahu Lumber, opened his own construction company shortly after the Chinatown 1900 fire. Ching Lum had "purchased heavily in real estate" in Hawaii before returning to China in 1919. "He was one of the pioneers that accumulated wealth from real estate." He also gained some notoriety by having three wives in Honolulu at the same time. One wife sued for annulment, but when he died in 1929, in the midst of that trial, she filed claim for part of the estate as a common law wife. She lost the battle for a share of the estate. The judge's decision noted that the Supreme Court had asked the legislature in 1875 to "legislate on the subject of marriage of Chinese in this country." The building was purchased by the Chang family from the Ching Lum estate in 1939.

This building has many typical elements of Chinatown early 20th century buildings, such as the traditional storefronts and corrugated metal canopy with jig-saw cut ornamental fascia. An original storefront had survived the decades and served as a model for the others when the building was rehabilitated in 1982. The three-part storefront has a wooden base with recessed panel of tongue & groove boards with molding around; four-pane store windows and recessed splayed entrances; transom windows above a molded wood lintel. However, the Ching Lum Block has an unusual combination of materials. The storefront piers are of rusticated ashlar lava rock, with a beaded red mortar; while the upper floor street-side facades are plaster over brick. The side and rear walls are built of coursed rubble lava rock. The building has five bays along River Street and six along King Street. In the upper floor there is a set of three windows in each bay, except there are two only in the mauka bay on River Street. The
Photo 24. Ching Lum Block
upper facade has all one-over-one double-hung windows, with flat wooden lintels. Plaster molding lines run along the street facades between the sill level and the beginning of the canopy. There are additional molding bands and recessed rectangles in the cornice level plaster.

**Buildings Facing the Project Site**

The project site faces a fairly unified streetscape on Maunakea Street between Hotel and King Streets, since one building spans most of the block, covering TMKs 1-7-03: 84 thru 89 (Photo 25). This two-story brick building was built about 1905. It has multiple owners and, thus, a variety of storefront-level designs. However, the unity of the building is obvious in the second-floor, although in some sections the brick has been recently painted while in others the paint has faded or been removed. The decorative patterns in the brick above the windows echo the jigsaw-cut pattern of the canopy fascia. The mauka end of the block is an empty lot and on the makai end of the block is the Lee & Young Building (TMK 1-7-03:12) a two-story stuccoed structure, built in 1957 (Photo 26). Although modern in most design elements, and more horizontal than vertical in its orientation, the overall simplicity of the building allows it to act as a foil to the more ornate early 20th century building next to it.

The large apartment building complex across Hotel Street from the Ewa block of the project site is not in keeping with the general character of the historic Chinatown buildings. The materials and scale of this 1964 development are incongruous (Photo 27). Two blocky four-story apartment buildings are connected by a curved one-story commercial level that do not appear integrated. The concrete block walls as well as the fenestration of the apartments and stores contrast with the traditional patterns of Chinatown buildings.

The adjacent structure on the mauka side of Hotel Street is the 1968 Yew Char Building (Photo 28). The building has two design elements seen in historic Chinatown structures. The flared ends of the tiled canopies on each floor ties it to the 1930s Hotel Street buildings with flared roof elements. The recessed second-floor lanai is reminiscent of early 20th century buildings. However, the building does not have a unified character, due to the mixed historical references and modern design elements in the Yew Char Building. The latter include the large recess on the first floor, the access stair in the front, the metal-framed glass storefront, and the modern security grille on the second-floor lanai.

A very recent complex of buildings is also located across Hotel Street from the Diamond Head block of the project site (Photo 29). This 1990 Maunakea Marketplace complex was built under City as well as Federal regulations that involved design review. The commercial development appears as several two-story plaster buildings, and a brick gateway into the interior courtyard. The design successfully blends into Chinatown's architecture, but does not reflect its actual era of construction, because it appears older than its true age. It is a difficult design task to have a new building blend in and yet not be imitative.
Photo 25. Building on TMKs 1-7-03: 84 through 89

Photo 26. Lee & Young Building
Photo 27. 1964 City Housing Project on TMK 1-7-03: 44

Photo 28. Yew Char Building

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Photo 29. Maunakea Marketplace
DRAFT

ANALYSIS OF IMPACTS
OF THE KEKAULIKE REDEVELOPMENT PROJECT
ON THE CHINATOWN HISTORIC DISTRICT
AND ON INDIVIDUAL BUILDINGS
AND A DISCUSSION OF
POTENTIAL MITIGATION MEASURES

LAWS, REGULATIONS, AND POLICIES REGARDING HISTORIC BUILDINGS AND DISTRICTS

There are federal, state, and county laws, regulations, and policies regarding the protection of historic buildings and districts. The main federal regulations in this area are under Title 36, Part 800 of the Code of Federal Regulations (abbreviated as 36 CFR 800), and implement the provisions of Section 106 of the 1966 National Historic Preservation Act, as amended and of Executive Order 11993 ("Protection and Enhancement of the Cultural Environment"). These apply to federal agency actions and to other projects if federal funds or permits are involved. The Department of Housing and Community Development, City and County of Honolulu does anticipate using federal money for the Kekaulike Redevelopment project, in the form of Community Development Block Grant funds.\(^3\) The "Section 106" procedures (36 CFR 800 regulations) involve consultation with the State Historic Preservation Officer (in Hawaii, this role is assigned to the head of the Department of Land and Natural Resources, State Historic Preservation Office) and the Advisory Council on Historic Preservation.

The state historic preservation review procedure is similar to the federal process, but less formalized. The State of Hawaii has recognized the value of protecting historic properties in the State Constitution and further promoted preservation by enacting the "Historic Preservation" law, Chapter 6E, Hawaii Revised Statutes, and by adopting the Hawaii State Plan and State Historic Preservation Functional Plan.

The General Plan, adopted by City and County of Honolulu, also has historic preservation policies:

- Identify, and to the extent possible, preserve and restore buildings, sites, and areas of cultural, historic, and archaeological significance; and
- Cooperate with State and Federal governments in developing and implementing a comprehensive preservation program.

To accomplish these policies, the City has developed specific regulations for the Chinatown Special District, and in 1989 adopted a resolution to establish a "Comprehensive Historic Preservation Review Policy to Help Preserve the City’s Historic and Archaeological Properties" (89-469). The review process applies to any "development project which alters the land or any historic property," if it is undertaken by a City agency, or requires a City permit or other entitlement.

On all levels of government the recommended historic preservation review process involves six steps that each development project should follow:

(1) Identify any historic and archaeological properties likely to be affected by a development project,

(2) Evaluate the significance of the historic and archaeological properties involved,

(3) Assess the impact of the development project on significant historic and archaeological properties,

(4) Submit the assessment to the DLNR-SHPO for review and comment,

(5) Prepare a plan, in consultation with DLNR-SHPO to mitigate the impact of the development project on any significant historic and archaeological properties, and

(6) Implement the mitigation plan.
The initial stage of the procedure, identification historic properties in the potential impact area of the project and discussion of their significance, have been covered in the accompanying section. The entire district of Chinatown has been placed on the National Register. The significance of the district has been recognized by the Hawaii Historic Places Review Board and the National Park Service staff of the Keeper of the National Register, who are responsible for the nomination and listing. The period for which Chinatown is significant is largely the early 1900s. Few 19th-century buildings survived the fire of 1900 and the post World War II buildings generally do not contribute to the character of the district.

After the discussion of significance, the "assessment of impact" stage is evaluated. The federal regulations (36 CFR 800.9) spell out criteria of adverse effect:

An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to:

1. Physical destruction, damage, or alteration of all or part of the property;
2. Isolation of the property from or alteration of the character of the property's setting, when that character contributes to the property's qualification for the National Register;
3. Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
4. Neglect of a property resulting in its deterioration or destruction; and
5. Transfer, lease, or sale of the property . . . . [without] adequate restrictions or conditions . . . . Included to insure preservation of the property's significant historic features.

The section of the Land Use Ordinance relating to the Chinatown Special District also contains the following policy on historic preservation:

- Preserve and restore, to the extent possible, buildings and sites of historic, cultural, and/or architectural significance, and encourage new development which is compatible with and complements these buildings and sites, primarily through building materials and finishes, architectural detailing, and provisions for pedestrian amenities, such as storefront windows and historic signage details.

The City and County's "Development Plan Special Provisions for the Primary Urban Center" sets out urban design principals and controls to regulate "prominent views of historically and architecturally significant urban areas, places and buildings, such as . . . Chinatown."

The above criteria and policies are used in the following sections to assess the impacts of the proposed project. Possible mitigation measures are suggested. Final determination of mitigation will involve consultation between DLNR-SHPO and the Department of Housing and Community Development. The mitigation measures should be outlined in the final EIS and could be made conditions of the permits for the project.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Figure C in the previous section shows the extent of the proposed project and the existing buildings on the two blocks of the project site. The project involves demolition of historic buildings, as well as demolition of recent buildings, and of portions of structures. The project also includes renovation of the facades of four modern buildings to a style more compatible with Chinatown. The major portion of the project is the new construction on two blocks in the Chinatown Historic District. A redesign of Kekaulike Street as a pedestrian mall is also an aspect of the project.

The potential impacts on the historic district of Chinatown of the various aspects that comprise the project are dissimilar; thus, each is discussed separately. Potential mitigation measures follow the discussion of each type of impact.
Demolition of Historic Buildings

The wooden buildings on the Ewa Block of the project site date from 1902; these are among the few remaining wooden buildings and are some of the oldest in Chinatown. The streetfront building is by far the largest extant wooden structure in Chinatown. The complex is significant as an example of the building pattern once common in Chinatown, with the main building along the streetfront and the secondary buildings in the rear. The complex is also an example of how residents in Chinatown would make small, accretive changes to the buildings to suit their needs.

The storefronts have been greatly altered, many changes are evident in the fenestration of the upper floor, and patchwork repairs have been made in all the buildings. A substantial renovation of this complex would be necessary if the building were to be preserved; the buildings cannot be maintained much longer with only minor repairs.

The demolition of these historic buildings must be considered an adverse effect, but the alternative of doing nothing would also eventually lead to the loss of the complex through neglect. To mitigate the loss of this complex, several measures are possible, including further research on the construction history of the interior blocks in Chinatown and/or the preparation of measured drawings of these buildings, and/or photographic documentation according to Historic American Building Survey standards. Consultation with the DLNR-SHPO will determine the mitigation measures to be undertaken. The effect of the planned new construction on adjacent buildings and the Chinatown Historic District is discussed in a following subsection.

Demolition of Recent Buildings

The three buildings on the Diamond Head block of the project that are slated for demolition date from the 1960s. Portions of the rear of two buildings are also to be demolished. The addition on TMK 1-7-03: 92 was built in the 1980s, while the projection on the Lum Yip Kee Building may be the same age as the main portion of the 1936 building. None of these buildings or projections have architectural character or historic significance which contributes to Chinatown. The buildings do have the typical ground-floor commercial uses common to Chinatown. However, the new building will have substantially more commercial space along the streets. If the new building's shops include traditional uses, such as the herb store, crack seed store, and Chinese grocery store that are in the buildings to be demolished, the overall effect on the cultural significance of the district would be positive.

Renovation of Facades

The four buildings for which facade renovations are planned date from the 1950s and 1960s. Their existing designs do not contribute to the architectural character of Chinatown. The proposed redesigns contain many elements that are common in Chinatown, and would improve the appearance of these buildings. Several proposed facade designs for the three buildings on Kekaulike Street were developed for consideration. The final designs for the four facade renovations have not yet been selected, but the schematic stage drawings that were reviewed are a decided improvement compared to the existing buildings (shown in Photos 9, 10, 11, and 12 of the previous section). The arrangements by which the facade improvements of the privately owned buildings will be accomplished have not yet been determined. The facade renovations are considered a positive visual impact of the project. The construction-period effects of the facade renovations would be similar to those for new construction, except that little or no foundation work would be necessary. Temporary closures for the businesses in the structures would probably be required during at least a portion of the construction period.

The planned facade remodelings of the three buildings on Kekaulike Street would much improve the appearance of these buildings and make them fit in with the prevailing architectural character of Chinatown. Decorative rooflines and canopies are to be added. New windows will be installed on the facade of the four-story building, and the jalousie
windows on the two-story buildings will be changed to multi-pane windows. The storefronts of the two-story buildings will also be rebuilt in a more traditional manner, while the entrance to the four-story building will be made symmetrical, with multi-pane sidelights adjacent to the central door.

The facade renovations for the building on the mauka/Ewa corner of Mauka and King Streets (TMK 1-7-03: 17) would change the appearance of the 1956 structure to be reminiscent of the original corner section of the Young Anin Building that was built there in 1920 (see Photo 9A in previous section). The remodeled facade will have an angled corner on both floors with a triangular pediment, similar to the 1920 building. Because the 1956 building has a much lower roof than the adjacent remaining section of the Young Anin Building, the parapet of the remodeled corner building will match the height of the decorative brickwork band on the facade of the Young Anin Building. This will be a definite visual improvement, since the present building's roofline does not relate to any architectural feature on the adjacent building, now running at mid-window level. The use of red brick, 2/1 double-hung windows on the second floor, sloped corrugated metal canopy, and the remodeled storefronts with transom windows will also help to tie the new facade to the Young Anin Building.

Kekaulike Pedestrian Mall

Several conceptual studies of the design for Kekaulike Mall were developed. The plans all have formal paving patterns and numerous trees, but some are more linear in design, while others more centralized with larger specimen trees. As of this writing the City's consultants have been requested to develop a plan with three large trees. Details such as paving patterns, materials, benches and lighting fixtures are not yet determined. Although the mall will be a new amenity in Chinatown, it is also an element that will alter the setting of the buildings facing it. Most of these buildings date from the 1960s. The only historic buildings that are adjacent to the planned mall are at the mauka corners of Kekaulike and Kings Streets. The 1909 L. Ah Leong Building faces King Street, and the side facing Kekaulike is secondary. The circa-1905, one-story building on the opposite corner has its main frontage on Kekaulike Street. However, this building has been so altered by its various remodelings that little original fabric remains visible.

The extent to which the mall will change the setting of the Chinatown District will depend on the character of the design details as well as the overall plan intent. The mall should maintain the character of a street. Plantings and wider sidewalks could be accommodated, but the essential feature would be the curb height difference between the sidewalks and street levels, even though the street would be closed to traffic.

Proposed New Construction: Construction-Period Impacts

The new building to be built on the Diamond Head block of the project site will have different impacts than the building on the Ewa block, since the former will have underground parking while the latter will not. There are a number of potential construction-period impacts that could result from the construction of the underground parking, since it abuts or is sited within a few feet of several historic buildings. There is the potential for damage to the historic buildings by excavation for the underground parking. These construction-period effects could cause long-term damage to the historic buildings, many of which are constructed of unreinforced soft brick with low strength. Since the type of foundations to be used for the building and the soils in the area are currently under investigation, the potential impacts will be generally discussed, in terms of worst-case scenarios. After each potential impact, a possible mitigation measure is given.

1) Use of impact pile drivers for sheet piles or soldier piles could cause excessive ground-borne vibration to be transmitted to nearby structures. If piles are required, drilled piles holes or vibratory pile drivers, rather than impact drivers, should be used to minimize vibrations.
2) Use of large backhoes to break hard coraline materials with excessive pounding could also cause ground-borne vibration to be transmitted to nearby structures. The potential impacts could be mitigated by limiting backhoe pounding and/or pre-drilling the material before pounding.

3) Excavation itself could result in the lateral movement of shoring and bracing, or the bottom of the excavation could heave, either of which could cause uneven settlement of adjacent buildings. To minimize potential impacts, excavation shoring and bracing should be checked to ensure adequacy, and the ground nearby monitored before, during, and after construction for settlement.

Although there are several potential impacts from excavation and foundation work, there are potential mitigation measures for each. The new building in the Ewa block of the project may have lesser potential for impacts from foundation work, since there will be no underground parking on this block. However, some excavation will be needed for foundations. The soils near Nuuanu Stream are soft alluvial deposits, and therefore deep piles may be necessary for foundations.

Specific mitigation measures would have to be worked out for each historic building affected, depending on the investigation of their foundations, the soils in the area, and other factors. Monitoring should include photo documentation of the buildings adjacent to the project site, prior to construction, to establish a base for assessing any cracking or other damage to the building due to construction activity.

Soils engineers should further investigate potential foundation impacts and mitigation measures. Investigations could include soil borings at locations directly adjacent to the historic structures.

Construction on both sections of the project site will create dust and other debris which will settle on the nearby buildings. This debris could damage building materials and obscure details on historic buildings, and it detracts from their appearance. This type of impact has occurred with other new construction in Chinatown. The construction debris impact can be mitigated by cleaning the historic buildings in the area after construction is complete, using methods appropriate to the building materials, some of which are fragile.

An indirect construction-period impact could possibly result from construction noise, construction dust traffic, and loss of parking spaces during the construction period. These might make business-as-usual difficult for some tenants in the Chinatown Historic District during this period. However, these temporary effects are not expected to have a long-term impact on the survival of businesses or the maintenance of buildings.

**Proposed New Construction: Operational-Period Impacts**

Because floor plans and elevations are to be reproduced in another section of the Environmental Impact Statement, they are not repeated here. The following discussion of the planned design of the new buildings in the Kakaako Redevelopment project is based on a set of conceptual studies by Architects Hawaii Ltd. dated 1 February 1991 and some colored drawings of variations in elevations dated 4 March 1991. Since the project is in a relatively early stage, there is a likelihood of design changes occurring. As the design is refined, further consultation with the DLNR-SHPO and the Advisory Council on Historic Preservation is necessary. The Advisory Council publication *Preparing Agreement Documents* notes that detailed project plans should be referred to specifically in any agreement that is reached between the consulting parties.

The proposed new buildings have been designed to be compatible with the historic architecture in Chinatown. This is achieved through use of such traditional facade elements as brick and plaster walls, decorative cornices, canopies, regularly spaced double-hung windows on the upper floors, and open storefronts on the ground level. The new buildings' design follows the requirements of the Chinatown Special District regulations in the Land Use Ordinance.
The new buildings will also add new elements to the built environment in Chinatown, but they have generally been designed to blend in as much as possible. The philosophy for designing new buildings in a historic district is not to create exact imitations or replicas. In fact the Secretary of the Interior’s Standards for Rehabilitation state that for new construction in historic districts the “new work shall be differentiated from the old.” The Standards further state that the new construction “shall be compatible with the massing, size, scale, and architectural features [of the district] to protect the historic integrity.” In the conceptual plans developed to date, this compatibility has generally been achieved, but perhaps not enough differentiation from the old. This is a difficult balance to reach. In the development of the final design the goal should be to produce compatible modern buildings, not imitations of early 20th century structures or styles.

Potential Direct Effects on Chinatown District

Facade of New Building on Diamond Head Block

The overall effect of the Diamond Head portion of the project on the Chinatown Historic District is positive, since continuous facades will replace the gaps created by the surface parking lot and empty lot. The new building will be four stories, with a maximum height of 40 feet above existing grades. However, the top one or two floors of the new structure will be stepped back to help reduce the apparent height of the building and to relate better to the existing two- and three-story buildings in the block. The new building, which will be larger than any other on the block, will be designed to appear as a series of separate buildings with contiguous facades.

The majority of the elevations of the new structure will align with the plane of the facades of existing buildings on Hotel, Kekaulike and Maunakea Streets. Mostly three-story sections of the building will be on the plane of the existing streetscapes, but on Kekaulike Street a portion of the facade, at the plane of the property line, will be two stories. This section of the facade relates to the two-story L. Ah Leong Building at the corner of King and Kekaulike Streets.

Despite some variation in building materials and design elements the overall effect will be unified. The facade materials will be red brick or light colored stucco. Sloping canopies of corrugated metal and storefronts will be the dominant features on the street level. However, the canopy is not planned to extend over the garage entrance on Maunakea Street, and the apartment building entrance on Kekaulike Street may have a pedimented portico.

Red brick is proposed for use on the Maunakea Street elevation of the new structure, which is the material of the adjacent building on TMKs 1-7-03: 77 & 76, a portion of the 1902 Young Anin Building. A three-story facade on the plane of the property line has been designed. The entrance to the garage would be emphasized by a pedimented parapet, bay windows, and a large arch. The ramped entrance to the garage has been placed towards the King Street end of the new building’s facade on Maunakea Street, away from the adjacent 1905 building.

