Final Environmental Assessment

The 1944 Kalakaua Avenue LLC Project

Prepared For:

American Commercial Equities Three, LLC

Prepared By:

PATRICK SEGUINANT ARCHITECT

Architecture  Planning  Land Use Consulting

June 2008
Final Environmental Assessment

The 1944 Kalakaua Avenue LLC Project

TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058

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June 2008
# Table of Contents

1. INTRODUCTION ...................................................................................................................... 5
   1.1. Project Summary ........................................................................................................... 5
   1.2. Parties Consulted During the Pre-Consultation Period ................................................... 7
   1.3. Permits and Approvals .................................................................................................. 7

2. SETTING AND DESCRIPTION OF PROPOSED ACTION ................................................. 8
   2.1. Description of the Property ........................................................................................ 8
   2.2. Existing and Surrounding Uses ................................................................................... 12
   2.3. Project Background and Project Description ............................................................... 12
       2.3.1. Background .......................................................................................................... 12
       2.3.2. Project Description ............................................................................................. 18
       2.3.3. Proposed Front Yard, Open Space, Landscaped Space and Pedestrian Access ... 22
       2.3.4. Proposed Parking and Loading Areas .................................................................. 23
       2.3.5. Flood Hazard District Considerations ................................................................. 24
       2.3.6. Demolition Work ................................................................................................. 25
       2.3.7. Construction Work ............................................................................................. 25
       2.3.8. Project Schedule and Cost .................................................................................. 25

3. DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES ................................................................. 26
   3.1. Climate .......................................................................................................................... 26
   3.2. Topography and Soils .................................................................................................... 26
   3.3. Surface Hydrology, Drainage, Storm Water Quality and Encroachments .................. 27
   3.4. Waste Hazards ............................................................................................................ 29
   3.5. Flood Hazard .............................................................................................................. 30
   3.6. Flora and Fauna .......................................................................................................... 32
   3.7. Noise ............................................................................................................................ 32
   3.8. Air Quality ................................................................................................................... 33
   3.9. Views ........................................................................................................................... 34
   3.10. Socio-Economic Characteristics .............................................................................. 35
   3.11. Public Services and Solid Waste ............................................................................... 35
   3.12. Utilities ....................................................................................................................... 37
   3.13. Cultural Resources .................................................................................................... 38
   3.14. Archaeological and Historic Resources ................................................................... 45
   3.15. Traffic Assessment .................................................................................................... 49
Table of Contents (continued)

4. RELATIONSHIP TO LAND USE, POLICIES AND CONTROLS..........................54
   4.1  Hawaii State Land Use District.......................................................54
   4.2  City and County of Honolulu........................................................54
       4.2.1  Primary Urban Center Development Plan ..................................54
       4.2.2  Land Use Ordinance, Waikiki Special District..........................55
       4.2.3  Land Use Ordinance, Waikiki Special District Design Guidelines ....57
   4.3  Public Transit, Bicycle and Pedestrian Access...............................57
   4.4  Waikiki Neighborhood Board Presentation.....................................60

5. DETERMINATION AND COMPLIANCE......................................................62
   5.1  Finding of No Significant Impact................................................62

6. ALTERNATIVES TO THE PROPOSED ACTION.........................................66
   6.1  No Action Alternative.....................................................................66
   6.2  Alternative Designs.......................................................................66

7. PERMITS AND APPROVALS.....................................................................68

8. CONSULTATION......................................................................................69
   8.1  Parties Consulted During the Pre-EA Consultation Period..................69
   8.2  Comments Received on Draft EA....................................................69

List of Figures

1. Location Map
2. Tax Map Key [1] 2-6-014
3. Aerial Photograph of the Project Area
4. Photos of the Existing Site
5. Zoning
6. Waikiki Special District Urban Design Controls,
   Exhibit 21-9.15 of the Land Use Ordinance
7. Existing Utility Plan
8. Flood Hazard Designation
9. Portion of Registered Map 1398, an 1881 map by S.E. Bishop.
10. 1927 Sanborn Fire Insurance map of project area
11. 1956 Sanborn Fire Insurance map of project area
12. Aerial photograph showing the locations of Trenches 1-17

List of Tables

1. 1944 Kalakaua Avenue LLC Project Land Area Location Map
2. Demographic Characteristics: 2000, Waikiki Neighborhood Area #9
Appendices


Appendix B  ALTA Surveys for Subject Property, TMKs (1) 2-6-014: 4, 4, 6, 7, 8, 19, 58
ALTA Survey for TMK (1) 2-6-014: 1

Appendix C  October 1, 2007, approved Sewer Connection Application
May 15, 2008 letter from the property owner regarding maximum sewerage flow.

Appendix D  Project Drawings


Appendix F  Cultural Surveys Hawaii, Inc. May 2008, “Cultural Impact Assessment for the 1944 Kalakaua Avenue Project, Waikiki Ahupuaa, Kona District, Oahu, TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, & 058.”

Appendix G  Cultural Surveys Hawaii, Inc. December 2007, “Archaeological Assessment for the 1944 Kalakaua Avenue Project, Waikiki Ahupuaa, Kona District, Oahu, TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, & 058.”


PREFACE

This Draft Environmental Assessment (EA) / Anticipated Finding of No Significant Impact (FONSI) has been prepared pursuant to Chapter 343, Hawaii Revised Statues (HRS), and Title 11, Chapter 200, Administrative Rules, Department of Health, State of Hawaii. The applicant, American Commercial Equities Three, LLC, proposes to construct a new commercial building on the corner of Kalakaua Avenue and Niu Street in Waikiki on the island of Oahu, Hawaii. Compliance with the provisions of Chapter 343, HRS is required because the project’s location is within the Waikiki Special District. The accepting agency for this EA is the City and County of Honolulu, Department of Planning and Permitting (DPP), in conjunction with the processing of a Waikiki Special District Permit which is required for the proposed action.
1. INTRODUCTION

1.1 Project Summary

Type of Application: Environmental Assessment (EA)

Name of Action/Project: 1944 Kalakaua Avenue

Applicant/Developer: American Commercial Equities Three, LLC
23805 Stuart Ranch Road, #200
Malibu, CA 90265
Contact/Phone: Mr. Marvin Lotz 310-317-1443 ext 440

Architect: James Park, Architect
91-1011 Pololia Place
Ewa Beach, HI 96706
Phone: 808-368-4618

Approving Agency: City and County of Honolulu
Department of Planning and Permitting
650 South King Street
Honolulu, Hawaii 96813

Agent: Patrick Seguirant, Architect
91-1030 Kahei Street
Ewa Beach, HI 96706
Phone: 808-683-4477

Tax Map Key and Existing Use

<table>
<thead>
<tr>
<th>Tax Map Key</th>
<th>Existing Use</th>
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<tbody>
<tr>
<td>TMK (1) 2-6-014: 001</td>
<td>Commercial, Local Motion</td>
</tr>
<tr>
<td>TMK (1) 2-6-014: 004</td>
<td>Commercial, car rental</td>
</tr>
<tr>
<td>TMK (1) 2-6-014: 006</td>
<td>Vacant</td>
</tr>
<tr>
<td>TMK (1) 2-6-014: 007</td>
<td>Vacant</td>
</tr>
<tr>
<td>TMK (1) 2-6-014: 008</td>
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</tr>
<tr>
<td>TMK (1) 2-6-014: 019</td>
<td>Vacant</td>
</tr>
<tr>
<td>TMK (1) 2-6-014: 058</td>
<td>Vacant</td>
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Land Area:

<table>
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<th>Tax Map Key</th>
<th>Land Area</th>
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<tr>
<td>TMK (1) 2-6-014: 001</td>
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<tr>
<td>TMK (1) 2-6-014: 004</td>
<td>7,510 SF</td>
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<tr>
<td>TMK (1) 2-6-014: 006</td>
<td>4,356 SF</td>
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<td>TMK (1) 2-6-014: 008</td>
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<td>TMK (1) 2-6-014: 019</td>
<td>5,000 SF</td>
</tr>
<tr>
<td>TMK (1) 2-6-014: 058</td>
<td>3,375 SF</td>
</tr>
</tbody>
</table>

TOTAL Land Area: 44,284 SF (1.01 acres)
Landowner:  
TMK (1) 2-6-014: 001  1958 Kalakaua Avenue, LLC  
TMK (1) 2-6-014: 004  Nihonkai Lease Company, Ltd  
TMK (1) 2-6-014: 006  Nihonkai Lease Company, Ltd  
TMK (1) 2-6-014: 007  Nihonkai Lease Company, Ltd  
TMK (1) 2-6-014: 008  Nihonkai Lease Company, Ltd  
TMK (1) 2-6-014: 019  Nihonkai Lease Company, Ltd  
TMK (1) 2-6-014: 058  Nihonkai Lease Company, Ltd  

Location:  
TMK (1) 2-6-014: 001  1950, 1958 Kalakaua Avenue  
TMK (1) 2-6-014: 004  1944 Kalakaua Avenue  
TMK (1) 2-6-014: 006  413 Niu Street  
TMK (1) 2-6-014: 007  N/A  
TMK (1) 2-6-014: 008  425 Niu Street  
TMK (1) 2-6-014: 019  420 Pau Street  
TMK (1) 2-6-014: 058  421 Niu Street  

Proposed Use:  Construct a new two-story 14,300 square foot commercial building on TMK 2-6-014: 004 and 001. A Conditional Use Permit for a Joint Development Agreement between the applicant and 1958 Kalakaua Avenue, LLC for the seven subject parcels was approved by the Department of Planning and Permitting on November 15, 2007. The Joint Development Agreement is to be executed pending the applicant’s purchase of six of the seven parcels. The seventh parcel, the existing Local Motion building, is owned by 1958 Kalakaua Avenue, LLC. An off-site parking request will be made to allow the parking to be located on TMK 2-6-014: 006, 007, 008, 019, and 058 for the new and existing commercial uses on TMK 2-6-014: 004 and 001.  

State Land Use District: Urban  
Development Plan: Primary Urban Center – District Commercial, and Medium and Higher Density Residential Mixed Use  

Zoning:  
TMK (1) 2-6-014: 001  Resort Commercial Precinct (RCP)  
TMK (1) 2-6-014: 004  Resort Commercial Precinct (RCP)  
TMK (1) 2-6-014: 006  Apartment Precinct (AP)  
TMK (1) 2-6-014: 007  Apartment Precinct (AP)  
TMK (1) 2-6-014: 008  Apartment Precinct (AP)  
TMK (1) 2-6-014: 019  Apartment Precinct (AP)  
TMK (1) 2-6-014: 058  Apartment Precinct (AP)
SMA: The subject property is not located within the Special Management Area.

Flood Zone: FIRM AO, 2 foot depth.

Special District: The subject property is located within the Waikiki Special District.

Action Requested: The proposed project is located within the Waikiki Special District, which triggers the requirement for this environmental assessment. Request that this environmental assessment be processed in compliance with Chapter 343, Hawaii Revised Statutes and Chapter 200 of Title 11, Hawaii Administrative Rules – Environmental Impact Statement Rules.

Anticipated Determination Finding of No Significant Impact (FONSI)

1.2 Parties Consulted During the Pre-Consultation Period

State of Hawaii
Department of Land and Natural Resources
Department of Transportation
Office of Hawaiian Affairs

City and County of Honolulu
Department of Design and Construction
Department of Environmental Services
Department of Planning and Permitting
  Land Use Permits Division
  Traffic Review Branch
  Wastewater Branch
Department of Transportation Services

1.3 Permits and Approvals

The following is a preliminary list and is not an exhaustive summary: issuance of a FONSI for the HRS Chapter 343 Final EA; City and County of Honolulu Waikiki Special District Permit (Major); City and County of Honolulu Conditional Use Permits (minor) for Joint Development and Off-Site Parking; and ministerial permits including grading and building permits, sewer and water connection permits, and sidewalk permits.
2. SETTING AND DESCRIPTION OF PROPOSED ACTION

2.1 Description of the Property

American Commercial Equities Three, LLC, the applicant, proposes to construct a new commercial building on the corner of Kalakaua Avenue and Niu Street, near the existing Local Motion commercial building (Figure 1).

The applicant, American Commercial Equities Three, LLC, intends to acquire six parcels currently owned by the Nihonkai Lease Company, Ltd. and has entered into a contract to purchase the six parcels. The seventh parcel, the Local Motion building site, is owned by 1958 Kalakaua Avenue, LLC. See Table 1 for details. The project site, which consists of the seven contiguous parcels, totals 44,284 square feet (1.01 acres). Figure 2 identifies the project area’s Tax Map Keys. The applicant acknowledges that TMK 2-6-14: 61 is owned by the City and County of Honolulu. Parcel 61 is currently paved. An Alta Survey for Parcel 1, which also shows Parcel 61, is in Appendix B. The pedestrian easement “Easement A” for pedestrian walkway purposes per Land Court Order No. 136580 is shown on the Alta Survey for Parcel 1 in Appendix B. The proposed public sidewalk will be a minimum of nine (9) feet wide in order to match the existing sidewalk that fronts the Local Motion building.

The project, called “1944 Kalakaua Avenue”, consists of the construction of a new two-story 14,300 square foot commercial building on TMK 2-6-014: 004 and 001 next to the existing Local Motion building, which is located on TMK 2-6-014: 001. No changes are proposed to the Local Motion building. The project will expand and reconfigure Local Motion’s existing at-grade parking lot to provide a minimum total of 30 stalls and 3 loading spaces. The expanded at-grade parking lot will service both the new and existing commercial buildings. The parking lot will be located on TMKs 2-6-014: 006, 007, 008, 019, and 058.

In anticipation of acquiring the six parcels, American Commercial Equities Three, LLC applied for a Conditional Use Permit for joint development of the six parcels, plus TMK 2-6-014: 001 owned by 1958 Kalakaua Avenue, LLC. On November, 15, 2007 the Department of Planning and Permitting approved the Conditional Use Permit for joint development of the seven parcels (2007/CUP-106) (see Appendix A). The Joint Development Agreement is to be executed pending the applicant’s purchase of six of the parcels.

Once American Commercial Equities Three, LLC acquires title to the six parcels, the Joint Development Agreement document between American Commercial Equities Three, LLC and 1958 Kalakaua Avenue, LLC can be executed. The seven parcels will then be linked together, which means that the seven parcels will be treated as one zoning lot (see Condition #2 of 2007/CUP-106 in Appendix A).
Figure 1. Location Map. U.S. Geological Survey (USGS) 7.5 Minute Series Topographic Map, Honolulu (1998) Quadrangle, showing the location of the project area (source: Cultural Surveys Hawaii)
# Table 1 – 1944 Kalakaua Avenue LLC Project Land Area

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<th>TMK (2-6-014)</th>
<th>LOT NO.</th>
<th>LOT AREA (Sq. Ft.)</th>
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**TOTAL LAND AREA (SF)** 44,284 square feet
Figure 2. Tax Map Key [1] 2-6-014 shows the seven parcels that comprise the project area.
2.2 Existing and Surrounding Uses

The existing uses on the seven parcels are identified in Table 1 and illustrated in the aerial view in Figure 3 and photos of the existing site in Figure 4. An ALTA Survey for the project area is in Appendix B. Parcel 1 contains the Local Motion commercial building and parking lot, which has driveway access from Pau Street. The two-story Local Motion building has approximately 9,570 square feet of floor area containing retail and restaurant use. Local Motion’s frontage along Kalakaua Avenue has a landscaped meandering sidewalk with canopy form trees, coco palms, shrubs, and ground cover between the street and the sidewalk with pedestrian access to street crossings. A car rental company, VIP Car Rentals, leases space on Parcel 4 on the corner of Kalakaua Avenue and Niu Street. The remaining parcels are vacant and have a chain link fence along the perimeter.

Surrounding uses in the area include various commercial and apartment properties: existing apartment buildings mauka of the project site, the old Jack In the Box and the Hawaiian Monarch across Niu Street; the Kioniana Apartments and Tony Romas across Pau Street; Fort DeRussy across Kalakaua Avenue to the southeast; and the Cheeseburger in Paradise across Kalakaua Avenue to the southwest.

The Primary Urban Center Development Plan designation for the project parcels is District Commercial, and Medium and Higher Density Residential Mixed Use. The zoning, as illustrated in Figure 5, is Resort Commercial Precinct and Apartment Precinct of the Waikiki Special District. The subject property is within the Waikiki Special District and within an area designated as “Waikiki Gateways” per the Waikiki Special District Urban Design Controls, Exhibit 21-9.15 of the LUO (Figure 6). The subject property is not within the Special Management Area.

2.3 Project Background and Project Description

2.3.1 Background

The proposed project, to be located next to the Local Motion building, will be an architectural gateway feature of Waikiki. As visitors and residents travel along Kalakaua Avenue and Ala Moana Boulevard, they are introduced to a mix of developed urban properties and landscaped open-spaces. A significant revitalization of the built environment has been taking place along Kalakaua Avenue over the last 10 years. The proposed 1944 Kalakaua Avenue project’s architectural character, scale and landscaping will be designed to compliment and blend with the Local Motion building and existing landscaped site. As stated earlier, no changes are proposed for the Local Motion building.
Figure 3. Aerial Photograph, showing the location of the project area (source: USGS Orthoimagery 2005) (Cultural Surveys Hawaii)
View of the project site at the corner of Niu Street (right) and Kalakaua Avenue (foreground).

Fig 4. Project site from Fort DeRussy at corner of Ala Moana Boulevard and Kalakaua Ave.
Figure 4. Views of project site along Niu Street looking towards Kalakaua Avenue.
Figure 5. Zoning of the project area (source: Department of Planning and Permitting)
Figure 6. Waikiki Special District Urban Design Controls, Exhibit 21-9.15 of the Land Use Ordinance
The seven project parcels, as outlined on Figure 2, will be jointly developed. The joint development provides greater flexibility to the applicant. The size and shape of Parcel 4 by itself poses inherent constraints. However, the developable area of the seven parcels together can be utilized so that key elements of a gateway experience can be provided along Kalakaua Avenue’s frontage, including the continuation of Local Motion’s meandering heavily landscaped pedestrian walkway and the provision of parking behind the commercial buildings so that a surface parking lot is not within gateway views along Kalakaua Avenue.

Another consideration is that Waikiki lacks sewer capacity for new development. The proposed project will use the existing sewer capacity associated with the undeveloped parcels. The joint development of the parcels was pursued so that the existing sewer capacity of the Apartment Precinct parcels, which will be used for parking, could be used towards the new building. The project does not pose any increase in demand for sewer capacity. As such, a sewer connection application was approved by the DPP on October 1, 2007. A copy is in Appendix C.

2.3.2. Project Description

The proposed new two-story 1944 Kalakaua Avenue commercial building will be developed on the corner of Kalakaua Avenue and Niu Street on Parcel 4. The new building will have a footprint of approximately 7,300 square feet and a total floor area of 14,300 square feet. The ground will be approximately 7,300 of retail space while the second floor will be approximately 7,000 square feet of restaurant space. Access to the project site will be provided by new two-way driveways on Niu Street and on Pau Street. The existing driveways on Kalakaua Avenue and Pau Street will be demolished and those areas will be restored.