The Hotel Street elevation occupies about a quarter of the block’s frontage on this street, and has a design compatible with the two 1930s structures (Wo Fat and Lum Yip Kee buildings) that occupy the remainder of the Hotel Street block. The spacing between the new building and the existing will repeat the street pattern. Although the facades on this block do not touch, there is a unified streetscape created by the plane of the facades, and the similar heights of canopies and rooflines. The two historic buildings have stucco walls. It has not been determined whether the new building’s elevation on this street will be stucco or brick, but stucco would be more compatible.

Several design options have been developed for the Kekaulike Street elevation. All include a section of the building that appears similar to the 1916 J. H. Schnack Building on Maunakea Street between King and Nimitz, with a recessed lanai on the second floor and neoclassical pediments and
pillasters. The preferred scheme also has a trellis planting at the lanai of the third-floor level. Some of the schemes developed for the apartment entrance on Kekaulike Street show it set back substantially from the property line to accommodate an exterior entrance stairway to the parking garage. There are also designs where this section of the building maintains the facade plane along this street and encloses the entrance to the parking garage in a lobby-like space. The latter solution would be more in keeping with the character of the district. Should the "Schnack" scheme be implemented, it is important that it function as a lanai space and not be enclosed.

Facade of New Building on Ewa Block

The proposed design for the building on the Ewa block shows a four-story structure U-shaped in plan, with a central courtyard and a landscaped area on the makai side of the lot. Along the plane of the property lines at River and Hotel Streets, the building rises three stories, with the fourth floor set back. The facade has been designed to appear as three or four separate buildings, and the planned wall material is stucco.

If the new building is built of masonry or stucco, there will be few structures built with the material so important to history of the district. The possibility of designing a wood veneer building should be investigated as a mitigation measure for the loss of the last remaining large historic wooden structure in Chinatown.

Other Design Elements of New Buildings

The plans indicate that a tandem set of loading spaces will be provided off Kekaulike Street, between the new building and the L. Ah Leong Building. The loading area connects with a narrow pedestrian service lane running behind the other buildings fronting on King Street. This will allow the businesses in the historic buildings on King Street to continue to be able to receive deliveries from the rear, as they do from the current parking lot. However, the access to the rear of the Lum Yip Kee Building will become more difficult once the new building is constructed, especially since delivery trucks are not allowed on the Hotel Street Bus Mall.

The interior courtyards planned for both the new buildings will be amenities for the new residents. And they will be perceived as obviously modern construction, since they represent a very different development pattern from the scattering of small buildings in the interior of blocks typical of historic Chinatown. This is appropriate for the purpose of the project. The modern-day needs of the new units residents can be accommodated in the interiors of the site and the street-side facades will respect the historic district. Design unity between the courtyard and street-side facades can be reached through use of the same siding material and window types.

Potential Indirect Effects

A potential positive economic effect of the new construction is increased business generated by the new residential population. Indirectly, the improved business may result in greater maintenance or rehabilitation efforts for historic buildings.

The width of the service lane in the Diamond Head Block of the project ranges from about four to ten feet. Compared to the existing situation with the surface parking lot, there will be reduced light and ventilation for the openings on the rear facades of the adjacent buildings on King Street. In the conceptual plans for the new building, the upper levels appear above the makaha property line. The Lum Yip Kee building’s rear facade appears to be about five feet from this line, but that leaves little space for ventilation and lighting of the windows on the rear facade of the Lum Yip Kee building. The new building on the Ewa Block of the project will also be built closer to the adjacent buildings than the existing structures on the Wong parcel. As the final design is developed care should be taken to minimize loss of light and air to these adjacent historic structures.
ENDNOTES


3 Glick (1980); p. 132.


8 Board of Fire Underwriters of the Territory of Hawaii, by Alfred R. Gurney, Inspector (1900, updated to c. 1905). Map of Honolulu, Hawaiian Islands, U.S.A. Dinkin Publishing Company: San Francisco; Located at Bishop Museum Library, Map Collection. See also the 1906 set located in the University of Hawaii Map Collection. In addition, the Hawaii State Archives has a set of 1906 maps which were updated to 1911, but the buildings that are later than 1906 are obvious from the pasted down layers used to update the maps.

9 Sign for "Hop Sing Restaurant" can be seen with 10x magnification of the photo in the "Hotel Street" and "Street Car" files of the Bishop Museum Visual Collections. In reproduction from their negative the sign is not as clear as visible.


11 Board of Fire Underwriters of the Territory of Hawaii (1906). Map of Honolulu, Hawaiian Islands, U.S.A. Located in the University of Hawaii Map Collection.

12 There are several entries in the Archives File index which indicate James Armstrong was a successful bidder for several government construction contracts at the turn of the century, and he was listed as a carpenter in the 1884, 1890, and 1900 City directories. After 1903 he is listed as being in real estate. His name is not listed in the City directories, and sometimes a second James Armstrong, a land owner in Pearl City, is listed. However, this was apparently a different James Armstrong, as indicated by the 1905-6 City Directory and a 1902 newspaper article - see Endnote 16 below in text of report. James Armstrong listed bananas (1899), ranching (1902), and rice (1913) on his Pearl City land.


16 "Chinaman Says it was a Scared Cat Started Big Fire Yesterday," Pacific Commercial Advertiser (August 18, 1902), p. 1.

17 Hawaiian Gazette (August 26, 1902), Commercial column, p. 7. The article mentions the landlordness of E.C. Winston, Charles Armstrong and C.A. Al, but the name Charles is probably a mistake, as no property of Charles Armstrong was mentioned in the earlier articles about the fire.

18 Hawaiian Gazette (October 21, 1902), Commercial column, p. 7.


21 Tax Office records - "Commercial and Industrial Appraisal Card" for TMK 1-7-03: 32.

22 Tax Office note on "Commercial and Industrial Appraisal Card" for TMK 1-7-03: 32.


26 Pacific Commercial Advertiser (January 1, 1902); p. 13, c.4; photo p. 15.

27 "He Has Grown Old Gracefully With Advertiser: Y. Anin," Honolulu Advertiser (January 17, 1955); p. 4.

28 Pacific Commercial Advertiser (January 1, 1905); p. 10.


30 Ibid.


INTRODUCTION

The Applied Research Group of Bishop Museum completed a literature and archival documents search for the proposed City and County redevelopment and rehabilitation project for the Kaka'ako Parking Lot. This work was conducted under contract to Wilson Okamato and Associates. Objectives of the historical data search, summarized in the following report, was to determine the potential for subsurface archaeological remains and other sensitive areas within the project site to facilitate testing recommendations for the next phase. The major focus of the data search was twofold:

1) To gain a documented pre-1900 overview of the early historical land use and ownership of the proposed site area, and

2) To identify those impacts affecting the site through development, redevelopment, and occurrences of disasters.

SITE DESCRIPTION

The proposed Kaka'ako Parking Lot Redevelopment Project is situated within the Chinatown Districts of downtown Honolulu on the island of O'ahu. The proposed project area is within the fifteen block Chinatown District placed on the National Register of Historic Places on 17 January 1973 (Register Number 80-14-9927) based on its unique ethnicity after 1900.

The site area is bounded by River Street (Ewa), King Street (Mokapu), Maunakea Street (Waikiki), and Hotel Street, formerly known as Theaters Alley (Moana). Biscuiting the project area from Hotel Street to King Street is Kaka'ako Street (Figure 1). Business structures, rebuilt after the Chinatown Fire of 1900, front these streets with the intersection at Kaka'ako and Hotel Streets serving as a major public bus transfer point. Proposed redevelopment parcels within the two block area are shaded within TMC 1-7-03 (Figure 2). Currently, an unoccupied two story wooden structure located on Parcel 32...
Figure 1: PROJECT SITE/SPECIAL DISTRICT. Screened area indicates project parcel. (After Spencer Mason Architects).
Figure 2: TMK 1-7-03 State of Hawaii Taxation Map
(Shaded area represents Fishpond and Graveyard)
occupies the corner of River Street, and fronts Hotel Street utilized by small businesses and apartments. The interior of this area is undeveloped. An optional redevelopment parcel includes a small modern concrete brick building at the corner of King and Maunakea Streets currently occupied by a jewelry store. The remainder of the Kaka'ako Parking Lot project is utilized for municipal metered parking on a ground surface level. No archaeological survey or testing has been done.

PRELIMINARY RESEARCH

Historical document research focused on early land use and impacts to the proposed project area. Major records and documents consulted were testimonies taken during the "Great Makahiki" land division of the Hawaiian Islands recorded between 1845 and 1852 and known as "Land Claim Awards" (LCA). These documents were supplemented by archived land record documents, photographs, survey, and fire insurance maps. In context with the fire insurance maps, Honolulu City directories provided names of businesses occupying structures mapped prior to, and following two major fire events that swept the project area.

IMPACTS

Initially occupied during the early contact period as housesites by native Hawaiians, a gradual transition into a Hawaiian and Chinese business district is noted through available records and documents. With this transition, street development and improvements, water service installation, and two major fire events have impacted the proposed Kaka'ako Parking Lot redevelopment and rehabilitation project.

Development

Testimonies taken during the land claim awards (see following sections) refer to the conquest of Maui and Oahu by King Kamehameha I in 1795 and the assignments of this specific area, then known as Kikihale as residences for the favored followers of Kamehameha in that year. A portion of the site, now under the parking lot near King and Maunakea Streets was then apparently a prehistoric graveyard (see L.C.A, pages 12 and 18).

King and Maunakea Streets were "put in about 1831" (Commissioner of Public Lands, Native Testimony 2:509-505) and straightened and widened in 1866/1867 (Interior Department 27:637). Costs of the extension of Theater Alley (Hotel Street) from Maunakea Street to Nu‘uanu Stream was sought by the City Fathers in 1894 (Interior Department 25:255), and was extended, along with Kaka‘ako Streets in 1897 following the 1895 Chinatown Fire (Interior Department 36:186). River Street, on the Waikiki bank of Nu‘uanu Stream, was created from fill materials deposited from dredging Nu‘uanu Stream in 1896/1897 (Throw 1897:126) following pollution of the stream (1895 cholera epidemic), and enlargement of the mouth of Nu‘uanu Stream for extension of the Honolulu boat harbor.

Honolulu's first water pipes were laid in 1838/1839 (Throw 1899:85), and were servicing the project area prior to 1886 (see Grant 335). Sewer pipe installation in the downtown area was begun in the early part of 1900 (Pacific Commercial Advertiser 13 January 1900:13).

Fires

The first of the "Chinatown Fires" broke out on Hotel Street near Smith Lane at about 3:00 pm leveling the project area on 18 April 1886. The configuration left "large numbers of Hawaiians, and especially of the Chinese, homeless and homeless" (The Friend 1886, 1:3). The Pacific Commercial Advertiser, reporting on the Fire Limit of this fire stated:

"Large numbers of Chinamen were digging around and carrying off different articles which had either been slightly damaged or not burned at all... There must have been a heavy stock of opium in Chinatown at the time of the fire, as many half-burnt tins were found among the debris at different places."

4
A notice placed by the Minister of the Interior, Charles T. Gulick, appearing in the same article states (apparently disregarded):

"Public notice is hereby given that the permanent repairing of any buildings damaged by the fire of the 16th instant, or the erection of any new building on the burnt district must be of brick, stone, iron, or other approved fire-proof material. The erection or permanent repairing of wooden structures is hereby strictly prohibited."

(Pacific Commercial Advertiser, 1886:1-4).

The second Chinatown fire sweeping the project area shortly after noon on 20 January 1900 occurred as a fire, set by the fire department in a bubonic plague area. Hauka of Kikihele went out of control. The fire in the Kekaulike project area, designated then as "Blocks 3 and 6", was described:

"...the fire had again made a leap and was burning fiercely in Blocks 3 and 6, the flames being carried in great sheets across the narrow street. Dynamite was freely used in front of the fire, but the quantity in each case was so small to make any impression...

After Blocks 3 and 6 were in flames the smoke down King Street became almost insupportable. The entire district was covered with a heavy, pungent pall of smoke. The King street bridge was observed to be on fire and the hot smoke and the heat drove the guards across to the Palama aide. Nothing could be done toward stopping the flames...

The large brick buildings at the corner of King and Nuuanu streets were on fire, and all within the fire walls was soon blazing. Thousands of dollars of fireworks, bombs and every sort of celebration explosives were stored in these buildings..."

(The Pacific Commercial Advertiser 1900:1-2).

**SIXHOLE**

Fourteen land claims awarded during the Great Kokele, and six grants sold to private parties in 1935 are located within the two block Kikihele area (Figure 3). Seven land claim awards (L.C.A.), portions of three land claim awards, and five grants are specific parcels within the proposed Kukuhele Project. Records from extant documents relating to each of these land parcels, and associated records have been abstracted from native and foreign testimonies, registers, and later land documents. A tangle of "Land Court Applications" with loss of original ownerships, and a maze of new ownerships appear after the 1900 Chinatown fire.

Historically (prior to 1908), "Pehu's Fishpond", the "Kikihele Plume", fenced house lots enclosing houses made of stone and grass, small baker and blacksmith shops, and the premises of the Liberty Hall Barona near the corner..."
Figure 3: Land Claim Awards from Gov't Survey Maps (State of Hawaii 1896)
of Maunakea Street and Theatre Alley, are specific associated structures and activities occurring within the project area. The current boundaries of the project area corresponds to the area of Kikihale laid out by King and Maunakea Streets in 1837 bounded Mauna by Theatre Alley (Hotel Street 1880), and Eva by Nuuanu Stream (River Street 1856/97).

**Corner of River Street and Fronting Hotel Street**

**LCA 723**

On the corner of River Street, Fronting Hotel Street, and crossing Makalalea Street are four land claim awards shown in the LCA map (Figure 3). Between LCA 723 and 606 on this map is a "blank area" which was originally a fish pond known as "Pehu's". "Pehu's Fish Pond" is identified by a sketch in LCA 723 (Figure 4) which was awarded 12 May 1852 to a Hawaiian native, Kawahaula (Commissioner of Public Lands, Awards 2:1531-1532). In foreign testimony to claim 723 it was sworn:

"This place is in Kikihale, Honolulu bounded Waiwai side by Pehu's fishpond, Makai by Nehehale... Ewa by Nuuanu Stream. Makai by extension of Church Street. This land was given to claimant's grandfather in time of Kamehameha I... it has four houses but not fenced" (Commissioner of Public Lands, Foreign Testimony 2:1595-1596, 1598).

On 13 September 1869 LCA 723 was deeded from the heirs of Kawahaula to Alexandre Andre (Bureau of Land Conveyances 28:1352) and leased from Andre to Romano on 1 January 1871 (Bureau of Land Conveyances 35:1355).

**LCA 606**

On the Waikiki side of Pehu's fishpond were two land claims, LCA 606 and LCA 652. LCA 606 was awarded 16 November 1852 to Hauul for Kauu (Commissioner of Public Lands, Awards 10:95). The Native Register document states that this claim was occupied since Kamehameha I: "...I have five children... this is my place at which I live" (Commissioner of Public Lands, Native Register 2:299). Heirs of Kauu deeded LCA 606 to Haymon de la Haye on 10 July 1869 (Bureau of Land Conveyances 28:272) which was later deeded from Haymon to James Armstrong on 12 January 1889 (Bureau of Land Conveyances 114:284).

**Figure 3:** Pehu's Fishpond 1852 near corner River and Hotel Streets

(Land Claim Award 723)

**LCA 652**

Claim 652, awarded to a native, Kawelua, on 10 April 1849 (Commissioner of Public Lands, Awards 2:134) is described by a neighbor, Kauu (see LCA 606 above) in Foreign Testimony on 24 March 1848:

"I know this place. It is a house lot in Honolulu by the Nuuanu Stream bounded Ewa by my land...claimant received the land from Holoholokai in time of Kamehameha I, and has occupied it ever since without dispute. It is fenced and has 3 houses" (Commissioners of Public Lands, Foreign Testimony 2:248).

This LCA along with LCA 606 (above), "buildings, etc." was mortgaged by James Armstrong and wife to W. H. Castle Trust on 2 January 1890 (Bureau of Land Conveyances 123:113).
Fronting Theatre Alley (Honalii Street) side of Kekaulike Street (current bus stop), were portions of LCA's 3 and 62 awarded to Kapaikini and Kanai for Hiloa Koa Makanii (see Figure 3). Lengthy foreign testimonies describing this property are recorded from which the following is abstracted:

"...That KuaHELale was Governor of Oahu; immediately after it was conquered by Kamahana, he was the first to live there. He was married at that time, but as soon as he was old enough to become intelligent, he was acquainted with the land which Kapaikini now claims. Kamahana gave the land to KuaHELale and KuaHELale was the head man of all Honolulu, witnesses his own brother to Kapaikini the claimant. He lived there with his father as servants of KuaHELale. The yard was occupied by his uncles in connection with Klikau who was the head man under KuaHELale; there were other servants in the yard belonging to KuaHELale; there were other servants in the yard belonging to Kamahana. KuaHELale died suddenly without a will. Nahai was appointed to his office and we lived under him as servants of KuaHELale. We lived at Klikau. Subsequently Nahai was appointed. Kauuipalapalo was appointed in his place. When Kibirio came to this island, the Chief and people filled up the place, at which time, I with some of the rest of us, moved back to Palama, and left our yard with my grandmother and others of my relations. Kapaikini was at this time a child. I stayed with his grandmother, at which place he has always lived to the present time" (Commissioner of Public Lands, Foreign Testimony 1:7-71).

On the corner of Hotel and the Wallikii side of Kekaulike Street (currently a cemented area for the bus stop), LCA 60 was originally claimed by Natalo Keoki for John G. Lewis, a black sailmaker on 25 December 1818. Native Testimony states that the land claim was located "by the ile of Kikihale" (Commissioner of Public Lands 1:107-108). The award document states:

"This is to be a house lot in Honolulu Island of Oahu. From the evidence taken in this claim it appears that the claimant became possessed of this lot in the year 1818 by exchanging another lot for it with one William Walker; that Walker obtained it many years before from Kauu, a native; and that the claimant has been in peaceable possession of the same ever since the year 1819.

The title to this land is clear, but since the hearing of the claim the claimant has died leaving all his property to Kauu, his widow; Kauu has since Keoki’s decease, exchanged this lot in question with John G. Lewis, for a lot adjoining; and now requests that this award be made out in the name of the same Lewis."

Subsequently, this lot was deeded from John Lewis to William E. Gill on 22 December 1859 for $1,110.00 (Bureau of Land Conveyances, 1 Deeds:79). E. E. Ryder, son of W. E. Gill, was deeded heir of the estate and sold the property in two lots; one to Edward Burgess and the other to Atone Manuel on 21 October 1866 (Bureau of Land Conveyances 22:288 and 23:44-45).

**Hotel Street (Theatre Alley) Development and Impacts**

Along Theatre Alley in 1879 (Figure 5) one dwelling and seven shops are mapped within the specific Kekaulike project area along the Alley. In 1880 Honolulu city directory lists these as Chinese businesses from Waikiki Street to the corner of Kekaulike Street as: Wahi Ab Coffee Saloon, Ah Yet Restaurant, W. C. Chang Grocer, W. K. Kit Coffee Saloon, Loong Tong Restaurant, and W. Chung Butcher (Bureau 1880/81: 18, 20, 25, 29, 32-33). In the approximate location of "Pukui’s Fishpond," the directory identifies the dwelling as Mrs. Thomas Boardhouse.

Following the first 1886 Chinatown fire the first extent Kokoulu Business Directory printed in 1889 lists only these businesses southward (Kilikiki) of Mamaki Street. Businesses along Theatre Alley are not included in this directory (Brown 1889:83).

Prior to the 1930 second Chinatown fire, a general merchandise store, a vacant building, doctor, general merchant, barber, blacksmith, two dwellings, and a coffee shop are shown in these locations (Figure 6). Two ownerships, Sun Kee in the blacksmith shop, and Ho Wo Lung Coffee Shop at the
Figure 5: 1879 Fire Insurance Map (Lion Fire Insurance Company)
The corner of Hotel and Kekaulike were identified from the 1899 city directory. By 1914, the current structure at the corner of River and Hotel Streets extended along Hotel Street to near the corner of Kekaulike Street (Figure 8). The structure was divided into thirteen shop spaces with the majority of the structure then being used for storage. An unidentified druggist, a restaurant, M. Akimoto (plumber), and I. Shigii Druggist occupied four of the shop spaces within this structure. I. Shigii Druggist is listed in this building from 1907-1959, and is shown as a prosperous drugstore in 1936 occupying the building in the space at the corner of River Street and along Hotel Street (Figure 7).
KEKAULIKE PROJECT INTERIOR

On the Ewa side of Kekaulike Street, the interior of the Kekaulike Project area contains the entire lots of LCA's 422, 50, and 9003; Grants 39, 50, and 55 which were granted in 1871 (Figure 3).

LCA 5003

LCA 5003, situated near the center of the Ewa side of the project area was claimed by Kahouloa as having been obtained from Liholiho (King Kekaulike II 1819-1825) (Commissioner of Public Lands 10:25), and was awarded by Royal Patent 2613 on 3 September 1852 (Commissioner of Public Lands, Award 10:25). The Native Register and Native Testimonies for this land claim state that this was a housesite containing one house (Commissioner of Public Lands, Native Register 4:410, Native Testimony 10:70). LCA 5003 was deeded 19 April 1873 to Kekaulike (Bureau of Land Conveyances 36:438).

LCA 422

LCA 422, fronting the middle of the Ewa side of Kekaulike Street was awarded to a native, Oopuni, on 10 September 1818 (Commissioner of Public Lands, Award 1:318-319). Upon registration on 3 September 1946, Oopuni claimed that the land was acquired from Liholiho (King Kekaulike II, 1819-1825):

"This was not a good place formerly when I began to live here...there was no house...it was I who built the first house at this place. This place where I am living as a lease [Lease?] for the people..."

(Commissioner of Public Lands, Native Register 2:151).

Transfer, or land sale of this lot was not located in the Bureau of Land Conveyances through 1884.

Grants 39, 50, 55

Grants 39, 50, and 55, which were housesites now located approximately under Kekaulike Street, were awarded on 25 August 1877 to native couples: Kino and Kukumrn (Grant 39); Keana and Kukumsm (Grant 50); and to Kekaulike and Nahi (Grant 55) (Commissioner of Public Lands, Grants 1:81, 103, 113). Some descriptive information was recorded in the Grant documents:

Grant 39, containing one building was mortgaged to Mele Alapai on 23 March 1872, and later deeded to Naha on 5 May 1875 (Bureau of Land Conveyances 31:208 and 41:450).

Grant 50 was deeded to Isaac Montgomery (an English merchant involved in the sandalwood trade ca. 1817) on 27 March 1818 (Bureau of Land Conveyances 4:171). Buildings situated on this lot, and the lot were sold by J. Montgomery (heir) to Johnson Wilkinson 12 July 1858 (Bureau of Land Conveyances 10:709).

Grant 55 was mortgaged to an English subject, Stephen Spencer (his Majesty's accountant; appointed Chief Clerk of the Interior Department in 1859) on 6 May 1868 (Bureau of Land Conveyances 25:345).

On the Waikiki interior side of Kekaulike Street, portions of three LCA's (28, 222, 694) are currently under parking lot pavement (Figure 3). 28, 222, and 694.

LCA 28 (Royal Patent 5)

LCA 28 was awarded to a native, Kaloaewalu on 11 June 1847 (Commissioner of Public Lands, Awards 1:107-109). Counter claimed by Louis Gravier, the foreign consultant for this LCA by two Hawaiian states:

"I am acquainted with the place...my husband gave it to Kaunui...the whole was then surrounded by a fence from the road down to the sea, and it even extended across the road. I heard Kaunui say that Keikohea begged a part of the land for him for Mr. Gravier to discharge a debt which Keikohea owed him for making saus. Kaunui replied to Keikohea that he had no place for him except a graveyard. Keikohea said, what's the harm of that? Dead bodies can be dug up; and the place was transferred to him."

17
In other testimonies relating to this claim:

"Kekauonokou...deposed—he heard at the time that Kekauo...began that place of Kealani, that Kealani gave it to him; and that he gave it to Mr. Gravier. It was a graveyard..."

"It is on this island Kealani came before him to take possession of a land that had been given...Kauauhe was assigned to him for his residence the place which he now claims. I was living in the yard at the time which was surrounded by a wood fence, he and all his servants settled down...Kekauo asked Kealani to give him a place for Mr. Gravier to which request he assented, and Kekauo gave the place to Gravier. Kekauo gave it to him in order that he might have a sail maker at hand for he made the sails for the brig "Kealani."

LCA 699

Adjoining Kahanu's houselot Makiki is the land claim award of Paniolo (LCA 699) awarded to Anna 1899 (Commissioner of Public Lands, Awards 2:81). The Makai portion of this claim is also within the project area. Paniolo, in the Native Register described this land:

"...the place of which I am telling you is at a narrow road [Theatre Alley] which runs straight to Sikkahale. It is at the beginning of this narrow road..." (Commissioner of Public Lands, Native Register 1:255-257).

Native testimony on 4 February 1889 describes Paniolo's claim as an "enclosed houselot" (Commissioner of Public Lands, Native Testimony 2:198). A series of land transactions are recorded for this property between 1852 and 1865 in conjunction with the Liberty Hall barrow, and involving James Dawson, James Davis, Henry H. Diamond, and John K. Wiliamson. A final release of the property to James Dawson was executed 12 December 1865 (Bureau of Land Conveyances 19:37).

LCA 222

Approximately one-quarter of the Makai side of LCA 222 is within the Kealaniike Project. LCA 222 was awarded to Kahanu on 15 July 1848 (Commissioner of Public Lands, Awards 1:215-217). Paniolo, in testifying for the claimant stated:

"Claimant's mother lived here with the family in 1831 when Kahanu was Governor. When this man mother, Pihae, died, witness thought to take the land to himself. When Kahanu came back from Hawaii, witness found the land belonged to Kahanu...There are 3 houses on the land at present one was built by Kahanu's father. Pihae built one, and Puhill and Kalua built and occupy one each as tenants of claimant...

...Paniolo affirmed that this land was formerly occupied by Hena Lelo the Captain, and by Kau the mate of the brig "Kealani" which belonged to the government. Kahanu is the heir of Hena Lelo and Pihae and Kauo..." (Commissioner of Public Lands, Foreign Testimony 1:196-198).

Kahanu's property was deeded several months later, on 17 November 1848 to Kamakura (Bureau of Land Conveyances 14:453). Ten years later, this property was leased to James Dawson (proprietor Liberty Hall barrow — see LCA 601), and the lease cancelled on 25 August 1861 (Bureau of Land Conveyances 11:41). Kamakura's widow deeded one-half of the property to Pakeko 5 November 1860, and the retransfer, including "Liberty Hall Lane" was mortgaged to Henry H. Diamond on 1 November 1875 (Bureau of Land Conveyances 28:1024; 32:11; 45:457).

CORNER KING AND MAUNA KEA STREETS

Land at the corner of King and Maunakea Streets (Figure 3) held since 1846 by Governor of Hawaii, Hanaele Kekaiokou, and comprised of 2.25 square feet was conveyed in two grants to private individuals. F. H. Hatch and Joseph Roberts on 21 April 1885 (Bureau of Land Conveyances 1:180). Currently, the property is occupied by a jewelry store and is a Kealaniike Project redevelopment option.

Grant 3376

Grant 3376, drawn and described in association with LCA 601 was the site of "Charles Vincent's Limeyard" in 1847 (Commissioner of Public Lands, Foreign Testimony 1:158-160). Awarded to an American, Francis March Hatch (one of the Hawaii annexation signers and a judge of the Supreme Court). F. H. Hatch deeded the grant following the 1886 Chinatown fire to Joseph Ricard on 10 May 1887 (Bureau of Land Conveyances 10:150). This property was
subsequently leased to Ovak Pun on 14 November 1893 (Bureau of Land Conveyances 1021283, 1561228).

Grant 3885

The Liberty Hall Barroom begun by a Captain Rootman in 1845 is placed by Grew (1809) at the corner of King and Maunakea Streets in the location of Grant 3885. Land Claim Award documents, and the 1879 Fire Insurance Map (Figure 5) place the Liberty Hall Barroom near the opposite corner, near Hotel and Maunakea Street (see ICA's 691 and 696, Commissioner of Public Lands, Foreign Testimony 1:159-160, 179-180). Grant 3885 at the corner of King and Maunakea Streets was awarded in 1894 to Joseph Roberts, a native of Hoylake, Cheshire, England. Divided into three parcels, J. Roberts leased the parcels following the Chinatown Fire to Sing Ko on 24 June 1886; Antoine G. Cunha on 1 July 1886; and Tom Gow et al. on 1 August 1886 (Bureau of Land Conveyances 100410, 101193, 104101). Joseph, by his attorney, deeded the three parcels to the Minister of the Interior on 17 December 1887 (Bureau of Land Conveyances 110119).

Lions Fire Insurance Map of 1879 (Figure 5) shows a dry goods store at the corner of King and Maunakea Streets. One year later, Browse's Directory lists Hung Sa Bakery and Restaurant at this location in 1880/81 (Browse 1880/81:16, 32). Following the 1886 Chinatown Fire, a series of small stores on the corner of King and Maunakea are listed as: T.Y. Chung Kee Store, Fook On (butcher), Fong Chung Hing (drugs), and Hung Wo Lung Store (Brown 1889:99). The structure is shown in 1890 (Figure 9) as being a two-story wood framed building.

Figure 9: Maunakea Street from King 1890 (Bishop Museum Negative 3/39/91)

Figure 5, mapped in 1899 shows a pork (butcher) shop on the corner of King Street with a drugstore, fruit store, and barber shop in this building facing Maunakea. These businesses are listed before the 1900 Chinatown Fire in the 1899 city directory as Wong Sam Kee Co., general merchandise at the corner of King and Maunakea (119 King), with Sam Kee (barber) at 106 Maunakea, and Young Min Tong (druggist) at 108 Maunakea. These shops, photographed on 20 January 1900, a few hours prior to destruction by the Chinatown Fire, shows the shop of Tim Kee, merchant tailor at 119 King Street (Figure 10). The Honolulu Nichi Nichi, a Japanese daily newspaper began in Honolulu in 1875 and edited by Yoshihara Tohara became the Nihon Nichinichi Shimbun in 1903 (Sato and Sinoto 1985:150). In 1905 the Hawaii Nichinichi Shimbun newspaper moved from 1052 Smith Street to the corner of King and Maunakea Streets (106 R. King), changing the name of the newspaper in that year to the Hawaiian-Japanese Daily Chronicle. The Hawaiian-Japanese Daily Chronicle (Figure 7) is listed at this corner of the project area through 1940 (Fulk-Hostet 1940:1945).
Figure 10: King and Maunakea looking towards Kekaulike, Chinatown Fire 1900
(Hawaii State Archives Chinatown Fire File 40)

SUMMARY

Archaeological deposits and features associated with the prehistoric use, and historic occupation beginning in 1795, of the proposed Kekaulike Project area are indicated by the current literature and archival documents search. The potential for in-situ subsurface remains of early features existing prior to intense native community development of Kikihela, and the Asian transition to a business district following the Chinatown fires of 1886 and 1900 is indicated. Potential subsurface features likely to be disturbed during the current redevelopment phase include the prehistoric graveyard near the corner of King and Maunakea Streets currently under the asphalt parking lot, and Puela's Fishpond near the corner of River and Hotel Streets (Figures 2 and 3).

RECOMMENDATIONS

Several phases of archaeological monitoring and testing are necessary to protect potential archaeological data and resources throughout the site area. Recommended preliminary archaeological data recovery to assist in determining test areas and procedures are as follows:

a. Monitoring of core sample borings during the construction design stage to recover data on depth of fill, stratigraphic sequences, and context.

b. Monitoring of the surface removal of the parking lot pavement. Subsurface foundations and utility pipes servicing the two structures proposed for demolition should be left in situ until archaeological testing is completed to avoid further disturbance of archaeological resources.

Current assessment of the proposed Kekaulike Project indicates that initial specific data recovery should include the following backhoe assisted, or hand excavation testing:

c. One test trench at the site of Puela's Fishpond (Later Thrum's Boarding House) to recover a possible historic date of the fish pond fill, determine pond depth, and other obtainable data regarding the period of its active use. A portion of this site is currently accessible.

d. Test pits in compliance with the State of Hawaii Legislative Act 306 (1990) for the documented prehistoric graveyard partially under the parking lot asphalt of the Kekaulike Project near the corner of King and Maunakea Streets.

A complete data recovery plan will be formulated contingent upon the results of this initial testing phase.
Illegal destruction of archaeological sites and removal of artifacts by collectors are common, especially in downtown Honolulu. These usually occur during nighttime hours and weekends when project work ceases and project personnel are absent. High fencing, alarm systems and manned patrol of the entire site during these periods will be necessary.


Redevelopment of the Kekaulike Area

Summary of Social Impact Assessment

1 BACKGROUND AND INTRODUCTION

Earthplan, with assistance from independent contractor Laili Neddlek, prepared this special impact assessment for the City Department of Housing and Community Development on the proposed redevelopment of the Kekaulike area.

2 PROFILE OF THE EXISTING COMMUNITY

2.1 Definition of the Study Area

The site is within the boundaries of the Downtown Neighborhood Board No. 13. Depicted in Figure 1, the study area for this report encompasses neighborhoods easily accessible to the project, and includes (1) the Downtown sub-area made up Census Tracts 40 and 42; and (2) the Chinatown sub-area, made up of Census Tracts 31 and 32.

2.2 Population Trends and Characteristics

Study Area Employment. In 1985, an estimated 42,584 people worked in the study area; most of them live outside the study area. Figure 2 shows that 33 percent of the total jobs were service-related, followed by 28 percent in jobs related to finance, insurance, and real estate. Figure 3 shows the distribution of jobs relative to Chinatown and Downtown. In 1985, the largest category of jobs in Chinatown was retail, at 28 percent, followed by service at 25 percent. As expected, most of the jobs were found in the Central Business District (CBD), which is Census Tract 40, where almost 18,000 people worked.

Population and Housing Trends. Over the past thirty years, the study area net population grew from 4,566 persons in 1960 to 8,542 persons in 1990.

The rate of population growth in the City and County of Honolulu has been steadily decreasing over recent decades. In contrast, the study area population has been fluctuating due to redevelopment efforts. As shown on Table 1, the study area population decreased by approximately 5.4 percent a year in the 1950s. During the 1970s, the study area grew at a significant rate of 8.3 percent a year. With new residential projects, the study area population continues to grow at rates higher than the rest of the Island. Between 1980 and 1990, the study area grew an average of 3.7 percent each year.

The project site is in the makai portion of Chinatown, or Census Tract 32. This area has modest population increases in the 1960s, followed by a decline in the 1970s. As new medium- and high-density housing complexes were constructed in the 1980s, growth has been accelerating.

Figure 4 shows that the proportion of Chinatown and Downtown residents varied with respect to the two sub-areas. In 1960 Chinatown's population was over twice the size of the Downtown population. By 1970, the two areas were almost even, and, by 1980, there were more people living in Downtown. In the 1980s, Chinatown's population rose sufficiently to exceed that of Downtown.

Summary page 1
Kekaulike Street roughly divides the project site into two portions referred to as the Diamond Head and 'Ewa portions for the purposes of this study:

- The primary feature in the Diamond Head portion is City-owned Kekaulike Parking Lot containing 85 parking stalls. Other uses on this side of the project site are as follows:
  - The project site along Maunakea Street contains two two-story buildings. One houses a Chinese herb shop and an acupuncture office. The other accommodates a jewelry shop, a tailor, a dress shop, an accessory store and offices.
  - A two-story building and a vacant lot occupy the portion of the project site fronting Kekaulike Street. The building contains a Chinese seed store and grocery.
  - A portion of the project site is sandwiched between Hotel Street and the Kekaulike Parking Lot. Two buildings are situated here. One contains a bar and apartments; the other contains small shops and apartments. The latter is part of the Lam Yip Kee Building.
  - The 'Ewa portion of the project site is entirely privately-owned. Uses are as follows:
    - Three buildings face Kekaulike Street, one of which is a four-story walk-up apartment building. The other two are two-story structures. One contains a liquor and food factory; the other, a bar, jewelry shop and upstairs apartments.
    - Along Hotel Street are two structures. One is a two-story building which houses offices upstairs and a sundries store on the ground floor. The other is an old wooden two-story structure. At ground level are a barber shop, a retail and trade store and a pool hall; other spaces with signs for a restaurant, bar and retail establishment are vacant. In the upper floor are apartments accessible via an alleyway which provides ingress/egress on North King Street. In addition, a two-story small apartment building is located adjacent to this alleyway.

Of note is the alleyway leading to North King Street. This alleyway also leads to an un-marked parking area, which includes open-sided metal roof sheds. This area provides a gathering place for residents and others who frequent the area.

1.2.2 Project Description

Preliminary project plans call for the following phases:

- Phase 1 includes the redevelopment of most of the Diamond Head portion of the project site. Components include:
  - 80 residential units, including 69 one-bedroom units and eleven studios;
  - 10,250 square feet of commercial space;
  - 146 parking stalls; and
  - the renovation of the two buildings along Maunakea Street.

Also a major component in Phase 1 is the development of Kekaulike Street into a pedestrian mall, as well as the remapping of the three buildings fronting Kekaulike Street in the 'Ewa portion of the project site.

- Phase 2 concentrates on the 'Ewa portion of the project site which does not in fact Kekaulike Street. The area, including the two old wooden structures, the parking lot and the alleyway will be completely redeveloped into residential uses (79 units) and 3,400 square feet of commercial space.

The City will be using Community Development Block Grant (CDBG) funds for Phase 2. Generally, CDBG funds are used to support housing development and cannot be used in the actual development of housing. The only exceptions are (1) if the funds are given to a non-profit agency to develop affordable housing; or (2) if the funds are used as replacement housing in the event of displacement where there are no existing units which are financially and functionally comparable to the demolished units.

The proposed Phase 2 residential units fall in the latter category. These units are intended to house people displaced by the project action and are considered "last resort" units.

To minimize disruption due to displacement and to ensure relocation, the City plans to:
- First, develop Phase 1 first so that residents in the 'Ewa portion can be relocated; second, relocate those residents in the new Phase 1 units; third, develop Phase 2; and, fourth, move the residents back to the 'Ewa portion of the project site. At this time, completion of the relocation plan for residents of the Diamond Head portion of the project site is pending the receipt of information from other landowners.
Redevelopment of Keekaukile
Summary of Social Impact Assessment

Continued Development Of Downtown As The Financial Center - The pressure for downtown office development is expected to continue. By upgrading currently undeveloped land, these projects are expected to change the urban landscape and intensify human activity in the area.

Temporary Parking Problems - As the City continues to develop sites containing public parking garages, there will be a shortage of public parking spaces. These shortages are expected to be temporary, since the new facilities reportedly will contain replacement parking stalls. In the meantime, some businesses may suffer because of potential decreases in clientele.

4 COMMUNITY ISSUES

Community issues indicate how a group of people feel about something, and hence represent perceptions which shift over time as people's priorities and values change. The issues related to the proposed redevelopment of the Keekaukile area are those identified in April 1991.

4.1 Sources of Information

Two sources of information were used in this analysis. First, this study examined minutes of the Neighborhood Board meetings from January 1988 through February 1991. Second, interviews conducted with people who (1) live, conduct business, or own land near the project site or (2) have a regional interest in the project, or (3) would be able to provide specific information on how the site might affect the neighboring community. These interviews were held to supplement information from printed sources of material regarding community needs and values, and, more importantly, to identify community issues and concerns relative to the proposed development of the Keekaukile area. This study did not include a scientific poll, and does not quantify project support or opposition. Forty people were interviewed during this study and the list is presented in the report.