A set of drawings for the project are in Appendix D.

The proposed project includes various improvements. All improvements will comply with the Waikiki Special Design District standards for building height and building setback, floor area ratio density and open space, as well as Land Use Ordinance (LUR) standards for parking and off-street loading areas. Improvements include:

1. New Commercial Building. The two-story 14,300 square foot building will be constructed on the corner of Kalakaua Avenue and Niu Street. The building will be constructed of steel, concrete and plaster similar to the existing Local Motion Building. The ground floor of the building will be predominantly clear glazed storefronts with the obvious structural building support system. The second floor will also have a large amount of clear glazing. However, eaves will be used to break up the two-story wall and offer shade and protection to the building and pedestrians. A double-hipped second floor
rooftop will also be part of the building design to offer a human scale to the project and emphasize the clay roofing tiles to be used. Plaster will be used on the exterior wall surfaces to convey a sense of permanence.

The floor plate of the building is set back as far as possible towards the interior of the property to allow for the open space to be situated along the streets. This allows for a small plaza at the intersection of Kalakaua Avenue and Niu Street that leads to the main building entrance which serves as the architectural focal point. This additional setback, landscaping, and architectural focal element will enhance the project’s contribution to this Waikiki Gateway.

2. Expanded Parking Lot. The existing Local Motion at-grade asphalt parking lot will be reconfigured and expanded. A minimum total of 30 parking stalls and 3 off-street loading stalls will be provided for the seven joint development parcels. Ingress and egress to the parking lot is proposed from both Niu Street and Pau Street. The parking lot will be landscaped with coco palms, canopy form trees, shrubs and groundcover, and will meet LUO standards for parking lot landscaping. A setback buffer area of 10 feet will be provided between the parking lot and the adjacent apartment buildings. Screening hedges and canopy form trees will be used to provide a visual buffer from the new parking area.

3. Vehicular Access: The site plan depicts two new driveways to access the site. The existing driveways on Pau Street, Niu Street and Kalakaua Avenue will be demolished, and the sidewalks and planter strip restored. Along Pau Street, a new two-way driveway would be provided and setback approximately 140 feet from the intersection of Kalakaua Avenue. Along Niu Street, a two-way driveway would also be provided and setback approximately 200 feet from the intersection of Kalakaua Avenue.

4. Utility Connections: Figure 7 depicts existing utilities within the project area. Appendix E contains existing utility plans. The seven lots that comprise the project area are currently served by water lines within Pau Street, Niu Street and Kalakaua Avenue. The new building will be served by existing water lines. Water meters not used for the project will be removed. A new reduced pressure principal backflow preventer will be installed for cross contamination prevention of the municipal water system. Preliminary estimated daily water demand is approximately 6,500 gallons per day (gpd): 4,000 gpd for the restaurant, 1,000 gpd for retail, and 1,500 gpd for landscape irrigation.
Figure 7. Existing Utility Plan. Source: Hida, Okamoto & Associates, Inc.
The lots are currently serviced by an existing 6-inch sewer line that runs down the utility easement that is centrally located in the properties and by a 10-inch sewer line located in Niu Street. (Existing utility easement B is labeled on Figure 2.) Each lot has its own individual sewer lateral. One or more of these existing laterals will be utilized for the proposed development. The remaining unused sewer laterals will be cut and plugged at the main and abandoned in place.

On-site storm water runoff generated by the development of this site will not negatively impact the surrounding properties or street. Storm water management will include but not necessarily be limited to percolation into landscaped areas and the use of drywells and/or French drains to ensure that there will be no net increase in runoff from the previous land usage. A detailed drainage study will be provided at the time of construction plan development.

An existing 6-inch gas line is located within Kalakaua Avenue. If gas service is desired for the development, work will be coordinated with the Gas Company.

5. **Kalakaua Avenue Landscaping.** The landscaping theme in front of the Local Motion building along Kalakaua Avenue is proposed to be extended and continued in front of the new building. The new frontage will be landscaped with canopy form trees, coconut palms, shrubs and grassy mounds along a meandering sidewalk that provides for pedestrian crossings at the intersections. A 10-foot road widening designation exists along Kalakaua Avenue fronting these properties. Therefore, the applicant will seek a deferral of road widening improvements from the City.

6. **Niu Street and Pau Street Landscaping.** The existing landscaping pattern of these streets will be maintained. The sidewalk will be restored where existing driveways are proposed to be removed to improve pedestrian movement. Landscaping of the planter strip within the City rights-of-way will be grass. Mounding within the landscaped area of the City right-of-way is not allowed. Trees and shrubs will be planted in the required front yards due to the lack of sufficient planter space adjacent to the roadway.

7. **Gateway and View Corridor:** The project is located in one of the designated “gateways” to Waikiki (Figure 6). Also, it is located in the Fort DeRussy mauka-makai view corridor. As such, the height of the building will be limited to the maximum 65 foot height limit imposed for this corridor. The applicant does not anticipate utilizing the full height limit. The proposed structure will be primarily two-stories with a height of approximately 45 feet. Additional height will be utilized for an architectural element used to emphasize the projects prominent location. Also, an articulated building façade
will be provided along Niu Street and Kalakaua Avenue through the use of yard averaging. The use of yard averaging will provide building variation and pockets of landscaping to support the gateway concept.

8. **Sidewalks:** Existing sidewalks along Pau and Niu Streets will be utilized. Where existing driveways are to be abandoned, new sidewalks, curbs, gutters, and planter strips will be provided to match the existing roadway improvements. Along Kalakaua Avenue in front of the new building, a new meandering sidewalk and planter strip is proposed. It will match the character and link with the existing sidewalk and planter strip that front the Local Motion Building. New concrete sidewalk paving will match that of the Local Motion Building and adjoining sidewalks. Accessible sidewalks will be provided, as federally mandated within the City roadway, to street intersections and to building entrances. An easement for public access will be established for portions of the public sidewalk that extend into private property. Grade adjustment elevating the sidewalk above the two-percent (2%) projected rise from the curb may not be allowed.

Authorization from the Department of Planning and permitting is required prior to the installation of all surface encroachments, including landscaping, irrigation systems, lighting, hardscape, and decorative features.

### 2.3.3. Proposed Front Yard, Open Space, Landscaped Space and Pedestrian Access

In accordance with the City and County of Honolulu’s LUO and Waikiki Special District Design Guidelines, the building is to be setback an average of 20 feet from the Kalakaua Avenue road widening line. As allowed by the zoning code, portions of the building are proposed to encroach into the 20 foot required front yard, while other areas will set further back an equivalent amount of area.

The front yards will also comprise a meandering sidewalk. Because portions of this sidewalk are proposed to be both in the City right-of-way and in a private yard, a 9 foot wide easement establishing a public pedestrian access way will be needed. A similar easement exists fronting the Local Motion Building.

The required front yard for Niu Street and Pau Street is 15 feet. The front yard along Niu Street will be averaged also, similar to that used for Pau Street. There will be no reduction in the required yard area.

The LUO requirement for open space is 50 percent of the Apartment zoned lot area, which is 18,500 square feet. Thus, the 50 percent open space requirement equals 9,250 square feet. A
The majority of the open space area will be met on the Apartment zoned lots. However, some of this open space is proposed to be met on the Resort Commercial zoned lots. Since the project site is within a designated gateway to Waikiki, the promotion of additional open space in the gateway area on the Resort Commercial zoned lots is supported by the Waikiki Special District regulations. The required yards will be landscaped, except for necessary access ways and drives, as required by the zoning code.

2.3.4. Proposed Parking and Loading Areas

Parking Areas
In accordance with the City and County of Honolulu’s LUO, the ground floor level retail is exempt from any provisions for parking. Therefore, the required parking is determined by the total floor area above the ground floor.

The proposed second floor restaurant use parking requirements is one parking space per 800 square feet (SF), or the equivalent of 7,000 SF / 800 SF = 9.12 parking spaces. Further, the existing upper level floor of the Local Motion Building is 5,057 square feet or the equivalent of 5,057 SF / 800 = 6.32 parking spaces. The total parking required for both buildings is 15 parking spaces. Approximately, 30 to 34 parking spaces will be proposed.

<table>
<thead>
<tr>
<th>Building</th>
<th>SF</th>
<th>Parking Spaces</th>
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</thead>
<tbody>
<tr>
<td>Local Motion Building</td>
<td>5,057</td>
<td>6.32</td>
</tr>
<tr>
<td>New Building</td>
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<td>8.75</td>
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<tr>
<td>Total Parking Requirement</td>
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<tr>
<td></td>
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<td>= 15 parking spaces required</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 - 34 spaces to be provided</td>
</tr>
</tbody>
</table>

The total proposed floor area for the project site is approximately 23,866 square feet; which includes both the proposed new building and existing Local Motion building. As such, a total of 3 loading spaces are required. Two large spaces are required to be 12 feet x 35 feet in size and a third small loading space is required to be 8.5 feet x 19 feet in size.

The Local Motion Building is required to provide six (6) parking spaces and one (1) 10 foot x 20 foot loading space. During construction, temporary parking and loading spaces will be provided within the project site to accommodate this requirement. Construction of the parking area and will be phased to allow for this parking and loading requirements to be met.

Loading Areas
The actual number of loading spaces required is dependent upon the floor area of the individual uses ultimately proposed. It is possible for one or more tenants to be office type uses. If this
occurs, the required loading may change from three (3) to two (2) loading spaces. Therefore, it is somewhat premature to finalize the actual loading, but the applicant wishes to plan for the scenario which demands the greatest number of loading spaces.

Nonetheless, if all uses fall within Category A, as described in the LUO, three (3) loading spaces may be required. As part of the Local Motion Building’s permit approval, a 10 foot by 20 foot loading space was allowed. The applicant wishes to maintain this approval for one of the required loading spaces. Of the two remaining loading spaces required, one large and one small space would normally be required. This is what the project intends to provide in this scenario. Two large loading spaces would not be necessary for a small project of this size as loading times can be either schedule to minimize conflicts and/or loading deliveries from the same vendor would be shared.

Alternative locations for the required loading spaces will be considered that will place the spaces in a more central location to both buildings. It is believed that this will address both the concerns of the City Department of Planning and Permitting and the City Department of Transportation Services. There is also sufficient space within the site to maneuver all loading vehicles and to accommodate all loading activity.

Landscaping of the parking areas will include the use of hedges, ground cover and trees. The types of trees will be rainbow shower, monkeypod, and/or Hong Kong orchid along with coco palms. The canopy trees will provide shade and are consistent with the Waikiki Special District Guidelines for plant materials. The parking lot will be screened from Niu Street and Pau Street by a hedge of the required height. Taller screening plant material will be used in the yards adjacent to the existing apartment buildings to mitigate visual impacts of the parking lot. This taller plant material will consist of areca or Macarthur palms which can grow to a height of at least 15 feet. The use of native vegetation will be incorporated into the landscape theme, and all landscaped areas will have an automatic irrigation system.

2.3.5. Flood Hazard District Considerations

The subject property is in the flood hazard district AO with a base flood elevation of 2 feet above the adjoining grade. Therefore, the ground floor of the new building will be raised on a 24-inch podium above the existing grade. The applicant acknowledges that documentation of compliance with Section 9.10 of the Land Use Ordinance (LUO) will be required at the time the Special District Major permit application is submitted. A Flood Hazard District Certification will be submitted as part of that application. The flood hazard designation is discussed further in Section 3.5 of this EA.
2.3.6. Demolition Work

Demolition work is anticipated to include the following:

- Demolition of car rental building,
- Demolition of concrete pad and asphalt parking lot associated with car rental building,
- Demolition of a portion of the existing parking lot at Local Motion, and
- Demolition of existing driveways that will no longer be used.

Since no physical changes are proposed for the Local Motion building, retail uses would continue to operate. However, existing establishments and tenants may change in the existing Local Motion building. Portions of the existing parking for Local Motion may need to be temporarily reconfigured and/or relocated to allow for the construction of the new building. These allowances, however, will be accommodated within the project site.

2.3.7. Construction Work

Current plans for the proposed new structure call for steel frame construction. Based on information derived from the investigation of soil conditions on the project site, a deep foundation system will be required that bears onto the existing dense coral formation found below grade. The deep foundation system may consist of either: (1) driven, pre-stressed, pre-cast concrete piles; (2) cast-in-place piles (caissons); or (3) micropiles.

Ties, beams and concrete piers would be poured on to support the walls and columns of the building. Due to the flood district requirements, compacted structural fill will be used to raise the lower level concrete floor slab to the required height. Upper floors will be constructed of a concrete filled metal decking. The exterior walls of the building would be steel framed with plaster and/or precast concrete finishes. Roof framing will also be of steel frame construction.

Construction of the building will be accomplished using a pile driver to set the piles, a backhoe for trenching foundations, utilities, and parking areas, and a small crane or lifts for setting steel framing and other upper level elements in place.

2.3.8. Project Schedule and Costs

Construction of the facility would follow the environmental review and permitting processes. It is anticipated that site preparation could begin in late 2008 or early 2009. The duration of construction is anticipated to take approximately 18 months. Timeframes are preliminary and are subject to change. The estimated cost of construction is approximately $4 million. Funding will come from private sources and no state or county funds will be used.
3. DESCRIPTION OF THE ENVIRONMENT SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES

The following is a description of the existing environment, assessment of potential project impacts and proposed mitigation measures.

3.1 Climate

The climate of Oahu is relatively mild. It is characterized by consistent tradewinds, relatively constant temperatures, moderate humidity and infrequent severe storms. Northeasterly tradewinds prevail throughout the year with an average wind velocity of about 10-15 miles per hour. The mean temperature at the Honolulu International Airport ranges from 70 degrees Fahrenheit in the winter months to 85 degrees and above in the summer months.

Potential Impacts and Mitigative Measures
The proposed project will have no impacts on regional climate conditions.

3.2 Topography and Soils

Topography: The subject property and regional topography is relatively flat. All seven of the project site parcels have been previously developed.

Soils: Waikiki is generally underlain by calcareous sand and submerged coral ledges that formed during the various stands of the ocean. In certain areas, there are ancient lagoonal deposits characterized by gray, soft silts and clays. In certain areas of Waikiki, alluvial streams have cut through the underlying coral ledges. The project site is underlain by dense / very dense coral and coralline sediment.

According to the U.S. Department of Agriculture Soils Conservation Service study titled “Soil Survey of the Island of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii”, the project site is located in an area designated as Fill Land, mixed (FL). Fill land “consists of areas filled with material from dredging, excavation from adjacent uplands, garbage, and bagasse and slurry from the sugar mill”. The Fill Land portion on Oahu “occurs mostly near Pearl Harbor and in Honolulu, adjacent to the ocean. It consists of areas filled with material dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources.” (USDA, 1972, Plate 63, page 31).
**Potential Impacts and Mitigative Measures**

Development plans for the project have attempted to minimize ground disturbance. However, some components of the proposed project will involve excavation, filling and grading. Proposed activities will not significantly alter the topography of the project site. The ground floor of the new two-story building will be raised on a 24-inch podium and compacted fill above the existing grade. No expansive type soils were observed on the site or encountered during soils analysis efforts. Conventional slab-on-grade construction may be utilized.

Other minor excavation on-site will be limited to the superficial removal and replacement of existing pavement, sidewalks, landscaping and accommodating utility hookups. The new surface parking lot area will involve minor excavation, fill and grading. These areas will not generally require excavation to deeper levels. The topography of the area will not be significantly altered or impacted.

Based on information derived from the investigation of soil conditions on the project site, a deep foundation system will be required that bears onto the existing dense coral formation found below grade. The deep foundation system may consist of either: (1) driven, pre-stressed, pre-cast concrete piles; (2) cast-in-place piles (caissons); or (3) micropiles. Construction of the building will be accomplished using a pile driver to set the piles, a backhoe for trenching foundations, utilities, and parking areas, and a small crane or lifts for setting steel framing and other upper level elements in place.

The area of soil disturbance within the project site will not be greater than one acre. Thus a National Pollutant Discharge Elimination System permit is not required.

Construction-related activities will conform to the “Rules Relating to Soil Erosion Standards and Guidelines”, including strict erosion control and dust control measures. Primary fugitive dust control methods that will be implemented include large plywood barriers around the perimeter of the site, regular water of exposed soil areas, good housekeeping practices on the job site, and prompt landscaping or paving of bare soils in areas where construction is completed. Ground cover plantings, landscaping and hardscape will be in place when construction is done thereby minimizing potential soil loss.

### 3.3 Surface Hydrology, Drainage, Storm Water Quality and Encroachments

Rainfall in the Waikiki area is generally absorbed by the porous coral substrate, except for areas having a large amount of impervious surfaces. The general drainage pattern of the project site is toward the adjacent street frontages of Kalakaua Avenue, Pau Street and Niu Street and into the municipal storm drain system. There is no natural surface water or natural drainage ways within...
the project site. The majority of the site is undeveloped. Therefore, surface water that does not percolate into the ground flows into the adjoining rights-of-way. The nearest storm drain connection is in the Kalakaua Avenue and Niu Street intersection. There have been no reports or observance of surface runoff issues onto adjacent properties.

Injection wells are not proposed nor are they necessary to mitigate the possible increase in the surface runoff. While a detailed drainage study has not yet been performed, effective storm water management could be achieved through the use of percolation areas, drywells, and the municipal storm drain system.

Increase in surface water runoff onto adjoining properties is not allowed. To manage this in the parking area, water will be directed to planting areas, French drains and drywells. Similarly, water from building roof tops will be directed via a gutter system into adjoining planting areas. Where there are no planting areas to direct water to, the water will be piped below grade into a drain system. Drywells will be used as much as possible to minimize use of the municipal storm drain system.

The applicant acknowledges that permanent post-construction BMPs are required upstream of the drain connection into the City system. This will be incorporated into the construction plans of the project.

The project will maintain a low slope grade in the planting area between the curb and sidewalk. We will work with the DPP Urban Design Branch and Site Development Division to develop a satisfactory solution that will not create a steep grade within this planting area but will allow for the project to comply with the flood hazard district requirements.

Mounding of the grade within the City right-of-way will not be proposed.

A Surface Encroachment Variance will be sought to allow the privately owned and maintained project elements within the City right-of-way. These elements could include, but are not limited to, landscaping, irrigation, lighting, seating, hardscape and other decorative features.

Grading and drainage plans are being prepared. As stated previously, only minor grading and excavation are anticipated. Compacted materials and a concrete podium will be used to elevate the ground floor of the new building approximately 24 inches above grade.

**Potential Impacts and Mitigative Measures**

No short-term adverse impacts to surface waters are anticipated in relation to construction activities. Storm water runoff from the project site during site preparation and construction will
be controlled in compliance with the City’s “Rules Relating to Storm Drainage Standards”. During construction, Best Management Practices will be employed such as silt fences, appropriately stockpiling materials on-site to prevent runoff, and building over or establishing landscaping as early as possible on disturbed soils to minimize the length of exposure.