4.2 General Community Issues and Concerns

Downtown Neighborhood Board No. 13. The theme central to most of the Neighborhood Board discussions held over the last three years is the need to create a more livable environment for residents in this high density and mixed use community. The Board strongly advocated more open space, more recreation areas, and more resident-oriented public services and facilities. In addition, the Board supported efforts which would increase the safety and efficiency of Downtown vehicular and pedestrian systems.

As proposals are introduced, the Board reiterated the need for more downtown parks; the need to encourage more resident to live in this area; the need for active recreational areas; and the need to minimize displacement of small businesses. The Neighborhood Board also strongly discouraged displacement of public parking because of the need to serve Downtown businesses and their clientele.

Redevelopment of Keekaukile
Summary of Social Impact Assessment

Issues and Concerns of Other Organizations. There are a number of business-oriented organizations in Chinatown, including the Chinatown Merchants Association, the Chinese Chamber of Commerce, and the Downtown Riverfront Merchants Association. FACE, which is also known as People Against Chinatown Evictions, is currently working on outreach and advocacy services for low and middle-income Chinatown families. The United Chinese Society and the Association for Chinese Visitors, Laos and Cambodia are culturally-oriented. None of these organizations have taken a position on the proposed project.

4.3 Informal Feelings About Chinatown

Positive Aspects. All of those interviewed liked Chinatown. They felt that Chinatown was a real neighborhood, one where people know and help each other. This feeling of neighborhood was shared even by non-residents of the area.

Chinatown was described as colorful, exciting, different and vibrant. These descriptions often stemmed from an appreciation of the cultural diversity present in the restaurants, food stores, ethnic markets, jewelry stores and import wholesalers and retail outlets.

One of the values of Chinatown is that the region acts as an incubator of ideas, whereby newly-arrived immigrants can successfully operate a store. Also, there are formal and informal support groups which specialize in assisting new residents in acculturation and assimilation. Those who are active in regional organizations felt most positively about the current redevelopment of Chinatown.

Concerns. Informants shared concerns about Chinatown which were closely tied with the positive values of the area. Sometimes, the very aspect which is valuable became a double-edged sword. Although informants welcomed or accepted the changes in Chinatown, they were nevertheless apprehensive about the increased costs and rents resulting from revitalizing the area.

The evolution of the neighborhood is also a concern, and informants were mixed as to whether the changes are adding or detracting from the spirit of Chinatown. There were feelings that the Chinatown of today could be threatened if the community does not actively participate in change.

Concern continues to worry Chinatown businesses and residents, although there is a feeling that crime levels are decreasing. Residents wanted to make sure that Chinatown accommodates residents; they were particularly concerned about the lack of parks in the study area.

4.3 Community Issues and Concerns About the Redevelopment of the Keekaukile Area

The issues raised by informants on the proposed project indicated that they either supported the project or would accept the project if there were certain conditions and/or changes.

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Redevelopment of Kekaulike
Summary of Social Impact Assessment

1. **Affordability and Displacement** — Expressions by on-site residents, on-site businesses, and regional organizational interests. They feared that displacement would occur, even if there were opportunities for on-site relocation.

2. **Mixed Reactions Toward Redevelopment** — Consistent with feelings about Chinatown redevelopment in general, there were concerns that even though redevelopment would generally improve the area, it would alter the ambience and neighborhood qualities. Such change was seen as irreversible to most, but was understandable viewed with apprehension by those who would be personally affected. Potential displacements expressed the greatest concern, while regional organizational informants tended to have a long-range appreciation of proposed changes.

3. **Housing Tenor** — People who are on or near the project site, or those who are involved in social service in Chinatown, like the affordable housing proposed by the project. In fact, there was a desire to see more affordable units to make sure that all on-site residents are accommodated. Regional organizational informants expressed a desire for more market units because they felt that more expensive units would help revitalize the area.

4. **City as Developer** — There were two types of concerns related to the City's role as developer of this project. First, there was a general feeling that the City has not been sharing project information in a timely fashion. Second, informants were split about whether the City should be a developer in principle. There were feelings that City participation is the only way affordability can be achieved; at the other end of the spectrum was the concern that the City is not as efficient or accountable as the private developer.

5. **Project Components** — As discussed earlier, there were mixed feelings about the types of housing preferred by those interviewed. The commercial component was mostly appreciated, with some wanting to make sure that (1) on-site businesses can afford the new spaces and (2) this does not create an oversupply of commercial space. Parking and traffic patterns were major concerns. The temporary elimination of parking during construction was a big problem for existing businesses, since parking was already at a premium in Chinatown. Loading and unloading was also a concern, as well as the single ingress/egress on Minauea Street. The development of Kekaulike Street into a pedestrian mall worried nearby businesses because of loading logistics.

5 POTENTIAL SOCIAL IMPACTS

5.1 Displacement

Earlplan relied on informal information and two landowners to identify who is using the project site in some way. It is expected that the City will update it as the project progresses.

Residents. We estimate that the project site has a total of 149 living units located on the Diamond Head and Waikiki sides of the project site. Based on the preliminary 1990 household size of 1.85 persons for the study area, it is estimated that these 149 units house approximately 278 residents. We note, however, that not all will be displaced by the proposed project.

Direct impacts will result from the complete redevelopment of certain portions of the project site. We estimate that 26 existing residential units will be demolished in the course of redevelopment. Of these, 11 units are located in the Diamond Head portion of the project site; 15 in the Waikiki portion. In terms of potential population, it is estimated that 141 people, based on an average household size of 1.85 persons, will need to move out of their present units.

Indirect displacement can occur even as a building will not be demolished. If a building is rehabilitated, the owner may need to raise rents. Increased rents will prove to be a hardship for some residents as well as businesses, and such people would need to move. We stress that it is difficult to assess the extent of potential indirect impacts because affordability levels of various businesses and residents of City House and the adjacent buildings are unknown at this time.

Businesses. A wide variety of businesses appear to be affected by the proposed project, including a Chinese herb shop and acupuncture office, two jewelry shops, tailors, dress shop, an accessory store offices; Chinese seed store and grocery; two bars; florist; food factory; sundries store; hardware shop; retail and trade store; pool hall and restaurant. We were unable to determine which specific businesses will be directly displaced because plans for specific buildings have not been determined at the time of this writing.

Possible Mitigation. To minimize displacement caused directly by the proposed action, two types of mitigation are needed.

1. **Coordination** — It is highly recommended that the City provide every opportunity for all existing on-site residents threatened by demolitions to move into the new on-site units. We understand that there is interest in doing this, but current plans need to be refined because they do not address the needs of the residents of the Diamond Head portion of the project site.
Redevelopment of Kekaulike
Summary of Social Impact Assessment

At the completion of Phase 2, all of the existing on-site households would be able to move to the two portion of the site, as it appears that the 79 "fastest" units in Phase 2 can adequately house the 76 affected households.

The relocation needs of on-site businesses would need to be assessed to ensure that disruption can be minimized and business can resume as efficiently as possible. This may be too disruptive for a business operation to move twice (move off-site during construction and back on-site after construction). Business owners may choose to either (1) pursue activity until construction is completed or (2) relocate off-site.

2. Relocation Benefits - The Uniform Relocation Assistance and Real Property Acquisition Policies Act entitles all displaced persons to relocation services and payments. Both residents and businesses are entitled to relocation services. Displaced residential tenants who lived in the unit at least 90 days before the move are entitled to have the City pay for moving expenses either through reimbursement or according to a graduated scale of payments based on the number of rooms. Such tenants can also receive down payment assistance payment or rental assistance payment up to $5,200.

Businesses have two options. One option is to have the City reimburse all actually incurred and reasonable moving expenses. The other option is to be paid an amount equal to the average annual net earnings, before taxes for the last two tax years, not to exceed $28,000.

To mitigate potential indirect displacement, the City should extend the aforementioned needs assessment to include "indirect displacers." This assessment need not be as detailed as that for "direct displacers," but could solicit relevant information on affordability levels. Further, the City should explore possibilities of minimizing rent increases for current tenants of buildings scheduled for rehabilitation. Possible alternatives include subsidies to the landlord or management company to help defray costs, and rent vouchers to current tenants.

5.2 Resident Population Impact

The potential residential population increase resulting from the project depends on how many units will be reserved for on-site residents. It is estimated that 76 units may be needed for the relocation of on-site residents living in buildings which would be demolished. This leaves 23 units for other people. Based on the preliminary 1990 household size of 1.88, the project could increase the resident population by 145 persons.

Proposal Mitigation - No mitigation is required.

5.3 Impact on the Regional Character

Functions of the Project Site and Current Uses. The project site and existing on-site uses have specific functions within the context of this colorful and diversified ambience.

1. Commercial Opportunity - The structures on the project site are considered to contribute to the "incubator" effect discussed in Section 4.3. Some of the business owners interviewed for this study felt that, with rent increases, their businesses have survived because leases here are cheaper than other Chinatown areas.

2. Affordable Housing - Residential rent at the project site is lower compared to other Chinatown residences. It was often pointed out, however, that these units were affordable because the facilities were sometimes substandard or uncomfortable. The on-site facilities generated a higher cost for some, and in some instances it is the difference between a resident and homelessness.

3. Parking - The Kekaulike Parking Lot is invaluable for the nearby open market, provide businesses, ethnic stores, laundromats, restaurants and offices. Business operations in the area felt that their survival now depends, in large part, on their proximity to this important resource.

4. Gathering Places - An important function of the project site is the informal gathering places. Many current and former Chinatown residents visit the pool hall and restaurant on the lower side of the project site simply for congregations and socials. Another gathering place is the Chinese society, also located in the "Two Place of the project site. There are also the bars.

Project Effect on These Functions. To contribute to the special qualities of Chinatown, the proposed redevelopment of the Kekaulike area needs to enhance the site's current functions.

Affordability is a key ingredient in ensuring that the new on-site commercial activity is compatible with the Chinatown ambience. The City needs to find ways to (1) provide incentives for existing businesses, particularly on-site establishments, to relocate in the new commercial complex, and (2) maintain affordable levels of leases in the new facilities. Further, businesses in the rehabilitated buildings need to be able to afford any increase in rent.
Redevelopment of Kekaulike

Summary of Social Impact Assessment

Affordability is an especially crucial aspect in the housing component. The new "last resort" units in Phase 2 of the proposed project will meet better living conditions for existing on-site residents only if they can afford to live there. Note that the market units proposed for the project is consistent with the desire of some community members to diversify the design of housing in Chinatown.

The gathering place function of the project site can be addressed in a number of ways. The most basic way is to make sure that access to the new complexes is visually apparent and that people are welcome to visit on-site shops and restaurants. Second, gathering places can also be designed into the project. The Maunakea Marketplace, for example, contains a courtyard and internal eating areas where people often socialize. Third, the City could actively promote a portion of the project site for gathering by dedicating some outdoor space for social activities. For example, a small outdoor senior citizen activity area with refreshments would provide space for mingling of existing and former Chinatown residents, and Chinatown regulars.

5.4. Impact on Public Parking

In the long-term time frame, the proposed project will increase the number of public parking stalls. During construction, however, there would be a temporary shortage of stalls which could hurt businesses in the area. This situation would be worsened if there is simultaneous development of other parking lots in the study area.

Proposed Mitigation - The worst-case scenario is five-month period in late 1991/early 1992, when the five parking lots would be under construction. Two mitigation measures are recommended. First, the City should consider changing some of the projects to minimize hardship on Chinatown patrons and businesses. Second, the City should explore special parking arrangements with private garages in the study area. For example, private garage operators could have reduced rates during certain times, such as weekends and holiday mornings. Another example is the use of "parking passes." The City and/or Chinatown merchants could sell inoperative parking passes which would be usable in certain private garages.

Long-term alternatives to the automobile, such as a more diverse public transportation system, will ultimately decrease dependency on public parking garages.

5.5. Public Services

Police Protection. The study area is in Beat 40 through 43 of District 1 of the Honolulu Police Department. The project site is in Beat 41. The nearest police facility is the Downtown Substation at the corner of Nuuanu Avenue and Hotel Street. As any given time, a total of six to eight officers patrol the study area in Chinatown vehicles, automobiles and on foot. The proposed project can be adequately served by existing police protection services and is not expected to negatively impact or strain such services.
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Background and Introduction

1.1 Description of This Report

The City and County of Honolulu is proposing to redevelop a portion of Chinatown. An Environmental Impact Statement is being prepared because of use of City funds. This social impact assessment is summarized in this report and presented to that document.

This report was prepared by Earthplan located at 81 South Hotel Street, Suite 211, Honolulu, principal of Earthplan, was the project manager and principal researcher and writer. Independent contractor Lari Haddad was principal interviewer.

This report contains five major sections. The remaining portions of Section 1 describes the proposed project. Section 2 provides a profile of the existing community to establish the social context in which project impacts may occur. Information includes employment, population, housing and other social characteristics.

Section 3 explores the study area's future without the proposed project. This information extends the baseline data by identifying the possible future scenario for the community independent of the proposed project. Public policies and major public and private developments are included in this analysis.

Section 4 identifies preliminary community issues and concerns on this project, based on historical trends and on interviews conducted for this report.

The potential social impacts of the proposed project are identified in Section 5. This section discusses residential population impacts, displacement, changes to the character of the area, and impacts on public services and facilities.

1.2 Project Description

1.2.1 Description of the Subject Property

The project site lies in the heart of Chinatown's mixture of cultures, uses and sights. The total project site encompasses approximately 1.8 acres, plus Kekaulike Street between the Hotel Street Transit Mall and King Street. In redeveloping this site, the City proposes to acquire the portion which will be totally redeveloped, and will work with remaining landowners to rehabilitate existing buildings.

Kekaulike Street roughly divides the project site into two portions referred to as the Diamond Head and 'Iwa portions for the purposes of this study:

- The primary feature in the Diamond Head portion is City-owned Kekaulike Parking Lot containing 26 parking stalls. Other uses on this side of the project site are as follows:
  - There is a two-story building containing a Chinese food store and a restaurant.
  - A two-story building and a vacant lot occupy the portion of the project site fronting Kekaulike Street. The building contains a Chinese food store and a retail store.
  - A portion of the project site is sandwiched between Hotel Street and the Kekaulike Parking Lot. Two buildings are situated here. One contains a bar and apartments; the other contains small shops and apartments.

- The 'Iwa portion of the project site is entirely privately-owned. Uses are as follows:
  - Three buildings face Kekaulike Street, one of which is a four-story walk-up apartment building. The other two are two-story structures. One contains a liquor store and an office; the other, a bar, jewelry shop and upstairs apartments.
  - Along Hotel Street are two structures. One is a two-story building which houses offices upstairs and a supermarket store on the ground floor. The other is an old wooden two-story structure. At ground level are a barber shop, a retail store and a pool hall; other spaces with signs for a restaurant, bar and retail establishment are vacant. In the upper floor are apartments accessible via an alleyway which provides access to North King Street. In addition, a two-story small apartment building is located adjacent to this alleyway.

Of note is the alleyway leading to North King Street. This alleyway also leads to an unmarked parking area, which includes open-sided metal sheds. This area provides a gathering place for residents and others who frequent the area.
Redevelopment of Kekaulike
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1.2.2 Project Description
Preliminary project plans call for the following phases:

- Phase 1 includes the redevelopment of most of the Diamond Head portion of the project site. Components include:
  - 80 residential units, including 69 one-bedroom units and eleven studios;
  - 10,260 square feet of commercial space;
  - 148 parking stalls; and
  - the renovation of the two buildings along Maunakes Street.

Also a major component in Phase 1 is the development of Kekaulike Street into a pedestrian mall, as well as the renovation of the three buildings framing Kekaulike Street in the Ewa portion of the project site.

- Phase 2 concentrates on the Ewa portion of the project site which does not abut Kekaulike Street. The area, including the two old wooden structures, the parking lot and the alleyway will be completely redeveloped into residential uses (79 units) and 3,340 square feet of commercial space.

The City will be using Community Development Block Grant (CDBG) funds for Phase 2. Generally, CDBG funds are used to support housing development and cannot be used in the actual development of housing. The only exceptions are (1) if the funds are given to a non-profit agency to develop affordable housing; or (2) if the funds are used as replacement housing in the event of displacement where there are no existing units which are financially and locationally comparable to the demolished units.

The proposed Phase 2 residential units fall in the latter category. Those units are intended to house people displaced by the project action and are considered "last resort" units.

To minimize disruption due to displacement and to ensure relocation, the City plans to, first, develop Phase 1 first so that residents in the Ewa portion can be relocated second, relocate those residents in the now Phase 1 units; then develop Phase 2; and, fourth, move the residents back to the Ewa portion of the project site. At this time, the relocation plan for residents of the Diamond Head portion of the project site is undetermined.

2 PROFILE OF THE EXISTING COMMUNITY
This section describes the social context in which the Kekaulike redevelopment would occur. This information helps in understanding who makes up the community and their desires and aspirations. Section 2.1 defines the study area, and Section 2.2 describes community trends and characteristics, including study area employment, population and housing trends, population and family characteristics, and labor force characteristics.

2.1 Definition of the Study Area
The project site is in the western section of Chinatown. The site is within the boundaries of the Downtown Neighborhood Board No. 13 and is located in the 18th Senatorial District and the 35th Representative District.

The study area used in this report includes those areas neighborhoods easily accessible to the project and includes the variety of residential, commercial and office developments in the area. Depicted in Figure 1, the study area includes the following:

- The Chinatown Sub-Area is bounded by Nuuanu Avenue on the east and River Street on the west, and extends from the H-1 Freeway to Piers 13, 14, and 15. Cenusa Tracts 51 and 52, which are separated by Beretania Street, comprise this sub-area. The project site is located in Cenusa Tract 52.

- The Downtown Sub-Area is bounded by Queen Emma, Beretania and Richards Streets on the eastern side and Nuuanu Avenue on the west, and extends from the H-1 Freeway to Nimitz Highway. Within these boundaries, Beretania Street separates the Central Business District, which is most of Cenusa Tract 49, from Cenusa Tract 43.

In the late 1800s, Honolulu's commercial area centered around Fort and Hotel Streets. Less extensive, Chinatown was further inland, bounded by Hotel, Nuuanu, Beretania and River streets. Both districts have since grown over the years and they now meet at Nuuanu Avenue and extend from Nimitz Highway to Beretania.

Chinatown and the Central Business District were Honolulu's retail and commercial center earlier in this century. Over time, however, residential growth occurred further and further from downtown Honolulu. Subsequently, supermarkets and shopping centers were built in outlying areas, offering customers more convenience and a wide range of merchandise. Ala Moana Shopping Center became the primary retail center of the island, followed by other shopping centers.
Redevelopment of Kekaulike

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Chinatown merchants had difficulty competing with shopping centers (Peat, Marwick, Mitchell & Co., 1981). Some stores closed; others that stayed kept renovations to a minimum. The deteriorating appearance of the area was exacerbated by the fragility of most Chinatown's buildings which are wooden structures built soon after 1900.

Plans for urban renewal were drawn up in the 1960s and 1970s. In the Central Business District, new high-rises have replaced many older structures. Further construction and beautification have been proposed by private developers and the City. Fort Street Mall was developed as a pedestrian mall, and Hotel Street became restricted to buses and emergency vehicles.

Initially, the renewal of Chinatown was conceived as a matter of clearing away most structures to build a new 'superblock' (Griswold, 1983). Current City policy calls for the respect and enhancement of the historical quality of much of Chinatown, while encouraging new residential developments which meet housing needs and help the economic renewal of small businesses in the area.

Further inland are areas affected by the development of both the Business District and Chinatown, but are not directly identified with these areas. Between Beretania and School streets, there are multi-family buildings mostly built since 1970, a few service enterprises, and the H-1 Freeway. Large parts of these areas were cleared for the highway as part of the urban renewal process, making them distinct from the older residential districts further from the urban center.

2.2 Population Trends and Characteristics

2.2.1 Study Area Employment

In 1985, an estimated 42,534 people worked in the study area; most of them live outside the study area. Figure 2 shows the breakdown of study area jobs by job types. In the total study area, 30 percent of the total jobs were service-related, followed by 28 percent in jobs related to finance, insurance, and real estate. The next highest categories were retail (14 percent) and transportation, communications, and utilities (13 percent) (City and County of Honolulu Department of General Planning, Planning Information Branch, 1989). Note that one percent of the total study area jobs are agricultural, and these are agriculture-related jobs of the major landlord companies, such as Alexander and Baldwin and Castle and Cooke.

A Downtown Improvement Association official estimates that 35,000 people currently work in and visit Downtown and Chinatown for business/commercial purposes. He indicated that there is an annual increase of approximately 1,800 to 1,000 workers/clients/customers. In 20 years, it is expected that, given the current land use regulations, the Downtown/Chinatown region will be built out and will accommodate about 25,000 workers/clients/customers (personal communication with William Grant, Executive Director, Downtown Improvement Association, January 29, 1991).
Redevelopment of Kaka'ako
Social Impact Assessment

Figure 2
Study Area Jobs by Type, 1985

<table>
<thead>
<tr>
<th>Division</th>
<th>Jobs (Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Govt.</td>
<td>2.985</td>
</tr>
<tr>
<td>T.C.U.</td>
<td>5.654</td>
</tr>
<tr>
<td>Industry</td>
<td>11.925</td>
</tr>
<tr>
<td>F.I.R.E.</td>
<td>12.711</td>
</tr>
<tr>
<td>Service</td>
<td>5.401</td>
</tr>
<tr>
<td>Retail</td>
<td>1.181</td>
</tr>
<tr>
<td>Construct.</td>
<td>2.721</td>
</tr>
<tr>
<td>Agri.</td>
<td>0.213</td>
</tr>
</tbody>
</table>

Total Jobs: 42,584

T.C.U. — Transport, communication and utilities
F.I.R.E. — Finance, insurance, real estate
Agriculture jobs are those in large landowner companies which are related to agricultural activities.


Redevelopment of Kaka'ako
Social Impact Assessment

Figure 3 shows the distribution of jobs relative to Chinatown and Downtown. In 1985, Chinatown contained 4,653 jobs, which were distributed evenly throughout the region. The largest category of jobs was retail, at 28 percent, followed by service at 25 percent.

As expected, most of the jobs were found in the Central Business District (CBD), which is mostly Census Tract 40, where almost 30,000 people, or 63 percent, worked. In contrast to the strong retail showing in Chinatown, Downtown’s strongest categories were service and finance, insurance, and real estate. This district captured the majority of all job categories with the exception of retail and industrial jobs; Chinatown contained one-fourth of the total retail and industrial jobs (City and County of Honolulu Department of General Planning, Planning Information Branch, 1989).

2.2.2 Population and Housing Trends

Between 1960 and 1990, the residential population in the City and County of Honolulu increased by over 335,000 people, from 500,409 in 1960 to 836,233 in 1990 (U.S. Department of Commerce, 1991).

The rate of the island’s growth has been steadily decreasing over recent decades. As shown in Table 1, islandwide population in the 1960s increased by an average of 3.3 percent per year. In the 1970s, the annual growth rate decreased to 1.9 percent. In the 1980s, the rate decreased even further, to less than one percent.

For the study area, the net population increase between 1960 and 1990 is estimated at 3,876 persons, from 4,666 to 8,542 persons.

The study area population growth rate was not as consistent as the islandwide rate. Between 1960 and 1970, the study area residential population decreased by approximately 0.6 percent a year. Since 1970, the population has increased with the highest average annual growth rate occurring in the 1970s, at 3.3 percent a year. This uneven pattern of growth reflects major construction projects – the H-1 highway and urban development efforts – occurring in the study area.

With new residential projects, the study area population continues to grow at rates higher than the rest of the island. Between 1980 and 1990, the growth rate in Chinatown/Downtown was 3.7 percent, as compared to the Islandwide 0.9 percent.

Within the study area, the population growth patterns of particular census tracts have changed significantly as parts of these were cleared and redeveloped. Honolulu’s so-called Chinatown has never had exclusively Chinese residents (Lind, 1989; Gluck, 1993). Chinatown has been, and still remains, an urban hub for new immigrants and immigrants who first came to rural sites in Hawai‘i. Its population declined, as the flow of new immigrants has decreased and the housing stock has aged.
Table 1
Study Area Average Annual Growth Rates:
1960 to 1989

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>City and County of Honolulu</td>
<td>1.9%</td>
<td>2.3%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Study Area Total</td>
<td>2.1%</td>
<td>-5.4%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Downtown Sub-Area</td>
<td>3.9%</td>
<td>-0.1%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Meals (CT 42)</td>
<td>2.6%</td>
<td>1.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Metal (CT 40)</td>
<td>4.3%</td>
<td>-10.0%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Chinatown Sub-Area</td>
<td>1.1%</td>
<td>-8.4%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Meals (CT 51)</td>
<td>0.4%</td>
<td>-9.4%</td>
<td>--</td>
</tr>
<tr>
<td>Metal (CT 52)</td>
<td>2.2%</td>
<td>1.3%</td>
<td>-4.8%</td>
</tr>
</tbody>
</table>

T.C.U. — Transport, communications and utilities
F.I.R.E. — Finance, insurance, real estate
Agriculture jobs are those in large landowner companies which are related to agricultural activities

Source: City and County of Honolulu Department of General Planning, Planning Information Branch. Traffic Assessment Zones, October 1987.
The Central Business District has not been a major residential zone. In the adjacent tracts of the study area, population growth began in the 1970s, with the construction of Kukui Gardens, Kukui Plaza, and Kukui Prime North, and has continued. Specific population counts are provided in Figure 4, and trends are as follows:

- The project site is in the makai portion of Chinatown, or Census Tract 52. This area contains a highly fluctuating residential population. In the 1960s, growth was modest at 0.3 percent per year. In the 1970s, the population decreased. As new multi-family housing projects were constructed in the 1980s, growth has been accelerating. With an annual growth rate of approximately 8.3 percent per year, this census tract experienced the highest growth rate. It is estimated that 2,480 people lived in this area at the time of the 1990 census (U.S. Department of Commerce, 1991).

- Revitalization and urbanization efforts, including the virtual elimination of the residential population in the makai portion of Chinatown (Census Tract 51) in the 1950s. This was followed by the addition of 1,000 residents in the new multi-family housing developed by the City during the 1970s. In the first half of the 1980s, this area was still experiencing major growth, at approximately 8.3 percent per year. No growth was observed between 1985 and 1990, and the growth rate for the last decade averaged out at four percent per year. The census counted 2,399 people in this area in 1990 (U.S. Department of Commerce, 1991).

- In the Downtown Sub-Area, the Census Tract 40 population decreased in the 1960s, but increased slightly during the 1970s, with the development of Harbor Square Town and Harbor Tower. This area has continued to grow in the early 1980s, mostly because of the addition of residential units in the Executive Centre. An estimated 91 persons lived in the makai portion of the Downtown sub-area (U.S. Department of Commerce, 1991).

- In the Downtown, or Census Tract 42, the population grew the most between 1970 and 1980, with an annual growth rate of 8.5 percent. This was due mostly because of the addition of Kukui Plaza. Since 1980, the residential population of this area has remained stable. The 1990 population is estimated at 2,672 persons.

Figure 4
Study Area Population, 1960 - 1990

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As a result of these fluctuating growth trends, the proportion of Chinatown and Downtown residents varied with respect to the two sub-areas. Figure 4 illustrates the study area population from 1960 to 1990. In 1960 Chinatown’s population was over twice the size of the Downtown population. By 1990, the two areas were almost even, and by 1980, there were more people living in Downtown. In 1985, Chinatown’s population rose sufficiently to almost equal that of Downtown, and by 1990, there was once again more people living in Chinatown.

Table 2 provides 1980 Census housing stock information for Oahu and the study area. Study area residential units are virtually all in multiple-unit buildings. The units are small, in comparison to the City and County norm.

In all the study area tracts, most units were occupied by renters. On the Downtown side of the study area most units were in condominiums. Generally, 1980 rents were below the City and County average. This is in part because of the relatively high density of government-subsidized housing in Chinatown.

At the same time, demand for housing in Census Tracts 42, 51, and 52 was strong, as the low vacancy rates indicate. The relatively high vacancy rate in tract 40 for 1980 may have resulted from apartments being held for vacation rentals or for short-term rentals.

In the past, single-room “bachelor housing” units were numerous in the area. Recently crowded quarters and shared plumbing facilities were not uncommon. This is less apt to be the case as older buildings are replaced or turned to non-residential uses.

Preliminary census information was released during the writing of this report. The information is presented in Table 2; however, because no details regarding housing have been released, the City 1989 estimates are used for the purposes of this study.

According to City estimates, the study area contained 4,831 residential units by 1989 and is shown on Table 2. Virtually all of these units continue to be multi-family units. Over half (57 percent) of the units were in Chinatown.

Five percent of the study area residents, or about 420 people, lived in group living quarters, such as rooming houses, and most of these quarters are located in the Chinatown Sub-Area.

Compared to an islandwide 1980 household size of 3.04 persons, the study area had an average household size of 1.84 persons, as to be expected because of the predominance of multi-family units. The maile portion of Chinatown had the largest average household size of 2.41 persons. Makani Chinatown had the smallest household size of 1.45 persons (City and County of Honolulu Department of General Planning, Planning Information Branch, September, 1990).

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Stock Characteristics: Oahu and Study Area, 1980</td>
</tr>
<tr>
<td>Oahu</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Year-round housing units</td>
</tr>
<tr>
<td>Total vacant</td>
</tr>
<tr>
<td>Vacant for sale</td>
</tr>
<tr>
<td>Vacant for rent</td>
</tr>
<tr>
<td>Held for occasional use</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Median number of rooms</td>
</tr>
<tr>
<td>Condominium units as a percentage of total housing</td>
</tr>
<tr>
<td>Tenure as a percentage of total housing</td>
</tr>
<tr>
<td>Owner-occupied</td>
</tr>
<tr>
<td>Renter-occupied</td>
</tr>
<tr>
<td>Median cash rent</td>
</tr>
<tr>
<td>As percent of median family income</td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of the Census, 1980 Summary Tape File 1-A
Redevelopment of Keahului
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Table 3
Study Area Housing, 1989

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Study</td>
<td>Mauka (CT 21)</td>
<td>Makai (CT 22)</td>
</tr>
<tr>
<td>Total population</td>
<td>9,053</td>
<td>2,385</td>
<td>2,988</td>
</tr>
<tr>
<td>Persons living in households (%)</td>
<td>95%</td>
<td>100%</td>
<td>87%</td>
</tr>
<tr>
<td>Persons in group living quarters (%)</td>
<td>1%</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>Total housing units</td>
<td>4,831</td>
<td>1,158</td>
<td>1,618</td>
</tr>
<tr>
<td>Single Family Units</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Multi-Family Units</td>
<td>4,828</td>
<td>1,157</td>
<td>1,616</td>
</tr>
<tr>
<td>Percent occupancy</td>
<td>97%</td>
<td>97%</td>
<td>98%</td>
</tr>
<tr>
<td>Average household size</td>
<td>1.84</td>
<td>2.12</td>
<td>1.65</td>
</tr>
</tbody>
</table>

Source: Based on traffic zone information available at the City and County of Honolulu, Department of General Planning, Planning Information Branch

Note: Preliminary census information was released during the writing of this report. The information included population and housing units, and did not include breakdowns contained in this table.

Preliminary housing counts are as follows:

<table>
<thead>
<tr>
<th>Census Tract 51</th>
<th>Census Tract 52</th>
<th>Census Tract 42</th>
<th>Census Tract 40</th>
<th>Total Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,156</td>
<td>1,206</td>
<td>1,347</td>
<td>499</td>
<td>4,506</td>
</tr>
</tbody>
</table>

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2.2.3 Population and Family Characteristics

Results of the 1980 census are summarized in Tables 4 and 5. This information shows that, in 1980:

- The people of the study area were older compared to the islandwide population.
- In much of the study area, a large part of the 1980 population lived in non-family households.
- Throughout the study area, the average number of persons per family was below the City and County average.
- In all tracts, the majority of the 1980 population was not Hawaii-born, though the population of different tracts vary in background (United States Department of Commerce, Bureau of the Census, 1981a and 1981b).

It is useful to discuss the Chinatown and Downtown Sub-Areas separately, as their populations differ in several respects.

In the Chinatown sub-area, most residents were far less affluent in 1980. The proportion of both family and non-family households below the poverty line in Census Tracts 51 and 52 was well above the Oahu averages. Also, many residents had relatively less schooling.

There were also distinctions between the mauka and makai portions of Chinatown. In makai Chinatown, where the project site is located, residents had the following characteristics:

- Residents were likely to have been born outside the United States. Nearly half were Filipino in 1980. Chinese were also well represented; other major groups had few members in the district.
- Older men were numerous. Only a third of the resident families had children in the household. The neighborhood was stable, with half the residents in the same house they had occupied five years before (United States Department of Commerce, Bureau of the Census, 1981a and 1981b).

Living mauka of Beretania Street, Chinatown residents of Census Tract 51 can be described as follows:

- Many of the residents could not have lived in the same house in 1975 and 1980, since many buildings in that tract were constructed in the 1970s.
### Table 4
Study Area Population Characteristics, 1980

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masks (CT 51)</td>
<td>Makai (CT 52)</td>
</tr>
<tr>
<td></td>
<td>Okinawa</td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>33.1%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Japanese</td>
<td>24.9%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Chinese</td>
<td>5.9%</td>
<td>23.3%</td>
</tr>
<tr>
<td>Filipino</td>
<td>12.8%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Hawaiian</td>
<td>10.5%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Other</td>
<td>11.6%</td>
<td>30.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masks (CT 51)</td>
<td>Makai (CT 52)</td>
</tr>
<tr>
<td></td>
<td>Okinawa</td>
<td></td>
</tr>
<tr>
<td>Less than 5 yrs</td>
<td>7.8%</td>
<td>13.0%</td>
</tr>
<tr>
<td>5 - 17 yrs</td>
<td>24.3%</td>
<td>16.3%</td>
</tr>
<tr>
<td>18 - 64 yrs</td>
<td>60.7%</td>
<td>53.5%</td>
</tr>
<tr>
<td>65 or more yrs</td>
<td>7.0%</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median age</th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masks (CT 51)</td>
<td>Makai (CT 52)</td>
</tr>
<tr>
<td></td>
<td>Okinawa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>years</td>
<td>years</td>
</tr>
<tr>
<td>28.1 yrs</td>
<td>29.5 yrs</td>
<td>51.0 yrs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education *</th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masks (CT 51)</td>
<td>Makai (CT 52)</td>
</tr>
<tr>
<td></td>
<td>Okinawa</td>
<td></td>
</tr>
<tr>
<td>0 - 8 yrs only</td>
<td>14.6%</td>
<td>40.1%</td>
</tr>
<tr>
<td>Some high school (9-12)</td>
<td>45.5%</td>
<td>38.2%</td>
</tr>
<tr>
<td>Some post high school</td>
<td>18.3%</td>
<td>12.4%</td>
</tr>
<tr>
<td>College, 4+ yrs</td>
<td>20.1%</td>
<td>9.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Placement of Birth *</th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masks (CT 51)</td>
<td>Makai (CT 52)</td>
</tr>
<tr>
<td></td>
<td>Okinawa</td>
<td></td>
</tr>
<tr>
<td>Hawaii</td>
<td>55.1%</td>
<td>48.9%</td>
</tr>
<tr>
<td>Other U.S. born **</td>
<td>30.1%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Foreign country</td>
<td>14.8%</td>
<td>46.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residence 5 yrs Previous (people aged 5+)</th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masks (CT 51)</td>
<td>Makai (CT 52)</td>
</tr>
<tr>
<td></td>
<td>Okinawa</td>
<td></td>
</tr>
<tr>
<td>Same house</td>
<td>48.5%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Same island</td>
<td>25.3%</td>
<td>53.3%</td>
</tr>
<tr>
<td>Different island</td>
<td>1.3%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Different state</td>
<td>18.4%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Different country</td>
<td>6.6%</td>
<td>22.3%</td>
</tr>
</tbody>
</table>

* Figures based on 15 percent sample
** Includes persons born in U.S. territories and persons born abroad or at sea to American parent

### Table 5
Study Area Family Characteristics, 1980

<table>
<thead>
<tr>
<th></th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masks (CT 51)</td>
<td>Makai (CT 52)</td>
</tr>
<tr>
<td></td>
<td>Okinawa</td>
<td></td>
</tr>
<tr>
<td>Population in families as a percentage of total population</td>
<td>85.6%</td>
<td>79.5%</td>
</tr>
<tr>
<td>Family composition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husband and wife present</td>
<td>82.8%</td>
<td>52.2%</td>
</tr>
<tr>
<td>Male only</td>
<td>4.5%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Female only</td>
<td>12.7%</td>
<td>45.1%</td>
</tr>
<tr>
<td>With own children under 18 Female head</td>
<td>54.9%</td>
<td>69.4%</td>
</tr>
<tr>
<td>Below poverty level</td>
<td>7.5%</td>
<td>27.8%</td>
</tr>
<tr>
<td>Median family income</td>
<td>$23,554</td>
<td>$9,866</td>
</tr>
<tr>
<td>Non-family households</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage below poverty level</td>
<td>15.9%</td>
<td>47.4%</td>
</tr>
</tbody>
</table>

Except for "Population in Families," all figures based on 15 percent sample.

Source: U.S. Bureau of the Census, 1980 Summary Tape File 1-A and 3-A
Redevelopment of Kaka'ako
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Most of the residents came from O'ahu, but a substantial number had lived outside the United States. Also, nearly as many residents were foreign-born as were Hawai`i-born, and other U.S.-born Americans were few.

Ethnically, Chinese and Koreans were strongly represented in this tract, while Caucasians, Japanese, Filipinos and Hawaiians were all present in roughly equal numbers.

The population was young compared to the rest of the study area, and families with dependent children were in the majority. The proportion of families headed by women was exceptional (United States Department of Commerce, Bureau of the Census, 1981a and 1981b).

In the Downtown sub-area, which includes Census Tracts 40 and 42,

The population was relatively well educated and affluent. Median family income in tract 40 was well above the O'ahu average in 1980, while incomes of tract 42 families were close to the average. In both tracts, few families had incomes below the poverty line.

Most families in the Downtown sub-area did not have children in the household in 1980.

In 1980, Caucasians formed the largest ethnic group in this area, Ethnic Japanese and Chinese formed the next largest groups. While many residents were foreign-born, a high percentage were from other states.

The proportion of the population who had lived in the same house five years previously was low, mostly because of the then new residential units. In Census Tract 40, a third of the residents had lived elsewhere in the United States five years earlier. (United States Department of Commerce, Bureau of the Census, 1981a and 1981b).

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2.2.4 Labor Force Characteristics of the Downtown Resident Population

Labor force characteristics were in line with the findings concerning population and families noted earlier. The 1980 Census showed that laborers and service workers were numerous on the Chinatown side (see Table 6). Residents in the Downtown side of the study area were likely to have relatively high status and well paid occupations.

Labor force participation was high among Downtown sub-area residents, while many more adults were not in the labor force on the Chinatown side. Unemployment was relatively high in Chinatown.

Although residents of the study area live near Honolulu's financial and government center, they had to spend about as much time getting to work as did other O'ahu residents in 1980.

2.3 Characteristics of Existing City Projects in the Vicinity

The major portion of the Chinatown sub-area contains five City residential projects. The following describes each project, based on information provided by resident and property managers:

• Hale Pauahi is the largest of these and contains units priced for low and moderate income, as well as for market rates. Located at the corner of Maukaekae and Beretania Streets, this project contains 214 units, of which 72 are three-bedroom units. There are 118 one-bedroom units and 212 two-bedroom units.
  Monthly rents for the lower tiered units range from $400 (one-bedroom units) to $670 (three-bedroom units). Market rents range from $140 to $275. There is a small turnover averaging about four a month, and these occur mostly with the market units.

People of various ages and ethnic backgrounds live in Hale Pauahi. The three-bedroom units house both families and unrelated individuals, up to a maximum of five people. Some of the problems arise from the diversity in ages; elderly residents often complain about the noise or behavior of the younger adults and children. The most frequent problems are related to property damage and nuisance.