No long-term adverse impacts to surface waters are anticipated as a result of the proposed project. Areas disturbed during construction will be built over, paved and landscaped to minimize erosion and sedimentation.

3.4 Waste Hazards

At the request of American Commercial Equities, a Phase 1 Environmental Site Assessment (ESA) was conducted in 2006 by Muranaka Environmental Consultants, Inc. for the Local Motion site at 1958 Kalakaua Avenue, Island of Oahu, Honolulu, Hawaii, which is TMK 2-6-14: 001. The reason for conducting the Phase 1 Environmental Site Assessment was because the property was being purchased by 1958 Kalakaua Avenue LLC.

The Phase 1 ESA was conducted to determine the potential presence of environmental impacts, petroleum products and other environmentally hazardous substances / wastes, and to identify potential sources of suspected contaminants at the Local Motion site property by a qualified environmental professional.

The Phase 1 ESA was conducted in accordance with the American Society of Testing and Materials (ASTM) Standard practice E1527-05 entitled, “Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process”.

Muranaka Environmental Consultants, Inc. concludes in their Phase 1 ESA report that there are no current recognized environmental conditions identified for the Local Motion site.

In 1997 as part of a due diligence investigation, Dames and Moore was hired by to perform a limited Phase 2 Environmental Site Assessment to evaluate the potential for the presence of environmental impacts associated with historic land uses of the property at 1958 Kalakaua Avenue (the Local Motion site), which was developed as Jimmy’s Chevron Service Station.

During Dames and Moore’s investigation, two 60-gallon underground storage tanks (USTs) were identified at 1958 Kalakaua Avenue. Upon discovery, the USTs were found to be full of fluid. Dames and Moore was contracted to supervise the removal of the tanks and all impacts to soil and groundwater. During the removal of the USTs, one of the USTs ruptured and approximately 10 to 20 gallons of waste oil sludge was released. The released sludge was immediately
recovered. After the USTs were removed, the excavation was over-excavated and groundwater in the excavation was skimmed to remEDIATE the impacted soil and groundwater. The tanks, residual waste oil, sludge, and all impacted soil and ground water were disposed of properly. Dames and Moore was contracted to supervise the removal of the tanks and all impacts to soil and groundwater. Following Dames and Moore's work, their subsequent laboratory analyses results and site investigations, Dames and Moore recommend that a site closure status be granted by the State of Hawaii Department of Health.

**Potential Impacts and Mitigative Measures**

Muranaka Environmental Consultants, Inc. concludes in their Phase I ESA report that there are no current recognized environmental conditions identified for the Local Motion site. Appendix B of the Phase I ESA indicates that the facility status for the 1958 Kalakaua Avenue property is “site cleanup completed”. No further mitigation measures or investigation are proposed.

Appendix I contains the following: (a) Executive Summary from the July 22, 1997, Dames & Moore Underground Storage Tank Closure and Soil Remediation report for 1958 Kalakaua Avenue, (b) the Executive Summary from the December 18, 2006, Muranaka Environmental Consultants Inc., Phase I Environmental Site Assessment report for 1958 Kalakaua Avenue, and (c) an October 29, 1997 State Department of Health letter regarding 1958 Kalakaua Avenue which acknowledges that “no further action is necessary” and that the DOH concurs with the conclusions of the 1997 Dames & Moore report.

**3.5 Flood Hazard**

The project site lies within the 100-year flood zone designated AO on the National Flood Insurance Rate Map #15003C0370, revised September 30, 2004 prepared by the Federal Emergency Management Agency (FEMA) Figure 8 depicts the flood hazard designation. Flooding in the AO designated zone is usually shallow and consists of sheet flow on sloping terrain with a base flood average of 1 to 3 feet. For the project site, the AO flood zone has an average flood depth of 2 feet.

**Potential Impacts and Mitigative Measures**

The ground floor elevation of the new building will be developed approximately two feet higher than the existing grade. The surface parking area will be constructed at grade. All new construction will be required to meet applicable building code standards. The project will comply with flood hazard requirements in accordance with current State and City and County of Honolulu standards. The applicant acknowledges that documentation of compliance with Section 9.10 of the Land Use Ordinance (LUO) will be required at the time the Special District Major permit application is submitted. A Flood Hazard District Certification will be submitted as part of that application.
3.6 Flora and Fauna

The existing project site consists of the Local Motion building and parking lot, while the remainder of the property is mostly vacant and covered with patchy grass. The existing trees are located generally along the perimeter of the site.

A partial tree survey was conducted by certified arborist Carol Kwan in November 2007 as part of her monitoring during trenching activity. As part of her work, she assessed the condition of the trees along Kalakaua Avenue, and recommended their disposition within the proposed project. None are recognized as “exceptional trees” by the City and County of Honolulu. No threatened or endangered plant species are known to exist on the subject property.

The proposed landscaping for the project is the drawing labeled “SK-2 Planting Plan” in Appendix D. The Planting Plan calls for approximately 13 new palm trees, 17 new smaller trees and 7 new medium to large canopy trees. Six existing palm trees and 8 smaller canopy trees will be removed. The new plantings will be located along the perimeter of the property and in the new parking area.

Faunal species likely include typical domestic and feral cats, as well as rats and mice, which are common to urbanized areas are probably present. Avifaunal species observed in the area include species also common to urban areas such as doves, mynah, sparrow, cardinal and finches.

Potential Impacts and Mitigative Measures
The development of the project will not have any adverse impacts on the area’s vegetation or wildlife habitat. The project is not anticipated to result in any adverse impacts to native plant or animal species that are endangered, rare or threatened. Planned landscaping includes canopy form trees, coco palms, shrubs, and ground cover.

3.7 Noise

The project site is in an urban, high-density resort area. The existing ambient noise levels along Kalakaua Avenue in the vicinity of the project area are relatively high because it is near major intersections that lead into Waikiki. The primary noise sources in the project area are traffic noise levels due to the large volumes of traffic and heavy vehicles that use these primary thoroughfares. Sources of noise include not only typical automobiles but also delivery trucks, tour buses, and refuse haulers which all converge into Waikiki to service the urban, high-density resort area. Other sources of noise include emergency vehicles with sirens at all hours of the day or night.
The State Department of Health (DOH) regulates noise from fixed mechanical equipment. Construction activities are regulated by DOH through the issuance of permits that allow excessive construction noise during limited time periods.

*Potential Impacts and Mitigative Measures*
Short-term construction noise will be generated during construction activity and the use of heavy machinery. Significant adverse impacts due to construction noise are not anticipated due to the temporary nature of the work. Project-related construction noise will and must comply with the State Department of Health Hawaii Administrative Rules, Chapter 11-46, “Community Noise Control”.

In the long term during the operational phase of the project, the new building will be air-conditioned so that will mitigate both noise impacts to those working inside and it will prevent noise from leaving the building. Any increase in noise levels that might result in the vicinity of the project site are not anticipated to exceed regulated noise levels. Long term operational noise, (after construction is complete and the new building is occupied) must also meet the State noise regulations.

### 3.8 Air Quality

According to the State Department of Health’s 2002 Annual Summary of Hawaii Air Quality Data, “Air quality in the State of Hawaii continues to be one of the best in the nation and criteria pollutant level remain well below state and federal ambient air quality standards.” The State of Hawaii continues to be well below federal standards on annual averages for particulates, sulfur dioxide and nitrogen dioxide and annual averages of daily maximum 1-hour values recorded for ozone and carbon monoxide. The State’s averages have also been well below federal standards for more stringent State standards for carbon monoxide and nitrogen dioxide.

The air quality in the vicinity of the project site is primarily impacted by vehicular emissions from surrounding streets. According to the State Department of Health’s Clean Air Branch, the Waikiki Air Monitoring Station located on Kalakaua Avenue reported that carbon monoxide levels have not exceeded State or Federal standards in the past several years.

*Potential Impacts and Mitigative Measures*
The proposed project will have short-term construction-related impacts on air quality, including the generation of dust and emissions from construction vehicles, equipment and commuting construction workers. The potential impacts of construction activities will be mitigated because all construction activities for the project must comply with the Hawaii Administrative Rules,
Section 11-60-11.1 regarding “Air Pollution Control”, specifically Section 11.60.1-33 regarding fugitive dust and the prohibition of visible dust emissions at property boundaries. In addition, the contractor will develop a Fugitive Dust Control Plan in accordance with comments received from the State Department of Health.

Mitigation measures to address short-term impacts include minimizing movement of construction vehicles during peak traffic periods to avoid traffic congestion and its associated increase in vehicular emissions. Also, frequent watering of unpaved and disturbed areas on the project site will help control the generation of dust. Landscaping disturbed areas as soon as possible is yet another mitigation measure. The proposed project does not include renovation or demolition activities that involve any known materials containing asbestos.

Regarding the operational phase of the project, in order to mitigate any potential air quality issues related to kitchen exhaust issues, the proposed restaurant will be located as far away as possible from nearby residences. The restaurant would be oriented toward and along Kalakaua Avenue. There are existing restaurants, Tony Romas and Cheeseburger in Paradise, that operate close to the project site. Typical trade wind weather would blow across the project site – from mauka to makai - away from mauka residential areas.

3.9 Views
The project site is adjacent to Kalakaua Avenue. Section 21-9.80-3 of the Land Use Ordinance enumerates the “prominent view corridors and historic properties” in the Waikiki Special District that are to be preserved, maintained and enhanced wherever possible. The portion of Kalakaua Avenue that fronts the project site is not identified as a significant public view corridor. None of the streets in the immediate vicinity of the project site are identified as significant public view corridors.

The project site, however, within the Fort DeRussy view corridor. The proposed new building will comply with the Land Use Ordinance’s height and the height setback requirements and the design requirements for the Waikiki Special District. Further details regarding this are provided in Section 4.2.3. The architectural character and scale of the new building will be similar to the existing Local Motion building.

Potential Impacts and Mitigation Measures
The new building is designed to blend in with the existing architectural character and scale of the adjacent Local Motion building. The new building will comply with all applicable development standards of the Waikiki Special District Resort Commercial precinct within which the new building will be located. The new building will also comply with applicable LUO and Waikiki Special District regulations regarding height, density, open space and building setbacks.
3.10 Socio-Economic Characteristics

Population and Housing:
The 2000 Census reported the population of Oahu at 876,156. According to the City and County of Honolulu’s Department of Planning and Permitting’s demographic profile for various Oahu neighborhoods using the 2000 Census data, the subject property is located in Neighborhood Area 9: Waikiki, which had a population of 19,720.

In comparison to Oahu as a whole, the Waikiki population is generally older; has a racial mix with proportionately more Caucasians and less Asians and Native Hawaiian or Pacific Islanders; much lower proportion of family households and an even lower proportion of household with children under 18: proportionately lower homeownership rates; and greater vacancy rates. See Table 2.

Economy:
According to 2000 Census data compiled by the City’s Department of Planning and Permitting, median household income in 1999 for the Waikiki Neighborhood Area was $32,547, which is lower than the median household income of $51,280 for Oahu.

Potential Impacts and Mitigative Measures
The proposed project does not involve residential use. No impacts to the Waikiki population or housing inventory are anticipated. The proposed project’s total estimated cost of construction is $4 million in private funds. The project will have some positive short term construction related economic impacts. In the long-term, the 1944 Kalakaua Avenue project will create job opportunities associated with the retail and restaurant components of the development.

3.11 Public Services and Solid Waste

Police Services:
Waikiki is located in the Honolulu Police Department’s District 6. There is a police substation located on Kuhio Beach along Kalakaua Avenue. In addition to the police, Waikiki is patrolled by a variety of volunteer citizen groups such as the Waikiki Citizens Patrol and Aloha Patrol.

Fire Services:
Waikiki is located within the Honolulu Fire Department’s Battalion Two. Two fire stations serve Waikiki; one on Kapahulu Avenue and one on Date Street.
### Table 2: Demographic Characteristics: 2000

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<td>Family households (families)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With own children under 18 years</td>
<td>4,087</td>
<td>35.9</td>
</tr>
<tr>
<td>Married-couple family</td>
<td>3,129</td>
<td>27.5</td>
</tr>
<tr>
<td>With own children under 18 years</td>
<td>777</td>
<td>6.8</td>
</tr>
<tr>
<td>Female household, no husband present</td>
<td>643</td>
<td>5.6</td>
</tr>
<tr>
<td>With own children under 18 years</td>
<td>293</td>
<td>2.6</td>
</tr>
<tr>
<td>Non-families</td>
<td>7,310</td>
<td>64.1</td>
</tr>
<tr>
<td>Living with non-relatives</td>
<td>1,475</td>
<td>12.9</td>
</tr>
<tr>
<td>Living alone and 65 years and over</td>
<td>1,503</td>
<td>13.2</td>
</tr>
<tr>
<td><strong>Average persons per household</strong></td>
<td>1.72</td>
<td>--</td>
</tr>
<tr>
<td><strong>HOUSING OCCUPANCY AND TENURE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Housing Units</strong></td>
<td>18,370</td>
<td>100.0</td>
</tr>
<tr>
<td>Occupied Units</td>
<td>11,397</td>
<td>62.0</td>
</tr>
<tr>
<td>By owner</td>
<td>3,819</td>
<td>20.8</td>
</tr>
<tr>
<td>By renter</td>
<td>7,578</td>
<td>41.3</td>
</tr>
<tr>
<td>Vacant units</td>
<td>6,973</td>
<td>38.0</td>
</tr>
<tr>
<td><strong>Available housing vacancy rate (%)</strong></td>
<td>23.1</td>
<td>--</td>
</tr>
<tr>
<td><strong>Homeownership rate (%)</strong></td>
<td>33.5</td>
<td>--</td>
</tr>
</tbody>
</table>

Source: 2000 Census SF1 File; Planning Division, Honolulu Department of Planning and Permitting
Medical Services:
Four of the state’s major hospitals are located within an approximately five mile distance from the project site. These include Queen’s Hospital, the Kaiser Permanent Honolulu Clinic, Straub Hospital, and Kapiolani Hospital for Women and Children. There are walk-in clinic within Waikiki such as the Straub Hospital’s Doctor’s on Call clinic at the Sheraton Princess Kaiulani Hotel.

Potential Impacts and Mitigative Measures
In terms of Police, Fire and Medical services, the proposed project is anticipated to have negligible impact on these facilities and services. The new building will be constructed to meet the City’s fire codes and regulations. Refuse collection will be collected by a private company.

3.12 Utilities

Storm Drainage System
Storm water management will include but not necessarily be limited to percolation into landscaped areas and the use of drywells and/or French drains to ensure that there will be no net increase in runoff from the previous land usage. A detailed drainage study will be provided at the time of construction plan development. The proposed project will be required to comply with the City’s “Rules Relating to Storm Drainage Standards”.

Potential Impacts and Mitigative Measures
No significant impacts are anticipated on the municipal drainage system serving the project area. Drainage patterns and facilities will be design to minimize impacts on the municipal drainage systems.

Sanitary Sewer System
The lots are currently serviced by an existing 6-inch sewer line that runs down the utility easement that is centrally located in the properties and by a 10-inch sewer line located in Niu Street. Each lot has its own individual sewer lateral. One or more of these existing laterals will be utilized for the proposed development. The remaining unused sewer laterals will be cut and plugged at the main and abandoned in place.

Potential Impacts and Mitigative Measures
The applicant acknowledges that a condition of the approved Sewer Connection Application dated October 10, 2007 (No. 2007/SCA-0662) is that sewage flow will not exceed 6,400 gallons per day. A letter from the property owner acknowledging this is in Appendix C. The proposed project will utilize the available sewer capacity associated with the subject parcels. No upgrades or improvements are warranted. No impacts on the municipal wastewater system are anticipated.
Water System
The seven lots in the project area are currently served by water lines within Pau Street, Niu Street and Kalakaua Avenue. The new building will be served by existing water lines. Water meters not used for the project will be removed. A new reduced pressure principal backflow preventer will be installed for cross contamination prevention of the municipal water system. Preliminary estimated daily water demand is approximately 6,500 gallons per day (gpd): 4,000 gpd restaurant, 1,000 gpd retail, and 1,500 gpd landscape irrigation.

Potential Impacts and Mitigative Measures
The existing water lines are adequate to serve the new building. No impacts to the municipal water system are anticipated.

3.13 Cultural Resources
A Cultural Impact Assessment was undertaken by Cultural Surveys Hawaii (CSH). The final May 2008 report of the cultural assessment is in Appendix F.

The proposed project requires compliance with the State of Hawai‘i environmental review process under Hawai‘i Revised Statutes (HRS) Chapter 343, which requires consideration of a proposed project’s effect on traditional cultural practices. Through document research and cultural consultation efforts, a cultural impact assessment was conducted. This information provides an analysis of the proposed project’s potential impacts to cultural practices per the Office of Environmental Quality Control’s (OEQC) Guidelines for Assessing Cultural Impacts.

The scope of the cultural impact assessment included an examination of historical documents, Land Commission Awards, and historic maps with the specific purpose of identifying traditional Hawaiian activities including gathering of plant, animal and other resources or agricultural pursuits as may be indicated in the historic record. The scope also included a review of the existing archaeological information pertaining to the property; identification and description of the potential cultural resources, practices and beliefs associated with the parcel; and identification of present uses, if appropriate.

According to the CSH report, throughout the course of the CIA an effort was made to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about cultural practices and resources related to the project area and the Waikiki Ahupua‘a. This effort was made by letter, e-mail, telephone and in person contact. In the majority of cases, letters along with a map and aerial photograph of the project area were mailed.
Cultural Surveys Hawaii contacted the State Historic Preservation Division, Office of Hawaiian Affairs, Island Burial Council, and members of other community organizations in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the study area and the surrounding vicinity. The names for potential community contacts were also provided by colleagues at Cultural Surveys Hawaii and from the researcher’s familiarity with people who live in or around the study area. Some of the prospective community contacts were not available to be interviewed as part of this project. A complete list of those contacted is contained in “Table 2. List of Community Contacts” on page 48-49 and “Figure 15” on page 50-51 of the CIA in Appendix F. A discussion of the consultation process can be found in the “Section 4 Community Consultations” of the final report in Appendix F. The detailed interviews that were conducted can be found in “Section 5 Kama’aina Responses”.

Consultation results include:

1. Given the degree of development and alteration of the natural environment of Waikīkī, it is generally no longer possible for native Hawaiians to engage in traditional cultural practices or gathering activities.

2. Despite this development and alteration, the rich oral history of the Kālia area is important and should not be forgotten.

3. Even though the sediments in the subject project area appear to consist of mainly fill deposits, and even though archaeological testing has thus far yielded negative results, participants are still concerned about the possibility of encountering iwi kūpuna and/or other cultural resources; in part, this is based on recent experiences at other locations in Waikīkī and Kakaʻako, which have yielded remnant cultural deposits.