• The River Pauahi Apartments is located near and fronts River Street. This four-story building contains 19 residential units and a convenience store. Eight of the units contain two bedrooms; the other are one-bedroom units. Tenants are mostly elderly Filipinos and Chinese and a few are handicapped; some older married couples live in the two-bedroom units. Monthly rents range from $500 to $721.
Table 6
Labor Force Characteristics, 1980

<table>
<thead>
<tr>
<th></th>
<th>Chinatown Sub-Area</th>
<th>Downtown Sub-Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oahu</td>
<td>Makai</td>
</tr>
<tr>
<td></td>
<td>(CT 51)</td>
<td>(CT 52)</td>
</tr>
<tr>
<td>Potential Labor Force, aged 16+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not participating in labor force</td>
<td>30.8%</td>
<td>46.3%</td>
</tr>
<tr>
<td>In armed forces</td>
<td>10.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Part of civilian labor force</td>
<td>59.1%</td>
<td>53.7%</td>
</tr>
<tr>
<td>Unemployed Civilian Labor Force</td>
<td>4.6%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Total Employed Civilian Force</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial and professional</td>
<td>24.7%</td>
<td>10.4%</td>
</tr>
<tr>
<td>Technical, sales and administration</td>
<td>33.8%</td>
<td>26.8%</td>
</tr>
<tr>
<td>Service</td>
<td>17.6%</td>
<td>39.1%</td>
</tr>
<tr>
<td>Farming, fishing, forestry</td>
<td>1.8%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Precision, craft, repair</td>
<td>11.3%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Operators, fabricators, laborers</td>
<td>10.9%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Commute to work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean travel time in minutes</td>
<td>22.6</td>
<td>20.1</td>
</tr>
</tbody>
</table>

All figures are based on a 15 percent sample.

Source: U.S. Bureau of the Census, 1980 Summary Tape File 3-A

Located on the mauka side of Pauahi Street, Pauahi Hale or Pauahi Annex is a four-story structure containing 76 units. All contain one bedroom, and there are group bathrooms and kitchens on each floor. Residents pay 20 percent of their income for rent and most are elderly.

Pauahi Kupuna Hale is on the makai side of Pauahi Street. Its 48 units currently house 66 elderly residents. Seven ground floor units are designed for physically disabled people; all residents must be capable of independent living.

Winston Hale is the oldest residential project in the area and is located at the corner of Hotel and River Streets. The structure contains seven commercial spaces at ground level and 94 studio units. The 157 men and women who currently live here are diverse in age and racial extraction.

Just Diamond Head of the Chinatown Sub-Area is the Chinatown Gateway. Sixty percent of the units are priced for incomes less than 100 percent of the median income, and the remaining 40 percent of the units are market-priced. Based on the applications for the project, the demand for the lower-priced units greatly exceeds the supply, while few people were interested in the market units. There are 60 units for those whose incomes are up to 80 percent of the island's median; 313 applications were submitted. At the other extreme are the market units. Only 66 people applied for the 80 market-priced units.
3 MAJOR CHANGES WITHOUT THE KEKAULIKE REDEVELOPMENT

This section looks at what guides the changes in the study area, as well as identifies some community changes which may occur. This information indicates how the proposed redevelopment of the Kekaulike area relates to the expectations of the existing community and the likely changes this community will experience. Section 3.1 summarizes plans and guidelines in relation to the project site. Sections 3.2 and 3.3 identify construction projects and proposed changes in the study area, and Section 3.4 describes a likely future scenario of the study area without the proposed project.

3.1 Plans and Guidelines in Relation to the Project

The project site lies in the Primary Urban Center Development Plan area. The Special Provisions for the Primary Urban Center single out Downtown as a special area. The Downtown Special Area includes the Financial, Kakaako and Chinatown districts, as well as the Aloha Tower–Honolulu Harbor area.

The project site is in the Chinatown District, which is to be redeveloped with emphasis on historic preservation, architectural character, and adaptive re-use, and with strengthening of the commercial and retail function. The Chinatown District, which was established to preserve the historic significance, architectural character and historic use of the area, and to meet the community's needs. Specific objectives also call for economic revitalization and compatibility between new developments and the existing character of the area.

The project site is in the Historic Core Precinct. Objectives of the Historic Core encourage the retention and renewal of buildings of historic, architectural, and cultural value. Existing buildings, there should be design compatibility through building heights not to exceed 40 feet, continuous street frontages and characteristic street character elements. The new buildings should be used exclusively for retail commercial uses or light food manufacturing of an ethnic nature, such as noodle-making. Note that dwelling units within the 40-foot height limit are exempt from off-street parking requirements (UHPD Department of Land Utilization, 1990).

3.2 Changes in the Study Area

The urban landscape of the study area is changing daily. Construction activities have become integral to the study area environment, and proposed developments indicate an ongoing transformation of many individual sites and whole city blocks. This section summarizes these changes for an understanding of what is likely to happen in the study area independent of the redevelopment of the Kekaulike project site.

3.2.1 Projects Under Construction

As of April 1991, the only project under construction in Chinatown is the River–Nanakuli Housing project. Located at the corner of River Street and Nimitz Highway, this City project includes ground floor retail spaces and residential units.

Nanakuli Avenue forms the makai–makai boundary between the Chinatown and Downtown Districts. The Liberty Theater site and the adjacent gas station have been demolished. Consolidated Amusement Company plans to construct a parking lot in a joint development of both parcels (Office of Environmental Quality Control, 1990). No apparent site work is currently occurring.

Four major office projects are scheduled for completion in 1992. The Pan Pacific Plaza is located on the Diamond Head side of Fort Street Mall. Being developed by the Daniels Company of California, this complex will offer 45,000 square feet of office space and is already pre-leasing with 60,000 - 80,000 square feet committed to First Interstate Bank (Grubb and Ellis/Locations, Inc., 1990 and 1991; Downtown Improvement Association, 1989a).

1100 Alaska Building is a 31-story office building containing 150,000 square feet of space. The site is located on the corner of Alfred and Hotel streets. The First National Bank recently announced that it has sold its present headquarters building and will become the building's anchor tenant, occupying approximately 50,000 square feet of ground floor and at least five additional floors (Grubb and Ellis/Locations, Inc., 1991).

All Phases is a part of the Merchandise Mart site, and, of the three under construction, is considered the most aggressive in terms of marketing programs. About 80 percent of the building has been leased. The building will contain 200,000 square feet of space (Grubb and Ellis/Locations, Inc., 1991).

A fourth project under construction is intended for office space for the State. The State Office Tower is located on Beretania Street, on the Diamond Head side of Bishop Street. The structure is being developed by the Henekemper Corporation, and will contain 100,000 square feet of office space (Downtown Improvement Association, 1989a). The second, the City Bank Building, is under construction of a 214 million face (Grubb and Ellis/Locations, Inc., 1990).
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3.2.2 Planned and Proposed Changes

Numerous other projects are envisioned for the study area, and these are in different stages of planning and obtaining necessary approvals. Proposed changes in the Chinatown sub-area are all initiated by the City and County of Honolulu and include:

- The Smith-Mauzakes project is the redevelopment of a City-owned parking garage located east and makai of the project site. The City proposes to develop 256 residential units, ground-level commercial spaces and an open courtyard and mall. A Draft EIS is being prepared.
- The parking lot located at Smith-Berriniasa is also being considered for redevelopment. Project components include a public park, underground parking, and a three-story structure with a child care facility, commercial space and City offices.
- The City is proposing 1,600 residential units at the Foster Garden Estates which is bounded by Nuuanu Avenue, Vineyard Boulevard, Olowalu Street, and Kuhio Street (Downtown Improvement Association, 1989). Half of the units are expected to be rental units; the other half will be for sale. The project is in preliminary planning stages.
- Two existing residential structures are slated for redevelopment by the City. Pahia Hale, or Pahia Annex, currently a City rental project, will be converted into a single-room occupancy facility. Waimanalo Hale will be rehabilitated (City and County of Honolulu Department of Housing and Community Development, 1990).

Just 'Ewa of the study area on the other side of Nuuanu Stream is the site of Park Place. The City proposes to develop this site into a residential project containing 422 units in a mix of market and affordable units. This project is in early planning stages.

In the Downtown sub-area there are also a number of City-initiated proposals. Harborfront Developers was selected by the City and County of Honolulu as the developer in the Kaihimanu Parking Structure Redevelopment, located at the makai end of Bethel Street. The mixed-use project combines retail commercial operations with a 16-story office tower, a 28-story apartment tower containing 120 units, and a six-story office/commercial mixed-use building (R.M. Towill Corporation, 1990).

Pacific Financial Center is the largest proposal for the overall study area. In the EIS for this project, a maximum development program for this site included a 350-foot residential tower, a 300-foot office tower, a 350-foot tower with small-scale office hotel and office space, and park/plaza space. Parking would be provided in a five-level underground parking structure, and the existing on-site electrical substation would be relocated (City Department of Housing and

Community Development, 1989). The City has re-issued a request for proposals. Further, Fort Street Mall is currently planned for renovation which will accommodate increased use and reflect changes in properties adjacent to the mall (Spencer Mason Architects, 1989).

The State of Hawaii also has a major proposal for the study area. Preliminary plans for the Ala Moana Tower include two 250-foot condominium towers, a seven-story 109-room hotel and an office tower. The Harbor Centre Office Complex will contain 400,000 square feet of space and 220,000 square feet in the Maritime Building available for occupancy by maritime-related firms. Construction is due to start early in 1992, with completion of the $500 million redevelopment about five years later (Grubb and Ellis/Locations, Inc., 1991).

The privately-proposed Highness Tower will be located on Nuuanu Avenue and will include 153 residential units, and space for small office, office, sales, office, health club and recreational uses. The project is currently being reviewed for compliance with the Chinatown Special District requirements (June, 1991). A new Downtown Park at Bishop and Hotel Streets was proposed by the developer of the Pan Pacific Plaza. Other proposals in the Downtown include an unnamed office project on the former Alaka Theatre site, and a Campbell Estate Office Tower along Hotel Street between Fort Street Mall and Bethel Street (Downtown Improvement Association, 1989).

3.3 Likely Future of the Study Area Without the Kakaako Redevelopment

Based on an analysis of the existing community (Section 2) and current and potential development activity in the study area, the following is a likely scenario of the future study area without the redevelopment of the Kakaako site:

- Increase in Residential Population and Mix. In 1990, an estimated 8,542 people lived in the study area, based on preliminary counts of the 1980 census. Currently, 727 new residential units are either being built or have just completed construction. As shown in Table 2, these units will bring the total housing count to 9,337. Thus, in the near future, the population is expected to increase to an estimated 9,890 persons.

If all of the planned and proposed residential projects independent of Kakaako are built, the study area's housing count could total 8,122 units. The study area's long-range population is projected to reach 15,122 persons, if all current proposals are implemented.
Table 7
Estimate of Potential Residential Units and Residential Population for the Study Area

<table>
<thead>
<tr>
<th>Number of Residential Units</th>
<th>Potential Residential Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990 Estimate (*)</td>
<td>4,608</td>
</tr>
<tr>
<td>Projects Under Construction or Just Completed</td>
<td></td>
</tr>
<tr>
<td>Honolulu Park Place</td>
<td>437</td>
</tr>
<tr>
<td>Chinatown Gateway Plaza</td>
<td>200</td>
</tr>
<tr>
<td>River/Nilma</td>
<td>90</td>
</tr>
<tr>
<td>Cumulative Subtotal</td>
<td>5,335</td>
</tr>
<tr>
<td>Planned and Proposed Projects</td>
<td></td>
</tr>
<tr>
<td>Pacific Nations Center</td>
<td>494</td>
</tr>
<tr>
<td>Highness Tower</td>
<td>153</td>
</tr>
<tr>
<td>Aloha Tower Redevelopment</td>
<td>270</td>
</tr>
<tr>
<td>Kahanamoku Parking Structure</td>
<td>122</td>
</tr>
<tr>
<td>Smith Memorial</td>
<td>238</td>
</tr>
<tr>
<td>Foster Garden Estates</td>
<td>1,000</td>
</tr>
<tr>
<td>Total Cumulative</td>
<td>8,212</td>
</tr>
</tbody>
</table>

Residential population is based on study area 1990 household size of 1.81 persons which excludes people living in group quarters.

(*) based on 1990 preliminary census information

The types and locations of residential development proposed for the study area indicate that the demographic differences between Downtown and Chinatown residents will continue both in the short- and long-term time frame. As the City increases rental units in the area, there will be more renters of the low and moderate income category, as well as more elderly people. People who can afford market rents will also live in Chinatown, and, except for the Honolulu Park Place, manuka or Beretania Street, and planned sales units at Highness Tower and Foster Garden Estates, no private homeownership is expected in Chinatown.

With the completion of current construction projects, the demographics of the future population of the Downtown sub-area will likely change to reflect a high owner occupancy rate, younger population, higher incomes, increased ethnic diversity, and higher education levels.

- Continued and Increased Need for Resident-Oriented Facilities. As more people live in the area, the demand and need for public services and facilities will continue. This is especially so with recreational facilities. Even though many residential complexes may contain on-site recreational facilities, the anticipated younger population will still need ground-level playgrounds, ball courts and recreational centers.

- Continued Rehabilitation in the Chinatown Sub-area. Chinatown is expected to undergo low-rise commercial redevelopment, mixed with high-density residential uses. The current efforts are primarily focused on historic preservation. It is anticipated that, as Chinatown accommodates more residents, and as the area's physical characteristics and infrastructure improve, private landowners in the area will develop their properties or rehabilitate existing structures.

- Continued Development of Downtown as The Financial Center. Honolulu retains the distinction of having the lowest downtown office vacancy rate in the nation. At the end of 1990, the vacancy rate was 0.7 percent, as compared to 3.9 percent islandwide (Grubb and Ellis/Location, 1991). The pressure for Downtown office development is expected to continue, even with the Kapalama corridor office development activity. By upgrading currently underdeveloped land, these projects are expected to change the urban landscape and intensify human activity in the area.

- Temporary Parking Problems. As the City continues to develop sites containing public parking garages, there will be a shortage of parking spaces. These shortages are expected to be temporary.
4 COMMUNITY ISSUES

This section explores potential community issues and concerns on the proposed redevelopment of the Kaka'ako area. Section 4.1 identifies information sources used in this analysis. Section 4.2 extends the baseline data on the existing community by presenting issues and concerns independent of the proposed project. Section 4.3 identifies information from interviews with residents, and Section 4.4 identifies preliminary community issues on the redevelopment of the Kaka'ako area.

4.1 Sources of Information

Two sources of information were used in this analysis:

1. Neighborhood Board minutes.

The Neighborhood Board system is a formal mechanism for citizen input to public entities regarding islandwide City policies, specific community problems and other matters, and proposed changes. The types of issues addressed by a Neighborhood Board and subsequent actions often reflect values and concerns of the constituent population.

To understand the values, concerns and issues of study area residents, this study examined the minutes of the Downtown Neighborhood Board No. 13 over a three-year period, from January 1990 through February 1991. Section 4.2.1 discusses issues addressed by this Board.

2. Community Interviews.

Earthplan conducted interviews with people who (1) live, conduct business or own land near the project site, (2) have a regional interest in the proposed project, or (3) would be able to provide specific information on how the site might affect the neighboring community.

These interviews were held to supplement information from printed sources of material regarding community needs and values, and, more importantly, to identify community issues and concerns relative to the proposed project. This study did not include a statistical poll, and does not quantify project support or opposition.

Forty people were interviewed during this study and the list is presented in Table 8. Each person was informed that input would be summarized in the Social Impact Assessment and that individual opinions would remain confidential. The source of project information was the environmental assessment prepared by the City and County of Honolulu on the project.

Interviewees were first asked about Chinatown. They were asked to share their likes and problems/concerns about the region.

Next, they were asked about the project, beginning with their prior knowledge of the project. Except for landowners, no one knew much about Phase 2 of the project. Many of the on-site residents and on-site businesses did not know about project components. After being given a brief summary of the proposed project, interviewees were then asked to provide their perspectives on how the proposed project might affect them personally, and affect nearby sites and the regional community; the question varied depending on appropriateness.

Those interviewed were not asked to represent the views of their organization, although if the organization has taken a formal position, they were asked to discuss these positions.

The 40 people interviewed for this project represented a wide cross-section of interests and the breakdown is as follows. Note that the total does not equal 40 because some people were in more than one group.

- Chinatown and Downtown residents comprised the biggest group of people. They included on-site residents, resident managers of other Chinatown complexes and Downtown Neighborhood Board members. Sixteen study area residents were interviewed, of which four were on-site residents.

It is noted that it was difficult to interview many on-site residents. The interviewers made repeated site visits, and initiated many phone calls. Also, we contacted those in social service agencies and landowners for referrals. Few on-site residents had listed phone numbers, however, and most landowners did not provide requested information. Also, in some cases, there were language barriers, or residents simply did not want to be interviewed.

We believe, however, that because we spoke with those who know many residents in the area and who were familiar with individual situations, we have a good idea of issues important to on-site residents.
Table 8
List of People Interviewed for this Study

Note: These interviewees provided their perspectives on how the redevelopment of the Kakaako area might affect them, the neighborhood, and the regional community. They were not asked to represent the views of their organizations.

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization or Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marie Borawski</td>
<td>Resident manager of Paiahi Kupuna Hale</td>
</tr>
<tr>
<td>Lane Brink</td>
<td>Member of the Downtown Neighborhood Board No. 13</td>
</tr>
<tr>
<td>Fely Burgos</td>
<td>Catholic Charity Services</td>
</tr>
<tr>
<td>Mary Cadiente</td>
<td>Regular customer at Red St Cafe (on-site business)</td>
</tr>
<tr>
<td>Albert Camanu</td>
<td>Director of Paiahi Center Senior Citizen Meal Site Director of A'al Park Meal Site</td>
</tr>
<tr>
<td>Sue Kwan Chan</td>
<td>Owner of Wing On Wholesale (on-site business)</td>
</tr>
<tr>
<td>Malia Chin</td>
<td>Part owner of Le Vihe Jewelry Repair (on-site business)</td>
</tr>
<tr>
<td>Geoff Darr</td>
<td>Resident manager of Kukui Plaza</td>
</tr>
<tr>
<td>Simon Divera</td>
<td>Resident of &quot;Ewa portion of project site&quot;</td>
</tr>
<tr>
<td>Gladys Dilling</td>
<td>Member of the Downtown Neighborhood Board No. 13</td>
</tr>
<tr>
<td>Phyllis Fox</td>
<td>Executive Director of Historic Hawaii</td>
</tr>
<tr>
<td>Robert Gerrell</td>
<td>Owner of Gerrell Management, Inc. Leases building in the Diamond Head portion of the project site</td>
</tr>
<tr>
<td>William Grant, AIA</td>
<td>Executive Director of the Downtown Improvement Association</td>
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<thead>
<tr>
<th>Name</th>
<th>Organization or Affiliation</th>
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<tbody>
<tr>
<td>Teo Hieckel</td>
<td>Manager of Paiahi</td>
</tr>
<tr>
<td>Ricky Hale</td>
<td>Owner of Ricky's Barber (on-site business)</td>
</tr>
<tr>
<td>Larry Ing</td>
<td>Columnist for the Downtown Planet (&quot;Rambles Through Chinatown&quot;)</td>
</tr>
<tr>
<td>Andy Kim</td>
<td>Manager of Club YC (on-site business)</td>
</tr>
<tr>
<td>Ed Kim</td>
<td>Resident manager of Paiahi</td>
</tr>
<tr>
<td>Anselmo Lavarius</td>
<td>Resident manager of Winston Hale</td>
</tr>
<tr>
<td>Hudson Lee</td>
<td>Owner of Lucky Hawaii, Inc. (adjacent business)</td>
</tr>
<tr>
<td>Kyo Yoo Lue</td>
<td>Owner of Fred's Sundries (on-site business)</td>
</tr>
<tr>
<td>Ted Li</td>
<td>President of the Asian Association of Chinese from Vietnam, Laos and Cambodia Vice President of the Chinese Merchants Association</td>
</tr>
<tr>
<td>Jenetta Ma</td>
<td>Landowner of a parcel in &quot;Diamond Head portion of project site&quot;</td>
</tr>
<tr>
<td>Llewellyn Malina</td>
<td>Resident of the Diamond Head portion of the project site</td>
</tr>
<tr>
<td>Gilbert Martin</td>
<td>Member of the Downtown Neighborhood Board No. 13</td>
</tr>
<tr>
<td>Lynn Matsuzawa</td>
<td>Chair of the Downtown Neighborhood Board No. 13</td>
</tr>
<tr>
<td>Mari McCall</td>
<td>Outreach worker for PACE</td>
</tr>
<tr>
<td>Shing Yuen Ng</td>
<td>Owner of Shing Chung Yuen, Ltd. (nearby business)</td>
</tr>
<tr>
<td>Eddie Ogawa</td>
<td>Owner of Elsie's Polynesian Club</td>
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<thead>
<tr>
<th>Name</th>
<th>Organization or Affiliation</th>
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<tbody>
<tr>
<td>Richard Rebollar</td>
<td>Resident of 'Ewa portion of project site</td>
</tr>
<tr>
<td>Andrew Itohazela</td>
<td>Member of the Downtown Neighborhood Board No. 13</td>
</tr>
<tr>
<td>Nancy Sekioka</td>
<td>Owner of Red Sea Cafe (on-site business)</td>
</tr>
<tr>
<td>Rey Souza</td>
<td>Police officer of the Downtown Police Substation</td>
</tr>
<tr>
<td>Theodora Supoet</td>
<td>Resident manager of City Villas (on-site apartment)</td>
</tr>
<tr>
<td>Sally Tanaka</td>
<td>Assistant manager of River Paiahi</td>
</tr>
<tr>
<td>Phan Thanh</td>
<td>Owner of Hong Linh Store (on-site business)</td>
</tr>
<tr>
<td>Hie Wai Wong</td>
<td>Owner of land in the 'Ewa portion of the project site</td>
</tr>
<tr>
<td>Enoye Wong</td>
<td>Account Executive for Loyalty Enterprises (management company for River Paiahi, Hale Paiahi and Kukui Gardens)</td>
</tr>
<tr>
<td>Joy Wong</td>
<td>Outreach worker for FACE</td>
</tr>
<tr>
<td>Sun Hung Wong</td>
<td>Executive Director of the Chinatown Merchants Association</td>
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- Chinatown businesses comprised the second largest group. Ten people owned and operated businesses in the area, seven of whom were on-site. One on-site business did not want to participate because it was felt that the landowner should handle the matter.
- To get a regional perspective, Earthplan interviewed twelve people involved in regional organizations.
- Six of those interviewed were involved in social or public service in Chinatown.
- Finally, we contacted landowners and management companies who are directly involved in the project site. Some did not want to be interviewed because of potential litigation.

The responses from the informant interviews are presented in Sections 4.3 and 4.4. Because this is not a statistical survey, we do not quantify the frequency of responses, except in the case of extremes.

4.2 General Community Issues and Concerns

4.2.1 Neighborhood Board Issues and Concerns

The Downtown Neighborhood Board No. 13 area is larger than the study area for this report. In 1980, the Neighborhood Board area population was 8,674, whereas the study area population was 9,926. Hence the study area accounted for just over two-thirds of the Neighborhood Board area constituents in 1980.

The Neighborhood Board area extends from River Street to the eastern boundary formed by Ward Avenue, and Beretania, Atkinson, South Streets, Ala Moana Boulevard and Kenolio Street. The H-1 Freeway and Honolulu Harbor form the mauka and makai boundaries.

The theme central to most of the Neighborhood Board discussions held over the last three years is the need to create a more livable environment for residents in this high density and mixed-use community. The Board strongly advocated for more open space, more recreation areas - particularly active recreation - and more resident-oriented public services and facilities. In addition, the Board supported efforts which would increase the safety and efficiency of Downtown vehicular and pedestrian systems.

These themes were carried through in specific topics addressed, some of which are as follows:

* Public facilities. The Board advocated the improvement and retention of resident-oriented public facilities. The Board supported a new satellite City Hall. Members supported Central...
Intermediate School remaining open and opposed consolidation with Kawananakoa Intermediate School over the years, the Board opposed converting the school into a park. The Board paid close attention to the library renovation, and supported efforts to temporarily use the NBC Exhibition Hall as a library.

The Board objected to rezoning Kamali Park to BMX-4, although it considered removing the objection if the site would be replaced in Block J as an active public recreation area. In a review of the Draft Environmental Impact Statement for Block J, the former Neighborhood Board Chair suggested various alternatives for including active recreational and entertainment spaces in Block J.

The Board opposed the City acquisition of seven parcels which would be used for a park at the former Hotel and Bishop Streets, basic to this opposition was the Board's concern over the use of City parks in private development projects.

The Board reviewed plans for Fort Street Mall improvements and submitted recommendations designed to accommodate nearby businesses and mall users.

The Board also strongly objected to a sign at Wilcox Park which listed 16 prohibited actions.

* Proposed projects. The Board reviewed numerous proposals which would bring change to Downtown and Chinatown, as well as to Kakaako. Many of these proposals were generated by the City and County of Honolulu and many included a residential element, as indicated in Section 3.2.

Perhaps the best illustration of the framework for the Board's review of new projects is the response to the City Department of Housing and Community Development when City-proposed projects were presented in April 1989. The Board reiterated the need for the following:

- the need to minimize displacement of small businesses;
- the need to minimize displacement of public parking because of the need to serve Downtown businesses and their clientele;
- the need to encourage more affluent people to live in this area;
- the possibility of using higher-priced living units in the waterfront area to help finance lower-priced units elsewhere;
- the need for active recreational areas; and

- the need to minimize displacement of small businesses.

Such comments are reflected in subsequent positions taken on different projects.

* Parking. The Neighborhood Board strongly discouraged displacement of public parking because of the need to serve Downtown businesses and their clientele. The Board has expressed concern that many of the City-proposed projects are on existing public parking garages, and that simultaneous development of some of these sites will cause at least temporary displacement of parking.

* 500-foot building height. Allowing 500-foot height limit on nine different parcels did not meet Board approval, since many felt it was premature for making a decision at this time. Some felt that taller buildings did not necessarily guarantee more open space at ground level.

* Facilities for homeless people. The Board supported the Edwin Thorne Home for homeless families in January 1988; subsequent efforts to qualify or change that position were strong but unsuccessful. After further deliberation, the Board supported the project in May of 1990 provided that the applicant monitor the project closely.

The Board also addressed the Ahi Park Homeless Shelter, which is just outside the Downtown Neighborhood Board area. It was felt that public parks are scarce in the area, and shouldn't be used for tent cities.* Other concerns included policy regarding use by public parks for this purpose and use of City funds.

4.2.2 Issues and Concerns of Other Organizations

There are a number of business organizations in Chinatown, including the Chinatown Merchants Association, the Chinese Chamber of Commerce, and the Downtown URBAN Merchants Association. They share a common goal of promoting and enhancing the business-climate in Chinatown. These organizations tend to be loosely structured, even for the Chinese Chamber of Commerce, which is based in Chinatown and which contains 350 members.

PACE, the United Chinese Society, and the Association for Chinese from Vietnam, Laos and Cambodia are culturally-oriented:

* PACE, which is also known as People Against Chinatown Evictions, has been working in Chinatown for 15 years. Their initial task of assisting Chinatown residents during previous urban renewal projects has evolved into outreach and advocacy services for low- and middle-income Chinatown families.
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- Functioning as a coordinator for social events, the United Chinese Society is an umbrella organization for over 100 Chinese clubs and societies.
- The Association for Chinese from Vietnam, Laos and Cambodia was initiated to assist immigrants and work to perpetuate their culture. Free organizational services range from job and housing referrals to translation services.

The Downtown Improvement Association (DIA) is a business organization dedicated to the development of Downtown as the State's premier business headquarters. The goals are to maintain a good Downtown business climate, promote employee satisfaction and encourage an adequate supply of office space and supporting services including parking, retail facilities and housing. The organization comprises 400 members.

None of these organizations has taken a position on the proposed project.

4.3 Informant Feelings about Chinatown

4.3.1 Positive Aspects:

To understand the context in which informants were reacting to the redevelopment of Kaka'ako, we asked those interviewed to share their views about Chinatown. They were first asked what they liked about Chinatown, and then were asked to share their concerns about the area.

All of those interviewed liked Chinatown. They discussed the following:

1. **A True Neighborhood**

   Informants were often excited about Chinatown because of its neighborhood qualities. People know each other, they have favorite shops and had preferred places to socialize. They like the convenience of the area, and don’t mind having to go to different stores to shop for one meal. They liked the street and being there when the produce arrived in the morning.

   This feeling of neighborhood was shared even by non-residents of the area. During the interviews, we learned that many former Chinatown residents return to the area, some almost daily, to socialize and congregate. A restaurant and pool hall on the Ewa side of the project site, for example, are popular gathering places.

2. **Cultural Diversity**

   Chinatown was described as colorful, exciting, different and vibrant. These descriptions often stemmed from an appreciation of the cultural diversity present in the restaurants, food stores, ethnic markets, jewelry stores and import wholesale and retail outlets. The Chinese New Year festivities were popular, and people felt that the Chinese societies were crucial to the ambience.

   Informants also pointed out that Chinatown is surviving — if not thriving — the ongoing changes in ethnicity. Chinatown was described by one person as a "harmonious mixture of old Chinese and recent immigrants from Southeast Asia.

3. **Allows Assimilation**

   One of the values of Chinatown is that the region acts as an incubator for others. With hard work and the crucial participation of extended family members, newly-arrived immigrants can successfully operate a store.

   There are formal and informal support groups which specialize in assisting new residents in acculturation and assimilation. At the same time, immigrants can preserve and practice their homeland culture with others who share languages and cultures.

4. **Urban Design and Redevelopment**

   Those who are active in regional organizations felt mostly positive about the current redevelopment of Chinatown. They welcome the new buildings and the removal of older substandard buildings which could not be preserved. In wanting to eliminate bars and adult entertainment establishments, they saw redevelopment as a long-range solution.

   Though they appreciated some of the changes in Chinatown, others were less enthusiastic about redevelopment, or felt that there were better ways to undertake the revitalization of Chinatown.

   Informants mostly liked the old, low-rise quality of Chinatown's physical environment. Some business people felt, however, that the rules governing development are too strict in Chinatown, and they wanted to see increased building heights.
4.3.2 Concerns
Informants shared concerns about Chinatown which were closely tied with the positive values of the area. Sometimes, the very aspect which is valuable became a double-edged sword, as can be seen in the following summary of Chinatown concerns:

1. **Rising Costs Associated with Redevelopment**
   Although informants welcomed or accepted the changes in Chinatown, they were nevertheless apprehensive about the increased costs resulting from revitalizing the area. Increased apartment rents presented big problem for residents as well as non-residents, since many tenants are elderly on fixed incomes. Even though they liked the area "cleaned up," they feared that higher rents would force people out of Chinatown.
   
   The same holds true for the small businesses. The "incubating" effect of Chinatown depends on low rents. If a building is rehabilitated, or if relocation is necessary, the new space is often leased at a higher rate. It takes time for a new business to develop the same level of clientele in a new space, and sometimes that "down time" is enough to put someone out of business.
   
   People were split about how affordable Chinatown should be.
   
   Affordable housing was a must to some, while others felt that the study area has its share of government-sponsored housing.
   
   The latter wanted more market housing in Chinatown.

2. **Evolving Neighborhood Qualities**
As the area is revitalized, the neighborhood evolves, and informants were mixed as to whether the changes are adding or detracting from the "spirit of Chinatown."

   For example, informants felt that, while the newer antique shops and art galleries looked nice and added diversity to the area, these shops were not really part of what makes the neighborhood run. People felt that these shops and galleries are exclusionary, do not share clientele with a nearby macanup shop or ethnic market, and do not provide the same social value for the "working class."

   Were these changes good or bad? Informants were mostly unsure, but there were feelings that the Chinatown of today could be threatened if the community does not actively participate in her changes.

3. **Crime**
   Drugs, prostitution, loitering — these continue to bother Chinatown businesses and residents. There is growing optimism that these actions are decreasing, however, with the addition of a new police substation and revitalization.

4. **Accommodation of Residents**
   Residents wanted to make sure that Chinatown remains a place to live, as well as work. They feared that more businesses meant less facilities for residents. They were particularly concerned about the lack of parks in the study area.

   Business people felt that residents were good for the area because it means more customers.

4.4 Community Concerns About the Redevelopment of Kakaako

4.4.1 Summary of Issues and Concerns
The issues raised by informants on the proposed project indicated that they either supported the project or would accept the project if there were certain conditions and/or changes. Their comments are hereby summarized and more discussion is provided in subsequent sections.

1. **Affordability and Displacement**
   - Expressed by on-site residents, on-site businesses, and regional organizational interests, this was the strongest and most frequent concern among those interviewed. Informants were concerned that the rents of the new and rehabilitated buildings may be beyond the reach of current residents and business lessees. They feared that displacement would occur, even if there were opportunities for on-site relocation.

2. **Mixed Reaction Towards Redevelopment**
   - Consistent with feelings about Chinatown redevelopment in general were concerns that, even though redevelopment would greatly improve the area, it would alter the "ambience and neighborhood qualities. Such change was seen as inevitable to many, but was understandably viewed with apprehension by those who would be personally affected. Potential displacement expressed the greatest concern, while regional organizational informants tended to have a long-range appreciation of proposed changes.
3. **Housing Types**

People who are on or near the project site, or those who are involved in social service in Chinatown, liked the affordable housing proposed by the project. In fact, there was a desire to see more affordable units to make sure that all on-site residents are accommodated. Regional organizational informants expressed a desire for more market units because they felt that more expensive units would help revitalize the area.

4. **City as Developer**

There were two types of concerns related to the City's role as developer of this project. First, there was a general feeling that the City has not been sharing project information in a timely fashion. Second, informants were split about whether the City should be a developer in principle. There were feelings that City participation in the only way affordability can be achieved, at the other end of the spectrum was the concern that the City is not an efficient or accountable at the private developer.

5. **Project Components**

As discussed earlier, there were mixed feelings about the types of housing preferred by those interviewed. The commercial component was mostly appreciated, with some wanting to make sure that (1) on-site businesses can afford the new spaces and (2) this does not create an oversupply of commercial space. Parking and traffic patterns were major concerns. The temporary elimination of parking during construction was a big problem for nearby on-site businesses, since parking is already at a premium in Chinatown. Loading and unloading was also a concern, as well as the single ingress/egress on Mauka Street. The development of Kekauhike Street into a pedestrian mall worried nearby businesses because of loading logistics.

4.4.2 Affordability and Displacement

As discussed in Section 4.3.2, those interviewed welcomed or accepted the changes in Chinatown, but were also concerned that related increases in rents and the costs of doing business would force people out of Chinatown. They were afraid that Chinatown would offer less affordable housing and would no longer allow for the start up of new small businesses. There was also concern that the improvements may end up eliminating the special qualities of Chinatown.

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Such opinion was reflected in informants' concern about the redevelopment of the Kekauhike area. Those involved in regional organizations were concerned that the new Chinatown may be too expensive for existing residents and businesses. They did not want to see the older residents — who are foreign plantation workers — forced out of Chinatown because they would not be able to afford rent in the new buildings. They also liked the small businesses and warned that some businesses at the Mauka Place were having difficulties due to the high costs of relocating to a more expensive building.

Social service people and on-site residents and business people were very concerned that what is considered "affordable" to the City may be too expensive for them. Some elderly residents were already doubting and tripling up because they need help in paying rent. Also, there are families who could be homeless if it weren't for the affordable apartments on the site.

Business owners were concerned that they would need to move permanently out of Chinatown if the new rent structure is too high for them. They could lose their customers and ultimately go out of business. Some of the elderly business owners indicated that perhaps it's time for them to retire, since they would have difficulty in moving their business.

Business people and landowners were also concerned about the fairness of the current acquisition efforts undertaken by the City. They indicated the potential for lawsuits to ensure an equitable settlement.

4.4.3 Mixed Reaction Towards Redevelopment

All informants — including those who live and work on the site — agreed that at least a portion of the project site should be redeveloped. They were particularly concerned about the safety and visual appearance of the "East" portion of the project site. They felt that the old wooden structure on Hotel Street was badly in need of paint and repair and could be a hazard for inhabitants.

Informants also felt that the project site could be revitalized in a manner which would improve the visual appearance of the area. Some named certain bars which they wanted eliminated and there was a desire to see on-site apartments at least upgraded to better living conditions.

Also of concern, however, were the effects of improvements on the ambience and neighborhood qualities. They raised issues, such as, Where will the old timers live and socialize? Will we continue to have family businesses? What happens if the new businesses force out the mom-and-pop operations? Will we still have a true Hawaiian ambience? What will happen to the Chinese New Year and the Chinese societies if we lose the Chinese character of the area?
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Those involved in regional organizations were more confident that the urban design requirements would at least ensure that the physical environment of Chinatown is retained. Many warned, however, that the neighborhood is more than buildings and that some neighborhood qualities can be destroyed in an effort to improve other characteristics.

4.4.4 Housing Types

Should the redevelopment of Kekaulike produce more affordable housing? For those who are on or near the project site, or those who are involved in social service in Chinatown, the answer was a definite yes. They pointed out that affordable housing was a key ingredient to the uniqueness of Chinatown. It was also noted that, because Chinatown has historically provided affordable housing to immigrants and the elderly, the City has a responsibility to continue this practice.

For those who were involved in regional organizations, there was a greater tendency towards the desire for more market housing. They liked the market housing proposed in Kekaulike and wanted to see more of the same in other redevelopment efforts. One person felt strongly that no more affordable units should be added to the area because Chinatown already has its share.

4.4.5 City As Developer

The City’s role in the project was often a topic among informants. Those involved in regional organizations, including a few on the “Kekaulike Advisory Committee,” were very concerned that they did not know about the whole project. They felt that presentations on the full project should have been made prior to this study, and were concerned that they were receiving piecemeal information. Landowners also expressed confusion over the proposed use of their property, and they credited this to a lack of communication. Finally, on-site businesses and residents received a letter of notification which they felt should have contained more project information.

Informants were split about whether the City should be a developer. On-site residents and businesses felt that perhaps affordability could be achieved since the City would not be profit-motivated. On the other hand, other informants criticized the City’s track record in development; they felt that the City is unnecessarily competing with the private sector, and that the private developer would be more cost-efficient and accountable to the community and government officials.

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4.4.6 Project Components

The housing component was discussed in Section 4.4.4. In addition, the regional informants wanted to make sure that the proposed residential complex is compatible with Chinatown. It was suggested, for example, that the units be oriented away from the streets to minimize noise impacts resulting from Chinese New Year celebrations.

Reactions to the commercial component were tied to the affordability question. Informants wanted assurances that the new commercial spaces will be affordable for on-site and new small businesses. They also warned that the City should make sure there is a market for the new spaces. They pointed out the new Maunakea Marketplace is not fully leased yet, and that some of the current tenants are having difficulty paying rent and keeping up with expenses.

The temporary elimination of parking during construction was a big problem for nearby and on-site businesses, since parking is already at a premium in Chinatown. Loading and unloading was also a concern, as well as the single ingress/egress on Maunakea Street. The development of Kekaulike Street into a pedestrian area worried nearby businesses because of loading logistics.
5 POTENTIAL SOCIAL IMPACTS OF THE PROPOSED PROJECT

This section identifies and analyzes potential social impacts related to the redevelopment of the Kekaulike area. Section 5.1 presents displacement impacts. Section 5.2 identifies resident population impacts. Section 5.3 discusses the impacts on regional character. Section 5.4 evaluates impacts on public services. Project impacts on public services are presented in Section 5.5.

5.1 Displacement

Section 1.2.2 provides a description of the project site by its buildings and the users within these structures. This section looks at the types of users present at the site and describes those who may be directly or indirectly displaced by the proposed action.

5.1.1 Description of On-Site Users and Activities

Originally, the number of residents and businesses affected by the proposed project was to be reported by the City Department of Housing and Community Development. However, because of coordination and communication difficulties with other landowners, this information was not provided to Earthplan in a timely manner. We therefore relied on informal information and two landowners to identify who is using the project site in some way. This information is sketchy at best and we expect that the City will update it as the project progresses.

Residents

We estimate that the project site has a total of 149 living units.