4. Several participants voiced concerns about the proposed project not directly benefiting the residential and local community. In particular, some participants believe that many or most of the existing retail outlets in Waikīkī do not cater to the majority of local residents; the proposed project is unlikely to improve this situation.

5. A few participants stated the beauty and green space of Waikīkī and Hawaiʻi is being negatively impacted by development, which precludes any traditional gathering practices; the establishment or maintenance of green space would on the other hand benefit all residents and members of the Waikīkī community.

**Historic Documentation of the Project Area**
The present project area is located on the mauka fringe of a portion of Waikiki that, in traditional Hawaiian times and before the massive drainage accomplished by the Ala Wai Canal, comprised a complex of numerous large fishponds that extended between the present Saratoga Road and the grounds of Fort DeRussy to present Atkinson Drive and Ala Moana Shopping Center.
Documentation indicates that the project area historically consisted of marshland. Historic documentation also indicates extensive traditional Hawaiian agriculture and habitation in the immediate vicinity of the project area, as evidenced by the presence of fishponds, wetland agricultural fields, and habitation sites.

An 1881 Hawaiian Government survey map by S.E. Bishop provides a detailed record of the physical landscape of Waikiki before the transformations of the 20th century. Drawn before the extensive drainage and landfiling of the Waikiki landscape, accomplished by the construction of the Ala Wai Canal in the 1920s, the 1881 map likely represents the project area as it had appeared in traditional Hawaiian times: a marsh environment surrounded by fishpond ponds and wetland fields (Figure 9). When the map was copied in 1922, additional material from subsequent government surveys was added, including locations of road corridors not present in 1881.

The project area was not intensively utilized until the mid-twentieth century when Waikiki became urbanized, following the draining and filling of the area initiated in the 1920’s. By 1927 the project area was drained, filled in, and subdivided in preparation for development. A 1927 Sanborn Fire Insurance map indicates that the project area was still undeveloped, but has been subdivided and girded off (Figure 10). This suggests that the project area had been drained and filled in and was being prepared for development.

By 1956 the project area was completely developed and was being utilized for both residential and commercial purposes. A 1956 Sanborn Fire Insurance map showing the project area reflects mid-twentieth century changes occurring within Waikiki (Figure 11). Multiple dwelling structures and apartments are now present in the northeastern half of the project area, while the southwestern half of the project area contains an auto repair shop, gas station, and restaurant.
Figure 9. Portion of Registered Map 1398, a 1881 map by S.E. Bishop with location of present project area. (Source: Cultural Surveys Hawaii)
Figure 10. 1927 Sanborn Fire Insurance map of project area. (Source: Cultural Surveys Hawaii)
Figure 11. 1956 Sanborn Fire Insurance map of project area. (Source: Cultural Surveys Hawaii)
CSH's background research results include:

1. The proposed project area is located in the old land section of Waikīkī known as Kālia, which was well-known for its loko i'a (fishponds) and lo'i kalo (taro ponds).

2. The proposed project area is located at or immediately adjacent to one of these loko i'a known as Kaipuni. The construction of the Ala Wai Canal in the 1920s resulted in the widespread draining and filling of these ponds, including Kaipuni.

3. Archaeological work throughout Waikīkī has documented a wide variety and diversity of pre-Contact native Hawaiians sites and features dating from at least 1,000 years ago; as well as more recent historic-era resources. Hundreds of burials have been documented in Waikīkī and many more additional burials from both pre-Contact and historic times have yet to be discovered.

4. Archaeological work at the subject parcel (Tulchin and Hammatt 2007), which included subsurface excavation, did not identify any historic properties or significant resources. However, given the unpredictable nature of the archaeological record in Waikīkī—which is frequently characterized by discontinuous remnant cultural deposits, it is still possible that iwi kapuna (ancestral remains) and/or other cultural resources may be discovered during planned ground disturbance.

**Potential Impacts and Mitigative Measures**

According to the Cultural Surveys Hawaii report, it is anticipated, based on historical research and previous archaeological projects that evidence of pre-contact and early post-contact aquaculture, habitation, agriculture, and possibly burial practices may be found in the project area if intact Jacus sand deposits remain below nineteenth and twentieth century fill layers. Native Hawaiian burial practices were such that the potential for encountering human burials in sandy deposits within the current proposed project area does exist. Additionally, the present project area is located in the vicinity of the fishpond, Loko Kaipuni. Thus, remnant subsurface fishpond sediments could be encountered.

Cultural Surveys Hawaii reported that as of the date of the December 2007 interim cultural impact study report, two state agencies provided comments directly to Cultural Surveys Hawaii regarding the proposed project; the Office of Hawaii Affairs (OHA) and The State Historic Preservation Division (SHPD). The SHPD and OHA provided to Cultural Surveys Hawaii the following information:

SHPD recommended that recognized cultural and lineal descendants from the Waikiki area be contacted about the proposed project, and offered to provide a list of descendants upon request. Cultural Surveys Hawaii is currently in the process of contacting descendants and will be working with SHPD to ensure that all descendants apposite to the project area have been notified.
OHA cautioned that the present project area is located in the vicinity (northeast) of the previous location of a loko i'a (fishpond), Loko Kaipuni. OHA commented that:

> While the information in your letter indicated that the proposed project area is currently developed, there is a possibility that iwi kūpuna may be discovered during ground disturbance. Thus, OHA seeks assurances that if this project moves forward, should Native Hawaiian traditional, cultural, or burial sited be identified during ground disturbance, all work will immediately cease, and the appropriate agencies notified pursuant to applicable law.

Based on the above findings, Cultural Surveys Hawaii proposes no further cultural impact mitigation measures. It is recommended that that as a precautionary measure, personnel involved in future development activities in the area should be informed of the possibility of inadvertent cultural finds, and should be made aware of the appropriate notification measures to follow.

Recommendations of the Final May 2008 CSH Cultural Impact Assessment:

1. Despite the absence of any documented ongoing cultural practices at the subject project area, and despite the negative results of the archaeological inventory survey, CSH recommends that all applicable historic preservation laws and procedures be followed before, during and after the proposed ground disturbing activities at the subject project area.

2. If human remains and/or burials are discovered during the proposed ground disturbance, CSH recommends proactive and culturally sensitive treatment of the iwi kūpuna. In particular, CSH recommends proactive consultation with potential lineal and cultural descendents of these remains, which should be treated with respect and proper protocol with regards to reburial.

3.14 Archaeological and Historic Resources

An archeological assessment (December 2007) was completed by Cultural Surveys Hawaii. The report is in Appendix G. The proposed project requires compliance with and review under state of Hawai‘i historic preservation legislation Hawai‘i Revised Statutes (HRS) Chapter 6E-42 and Hawai‘i Administrative Rules (HAR) Chapter 13-13-275.
Cultural Surveys completed what began as an archaeological inventory survey investigation of the project area, per the requirements of HAR Chapter 13-13-276. Because no historic properties were located, this investigation became an archaeological assessment, per the language of HAR Chapter 13-13-275-5. The archaeological assessment report was prepared to support the proposed project’s historic preservation review under HAR 13-13-275 and any other project-related historic preservation consultation.

The scope of work for the archeological inventory survey was developed and implemented to satisfy SHPD requirements. The scope of work was designed in accordance with State Historic Preservation Division rules governing standards for archaeological inventory surveys and reports (HAR 13-13-276). The scope of work later became an archaeological assessment because no historic properties were located within the project. Also, the scope of work for the archaeological inventory survey included full coordination with the State Historic Preservation Division (SHPD), and the City and County of Honolulu relating to archaeological matters.

A complete ground survey of the entire project area was completed for the purpose of historic property inventory. Based on available information, the proposed commercial building development will not impose adverse visual, auditory or other environmental impact to any known historic properties, including standing architecture, located outside the project area.

Research was conducted on the historic and archaeological background of the project area, including search of historic maps, written records, and Land Commission Award documents. This research focused on the specific area with general background on the ahupua’a, district and settlement patterns.

A 100 percent pedestrian inspection of the project area confirmed that all standing architecture was less than 50 years old and that there were no surface historic properties. Accordingly, the inventory survey focused on a program of subsurface testing to locate any buried cultural deposits that were potentially within the project area. For the report, historic is defined as anything older than 50 years and modern is defined as anything younger than 50 years.

**Subsurface Testing**
No subsurface historic properties were observed during the course of subsurface testing. A subsurface testing effort consisted of the excavation of 17 backhoe trenches (Figure 12). Trenches were distributed throughout the project area to provide representative coverage and assess the stratigraphy and potential for subsurface cultural resources within the project area. The test trenches generally measured 5 to 7 meters in length, 0.8 meters in width, and were excavated down to the water table (approximately 2 meters deep). Certain areas could not be tested due to
Figure 12. Aerial photograph showing the locations of Trenches 1-17. (Source: Cultural Surveys Hawaii)
the presence of subsurface concrete slabs and a utility easement that ran through the middle of the project area.

Based on backhoe testing results, the stratigraphy within the project area was largely as expected. In general the observed and documented stratigraphy consisted of varying fill layers, including historic fill associated with the draining and filling of Waikiki, overlying naturally occurring alluvial sediment. It is believed that the historic fill layers consist of dredge material collected during the construction of the Ala Wai Canal.

Two types of dredge material were observed; a thick layer of crushed coral fill overlying a thinner layer of pump dredge, consisting of wet clays containing abundant micro striations, which is indicative of pump dredge deposits. These observations agree with the USDA soil data for the project area and its vicinity. All excavations were backfilled after completion of stratigraphic documentation.

**Potential Impacts and Mitigative Measures**

While previous archaeological studies have documented subsurface cultural deposits and human burials – both pre-Contact Hawaiian and historic – in the vicinity of the project area, no subsurface historic properties were observed during the course of subsurface testing and no surface historic properties were identified during fieldwork.

The fieldwork results support the background research, which indicates that the project area consisted of marshland that was not intensively utilized until the mid-twentieth century when Waikiki became urbanized following the draining and filling of the area initiated in the 1920’s.

However, background research also indicates extensive traditional Hawaiian agriculture and habitation in the immediate vicinity of the project area, as evidenced by the presence of fishponds, wetland agricultural fields, and habitation sites. Due to the proximity of this traditional Hawaiian occupation, it is still possible that intact pre-Contact and early contact cultural deposits associated with Hawaiian habitation, agriculture, and burial interment are lying undisturbed beneath the fill layers within the project area.

It should be noted that typically cultural deposits associated with traditional Hawaiian habitation and burial interment are located in Jauca sand deposits, which were not observed within the project area, thus while there is the potential to encounter these types of cultural deposits, it is unlikely.

Based on the current investigation, there are no historic properties recommended Hawai‘i Register-eligible within the project’s Area of Potential Effect. Accordingly, based on the
available information, it is recommended that the proposed project will have no effect on significant (i.e. Hawai'i Register-eligible) historic properties. The proposed 1944 Kalakaua Avenue Project will not have an adverse impact to any historic properties and no further work is recommended for the project. In the unlikely event that previously unidentified subsurface historic properties are encountered by project construction, the project proponents should immediately stop work in the vicinity and contact SHPD’s O‘ahu Office [Tel. (808) 692-8015].

A project specific effect determination of “no historic properties affected” is warranted for the project. Final verification and acceptance of the Archaeological Assessment report and its findings is the responsibility of the State Historic Preservation Division.

3.15 Traffic Assessment

A Traffic Impact Assessment Report (TIAR) was prepared by Phillip Rowell and Associates (December 2007) and is included as Appendix H.

Existing Conditions
The project area is boarded by Kalakaua Avenue, Niu Street and Pau Street, which are all City and County of Honolulu public streets. Kalakaua Avenue provides four eastbound lanes and one westbound lane which is for buses only. Pau Street is a one-lane one-way northbound street. Niu Street is a two-lane one-way southbound street. The intersections of Kalakaua Avenue at Niu Street and Kalakaua Avenue at Pau Street are both signalized.

The “study area” of the TIAR, which was defined based on information provided by the project architect and discussions with the Traffic Review Branch of the Department of Planning, includes the following intersections:

- Kalakaua Avenue at Niu Street
- Kalakaua Avenue at Pau Street

Existing traffic volumes at the two study intersections were obtained from traffic counts performed on Thursday November 8, 2007 and Friday November 9, 2007. The intersection configurations and right-of-way controls were verified at the time of the surveys. Existing traffic operating conditions of the study intersections were determined using the methodology described in the 2000 *Highway Capacity Manual*.

*Weekend Peak-Hour Traffic* Existing traffic volumes at the two study intersections were obtained from traffic counts performed on Saturday May 17, 2008.
"Level-of-Service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-Service (LOS) is a qualitative measure of the effect of a number of factors which include space, speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. In general, LOS A represents free-flow conditions with no congestion. LOS F, on the other hand, represents severe congestion with stop-and-go conditions. Level-of-service D is typically considered acceptable for peak hour conditions in urban areas.

**Existing Level-of-Service Analysis**
The level-of-service analysis concluded that both of the study intersections operate at Level-of-Service B, during both the AM and PM peak periods. All lane groups operate at Level-of-Service B, or better, during the morning peak hour and Level-of-Service C, or better, during the afternoon peak hour. These conclusions are consistent with conditions observed during the traffic counts.

**Weekend Peak-Hour Traffic**  The level-of-service analysis for Weekend Peak-Hour Traffic concluded that both of the study intersections operate at Level-of-Service B, during both the AM and PM weekend peak periods. All lane groups operate at Level-of-Service B, or better, during the morning weekend peak hour and Level-of-Service C, or better, during the afternoon weekend peak hour. These conclusions are consistent with conditions observed during the traffic counts.

**2010 Background Traffic Projections**
For purposes of the TIAR’s analysis, the year 2010 was used as the horizon year. This does not necessarily represent the project completion date. It represents a date for which future background traffic projections were estimated. The 2010 background traffic projections are defined as future background traffic conditions without the proposed project. Background traffic projections are estimated by superimposing traffic generated by other planned development projects in the area onto the existing background traffic projections previously discussed. The following planned development projects were identified:

1. Allure Waikiki
2. The Grand Waikikian
3. Trump International Hotel and Tower
4. Outrigger Hotels Reconstruction
Future Traffic Volumes - Project Trip Generation
Future traffic volumes generated by the proposed "1944 Kalakaua Avenue LLC" project were estimated using the procedures described in the *Trip Generation Handbook* and data provided in *Trip Generation*. This method used trip generation rates to estimate the number of trips that the project will generate during the peak hours of the project and along the adjacent streets.

While it is understood that restaurant and retail uses in Waikiki have a significant proportion of pedestrian traffic, no discount for pedestrian traffic was assumed. Therefore, the estimate of project-generated vehicular traffic is conservative in that the estimates are higher than the actual vehicular traffic that is anticipated because visitors staying in Waikiki would be able to walk to the project site.

**Potential Impacts and Mitigative Measures**
Future 2010 background traffic plus project traffic projections were estimated by superimposing the peak hourly traffic generated by the proposed project onto the 2010 background (without the project) peak hour traffic projections. This assumes that the peak hourly trips generated by the project coincide with the peak hour of the adjacent street. This represents a worse-case condition.

Based on the criteria recommended by the Institute of Transportation Engineers, a traffic impact study would not typically be warranted because the project will generate only 39 inbound trips per hour during the afternoon peak hour, which is less than the 100 trips per hour generally required to warrant a traffic impact analysis.

Although the proposed project generates relatively few inbound trips, the following analysis was undertaken: (1.) the changes in peak hourly traffic volumes at the two study intersections, and (2.) the changes in level-of-service at the two study intersections were analyzed to identify any potential operational deficiencies for 2010 background traffic conditions including the project.

**Project's Share of Total Intersection Approach Volumes**
In 2010 with background traffic plus the project traffic, the project-generated traffic will represent a small percentage – between just 0.5 % to 1.5 % – of the total traffic using the study intersections. See Table 4 of the Traffic Impact Assessment Report in Appendix I.

**Level of Service Analysis with the Project Plus 2010 Background Traffic**
In 2010 with background traffic, the two study intersections will operate at Level-of-Service B during both AM and PM peak periods – with and without project-generated traffic. Level-of-Service D is generally considered to be the minimum acceptable peak hour level-of-service for
urban intersections. Accordingly, the levels-of-service of all movements at the study intersections are acceptable and mitigation measures are not required.

*Level of Service Analysis with the Project Plus 2010 Background Traffic for Weekend Peak-Hour Traffic* In 2010 with background traffic, the two study intersections will operate at Level-of-Service B during both AM and PM weekend peak periods – with and without project-generated traffic. Level-of-Service D is generally considered to be the minimum acceptable peak hour level-of-service for urban intersections. Accordingly, the levels-of-service of all movements at the study intersections are acceptable and mitigation measures are not required.

**Construction-related Traffic**
Construction-related traffic will cause short term temporary impacts. During construction, efforts will be made to minimize the impacts of construction traffic on the adjacent street network. Typical mitigation measures include:

- Limit deliveries of construction materials to off-peak periods.
- Prohibit on-street parking by construction workers.
- Do not allow closure of any traffic lanes at any time along Kalakaua Avenue as this will not only impede traffic operations but would also adversely affect the operation of the westbound bus lane.

**Widening Along Kalakaua Avenue**
The level-of-service analysis concluded that the two Kalakaua Avenue intersections adjacent to the project area currently operate at Level-of-Service B during the AM and PM peak periods. This is a high level-of-service considering the area. Accordingly, there is no capacity-related benefit to be gained from widening Kalakaua Avenue at this time. Given this conclusion and considering the negative impacts of construction activity associated with widening Kalakaua Avenue on traffic and the adjacent dedicated bus lane, it is recommended that widening be deferred until justified by traffic capacity considerations.

**Conclusions**
The proposed project will generate 10 inbound and 15 outbound trips during the weekday AM peak hour. During the weekday PM peak hour, the project will generate 55 inbound and 30 outbound trips. These are considered conservative estimates of the peak hour traffic that the project will generate. The proposed project will generate 60 inbound and 45 outbound trips during the weekend peak hour.

An analysis of the 2010 future traffic volumes at the study intersections estimates that project-generated traffic will represent less than one percent (1%) of the peak hour weekday or weekend traffic.
traffic using the two study intersections. The level-of-service analysis of the anticipated 2010 traffic conditions at the study intersections concludes that both intersections will operate at Level-of-Service B during both weekday and weekend AM and PM peak periods. Based on the analysis and conclusions of the TIAR, mitigation measures are not recommended or required.
4. RELATIONSHIP TO LAND USE, POLICIES AND CONTROLS

This section discusses State and City and County of Honolulu land use controls, plans and policies relating to the proposed project.

4.1 Hawaii State Land Use District

The Hawaii State Land Use Law, contained in Chapter 205, Hawaii Revised Statutes, classifies all land in the State into four land use districts: Urban, Agricultural, Conservation, and Rural. The project site is located within the State Urban district which includes “lands characterized by city-like concentrations of people, structures, streets, urban level of services and other related land uses.”

Discussion
The proposed project is consistent with the State Urban classification.

4.2 City and County of Honolulu

4.2.1 Primary Urban Center Development Plan

The City and County of Honolulu’s Primary Urban Center (PUC) Development Plan (DP), approved by the Council in 2004, is one of eight regional plans covering the Island of Oahu. As mandated by the City Charter, the plans set forth City policy to guide zoning, land use and public investment in a manner that is consistent with and supports the General Plan of the City and County of Honolulu.

The PUC Development Plan vision emphasizes the important of Honolulu as the Pacific’s leading city and travel destination. The vision states that with ongoing redevelopment and improvement, Waikiki will remain the State’s largest and most popular visitor destination. The proposed project is consistent with this key element of the PUC DP.

The PUC Development Plan Land Use Map designates the project site “District Commercial” and “Medium and Higher Density Residential/Mixed Use”. These designations are a mix of commercial and more intense residential uses. The PUC Development Plan states:

“District Commercial areas...refer to a wide variety of commercial uses and related activities intended to serve district-, region-, and/or island wide populations. Uses typically include major office buildings, shopping centers.”
professional and business service, municipal service and commercial activities located along major streets.:

Medium and Higher-Density Residential/Mixed Use "... designation refers to a broad range of medium and higher-density residential uses that vary in density from 13 to 140 units per acre. ... The integration or close location of residential buildings with office and retail services or recreation and community facilities should be encouraged as mixed-use is an essential component of this designation."

Discussion
The proposed project is consistent with the PUC Development Plan Land Use Map designations for the project site. The proposed commercial building will be located along a major street. The interior portion of the project site, while designated for mixed use, will be developed as a parking area to provide a buffer between the commercial building and the existing residential areas mauka of the site.

The project is consistent with the policies pertaining to neighborhood planning – Section 3.2.2.1 of the PUC DP – specifically with respect to promoting mixed land uses and making streets “pedestrian friendly”. As stated in Section 3.2.2.1, office, retail and community services can all coexist with residential uses and can support each other. The proposed project will offer retail and dining opportunities to both visitors and residents of the immediate area. The proposed project also promotes the policy of making streets pedestrian friendly by providing a wide well landscaped area with mature trees that can provide shade and buffer pedestrian from vehicular traffic.

The project is also consistent with the building design and streetscape policies of Section 3.2.2.3 In-Town Residential Neighborhoods. The proposed new building will be adjacent to Kalakaua Avenue while parking areas and back of house functions will be located behind the building, away from the street. The proposed building will be designed to reflect a human scale along Kalakaua Avenue and will offer pleasant walking conditions, landscaping and provide an attractive front entryway. Open space elements such as a ground floor lanai are proposed along Kalakaua Avenue in order to provide strategic open space and opportunities for social activity.

4.2.2. Land Use Ordinance, Waikiki Special District

The project site is located within the Waikiki Special District. The District has its own zoning precincts with associated land use and design standards that are generally more stringent than
those applicable under standard zoning designations for other areas on Oahu not in a special
district.

The District was established in 1976 to preserve and enhance the character of Waikiki, and to
maintain a balance in Waikiki's mix of resort, commercial, residential, and recreational uses. In
February 1996, the City Planning Department published the "Waikiki Planning and Program
Guide" to provide an overview of recent efforts toward the continued improvement and
enhancement of Waikiki. Among its recommendations were amendments to the WSD to promote
renovation, replacement, and enhancement in the resort districts and to promote a Hawaiian
sense of place and preserve views and unique Hawaiian features.

The portion of the project along Kalakaua Avenue is in the Waikiki Special District "Resort
Commercial Precinct". The interior portion of the project is in the Waikiki Special District
"Apartment Precinct" (Figure 5).

Discussion
The proposed project is consistent with the Waikiki Special District precinct designations. The
applicant will submit a Waikiki Special District Permit for the proposed project following the
environmental review process.

The project will promote the design guidelines of the Waikiki Special District (WSD) relating to
the provision for a pedestrian-oriented experience and as a "gateway" to Waikiki. There are
several elements within the project that promote the objectives of the WSD relative to a
pedestrian oriented experience. These are a) continuation of the landscaped right-of-way
fronting the Local Motion Building, b) yard averaging, and c) building design.

The proposed meandering sidewalk and right-of-way landscaping offer a more informal relaxed
pedestrian experience because the pedestrian would be sheltered by landscaping on both sides of
the walking path. It is also less regimented and monotonous than a standard City sidewalk. As
such, City planners have promoted this sidewalk as the preferred urban pedestrian experience.
Projects, such as the Kalakaua Avenue widening improvement, Kuhio Beach Improvements,
2100 Kalakaua Avenue, Nike Town, Royal Hawaiian Shopping Center, Outrigger Beachwalk,
and Hilton Hawaiian Village (to mention a few), have all utilized this solution and have been
approved by the City. This solution provides the greatest amount of open space next the curb
and the pedestrian. It is consistent with the concept promoted in the Urban Design Controls for
Major Streets.

Yard averaging is also proposed. The averaging of the yard promotes building articulation and
varied building frontage. It creates pockets of landscaping and areas available for outdoor dining
and vending, rather than a straight building storefront. It is consistent with the WSD regulations for yard averaging.

The building is designed with a tower element at the corner of Kalakaua Avenue and Niu Street. The tower design announces and celebrates the visitor’s arrival to Waikiki as it is located at a key juncture of Kalakaua Avenue, Ala Moana Boulevard and Niu Street. As Niu Street is often used as the main exit from Waikiki to the airport, it could also be a sign of aloha as one leaves the islands to return home. An architectural element here, in conjunction with landscaping, is a fitting way to celebrate this key gateway location in Waikiki. Also, the ground floor is being devoted to glass storefront and display windows. These display windows create interest for the pedestrian and allows them to interact to activities occurring inside. Finally, it is worth noting that the Department of Design and Construction in their comment letter dated April 9, 2008 felt the project (as a gateway to Waikiki) would be visually compatible with the City’s King Kalakaua Park and neighboring Waikiki properties.

4.2.3. Land Use Ordinance, Waikiki Special District Design Guidelines

The proposed project must meet the Waikiki Special District “General Requirement and Design Controls” Section 21-9.80-4 of the Land Use Ordinance. The Waikiki Special District Design Guidelines states that, “All structures, opens spaces, landscape elements and other improvements within the district shall conform to the guidelines.....”

Discussion
The following describes the project’s compliance with the Waikiki Special District design controls and design guidelines. The proposed improvements will comply with the objectives enumerated in Section 9.80-1 of the City and County of Honolulu, Land Use Ordinance.

Building Design:
The two-story 14,300 square foot building will be constructed on the corner of Kalakaua Avenue and Niu Street. The building will be constructed of steel, concrete and plaster similar to the existing Local Motion Building. The ground floor of the building will be predominantly clear glazed storefronts with the obvious structural building support system. The second floor will also have a large amount of clear glazing. However, eaves will be used to break up the two-story wall and offer shade and protection to the building and pedestrians. A double-hipped second floor roof will also be part of the building design to offer a human scale to the project and emphasize the clay roofing tiles to be used. Plaster will be used on the exterior wall surfaces to convey a sense of permanence.
The floor plate of the building is set back as far as possible towards the interior of the property to allow for the open space to be situated along the streets. This allows for a small plaza at the intersection of Kalakaua Avenue and Niu Street that leads to the main building entrance which serves as the architectural focal point. This additional setback, landscaping, and architectural focal element will enhance the project’s contribution to this Waikiki Gateway.

_use, floor area, and open space:_

The proposed commercial uses are allowed within the Resort Commercial Precinct. The parking for the project is allowed in the Apartment Precinct with a Conditional Use Permit (CUP). Although a joint development permit has been processed for all parcels in the project, a CUP for off-site parking is needed because commercial uses are not permitted “by right” in the Apartment Precinct. The parking will meet the criteria established for off-site parking facilities.

The floor area ratio (FAR) permitted for the Resort Commercial properties is 3.5. The combined area of the commercial zoned parcels is 25,784 square feet. Therefore, the maximum permitted floor area for the existing and proposed building is 90,244 square feet. The total proposed floor area for the project site is approximately 23,866 square feet, well below that allowed by the zoning code. An FAR of 3.5 is allowed by using ½ the abutting right-of-way and open space bonus to expand the base FAR of 1.75. By using such bonus, a maximum FAR of 4.77 is achievable. However, the LWO limits the maximum FAR to 3.5, and this limits the maximum permitted floor area. Please note that only the commercial zoned lot area is being used for this calculation since the commercial uses proposed are not common to both zoning districts. A description of how this was derived is enumerated below.

The total area for half the abutting rights-of-way is 16,434 square feet (see SK-3), and the open space proposed on the Resort Commercial parcels is 9,830 square feet (see SK-3). Thus the maximum permitted floor area is as follows:

\[
(\text{Lot Area} + \frac{1}{2} \text{abutting rights-of-way}) \times \text{FAR} = \text{Floor Area Permitted + Open Space Bonus} = \text{Permitted Floor Area}
\]

\[
(25,784 \text{ sf} + 16,434 \text{ sf}) \times 1.75 = 73,882 \text{ sf} + (9,830 \text{ sf} \times 5) = 123,032 \text{ sf}; \text{ this equals an FAR of 4.77.}
\]

The required open space is 9,250 square feet (half the area of the apartment zoned lots). The combined open space provided on all lots is 9,830 square feet.

_ground level features:_

The building façade along Niu Street and Kalakaua Avenue will be devoted to window displays. The façade will also be articulated through the use of yard averaging. This allows the building to step back in certain areas to embrace the pedestrian and landscape elements. At grade parking
will not be located along Kalakaua Avenue but be located as far back on the property as possible. Street frontages of the exposed parking areas will be generously landscaped and screened to prevent undesirable views from the street, as well as, from above.

Outdoor Lighting:
Outdoor lighting will be subdued and selected to prevent excess glare and light spilling onto adjoining properties and rights-of-way.

Landscaping:
Kalakaua Avenue Landscaping. The landscaping theme in front of the Local Motion building along Kalakaua Avenue is proposed to be extended and continued in front of the new building. The new frontage will be landscaped with canopy form trees, coconut palms, shrubs and grassy mounds along a meandering sidewalk that provides for pedestrian crossings at the intersections. A 10-foot road widening designation exists along Kalakaua Avenue fronting these properties. Therefore, the applicant will seek a deferral of road widening improvements from the City.

Niu Street and Pau Street Landscaping. The existing landscaping pattern of these streets will be maintained. The sidewalk will be restored where existing driveways are proposed to be removed to improve pedestrian movement. Landscaping of the planter strip within the City rights-of-way will be grass. Trees and shrubs will be planted in the required front yards due to the lack of sufficient planter space adjacent to the roadway.

Gateway and View Corridor:
The project is located in one of the designated “gateways” to Waikiki (Figure 6). Also, it is located in the Fort DeRussy mauka-makai view corridor. As such, the height of the building will be limited to the maximum 65 foot height limit imposed for this corridor. The applicant does not anticipate utilizing the full height limit. The proposed structure will be primarily two-stories with a height of approximately 45 feet. Additional height will be utilized for an architectural element used to emphasize the projects prominent location. Further, although no open space is required for Resort Commercial Precinct parcels, open space above and beyond the required yards will be provided. Also, an articulated building façade will be provided along Niu Street and Kalakaua Avenue through the use of yard averaging. The use of yard averaging will provide building variation and pockets of landscaping to support the gateway concept.

4.3 Public Transit, Bicycle and Pedestrian Access

Kalakaua Avenue is designated as being a part of the regional pedestrian network as indicated in the Primary Center Urban Development Plan Land Use Map for PUC-East.
April 1999 Honolulu Bicycle Master Plan and Bike Plan Hawaii 2003
According to the Honolulu Bicycle Master Plan, Kalakaua Avenue is designated a “makai corridor street” on the Regional Bike Corridor Concept Plan. Improvements are proposed to Kalakaua Avenue between Kapahulu and Beretania, to the Kalakaua Avenue bridge, and on Kalakaua Avenue to McCully Street as part of the Lei of Parks – Priority Two Park Links and the makai bike corridor projects listed in the Plan. The makai bike corridor includes 26.6 miles of projects that would provide a continuous route across the City near the water. According to the plan, the objective and concept is to develop bike routes within each of the major travel corridors.

According to the State Department of Transportation’s Bike Plan Hawaii 2003, the plan is a tool to integrate bicycling into the state’s transportation system. The Plan recommends the addition of approximately 1,722 miles of new bikeways to the statewide network. One of the Plan’s objectives is to improve connectivity between existing and proposed facilities within communities and increase proposed off-road paths. The Plan states that bikeway planning in the Primary Urban Center was limited to roadways under state jurisdiction. The Plan acknowledges that the absence of bike lanes on state roadways constitutes a key missing link in the bike corridor from the airport to Waikiki.

The applicant is willing to provide bike and moped parking areas with secure bike racks. At the appropriate time in the design and construction process, the applicant will contact the Hawaii Bicycle League for suggested enhancements to the facilities the applicant intends to provide.

Public Transit and Pedestrian Access
From the project site, public transit - The Bus - is easily accessible along Kalakaua Avenue, Kuhio Avenue, Ala Wai Boulevard and Ala Moana Boulevard. There are numerous public city buses that travel through Waikiki which offer access to a variety of routes throughout the city.

Pedestrian access to the site is available along the three street frontages that border the property. The project site is at a prominent Waikiki gateway location and will offer a pedestrian scaled well landscaped environment that will be an asset to the community.

4.4 Waikiki Neighborhood Board Presentation
A presentation was given at the May 13, 2008 meeting of the Waikiki Neighborhood Board No. 9. The Board unanimously voted to support the proposed project. The following issues were raised by the Board and/or those in attendance. The Board was informed that these issues would be dealt with as part of the environmental review process and the Waikiki Special District permit process.
Potential evening noise from restaurant patrons and back of the building
The Board made a motion to include mention of noise from the back of the building was a concern. Response: The restaurant would be on the second floor. Any openings within the restaurant such as those for open-air dining would be facing Kalakaua Avenue (away from the adjoining apartment buildings). Any dining facing the apartment buildings would be enclosed and air conditioned. This would be true for any dining which may occur on the ground floor as well. It was also noted that distance is one of the greatest ways to alleviate noise, and that the proposed building location is the furthest possible location from the adjoining apartment buildings.

Security on-site prior to construction
A Board member expressed concern over security of the parking lot after hours as parking lots have been an area for drinking, drugs and other nuisance activity. Response: The applicant will consider locking up the parking area after hours to discourage vehicles from entering.

Project design
Board members asked if the new building would replicate the design of the existing building, and noted that the Local Motion building had received architectural awards. Response: The new project will be compatible to and contain similar characteristic to the existing Local Motion building.

At the end of the presentation, the Board voted unanimously 15-0-0- to support the proposed project.
5. DETERMINATION AND COMPLIANCE

A. State – Finding of No Significant Impact
   (Chapter 343, HRS and Title 11, Chapter 200, HAR)

B. Applicant
   American Commercial Equities Three, LLC

C. Accepting Authority
   City and County of Honolulu, Department of Planning and Permitting

D. Determination and Reasons Supporting Determination

Potential impacts have been evaluated and are addressed in terms of how the proposed project relates to the thirteen significance criteria outlined in Chapter 343, Hawaii Revised Statues and Section 11-200-12, State Administrative Rules, Contents of Environmental Assessments, the project will not result in significant adverse effects on the natural or human environment. A Finding of No Significant Impact (FONSI) is anticipated. This determination is based on the assessment of the project in relation to the thirteen significance criteria below:

1. **Involve an irrevocable commitment to loss or destruction of any natural or cultural resource;**

   The subject property does not contain any significant flora or fauna. No known cultural resources are located on the property. No impacts to natural or cultural resources are anticipated due to the proposed project.

2. **Curtail the range of beneficial uses of the environment;**

   The proposed project is consistent with the City and County’s zoning ordinance and the Waikiki Special District precinct designations, guidelines and design controls. The proposed project will not curtail the beneficial uses of the environment. The proposed project involves the development of a vacant area designated as a gateway to Waikiki.
3. **Conflict with the state’s long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;**

The proposed project does not conflict with long-term environmental policies or goals or guidelines of the State of Hawaii. The project’s potential impacts are primarily short-term temporary impacts associated with construction of the new building. These can be mitigated through adherence to standard construction mitigation, following State and County Rules and Regulations for construction practices and by implementing Best Management Practices.

4. **Substantially affect the economic welfare, social welfare, and cultural practices of the community or State;**

The proposed project would provide short-term economic benefits in the form of construction jobs, and provide long-term employment associated with the operation of the development. The proposed project will benefit the social welfare of the area by developing a vacant area designated as a gateway to Waikiki. No known cultural practices of the community or State will be impacted by the proposed project.

5. **Substantially affect public health;**

There are no public health concerns relating to the construction of the proposed facility. Operation of the restaurant will have to comply with applicable State DOH requirements for dining establishments.

6. **Involve substantial secondary impacts, such as population changes or effects on public facilities;**

There are no anticipated secondary impacts to population or public facilities. The proposed facility does not significantly impact public services or public facilities.

7. **Involve a substantial degradation of environmental quality;**

Construction activities associated with the proposed project are anticipated to result in short-term impacts to noise levels, air quality, water quality and traffic in the immediate vicinity of the project site. Mitigation measures will be implemented during construction in order to minimize impacts. The proposed project is consistent with the property’s zoning designation. No long-term degradation of environmental quality is anticipated.
8. Is individually limited but cumulatively has considerable effects upon the environment or involves a commitment for larger actions;

No cumulative effects are anticipated. The proposed project involves only the development of the new building and the associated parking area. No changes are proposed for the existing Local Motion building.

9. Substantially affect a rare, threatened, or endangered species, or its habitat;

The project site has been previously disturbed and developed. There are no known endangered, threatened, or rare plants or animal species at or near the subject property.

10. Detrimentally affect air or water quality or ambient noise levels;

Construction activities associated with the proposed project are anticipated to result in short-term impacts to noise levels, air quality, water quality and traffic in the immediate vicinity of the project site. Mitigation measures will be implemented during construction in order to minimize impacts. Operation of the proposed facility will have no significant long-term impacts on air or water quality or ambient noise levels in the vicinity.

11. Affect or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

The project site lies within the 100-year flood zone designated AO on the National Flood Insurance Rate Map #15003C0370, revised September 30, 2004 prepared by the Federal Flooding in the AO designated zone is usually shallow and consists of sheet flow on sloping terrain with a base flood average of 1 to 3 feet. For the project site, the AO flood zone has an average flood depth of 2 feet.