Most of these, 116 apartment units, are on the “Ewa” side of the project site, and 43 units are slated for total redevelopment. These 43 units are in the old wooden structure fronting Hotel Street. The City Villa, which fronts Kekaulike Street, is programmed for rehabilitation only and contains 64 apartments. The second floor of the adjacent building (also for rehabilitation) reportedly contains nine units.

The Diamond Head portion of the project site contains the remaining 33 units, 20 of which are located above Blue’s Club Restaurant. One is on the second floor of a two-story building on Kekaulike Street, and the other twelve are in the rear portion of the Lam Yip Kee Building. We believe that all of these will be eliminated during redevelopment.

Businesses

The following types of businesses appear to be affected by the proposed project:

- Chinese herb shop
- Apotheorist office
- Two jewelry shops
- Tailor, dress shop, an accessory store
- Office
- Chinese seed store and grocery
- Two bars
- Florist
- Food factory
- Sundries store
- Barber shop
- Retail and trade store
- Pool hall; and
- Restaurant

5.1.2 Potential Direct and Indirect Impacts

The project will have both direct and indirect displacement impacts, depending on the extent of redevelopment.

Direct Displacement Impacts

Direct impacts will result from the complete redevelopment of certain portions of the project site. We estimate that 70 existing residential units will be eliminated in the course of redevelopment. Of these, 33 units are located in the Phase 3, or Diamond Head portion of the project site. Forty-three are in the Phase 2 portion of the project site. In light of potential population, it is estimated that 141 people, based on an average household size of 1.85 persons, will need to move out of their present units.

We were unable to determine which specific businesses will be directly displaced because plans for specific buildings have not been determined at the time of this writing.

Indirect Displacement Impacts

The rehabilitation work on some of the buildings is expected to be primarily on the facade, so it is not expected that these residents will be even temporarily displaced. However, indirect displacement can occur even a building will not be
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demolished. If a building is rehabilitated, it is likely that the owner may need to raise the rents. Increased rents will prove to be a hardship for some residents as well as businesses.

We stress that it is difficult to assess the extent of potential indirect impacts because the affordability levels of various businesses and residents of City Villas and the adjacent building are unknown at this time. There are an estimated 73 units in the City Villas and the adjacent building, which means that up to 336 residents may be affected. We were unable to determine which businesses may be indirectly displaced due to building redevelopment because plans for specific buildings have not been determined at the date of this writing.

5.1.3 Possible Mitigation Measures

**Direct Displacement**

To minimize displacement caused directly by the proposed action, two types of mitigation are needed, as follows:

1. Coordinated - It is highly recommended that the City provide every opportunity for all existing on-site residents to move into new units. We understand that there is a limit to this number, but current plans need to be refined. Refinement will probably occur when the City conducts a needs assessment of “direct displacements” to understand relocation requirements.

Based on preliminary project information, the City can accommodate 380 residents in the ‘Ewa portion of the project site through phasing. Phase 1 will be developed first, so that residents in the 33 units on this side may need to be temporarily relocated in off-site accommodations until Phase 1 is completed. When the first phase is completed, those residents will then move back to the ‘Ewa portion of the project site.

This plan will work for the residents of the ‘Ewa portion of the site, but does not accommodate the residents of the Diamond Head portion of the project site. It appears that the residents in the 33 units on this side may need to be temporarily relocated in off-site accommodations until Phase 1 is completed. When the first phase is completed, these residents can then move back to the Diamond Head portion of the site.

At the completion of Phase 2, all of the existing on-site households would be able to move to the ‘Ewa portion of the site, as it appears that the 75 “last resort” units in Phase 2 can adequately house the 75 affected households.

**Indirect Displacement**

The relocation needs of on-site businesses would need to be assessed to that disruption can be minimized and business can resume as efficiently as possible. Because it may be too disruptive for a business operation to move twice (move off-site during construction and move on-site after construction), businesses owners may choose to either (1) postpone activity until construction is completed or (2) relocate off-site. The latter is more likely.

2. Relocation Benefits

The Uniform Relocation Assistance and Real Property Acquisition Policies Act provides assistance to displaced persons to relocation services and payments. Furthermore, the Housing and Community Development Act of 1974, which governs all CDBG-funded relocation activities, requires that all low-moderate income dwelling units be replaced or converted to other uses must be replaced on a one-for-one basis within three years, and must remain as low-moderate units for ten years.

Displaced residential tenants who lived in the unit at least 90 days before themove are entitled to have the City pay for moving expenses either through reimbursement or according to a graduated scale of payments based on the number of rooms. Such tenants can also receive 100% of payment assistance payment or rental assistance payment up to $500. If a displaced tenant lived in the unit less than 90 days, he or she is entitled to moving expenses.

It is unclear if the tenants are entitled to those benefits if they are relocated on-site.

Displaced businesses have two options. One option is to have the City reimburse all actual incurred and reasonable moving expenses. The other option is to be paid an amount equal to the average annual net earnings, before taxes for the last two tax years, not to exceed $30,000.

Both residents and businesses are entitled to relocation services. These include determining the relocation needs of each displacer and providing assistance such as market or rental information and referrals to replacement housing or business assistance.

**Indirect Displacement**

To mitigate potential indirect displacement, the City should extend the aforementioned needs assessment to include “indirect displacements.” This assessment need not be as detailed as that for “direct displacements,” but could solicit relevant information on affordability levels.
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Further, the City should explore possibilities of minimizing rent increases for current tenants of buildings scheduled for rehabilitation. Possible alternatives include subsidies to the landlord or management company to help defray costs, and rent vouchers to current tenants.

5.2 Resident Population Impact

The potential residential population increase resulting from the project depends on how many units will be reserved for on-site residents. It is estimated that 36 units may be needed for the relocation of on-site residents living in buildings which would be demolished. This leaves 63 units for other people. Based on the preliminary 1990 household size of 1.85, the project could increase the resident population by 114 persons.

The impact on the study area is minimal. The addition of 154 translates to a two percent increase over the 1990 population of 6,542 and the projected "near-term" population (see Table 7) of 9,380 persons.

Proposed Mitigation

No mitigation is required.

5.3 Impact on the Regional Character

5.3.1 "Functions" of the Project Site and Current Use

In the recent past Chinatown was primarily frequented by transient seeking night entertainment and daily food shoppers at mostly Chinese-operated markets. Today Chinatown consists of three primary clusters of commercial activities and services—(1) bar/video entertainment; (2) ethnic markets, restaurants and stores; and (3) professional and service businesses.

The predominant business activities are Chinatown's multi-cultural family/entrepreneurial enterprises. These include food stands, bars, convenience stores, small markets, noodle factories, clothing and tailor stores for walk-in trade. Specialty meat markets, bakeries, and restaurants are located along Munkake Street serving local, ethnic and lunch hour business patrons. The restaurant cuisines feature Chinese, Thai, Vietnamese, Latin and Filipino foods appealing to residents and tourists alike.

Newer professional businesses have accompanied the downtown improvement efforts; remodeled structures have also been converted into art galleries. These artistic and professional attractions add diversity to the ambiance.

With redevelopment and improvement efforts, clusters similar to ethnic family businesses have displaced older ones. The VIFS provided new opportunities for immigrants from Southeast Asia who have replaced many older Chinese family businesses. What was once "the strip", from Bethel Street via Hotel Street to River Street, featuring business bars for local and military entertainment, has given way to remodeled store fronts, small Latin/Vietnamese convenience stores and markets. Today walking tours along Munkake Streets and trolley visits of Waikiki Trolley are seen daily mingling with local business activities.

In Section 4.2.1, we discuss informant's feelings about the positive aspects of Chinatown. They felt that Chinatown is a real neighborhood, and that the cultural diversity is colorful, unique and vibrant. One of the values of Chinatown is that its conditions help new businesses establish. Very important is that Chinatown continues to be a place for immigrants to receive help and assimilate into a new country. Urban design and redevelopment were also considered important for the revitalization of the area.

The project site and existing on-site uses have specific functions within the context of this colorful and diversified ambience.

1. Commercial Opportunities.

The structures on the project site are said to contribute to the "incubator" effect discussed in Section 4.3. Chinatown's relative low business rents, coupled with the participation of hard-working family members and the high volume of foot traffic, are often conducive to allowing new businesses to establish.

The project site is part of this trend. Some of the business owners interviewed for this study felt that, even with rent increases, their businesses have survived because leases here are still cheaper than other Chinatown areas.

2. Affordable Housing.

Residential rent at the project site is low compared to other Chinatown residences. In one apartment building, tenants pay $245 to $310 per unit with single occupancy, and $359 for double occupancy.

It was often pointed out, however, that the on-site units were affordable because the facilities were sometimes substandard or uncomfortable. Situations cited included poor air and light circulation; chutes of limited bathroom and shower facilities; lack of cooking facilities; poor maintenance; and littering.

The on-site facilities nevertheless provided housing for some, these units mean the difference between a residence and homelessness.
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3. Parking.

The Kekaulike Parking Lot is invaluable for the nearby open market, service businesses, ethnic stores, Hāi shops, restaurants and offices. On weekends, there are often lines of cars on Maukaua and King Streets waiting for a metered space. Business operators in the area felt that their survival depends, in large part, on their proximity to this important resource.

4. Gathering Place.

An important function of portions of the project site is the informal gathering place. Many current and former Chinatown residents visit the pool hall and restaurant on the Ewa side of the project site simply to congregate and socialize. In late interviews for the project, we learned that people from Ewa Beach, Kalihi and Waipahu would make it a point in their day to visit these facilities to see old friends.

Another gathering place is Chinese society, also located in the Ewa portion of the project site. There are also the bars. Some of those interviewed were very wary of one of the bars because of problems with crime. However, regardless of one's personal preference regarding these facilities, these bars provide a place to mingle and socialize.

5.3.2 Project Effects on These 'Functions'

To contribute to the special qualities of Chinatown, the proposed redevelopment of the Kekaulike area needs to enhance the site's current functions.

The City is including commercial space in its Chinatown projects, including the River-Nuihale project under construction, and the proposed Smith-Maukaua and Smith-Boresta's redevelopment projects. The redevelopment of the Kekaulike area will further increase commercial opportunities in Chinatown by adding 10,260 square feet of usable space to the regional inventory. This is consistent with the objectives of the historic Chinatown plan, which requires that ground floor spaces be used exclusively for commercial activities.

Affordability is a key ingredient in ensuring that the new on-site commercial is compatible with the Chinatown ambiance. Informants indicated that it is difficult for new and existing businesses to afford the new Maukaua Marketplace. Creating another such situation could further strain business opportunities in Chinatown. The City needs to find ways to (1) provide incentives for existing businesses, particularly on-site establishments, to relocate in the new commercial complex, and (2) maintain affordable levels of base rent in the new facilities. Further, businesses in the rehabilitated buildings need to be able to afford any increase in rent.

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Affordability is an especially crucial aspect in the housing component. The new "fast track" units in Phase 2 of the proposed project will mean better living conditions for existing on-site residents only if they can afford to live there.

Note that the market units proposed for the project are consistent with the desire of some community members to diversify the types of housing in Chinatown.

The impact on public parking and related mitigation are discussed in the next section.

The gathering place function of the project site can be addressed in a number of ways. The most basic way is to make sure that access to the site is visible and accessible to the people who work or live nearby. Second, gathering places can be designated on the site. For example, I see potential for designated eating areas where people often socialize. Third, the City could actively promote a portion of the project site for gathering by dedicating some outdoor space for social activities. For example, a small on-site senior citizen activity area is planned.

Note that compatibility between gathering places and residential uses needs to be ensured. Residential areas should be designed to be quiet, secure and private; they should be oriented away from areas where people are likely to gather.

5.4 Impact on Public Parking

Public parking is a major issue for study area residents and business operators. The City parking lot is appealing to those who seek lower parking rates, or who visit establishments in different locations. Although many of the privately-owned parking structures offer public parking, their rates are higher or they require validation by on-site businesses. In Chinatown, the public parking areas are near Chinatown shops and markets; they allow patrons to park for low rates and circulate comfortably within a few blocks.

The Kekaulike parking lot is valuable in this aspect. It is near markets, shops, and personal and business services. Many of the nearby business operators interviewed for this study indicated that their patrons often park at this metered parking lot.

Although the public parking lots are a valuable public resource, they still represent underdeveloped land. The City's ownership of these lands facilitates redevelopment.
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Until the same of the public parking lots underwent construction, the study area was served by 2,256 public parking stalls. Two lots are currently under construction: Ala Moana Center (Aliiolani) and Kaka'ako (Kaka'ako) Housing. This means that the current supply of public parking spaces is 294 spaces less than previous.

Even though redevelopment may eventually increase public parking stalls, the temporary shortage during construction could hurt businesses in the area.

In a preliminary schedule of construction projects in Chinatown, it was estimated that construction of four other parking lots would overlap Kaka'ako:

- Smith-Bertani
- Alaka'i-Richards
- Smith-Mauk
- Kaka'ako

If the City's schedule is implemented, all five of these parking lots would be closed between September 1991 and February 1992. In this "worst-case" scenario, the number of public parking stalls in the study area would drop to 1,160 stalls - almost half the number of stalls previously available.

It is noted that the Smith-Bertani, Smith-Mauk, and Kaka'ako projects are all in the Environmental Impact Statement process and it is highly likely that the worst-case scenario would not occur due to the processing time.

In the long-term time frame, the proposed project will have a positive effect by increasing resources. The extent of this benefit is undetermined at this time, since some of the stalls will be solely for the use of commercial tenants and City employees.

Proposed Mitigation

The worst-case scenario is the five-month period earlier identified, whereby five parking garages will be under construction. Two mitigation measures are recommended:

- The City should consider timing the projects to minimize hardship on Chinatown patrons and businesses.
- The City should explore special parking arrangements with private garages in the study area. For example, private garage operators could have reduced rates during certain times, such as weekends and weekday mornings. Another example is the use of "parking passes." The City and/or Chinatown merchants could sell inexpensive parking passes which would be usable in certain private garages.

Long term alternatives to the automobile, such as a more diverse public transportation system, will ultimately decrease dependency on public parking garages.

5.5 Police Protection

The study area is in Beat 40 through 43 of District 1 of the Honolulu Police Department. The project site is in Beat 41.

The proposed project can be adequately served by existing police protection services and is not expected to negatively impact or strain such services.

The nearest police facility is the Downtown Substation at the corner of Nuuanu Avenue and Hotel Street. At any given time, a total of six to eight officers patrol the study area in Chinatown vehicles, automobiles, and on foot. The study area has no special or distinct crime problems, nor does it have any recent trends. There is a general feeling that the combination of a new subdivision and reduction in crime is resulting in less crime for the study area. This was confirmed by the most recent annual report for the Police Department which states that "There has been a dramatic change in the climate in this area since the department has stepped up its enforcement efforts, especially against illegal drugs." (Honolulu Police Department, 1990).

Proposed Mitigation

No adverse impact on police services are expected. The project will reactivate the area and the new uses are expected to have a deterring effect on crime.

On-site security measures including (1) all security measures and lighted common areas, (2) building security, and (3) an attendant-operated parking structure can further assist in reducing and preventing crime.

5.5.2 Fire Protection

The proposed project can be served by existing fire protection services and is not expected to negatively impact such services.

The project site would be served by the Central Fire Station, which is an engine company. In addition to the Central Fire Station, the Kaka'ako and Kaka'ako Fire Stations, both of which are engine and ladder companies, respond to an initial fire alarm in the Downtown area. Backup can be provided by the Kaka'ako and Kaka'ako Fire Stations in the perimeter of the area.

Proposed Mitigation

No adverse impacts are expected, so no mitigation is recommended.
5.5.3 Recreation

Approximately 8,500 people lived in the study area in 1990. When current construction is completed, almost 10,000 people could be living in the study area in the near future. If all of the proposed residential units are built, over 15,000 people are expected to live in the area. Based on the Long Range Plan of the City Department of Parks and Recreation, a population base of 10,000 should have the following:

- an average recreational site of ten acres which could be shared with intermediate schools;
- children's play area;
- three to four basketball courts;
- three to four volleyball courts;
- one to two softball fields; and
- a comfort station/recreation building.

There is no apparent difference in standards for urban, suburban or rural areas.

The study area contains the following parks:

- Pauali Community Service Facility, a two-story, 6,000 square foot multi-purpose recreation building located on Pauali Street near River Street and used primarily by senior citizens;
- Kamalii Park, a 0.68-acre triangular space bounded by Palii Highway and Nohonani Street and containing benches and walkways;
- Queen Emma Square, a 0.56-acre rectangular space near St. Andrews Priory; and
- Kamanu Park, a neighborhood park next to Vineyard Boulevard, encompassing 5.3 acres, and containing basketball, tennis and volleyball courts, as well as a softball field and play equipment.

The study area also contains a number of urban or mini parks, including the Fort Street Mall Mini Park, the Wilcox Park, and the Chinatown Gateway Plaza.

Just Ewa of the project site are parks within the Kalihi-Palama Neighborhood Board area including:

- Alaie Park, a 0.6-acre urban park containing a skate park, children's play apparatus, and a comfort station, as well as a tent shelter for homeless people; and
- Beretania Community Park, a 5.3 acre community park with a community meeting place, basketball and volleyball courts, a softball field and play apparatus.

In addition to the City park system, there are the private recreation decks for the enjoyment of on-site residents.

Inasmuch as these existing facilities are available for resident use, the overall park system in the study area has not kept pace with the existing and near future residential population of the study area.

1. There are no active parks within the "practical" boundaries of Downtown or Chinatown. The Kamanu Playground is within the Downtown Neighborhood Board area. Although the site is close to Foster Gardens residents, it is far from most Downtown and Chinatown residential complexes and more accessible to Punchbowl residents.

2. The Alaie Park and Beretania Community Parks primarily serve residents outside the study area. Chinatown and Downtown residents would need to compete for park space with Kalihi-Palama residents and the homeless families at Alaie Park.

3. Those active play areas and playgrounds are within walking distance of some residential towers in Chinatown/Downtown, but are not easily accessible because of busy streets.

4. The Downtown urban or mini parks are part of the overall park inventory, but these are designed for the office environment, not for resident-oriented recreation. These parks are paved with well-defined circulation patterns, and are not conducive to active play.

5. The only proposal for a park at this time is the proposed passive park at Kalihi-Beretania. Most of the speculative recreational solutions are long range possibilities. The use of Central Intermediate School as an active park is being considered, but approval by the State Department of Education is needed. The Downtown Neighborhood Board has advocated the inclusion of active recreation areas in the Pacific Nations Center; the City is receiving requests for proposals, so no details are available. The Neighborhood Board has also advocated the use of the Foster Garden Estates site for an active park.

Project Impacts

The parks nearest the project site are the Alaie Park and Beretania Community Park. These are located across the Nuuanu Stream and are within reasonable walking distance. Further, residents can use the Pauali Community Service Facility.

Given the size and nature of the proposed project, it is anticipated that the project will not adversely affect these facilities. It is noted, however, that the project is adding more residents to the study area, thus increasing the
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cumulative need for more park space. We recommend that the City formulate policies and plans for meeting the recreational needs of study area residents, particularly because the City is initiating numerous residential projects, and ongoing development by the public and private sectors will further restrict park development. We therefore suggest that the City plan high-density indoor recreational facilities, such as a gymnasium, indoor interchangeable courts and community meeting rooms, to meet the recreational needs of the study area.

5.5.4 Schools

It is expected that given the size and nature of the project, there will be few school-aged children living at the project site. They would attend three public schools serving this area.

Kindergarten through sixth graders would attend Mildred Elementary School, the capacity of which is 600 students. Approximately 500 students are currently enrolled. The proposed project can be adequately be served by this facility.

Intermediate school students would attend Central Intermediate School, the built capacity of which is 600 students. Approximately 200 students are attending this school. The project could be adequately served by this facility.

High school students at Maui High School, the capacity of which is 2,250 students. The current enrollment is 2,180. The proposed project is expected to be adequately served by this facility.

Proposed Mitigation
No mitigation is required.

5.5.5 Health Care and Social Services

Presently, there are a number of health care or related facilities within this project area, including Queen’s Hospital, Straub Honolulu General Hospital and the City and County of Honolulu Central Fire Station. The facilities provide a full range of services, including 24-hour emergency services. With the existing service system, each of these facilities is only ten minutes from the project site.

Proposed Mitigation
No mitigation is required.

REFERENCES


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