12. Substantially affect scenic vistas and view planes identified in county or state plans or studies; or

The proposed project is intended to enhance the property which is designated as a gateway to Waikiki and is within the Fort DeRussy View Corridor. The new building will be located on a prominent corner of Waikiki. The objective of the proposed design is to blend the style of the structure and the ground level landscaping to be compatible with the existing Local Motion building. None of the streets in the vicinity of the project site are identified as major public view corridors.
13. **Require substantial energy consumption.**

Construction and occupation of the proposed facility will not require a substantial increase in energy consumption.
6. ALTERNATIVES TO THE PROPOSED ACTION

6.1 No Action Alternative

In the No Action Alternative, the proposed 1944 Kalakaua Avenue project would not be constructed. The mostly vacant project site, which is in an area designated as one of just five “Waikiki Gateways”, would not be improved and visually and aesthetically enhanced, in particular the pedestrian experience at this end of Waikiki. The objective of the proposed design is to blend the style of the structure and the ground level landscaping to be compatible with the existing Local Motion building. The proposed development will enhance the area with a new building, new sidewalks, new landscaping and the removal of driveway access from Kalakaua Avenue. The vacant interior lots, which will be developed as a parking area to serve the commercial establishments, will be landscaped and maintained.

6.2 Alternative Designs

Multi-Family Units
Some alternative designs that were considered for the property included the potential development of multifamily units on the apartment precinct zoned parcels. However, the limited sewer capacity of the Waikiki area precludes the development of residential units in excess of what previously existed. Through the research of demolition permit records it was determined that approximately 27 dwellings occupied parcels 6, 7, 8, 19 and 58. The limited sewer capacity in this area of Waikiki would allow a maximum of 27 units to be constructed, essentially a one-for-one replacement. This limited development of residential units is not financially feasible, and is not a preferred alternative.

Right-of-Way Improvement on Kalakaua Avenue
Further, an alternative right-of-way improvement on Kalakaua Avenue fronting the proposed new commercial building was also considered. This alternative would implement the improvements associated with the designated 10 foot Kalakaua Avenue road widening. This scenario is shown in SK-4 which is included in the set of drawings found in Appendix D

This alternative, however, may be difficult and undesirable to implement. It may be difficult to implement for several reasons, first, the project is required to raise the ground floor elevation 2 feet above the adjoining grade to comply with flood hazard district regulations. Implementing the 10-foot road widening improvement will make it more difficult to make the approach from the road way to the building accessible. By reducing the horizontal distance to create a gradual slope for a ramp, a more formal ramp and/or stair to the building would need to be constructed.
If a ramp were proposed in the required yard it may also require the processing of zoning waiver. Second, the project boundary jogs at the location of the sewer easement within the road widening setback. The project does not own this portion of land (Lot 8-A-27-L) and thus does not feel it can commit road widening improvements over it.

Moreover, if the practical barriers to implement the road widening could be overcome it would make for a less aesthetic solution. This City standard sidewalk solution for this area would be to provide curbs, gutters, and a widened sidewalk. The sidewalk would be concrete. This implementation would significantly reduce the amount of landscaping fronting the project. It may not be the best aesthetic solution for this portion of Waikiki designated as a Gateway. The preferred alternative is to provide a meandering sidewalk with landscaping along the curb as was allowed for the Local Motion Building. This also provides a landscape buffer between pedestrians and vehicles on Kalakaua Avenue. The meandering sidewalk concept is more consistent with the Waikiki Special District regulations relative to creating a more pleasant pedestrian experience and tropical landscape environment.

In order to implement the preferred alternative, the applicant hopes to defer the road widening improvements. This would be similar to what was granted for the Local Motion Building.

The project, as designed, conforms to the required yards, maximum permitted floor area, and open space requirement of the LUC. All projects subject to potential road widening must apply required yards from the road widening setback line. The proposed yard averaging takes this into account. If road widening improvements and adjustments to the Kalakaua Avenue right-of-way are required to implement the road widening, then the lot area (after road widening) must be used to calculate the open space requirement. As such the required open space will be slightly decreased due to the loss of approximately 1,200 square feet of land. Nonetheless, the project will still conform to the required open space because the project provides approximately 9,000 square feet of surplus open space.

If the road widening were implemented, the applicant would not propose any changes to the building as it would continue to conform to the requirements of the LUC. The building complies with the LUC as described above. However, there would be a loss to the proposed amount of landscaping that is proposed within the City right-of-way. This landscaping was not included in any open space or landscape calculation and is not needed to satisfy these requirements. The road widening improvement would be designed to the typical City standard (i.e. curbs, gutter, and large sidewalk adjacent to the curb). However, this solution is not as supportive of a tropical urban environment as the solution that is proposed. As such, the pedestrian experience would not be as enjoyable because the pedestrians would be walking next to a busy City street rather than a landscaped planter. Given Waikiki’s busy sidewalks, this not the safest pedestrian solution.
7. **PERMITS AND APPROVALS**

The following is a preliminary list of permits, approvals and reviews that are required prior to construction of the proposed project. The following is not an exhaustive list:

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<thead>
<tr>
<th>Permit</th>
<th>Responsible Agency</th>
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<td>Waikiki Special District</td>
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<td>Conditional Use Permit</td>
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<td>- Joint Development</td>
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<td>- Off-site Parking</td>
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<td>Grading Permit, Building Permit</td>
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8. CONSULTATION

8.1 Parties Consulted During the Pre-EA Consultation Period

The following agencies were contacted during the preparation of the Draft EA. Comment letters received during the pre-consultation process and response letters immediately follow.

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<tr>
<th>State of Hawaii</th>
<th>Pre-Consultation Notice</th>
<th>Pre-Consultation Comment Letter</th>
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<td>Department of Land and Natural Resources</td>
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8.2 Comments Received on the Draft ES

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<th>State of Hawaii</th>
<th>Comment Letter Received</th>
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<td>Department of Hawaiian Home Lands</td>
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March 24, 2008

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: LESTER K. C. CHANG, DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
AMERICAN COMMERCIAL EQUITIES THREE, LLC COMMERCIAL
DEVELOPMENT 2008/ed-2(sn)

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for American Commercial Equities Three, LLC’s commercial development in Waikiki.

The Department of Parks and Recreation has no comment and as the proposed development will not impact any program or facility of the department, you are invited to remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 768-3017.

[Signature]
LESTER K. C. CHANG
Director

LKCC:jr
(253353)
Mr. Lester K.C. Chang, Director  
Department of Parks and Recreation  
City and County of Honolulu  
1000 Uluniahi Street, Suite 309  
Kapolei, HI  96707

RE: Comments to the Draft Environmental Assessment  
Proposed “19944 Kalakaua Avenue, LLC” Commercial Project  
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058  
Kalakaua Avenue – Waikiki  
Honolulu, Hawaii

Dear Mr. Chang:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA).

We acknowledge that the Department of Parks and Recreation has no comment regarding this project per your March 24, 2008 response letter to the DEA.

Sincerely,

[Signature]
Patrick Seguirant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
March 27, 2008

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: BOISSE P. CORREA, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: WAIKIKI SPECIAL DISTRICT PERMIT (MAJOR)
CONDITIONAL USE PERMIT (MINOR)
DRAFT ENVIRONMENTAL ASSESSMENT FOR THE 1944 KALAKAUA
AVENUE LLC PROJECT
TAX MAP KEY: 2-6-14: 1, 4, 6, 7, 8, 19, AND 58

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

This project should have no significant impact on the facilities or operations of the Honolulu Police Department.

If there are any questions, please call Major Randal Macadangdang of District 6 at 529-3386 or Mr. Brandon Stone of the Executive Office at 529-3644.

BOISSE P. CORREA
Chief of Police

By
DEBORAH TANDAL
Assistant Chief of Police
Support Services Bureau
May 30, 2008

Ms. Debora A. Tandal, Assistant Chief of Police
Support Services Bureau, Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, HI 96813

RE: Comments to the Draft Environmental Assessment
Proposed "19944 Kalakaua Avenue, LLC" Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalakaua Avenue – Waikiki
Honolulu, Hawaii

Dear Ms. Tandal:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA).

We acknowledge that the Honolulu Police Department feels the project should have no significant impact on its facilities or operations per your March 27, 2008 response letter to the DEA.

Sincerely,

Patrick Seguirant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
TO: HENRY ENG, FAICP, DIRECTOR DEPARTMENT OF PLANNING AND PERMITTING

FROM: KEITH S. SHIDA, PROGRAM ADMINISTRATOR CUSTOMER CARE DIVISION

SUBJECT: YOUR LETTER DATED MARCH 11, 2008 REGARDING THE DRAFT ENVIRONMENTAL ASSESSMENT FOR 1944 KALAKAUA AVENUE

Thank you for the opportunity to comment on the proposed project.

The existing water system is presently adequate to accommodate the proposed development. However, please be advised that this information is based upon current data and, therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of your building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

The project is subject to Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the building permit.

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

The construction drawings should be submitted for our review and approval.

If you have any questions, please contact Robert Chun at 748-5440.
May 30, 2008

Mr. Keith S. Shida, Program Administrator  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, HI 96843

RE: Comments to the Draft Environmental Assessment  
Proposed "19944 Kalakaua Avenue, LLC" Commercial Project  
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058  
Kalakaua Avenue – Waikiki  
Honolulu, Hawaii

Dear Mr. Shida:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA). Responses are provided below in the order of your comments.

1. We acknowledge that the existing water system is presently adequate to accommodate the proposed development. The final decision on the availability of water will be confirmed at the time the building permit is submitted.

2. The applicant will pay the Water System Facilities Charges for resource development, transmission and daily storage.

3. The project will comply with the Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to issuance of the building permit.

4. The proposed facilities will be designed to comply with the on-site fire protection requirements of the Honolulu Fire Department.

Thank you for your review. Construction plans for the project will be submitted to the Board of Water Supply for your review and approval. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,  

[Signature]
[Patrick Seguirant, Architect]

cc: Mr. Marvin Lotz
April 1, 2008

Mr. Henry Eng, FAICP, Director
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Dear Mr. Eng:

Thank you for the opportunity to provide comments on the Draft Environmental Assessment report on the proposed “1944 Kalakaua Avenue LLC” project located in Waikiki, Oahu. The Department of Hawaiian Home Lands has no comments to offer.

Should you have any questions, please call the Planning Office at (808) 586-3836.

Aloha and mahalo,

Micah A. Kane, Chairman
Hawaiian Homes Commission
Mr. Micah A. Kane, Chairman  
Hawaiian Homes Commission  
State of Hawaii  
Department of Hawaiian Home Lands  
P.O. Box 1879  
Honolulu, HI 96805

RE: Comments to the Draft Environmental Assessment  
Proposed "19944 Kalakaua Avenue, LLC" Commercial Project  
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058  
Kalakaua Avenue – Waikiki  
Honolulu, Hawaii 

Dear Mr. Kane:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA).

We acknowledge that the Department of Hawaiian Home Lands does not have any comments to offer at the time of your review of the DEA per your April 1, 2008 letter.

Sincerely,

Patrick Seguirant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
April 4, 2008

Patrick Seguirant, Architect
91-1030 Kaihi Street
Ewa Beach, HI 96706

SUBJECT: 1944 Kalakaua Avenue LLC Project – Draft Environmental Assessment

Mr. Seguirant:

Thank you for including the Waikiki Neighborhood Board in the noticing and review process of the Draft Environmental Assessment for the 1944 Kalakaua development. We appreciate that an effort is being made to develop these very visible and currently underutilized parcels. Below are the Waikiki Neighborhood Board comments on the Draft EA.

Section 2.3.2
Expanded Parking Lot
In lieu of in addition to drywells and French drains and as permitted by the City, utilize permeable paving materials for the parking lot and walkways. This will reduce drainage flow to Waikiki’s overtaxed storm water system, reduce the heat island affect to the surrounding neighborhood and reduce your storm water infrastructure costs.

Section 2.3.2
Sidewalks
Waikiki has a ‘pedestrian first’ policy. Along with pedestrian mobility, biking and transit improvements are of paramount importance to the mobility of Waikiki residents, workers and visitors. Please ensure that all walkways are continuous and consistent in design with all adjoining properties, and that the development is consistent with HDOT’s Bike Plan Hawaii and the Honolulu Bicycle Master Plan.

While not necessarily required under current zoning, we request that you:

➢ Comply with LEED standards for bicycle facilities at new developments.

➢ Contact the Hawaii Bicycle League at (808) 735-5756, (e-mail: bicycle@hbl.org) for suggested best facility enhancements.
Section 3.4  
Waste Hazards  
Due to the discovery and handling of USTs at the 1958 (Local Motion) site as well as its former use as a service station, we have serious concerns about the environmental conditions and possible contaminants at the 1944 Kalakaua project site. We request:

➢ Confirmation that formal file/site closure has been granted to the 1958 Kalakaua site, by the Hawaii Department of Health.

➢ That a Phase I ESA be completed which encompasses parcels -004 and -019 which are contiguous to the Local Motion/service station parcel.

➢ Inclusion of both the Muranaka 2006 Phase I ESA (summary) and the Dames and Moore 1997 Phase II ESA (summary) as appendices in the final version of the Environmental Assessment.

Section 4.3.2  
Building Design  
Honolulu’s second floor signage ordinance is currently being amended. This could affect the signage for this development. Please remind the developer to work with the Waikiki Improvement Association and the Waikiki Neighborhood Board to ensure that the signage scheme is consistent with ordinances in affect at the building permit stage.

Finally, we encourage you to pursue LEED, or other industry green building certification, for the design and operation of your new building to minimize energy use, reduce operational costs, reduce waste and ensure sustainability.

Again, we appreciate the opportunity to review and comment on this draft Environment Assessment and we look forward to receiving notice of the final EA and the FONSI, as applicable.

Sincerely,

[Signature]

Jeff Merz, AICP  
LEED® AP

Waikiki Neighborhood Board - Development Review
May 30, 2008

Mr. Robert Finley, Chair
Waikiki Neighborhood Board
c/o Neighborhood Commission Office
530 South King Street, Room 406
Honolulu, HI 96813

Mr. Jeff Merz, AICP
Waikiki Neighborhood Board
2452 Tusitala Street
Honolulu, HI 96815

RE: Comments to the Draft Environmental Assessment
Proposed “19944 Kalākaua Avenue, LLC” Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalākaua Avenue – Waikiki
Honolulu, Hawaii

Dear Mr. Merz / Waikiki Neighborhood Board:

Thank you for reviewing the subject document. We are writing in response to your April 4, 2008 comment letter on the subject project. Our responses are provided in the order of your comments.

Section 2.3.2 – Expanded Parking Lot
We acknowledge your comments regarding use of permeable paving materials for the parking lot and walkways. The applicant will take your comments into consideration. The applicant will follow applicable rules and regulations regarding paving materials and storm water infrastructure and on-site improvements.

Section 2.3.2 – Sidewalks
a. The applicant wishes to have the walkway fronting Kalakaua Avenue, consistent with the sidewalk fronting Local Motion. This would create a consistent meandering minimum 9-foot wide sidewalk between Niu and Pau Streets. Any improvements along Niu and Pau Streets will be consistent with the existing sidewalks and the City and County standards. The applicant is not proposing any roadway improvements within the curb to curb areas of existing rights-of-way.
b. The Final EA will include a description of public transit, bicycle and pedestrian access to the project site. The Final EA will state that Kalakaua Avenue is designated as being a part of the regional pedestrian network as indicated in the Primary Center Urban Development Plan Land Use Map for PUC-East. The Final EA will discuss the existing and proposed bicycle facilities indicated in the Bicycle Master Plan (April 1999) and Bike Plan Hawaii 2003.

c. We acknowledge your comments requesting that the applicant comply with LEED standards for bicycle facilities at the proposed project. The applicant is willing to provide bike and moped parking areas with secure bike racks. However, since the applicant will design the building with interior spaces to be completed by individual tenants, they do not intend to provide interior locker or shower facilities.

d. The applicant will contact the Hawaii Bicycle League at (808) 735-5756 for suggested enhancements to the facilities the applicant intends to provide.

Section 3.4 Waste Hazards
a. A formal file/site closure was granted to the 1958 Kalakaua Avenue site by the Hawaii Department of Health (DOH) on October 29, 1997. A copy of the DOH letter will be included in the Final EA.

b. At this time, there is no regulatory trigger or requirement that a Phase 1 Environmental Site Assessment (ESA) be expanded or conducted to include TMK (1) 2-6-014: 004 or 019. If any contaminants are discovered during ground disturbing activities, the applicant will comply with the applicable regulatory procedures and notifications.

c. A summary from the Muranaka 2006 Phase I ESA and the Dames and Moore 1997 Phase II ESA will be included as appendices in the Final EA.

Section 4.3.2 Building Design
a. We acknowledge your comment regarding second floor signage. As you know, second floor signage is currently permitted within the Waikiki Special District. However in a follow up discussion with the Department of Planning and Permitting (DPP), the DPP revealed they are not currently considering or proposing any amendments to the sign ordinance. Therefore, the applicant will comply with the applicable sign ordinance that is being enforced at the time sign permit applications are being made.

b. We acknowledge your comments regarding LEED and other industry green building initiatives regarding the design and operation of the proposed project. While the applicant does not intend to seek LEED Certification for reasons already mentioned above, the applicant, architect, and engineers will consider building systems and materials, as well as, management practices that will minimize energy use, reduce operational costs, and reduce waste.
Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

Patrick Segurant
Patrick Segurant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
MEMORANDUM

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: EUGENE C. LEE, P.E., DIRECTOR

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
1944 KALAKAUA AVENUE
TMK: 2-6-14: 1,4,6,7,8,19 AND 58

April 9, 2008

Thank you for giving us the opportunity to comment on the above Draft Environmental Assessment.

The Department of Design and Construction has the following comments:

- Page 28, Potential Impacts and Mitigative Measures – The “BMP Manual for Construction Sites in Honolulu” should also be consulted to control runoff from the site during site preparation and construction.

- As a “Waikiki gateway”, the subject project will be visually compatible with the City’s King Kalakaua Park at the convergence of Kalakaua Avenue and Kuhio Avenue, as well as its neighboring Waikiki properties.

Should you have any questions, please contact Marvin Char, Chief of our Civil Division, at 768-8836.

ECL:It (253462)

C: DDC Civil Division
    DDC Facilities Division
Mr. Eugene C. Lee, P.E., Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, HI 96813

RE: Comments to the Draft Environmental Assessment
Proposed "19944 Kalakaua Avenue, LLC" Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalakaua Avenue – Waikiki
Honolulu, Hawaii

Dear Mr. Lee:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA). Responses are provided below in the order of your comments.

1. Best Management Practices will be incorporated into the construction documents and construction process to control runoff from the site during site preparation and construction.

2. We acknowledge that the Department of Design and Construction feels the project will be visually compatible with the City’s King Kalakaua Park and neighboring properties.

Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

[Signature]

Patrick Segurant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
April 11, 2008

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: KENNETH G. SILVA, FIRE CHIEF

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
PROJECT: 1944 KALAKAUA AVENUE
LOCATION: 1944, 1950, AND 1958 KALAKAUA AVENUE
413, 421, AND 425 NIU STREET
420 PAU STREET
TAX MAP KEYS: 2-6-014: 001, 004, 006, 007, 008, 019, AND 058

In response to your letter of March 11, 2008, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) reviewed the materials provided and requires that the following be complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from fire apparatus access as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1.)

2. Provide a water supply, approved by the county, capable of supplying the required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.

On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the
exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2, as amended.)

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

Should you have any questions, please call Battalion Chief Socrates Bratakos of our Fire Prevention Bureau at 723-7151.

KENNETH G. SILVA
Fire Chief

KGS/SK: bh
May 30, 2008

Mr. Kenneth G. Silva, Fire Chief
Honolulu Fire Department
City and County of Honolulu
636 South King Street
Honolulu, HI 96813

RE: Comments to the Draft Environmental Assessment
Proposed “19944 Kalakaua Avenue, LLC” Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalakaua Avenue – Waikiki
Honolulu, Hawaii

Dear Mr. Silva:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA). Responses are provided below in the order of your comments.

1. The project is bounded by Niu and Pau Street, and Kalakaua Avenue. There are existing fire hydrants fronting the proposed project within Niu Streets and Kalakaua Avenue. As such, we believe the existing streets and the coverage provided by the existing fire hydrants conform to the 1997 Uniform Fire Code, as amended.

2. Existing hydrants are located within Niu Street and Kalakaua Avenue, such that the existing and proposed facilities will not exceed 150 feet from the nearest existing water supply and/or fire apparatus access road. As such, we believe the existing streets and the coverage provided by the existing fire hydrants conform to the 1997 Uniform Fire Code, as amended.

3. Construction plans and civil drawings for the project will be submitted to the Honolulu Fire Department for your review and approval.

Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

Patrick Segurant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
MEMORANDUM

TO: HENRY ENG, FAICP, DIRECTOR
    DEPARTMENT OF PLANNING AND PERMITTING

FROM: CRAIG I. NISHIMURA, P.E.
      DIRECTOR AND CHIEF ENGINEER
      DEPARTMENT OF FACILITY MAINTENANCE

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
         1944 KALAKAUA AVENUE

April 18, 2008

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) dated February 2008 for the proposed 1944 Kalakaua Avenue LLC Project.

The majority of the proposed improvements will probably be located within privately-owned property and will have negligible impact on our facilities and operations. Any associated improvements within adjacent City roadway right-of-ways should be constructed in accordance with City and County of Honolulu Standard Details.

Returned for your use is the DEA document.

Should you have any questions, please call Charles Pignataro of the Division of Road Maintenance, at 768-3697.

Attachment
May 30, 2008

Mr. Craig Nishimura, P.E., Director and Chief Engineer
City and County of Honolulu
Department of Facility Maintenance
1000 Uluohia Street, Suite 215
Kapolei, HI 96707

RE: Comments to the Draft Environmental Assessment
   Proposed “1944 Kalakaua Avenue, LLC” Commercial Project
   TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
   Kalakaua Avenue – Waikiki
   Honolulu, Hawaii

Dear Mr. Nishimura:

Thank you for your April 18, 2008 letter containing comments on the subject project as part of the Draft Environmental Assessment (EA) comment period.

We acknowledge that the majority of improvements will be located within private property. However, landscape and sidewalk improvements are proposed within the public right-of-way. Within Niu Street, abandoned driveways will be demolished and the sidewalk area restored. A new driveway will be constructed in accordance with City standards. Construction of the new driveway may require relocation of an existing fire hydrant and/or street light. Within Kalakaua Avenue, landscape and sidewalk improvements are proposed to match the design established for the Local Motion building. Along this frontage, the building owner will maintain the sidewalk and landscape improvements.

Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

[Signature]

Patrick Seguirant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
April 25, 2008

Department of Planning and Permitting
City & County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Attention: Mr. Henry Eng, FAICP, Director

Dear Mr. Eng:

SUBJECT: 1944 Kalakaua Avenue – Draft of Environmental Assessment
American Commercial Equities Three, LLC
TMK: (1) 2-6-014: 1, 4, 6, 7, 8, 19 and 58

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, the DLNR has no comments to offer on the subject matter. If you have any questions, please feel free to call my office at 587-0433. Thank you.

Sincerely,

Morris M. Atta
Acting Administrator
May 30, 2008

Mr. Morris M. Atta, Acting Administrator
Land Division, State of Hawaii
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

RE: Comments to the Draft Environmental Assessment
Proposed “19944 Kalakaua Avenue, LLC” Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalakaua Avenue – Waikiki
Honolulu, Hawaii

Dear Mr. Atta:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA).

We acknowledge that the Department of Land and Natural Resources does not have any comments to offer at the time of your review of the DEA per your April 25, 2008 letter.

Sincerely,

Patrick Seguirant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
April 25, 2008

Mr. Henry Eng, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Dear Mr. Eng:

SUBJECT: Draft Environmental Assessment for the 1944 Kalakaua Avenue LLC Project, Waikiki, Oahu, Hawaii
TMK: (1) 2-6-014: 001, 004, 006, 007, 008, 019 and 058

Thank you for allowing us to review and comment on the subject application. The application was routed to the various branches of the Environmental Health Administration. We have the following Clean Air Branch and General comments.

Clean Air Branch

Control of Fugitive Dust

Fugitive dust emissions occur during all phases of construction and operations. Activities close to existing residences, businesses, public areas or thoroughfares can cause dust problems. For cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential nuisance problems. We recommend that the contractors operate under a dust control management plan. The plan does not require the Department of Health approval, however it will help with identifying and minimizing the dust problems from the proposed project.

Examples of measures that can be included in the dust control plan are:

a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;

b) Providing an adequate water resource at the site prior to start-up of construction activities;
May 30, 2008

Mr. Kelvin H. Sunada, Manager
Environmental Planning Office, State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, HI 96801-3378

RE: Comments to the Draft Environmental Assessment
Proposed “19944 Kalakaua Avenue, LLC” Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalakaua Avenue – Waikiki
Honolulu, Hawaii

Dear Mr. Sunada:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA). Responses are provided below in the order of your comments.

1. All construction activities will comply with the provisions of Hawaii Administrative Rules, Section 11-60.1-33, as it relates to Fugitive Dust. In addition, the contractor will develop a Fugitive Dust Control Plan in accordance with the items you suggest in your April 25, 2008 comment letter.

2. The proposed project does not include renovation/demolition activities that involve any known materials containing asbestos.

3. We acknowledge the location and availability of the Standard Comments on your website, and the applicant will adhere to those comments applicable to the project.

Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

[Signature]

Patrick Segurant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
April 30, 2008

MEMORANDUM

TO: HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: WAYNE Y. YOSHIOKA, DIRECTOR

SUBJECT: 1944 KALAKAUA AVENUE

Thank you for your March 11, 2008, letter requesting our review of and comments on the draft environmental assessment for the subject project.

We have the following comments on the document:

1. The three off-street loading stalls should be located in order to deter off-site loading/unloading activities. We are concerned that the location of the loading stalls near Pau Street may lead to loading/unloading activities for the new building occurring on Niu Street.

2. Both Section 3.15 Traffic Assessment (Page 46) and the Traffic Impact Assessment Report (Appendix H) include a description of Pau Street as a “two-lane one-way northbound street.” Pau Street is one lane.

Should you have any questions regarding these comments, please contact Ms. Faith Miyamoto at 768-8350.

WAYNE Y. YOSHIOKA
Director
Mr. Wayne Yoshioka, Director  
City and County of Honolulu  
Department of Transportation Services  
650 South King Street, 3rd Floor  
Honolulu, HI 96813

RE: Comments to the Draft Environmental Assessment  
Proposed "19944 Kalakaua Avenue, LLC" Commercial Project  
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058  
Kalakaua Avenue – Waikiki  
Honolulu, Hawaii

Dear Mr. Yoshioka:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA). Responses are provided below in the order of your comments.

1. The 3 loading spaces shown on the site plan are intended to serve both buildings as all parcels will be jointly developed. A Conditional Use Permit for Joint Development was approved by the Department of Planning and Permitting for this purpose. Nonetheless, we acknowledge your concern over the location of loading spaces near Pau Street and will seek alternative locations for the loading spaces more central to both buildings. Further, loading and unloading facilities will be designed to accommodate all maneuvering activities completely on site.

2. We acknowledge the incorrect references to Pau Street as being a two-lane one-way northbound street. The correct reference to Pau Street as being a one-lane one-way northbound street will be made in the Final Environmental Assessment.

Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

Patrick Seguirant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
May 1, 2008

Mr. Henry Eng
Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Eng:

Subject: American Commercial Equities Three, LLC
1944 Kalakaua Avenue LLC Project
Draft Environmental Assessment (DEA)
TMK: 2-6-14: 1, 4, 6, 7, 8, 19 and 58

Thank you for requesting the State Department of Transportation's (DOT) review of the subject commercial building project.

The DOT appreciates your agency's cooperation as well as any assistance that may have been provided for the traffic mitigation measures associated with the developments currently being undertaken in the area.

The DOT anticipates no significant impact to Ala Moana Boulevard from the subject commercial project alone, but asks that the appropriate City & County staff involved with traffic issues continue to meet with and discuss the traffic impacts from all developments in the affected area with the DOT Highways Division Planning and/or Traffic branches to review and plan improvements for Ala Moana Boulevard.

The DOT appreciates the opportunity to provide comments.

Very truly yours,

Francis Paul Keeno

for BRENNON T. MORIOKA, PH.D., P.E.
Director of Transportation
May 30, 2008

Mr. Brennon T. Morioka, PH.D., P.E.
Director of Transportation, State of Hawaii
Department of Transportation Services
869 Punchbowl Street
Honolulu, HI 96813-5097

RE: Comments to the Draft Environmental Assessment
Proposed "19944 Kalakaua Avenue, LLC" Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalakaua Avenue - Waikiki
Honolulu, Hawaii

Dear Mr. Morioka:

   We acknowledge that the State Department of Transportation Services has no comment regarding this project per your May 1, 2008 response letter to the Draft Environmental Assessment.

   Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

[Signature]
Pat B. Segurant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
May 1, 2008

Mr. Patrick Seguirant
91-1030 Kaihi Street
Ewa Beach, Hawaii 96706

Dear Mr. Seguirant:

Subject: Chapter 343, HRS, Draft Environmental Assessment (DEA)
1944 Kalakaua Avenue Project
American Commercial Equities Three, LLC
1944 and 1958 Kalakaua Avenue, 420 Pau Street and 421
and 425 Niu Street - Waikiki
Tax Map Key 2-6-14: 1, 4, 6, 7, 8, 19 and 58

Transmitted for your response and incorporation into the Final Environmental Assessment (FEA)
are comments on the DEA received, thus far, by the Department of Planning and Permitting
(DPP). In accordance with the procedural provisions of Chapter 343, Hawaii Revised Statutes,
you must respond, in writing, to these and any other comments that were submitted during the
30-day comment period (which began with the publication of a notice of availability of the Draft
EA in The Environmental Notice on March 23, 2008). The Final EA must include these
comments and responses, as well as the revised text, where needed.

The following are the DPP comments on the Draft EA.

1. **Project Details.** Revise the DEA, including the plans, to address the following:

   a. Identify TMK 2-6-14: 61. Our records indicate that this parcel, which is located
      along Kalakaua Avenue, between Parcels 1 and 4, is owned by the City. Clarify
      whether the applicant has the City’s permission to pave and/or landscape this
      parcel.

   b. Identify the pedestrian easement on Parcel 1.

   c. The proposed public sidewalk must be a minimum 9 feet wide to match the
      sidewalk width fronting the Local Motion building.

   d. Provide additional justification for the applicant’s request to provide one (1) large
      loading space and two (2) smaller loading spaces instead of the required two (2)
      large loading spaces and one (1) smaller loading space. How will use of the
      larger loading be coordinated among the various users?
e. The loading spaces must be provided as close to the buildings as possible.

2. **Parking.** Provide specific details on how the required parking for the Local Motion building will continue to be provided during construction of the proposed improvements, if this the case.

3. **Drainage, Storm Water Quality and Encroachments.** Revise the DEA to address the following:
   
a. A Drainage Appendix was not provided. If deemed unnecessary, then discuss the existing surface water conditions and the impact that the proposed improvements will have on the adjacent properties and the existing drainage infrastructure. Confirm that injection wells were proposed or are necessary to mitigate the possible increase in the surface runoff.
   
b. Permanent post-construction BMPs are required upstream of the drain connection to the City system.
   
c. Grade adjustment elevating the sidewalk above the two-percent (2%) projected rise from the curb may not be allowed.
   
d. Mounding within the landscaped area in the City right-of-way is not allowed.
   
e. Authorization from the DPP is required prior to the installation of all surface encroachments, including landscaping, irrigation system, lighting, hardscape, and decorative features.

4. **Flood Hazard District.** Documentation of compliance with Section 9.10 of the LWO will be required as part of the application for the Special District Major Permit, including Section 9.10-10.

5. **Wastewater.** Address the condition of the approved Sewer Connection Application (No. 2007/SCA-0662) that sewage flow does not exceed 6,400 gallons per day and that the owner/developer acknowledges this flow limitation by letter. The letter is a requirement for sewer connection and the DPP has yet to receive it.

6. **Historic, Cultural, and Archaeological Resources.**
   
a. The final cultural impact assessment report, along with the final results of the community consultations, must be provided in the FEA.
   
b. Obtain and address any comments from the State Historic Preservation Division (SHPD). The DPP transmitted the DEA to the SHPD but has yet to receive its comments.
7. **Traffic.**
   
   a. The need to widen Kalakaua Avenue and the implementation of Ord. 2412, as revised, or provisions for a deferral agreement must be addressed prior to the issuance of a building permit for the project.
   
   b. Driveway grades, widths, location and provisions for adequate vehicular sight distanced should be designed in accordance with current City design standards and practices.
   
   c. The Final EA must include an analysis of weekend peak-hour traffic.
   
   d. Construction plans and a management plan should be submitted for review.

8. **Air Quality.** Expand the discussion on air quality impacts to address potential impacts from the mechanical equipment, such as the kitchen exhaust.

9. **Primary Urban Center Development Plan (PUC DP).** The proposed action is consistent with the key element in the PUC DP vision which emphasizes the importance of Honolulu as the Pacific's leading city and travel destination. The vision states that with ongoing redevelopment and improvement, Waikiki will remain the State's largest and most popular visitor destination. Expand the discussion of the PUC DP in the FEA to include:
   
   a. The project's consistency with the policies pertaining to neighborhood planning (Section 3.2.2.1 of the PUC DP), specifically with respect to promoting mixed land uses and making streets "pedestrian friendly."
   
   b. The project's consistency with the policy pertaining to building design and streetscape environment (Section 3.2.2.3 of the PUC DP).
   
   c. Description of public transit, bicycle, and pedestrian access to the project site. The latter is particularly important since improving the pedestrian walking experience is a key component of creating a more "livable" Waikiki. The FEA should mention that Kalakaua Avenue is designated as being part of the regional pedestrian network (see PUC DP Land Use Map, PUC-East). There should also be a discussion of existing and proposed bicycle facilities, refer to the Honolulu Bicycle Master Plan (April 1999) and Bike Plan Hawaii 2003. A discussion of impacts and mitigation measures, if needed, should also be included.

10. **Land Use Ordinance (LUO) – Waikiki Special District.** Revise the DEA to address how the project will promote the design guidelines of the special district relating to the provision for a pedestrian-oriented experience and as a "gateway" to Waikiki.

11. **Alternatives.** Expand the discussion on the alternative which implements the road widening along Kalakaua Avenue. If the road widening is required, then explain how the
Mr. Patrick Seguirant  
May 1, 2008  
Page 4

proposed project will comply with the applicable LUCO standards such as the required yards, open space and other Waikiki Special District requirements.

12. **Other Comments.** Clarify whether the applicant presented the project to the neighborhood board or other community organizations in the area. If so, describe all issues or concerns which were raised and the measures, if any, taken to mitigate such issues or concerns.

Should you have any questions, please contact Sharon Nishiura of our staff at 768-8031.

Very truly yours,

Henry Eng, FAICP, Director  
Department of Planning and Permitting

HE:pl  
Enclosures

Doc. 811013
Mr. Henry Eng, FAICP, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

RE: Comments to the Draft Environmental Assessment
Proposed “1944 Kalākaua Avenue, LLC” Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalākaua Avenue - Waikiki
Honolulu, Hawaii

Dear Mr. Eng:

Thank you for reviewing the subject document. We are writing in response to your May 1, 2008 comment letter on the subject project. Our responses are provided in the order of your comments.

1. Project Details
   a. We acknowledge that TMK 2-6-14: 61 is owned by the City. We did not seek permission to pave over this lot as it is currently paved. We believe this was done as part of the sidewalk improvements for the Local Motion Building. We are including an Alta Survey for this site in the Appendices of the Final Environmental Assessment (FEA).

   b. The pedestrian easement on Parcel 1 will be identified in the Alta Survey for this portion of the site in the Appendices of the FEA.

   c. The proposed public sidewalk will be a minimum nine (9) feet wide in order to match the existing sidewalk that fronts the Local Motion building.

   d. The actual number of loading spaces required is dependent upon the floor area of the individual uses ultimately proposed. It is possible for one or more tenants to be office type uses. If this occurs, the required loading may change from (3) three to (2) two spaces. Therefore, it is somewhat premature to finalize the actual loading, but we would like to plan for the scenario which demands the greatest number of loading spaces.
Nonetheless, if all uses fall within Category A, as described in the LDUO, (3) three loading spaces may be required. As part of the Local Motion Building's permit approval, a 10 foot by 20 foot loading space was allowed. We wish to maintain this approval for one of the required loading spaces. Of the two remaining loading spaces required, one large and one small space would be normally required. This is what the project intends to provide in this scenario. Two large loading spaces would not be necessary for a small project of this size as loading times can be either scheduled to minimize conflicts and/or loading deliveries from the same vendor would be shared.

e. Alternate locations for the required loading spaces will be considered that will place the spaces in a more central location to both buildings. We believe this will address the concerns of both the DPP and the DTS.

2. Parking
The Local Motion Building is required to provide 6 parking spaces and (1) one 10’x20’ loading space. Temporary parking and loading spaces will be provided within the project site to accommodate this requirement. Construction of the parking area will be phased to allow for this parking and loading.

3. Drainage, Storm Water Quality and Encroachments
The FEA will be revised to address the following:

a. Injection wells are not proposed nor are they necessary to mitigate the possible increase in the surface runoff. While a detailed drainage study has not yet been performed, effective storm water management could be achieved through the use of percolation areas, drywells, and the municipal storm drain system.

The majority of the site is undeveloped. Therefore, surface water that does not percolate into the ground flows into the adjoining rights-of-way. The nearest municipal storm drain connection is in the Kalakaua Avenue and Niu Street intersection. There have been no reports or observance of surface runoff issues onto adjacent apartment properties.

Increase in surface water runoff onto adjoining properties is not allowed. To manage this in the parking area, water will be directed to planting areas, French drains and drywells. Similarly, water from building roof tops will be directed via a gutter system into adjoining planting areas. Where there are no planting areas to direct water to, the water will be piped below grade into a drain system. Drywells will be used as much as possible to minimize use of the municipal storm drain system.
b. We acknowledge that permanent post-construction BMPs are required upstream of the drain connection into the City system. This will be incorporated into the construction plans of the project.

c. The project will maintain a low slope grade in the planting area between the curb and sidewalk. We will work with the DPP Urban Design Branch and Site Development Division to develop a satisfactory solution that will not create a steep grade within this planting area but will allow for the project to comply with the flood hazard district requirements.

d. Mounding of the grade within the City right-of-way will not be proposed.

e. A Surface Encroachment Variance will be sought to allow the privately owned and maintained project elements within the City right-of-way. These elements could include, but are not limited to, landscaping, irrigation, lighting, seating, hardscape and other decorative features.

4. Flood Hazard District
We acknowledge that documentation of compliance with Section 9.10 of the Land Use Ordinance (LPU) will be required at the time the Special District Major Permit application is submitted. A Flood Hazard District Certification will be submitted as part of this application.

5. Wastewater
The applicant acknowledges that a condition of the approved Sewer Connection Application (No. 2007/SCA-0662) is that sewage flow will not exceed 6,400 gallons per day. A letter from the owner/developer acknowledging this will be included in the FEA. We acknowledge that the letter is a requirement for sewer connection.

6. Historic, Cultural, and Archaeological Resources
a. The Final Cultural Impact Assessment report has been completed, including the final results of community consultations. The report will be included in the FEA.

b. Comments from the State Historic Preservation Division, as well as, our response to them will be included in the FEA.

7. Traffic
a. The applicant wishes to seek a deferral agreement to the implementation of road-widening improvements. If the proposed alternate Kalakaua Avenue right-of-way improvements are allowed as part of the Special District permit approval, the applicant will submit the necessary forms to execute a deferral agreement prior to application of the building permit.

b. We acknowledge and concur that driveway grades, widths, location and provision s for adequate vehicular sight distances should be designed in accordance with current City design standards and practices and that these will apply to the subject project.
c. The traffic study is being revised to include weekend peak-hour traffic. The FEA will include an analysis of weekend peak-hour traffic.

d. Construction plans and a management plan will be submitted for review and the appropriate and required times in the on-going permitting process.

8. Air Quality
The FEA will have an expanded discussion on air quality impacts and the potential impacts from mechanical equipment, such as kitchen exhaust.

9. Primary Urban Center Development Plan (PUC DP)
The discussion of the PUC DP in the FEA will include:

   a. The project is consistent with the policies pertaining to neighborhood planning (Section 3.2.2.1 of the PUC DP), specifically with respect to promoting mixed land uses and making streets "pedestrian friendly".

   b. The project is consistent with the policy pertaining to building design and streetscape environment (Section 3.2.2.3. of the PUC DP).

   c. The FEA will include a description of public transit, bicycle and pedestrian access to the project site.

   The FEA will state that Kalakaua Avenue is designated as being a part of the regional pedestrian network as indicated in the PUC DP Land Use Map for PUC-East.

   The FEA will discuss the existing and proposed bicycle facilities indicated in the Bicycle Master Plan (April 1999) and Bike Plan Hawaii 2003.

10. Land Use Ordinance (LUO)
The FEA will address how the project will promote the design guidelines of the Waikiki Special District (WSD) relating to the provision for a pedestrian-oriented experience and as a “gateway” to Waikiki. Below is a discussion of how the project promotes the WSD that will be incorporated into the FEA.

There are several elements within the project that promote the objectives of the WSD relative to a pedestrian oriented experience. These are a) continuation of the landscaped right-of-way fronting the Local Motion Building, b) yard averaging, and c) building design.

The proposed meandering sidewalk and right-of-way landscaping offer a more informal relaxed pedestrian experience because the pedestrian would be shelter by landscaping on both sides of the walking path. It is also less regimented and monotonous than a standard City sidewalk. As such, City planners have promoted this sidewalk as the preferred urban pedestrian experience. Projects, such as the Kalakaua Avenue widening improvement, Kuhio Beach Improvements, 2100 Kalakaua Avenue, Nike Town, Royal Hawaiian Shopping Center, Outrigger Beachwalk, and Hilton Hawaiian
Village (to mention a few), have all utilized this solution and have been approved by the City. This solution provides the greatest amount of open space next the curb and the pedestrian. It is consistent with the concept promoted in the Urban Design Controls for Major Streets.

Yard averaging is also proposed. The averaging of the yard promotes building articulation and varied building frontage. It creates pockets of landscaping and areas available for outdoor dining and vending, rather than a straight building storefront. It is consistent with the WSD regulations for yard averaging.

The building is designed with a tower element at the corner of Kalakaua Avenue and Niu Street. The tower design announces and celebrates the visitor’s arrival to Waikiki as it is located at a key juncture of Kalakaua Avenue, Ala Moana Boulevard and Niu Street. As Niu Street is often used as the main exit from Waikiki to the airport, it could also be a sign of aloha as one leaves the islands to return home. An architectural element here, in conjunction with landscaping, is a fitting way to celebrate this key gateway location in Waikiki. Also, the ground floor is being devoted to glass storefront and display windows. These display windows create interest for the pedestrian and allows them to interact to activities occurring inside.

11. Alternatives
The Final EA will have an expanded discussion on the alternative which implements the road widening along Kalakaua Avenue. Below is a discussion of how the proposed project will comply with the applicable LVO standard that will be incorporated into the Final EA.

The project, as designed, conforms to the required yards, maximum permitted floor area, and open space requirement of the LVO. All projects subject to potential road widening must apply required yards from the road widening setback line. The proposed yard averaging takes this into account. If road widening improvements and adjustments to the Kalakaua Avenue right-of-way are required to implement the road widening, then the lot area (after road widening) must be used to calculate the open space requirement. As such the required open space will be slightly decreased due to the loss of approximately 1,200 square feet of land. Nonetheless, the project will still conform to the required open space because the project provides approximately 9,000 square feet of surplus open space.

If the road widening were implemented, the applicant would not propose any changes to the building as it would continue to conform to the requirements of the LVO. The building complies with the LVO as described above. However, there would be a loss to the proposed amount of landscaping that is proposed within the City right-of-way. This landscaping was not included in any open space or landscape calculation and is not needed to satisfy these requirements. The road widening improvement would be designed to the typical City standard (i.e. curbs, gutter, and large sidewalk adjacent to the curb). However, this solution is not as supportive of a tropical urban environment as the solution that is proposed. As such, the pedestrian experience would not be as enjoyable because the pedestrians would be walking next to a busy City street rather than a landscaped planter. Given Waikiki’s busy sidewalks, this not the safest pedestrian solution.
12. Other Comments
The project was presented to the Waikiki Neighborhood Board on Tuesday, May 13, 2008. The Final EA will contain the issues and concerns raised at the meeting and measures to mitigate such issues and concerns.

Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

[Signature]

Patrick Seguirant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
May 2, 2008

Henry Eng, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, HI 96813

RE: Request for comments on the Draft Environmental Assessment of the 1944 Kalākaua Project, TMKs: (1) 2-6-14: 1, 4, 6, 7, 8, 19 and 58.

Aloha e Henry Eng,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned request, dated March 11, 2008. American Commercial Equities Three, LLC, is proposing to develop a new two-story, 14,300 square foot commercial building on the corner of Kalākaua Avenuc and Niu Street. Located near the existing Local Motion commercial building, the 1944 Kalākaua Project will serve as an "architectural gateway feature" to Waikīkī. OHA has reviewed the project and offers the following comments.

We will rely on the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

In addition, OHA recommends that the applicant use native vegetation in its landscaping plan for subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place.
May 30, 2008

Mr. Clyde W. Nāmu’o, Administrator
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, HI 96813

RE: Comments to the Draft Environmental Assessment
Proposed “19944 Kalākaua Avenue, LLC” Commercial Project
TMKs: (1) 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalākaua Avenue – Waikiki
Honolulu, Hawaii

Dear Mr. Nāmu’o:

Thank you for taking the time to review the proposed project during the formal comment period of the Draft Environmental Assessment (DEA). Responses are provided below in the order of your comments.

1. Pursuant to State law, should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted.

2. The use of native vegetation will be incorporated into the project’s landscaping. We agree that use of native plants furthers the traditional Hawaiian concept of mālama ‘āina, creates a more Hawaiian sense of place, and is consistent with the objectives of the Waikiki Special District.

Thank you for your review. A copy of your comment letter and this response will be incorporated into the Final Environmental assessment.

Sincerely,

[Signature]
Patrick Seguirant, Architect

cc: Mr. Marvin Lotz, President, American Commercial Equities
Appendix A
### MINOR PERMIT: CONDITIONAL USE PERMIT - JOINT DEVELOPMENT

<table>
<thead>
<tr>
<th>File Number:</th>
<th>2007/CUP-106</th>
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<tr>
<td>Applicant:</td>
<td>American Commercial Equities Three, LLC</td>
</tr>
</tbody>
</table>
| Landowner:         | Nihonkai Lease Company, Ltd (Parcels 4, 6, 7, 8, 19 and 58)  
                     | 1958 Kalakaua Avenue, LLC (Parcel 1) |
| Location:          | 1944, 1950 and 1958 Kalakaua Avenue; 413, 421 and 425 Niu Street; 420 Pau Street |
| Tax Map Keys:      | 2-6-14: 1, 4, 6, 7, 8, 19 and 58 |
| Zoning:            | Apartment Precinct and Resort Commercial Precinct |
| Date Received:     | September 18, 2007 |
| Date Accepted:     | October 2, 2007 |

This Conditional Use Permit (Minor) application for joint development is **APPROVED**, subject to the following conditions:

1. Prior to submittal of a building permit application, the applicant shall:
   
a. Submit a **certified** copy of the deed transferring fee ownership of Parcels 4, 6, 7, 8, 19 and 58 to American Commercial Equities Three, LLC;
   
b. Submit a revised and executed joint development agreement for review and approval by the Director of Planning and Permitting. See attached marked-up copy. The submitted agreement shall include exhibits describing the lots to be jointly developed as they are recorded with the Bureau of Conveyances and/or Land Court of the State of Hawaii; and
   
c. File the approved agreement with the Bureau of Conveyances and/or Assistant Registrar of the Land Court of the State of Hawaii, as appropriate. Proof of such filing shall be in the form of a copy **certified** by the appropriate agency and shall be submitted to the Department of Planning and Permitting.

*(NOTE: DO NOT RECORD THE JOINT DEVELOPMENT AGREEMENT PRIOR TO REVIEW AND APPROVAL BY THE DIRECTOR OF PLANNING AND PERMITTING.)*
2. All lots or parcels identified in the approved joint development agreement shall be considered to be one (1) zoning lot.

3. This application has only been reviewed and approved pursuant to the provisions of Section 21-5.380, and development shall comply with all other provisions of the Land Use Ordinance.

4. Approval of this Conditional Use Permit shall not be construed as approval of any building/sign permit application; such applications are reviewed separately and shall comply with applicable codes and regulations.

5. This approval may be revoked by the Director of Planning and Permitting when there is a breach of any of the conditions stated above; provided that, for good cause, the Director may amend the above conditions.

The joint development of the multiple subdivision lots, identified as Parcels 1, 4, 6, 7, 8, 19 and 58, is necessary to permit the applicant to develop a commercial building over the lots. The proposed joint development is permitted as a conditional use in the Apartment Precinct and Resort Commercial Precinct with an approved Conditional Use Permit (Minor), and will be required to conform to the requirements of the Land Use Ordinance. The site is suitable for the proposed joint development considering size, shape, location, topography, infrastructure, and natural features, and will result in more efficient use of the land. The proposed joint development will not alter the character of the surrounding area in a manner substantially limiting, impairing or precluding the use of surrounding properties for the principal uses permitted in the underlying zoning district. And, by facilitating orderly development of the site in accordance with adopted land use policies, the joint development, at its proposed location, provides a service or facility which will contribute to the general welfare of the community-at-large and the surrounding neighborhood.

Any party (to the case) wishing to appeal the Director's action must submit a written petition to the Zoning Board of Appeals (ZBA) within 30 calendar days from the date of mailing or personal service of the Director's written decision (Zoning Board of Appeals Rules Relating to Procedure for Appeals, Rule 22-2, Mandatory Appeal Filing Deadline). Essentially, the Zoning Board of Appeals' rules require that a petitioner show that the Director based his action on an erroneous finding of a material fact and/or that the Director acted in an arbitrary or capricious manner, or manifestly abused his discretion. Generally, the ZBA can only consider the evidence previously presented to the Director of Planning and Permitting. The filing fee for appeals to the ZBA is $200 (payable to the City and County of Honolulu).
Failure to comply with ZBA Rules Chapter 22, Procedure for Appeals, may result in the dismissal of the appeal. Copies of the ZBA rules are available at the Department of Planning and Permitting. Appeals should be addressed to:

Zoning Board of Appeals  
c/o Department of Planning and Permitting  
650 South King Street  
Honolulu, Hawaii 96813

Should you have any questions, please contact Sharon Nishiura of our staff at 768-8031.

Attachment

Doc. 580188

THIS COPY, WHEN SIGNED BELOW, IS NOTIFICATION OF THE ACTION TAKEN.

Anthony X. Chun  
Director  
November 15, 2007

The above approval does not constitute approval of any other required permits, such as building or sign permits.
Appendix B
Appendix C
# Sewer Connection Application

**Application No.:** 2007/SCA-0662  
**Status:** Approved with conditions  
**Date Received:** 09/25/2007  
**Project Name:** 1944 Kalakaua Avenue Development / Commercial  
Retail/Restaurant

<table>
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<th>Location</th>
<th>Zone</th>
<th>Section</th>
<th>Plat</th>
<th>Parcel</th>
<th>Description</th>
<th>Area</th>
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<td>2 6 014 001</td>
<td>1950 Kalakaua Ave</td>
<td>18,861 Sq. Ft.</td>
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<td>2 6 014 004</td>
<td>1944 Kalakaua Ave</td>
<td>7,510 Sq. Ft.</td>
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<td>2 6 014 006</td>
<td>413 Niu St</td>
<td>4,356 Sq. Ft.</td>
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<td>2 6 014 019</td>
<td>420 Pau St</td>
<td>5,000 Sq. Ft.</td>
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<td></td>
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</table>

**Specific Location:** 1944 Kalakaua Ave

**Applicant:** Hida, Okamoto & Associates, Inc., Glen B. Lukic  
1440 Kapilani Blvd, Suite 1120  
Honolulu, HI 96814

**Development Type:** Retail  
**SEWER CONNECTION WORK DESIRED:** Existing  
**Other Uses:** Restaurant-190 seats/day (7,000 S.F.)

**Non-Residential Area:** 14,300.00 s.f.

**Approximate Date of Connection:**

**Proposed Units:**
- No. of New Units:  
  - Studios:  
  - 1-Bedroom:  
  - 2-Bedroom:  
  - 3-Bedroom:  
  - 4-Bedroom:  
  - 5-Bedroom:  
  - 6-Bedroom:  

**Existing Units:**
- No. of Existing Units:  
  - Studios:  
  - 1-Bedroom:  
  - 2-Bedroom:  
  - 3-Bedroom:  
  - 4-Bedroom:  
  - 5-Bedroom:  
  - 6-Bedroom:  

**Units to be Demolished:**
- No. of Units to be Demolished:  
  - Studios:  
  - 1-Bedroom:  
  - 2-Bedroom:  
  - 3-Bedroom:  
  - 4-Bedroom:  
  - 5-Bedroom:  
  - 6-Bedroom:  

**Remarks:** Also included are TMK: 2-6-014:07, 08 & 058. Approval is conditioned that sewage flow from this project shall not exceed 6,400 gallons/day. An acknowledgment letter from owner/developer shall be required and forwarded to our office for our records.

**Approval Date:** 10/01/2007

**Expiration Date:** 09/30/2009

**Reviewed by:** Arturo Saavedra Jr.
May 15, 2008

Mr. Henry Eng, FAICP, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

Att: Mr. Arturo Saavedra Jr.

RE: Sewer Connection Application No. 2007/SCA-0062
1944 Kalākaua Avenue, LLC
TMKs: 2-6-014: 001, 004, 006, 007, 008, 019, 058
Kalākaua Avenue – Waikiki

Dear Mr. Eng:

Thank you for the review and approval of the above-mentioned application. This action placed a limit to the sewage flow of the project as a condition of its approval. As a result, the maximum sewage flow from this project cannot exceed 6,400 gallons per day.

It is our understanding that this limit is in addition to that allowed for 1958 Kalakaua Avenue (Local Motion Building). This building (1958 Kalakaua Avenue – TMK 2-6-14:01) is currently operating under its own approval, Sewer Connection Application No. 1998/SCA-0190.

This letter is to acknowledge this limit and to clarify the developer’s intent to abide by it. If you have any questions, please do not hesitate to call the undersigned at (310) 774-5255.

Sincerely,

Marvin Lotz
President
American Commercial Equities Three, LLC

23805 Stuart Ranch Road, Suite 220, Malibu, California 90265 • Tel: 310-774-5440 • Fax: 310-774-5194
Appendix D
Cultural Impact Assessment for the 1944 Kalākaua Avenue Project, Waikīkī Ahupuaʻa, Kona District, Oʻahu

TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058

Prepared for
Patrick Sequirant

Prepared by
Aggy Stevens-Gleason, B.A.
and
Hallett H. Hammatt, Ph.D.

Cultural Surveys Hawaiʻi, Inc.
Kailua, Hawaiʻi
(Job Code: WAIKIKI 16)

May 2008

---

Oʻahu Office
P.O. Box 1114
Kailua, Hawaiʻi 96734
Ph.: (808) 262-9972
Fax: (808) 262-4950

Maui Office
1993 Main St.
Wailuku, Hawaiʻi 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

www.culturalsurveys.com
### Management Summary

<table>
<thead>
<tr>
<th>Reference</th>
<th>Cultural Impact Assessment for the 1944 Kalākaua Avenue Project, Waikīkī Ahupua'a, Kona District, O'ahu, TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, &amp; 058 (Stevens-Gleason &amp; Hammatt 2008)</th>
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<tr>
<td>Date</td>
<td>May 2008</td>
</tr>
<tr>
<td>Project Number(s)</td>
<td>Cultural Surveys Hawai‘i (CSH) Job Code: WAIKIKI 16. CSH also conducted an archaeological inventory survey at the subject project area (CSH Job Code WAIKIKI 12)</td>
</tr>
<tr>
<td>Project Location</td>
<td>The project area is located approximately 80 m (262 ft) southwest of the Ala Wai Canal, and is bounded by urban development to the northeast, Kalākaua Avenue to the southwest, Pau Street to the southeast and Niu Street to the northwest. It is depicted on the 1998 U.S. Geological Survey (USGS) 7.5 Minute Series topographic map, Honolulu Quadrangle.</td>
</tr>
<tr>
<td>Land Jurisdiction</td>
<td>Private, Nihonkai and 1958 Kalakaua LLC</td>
</tr>
<tr>
<td>Agencies</td>
<td>State of Hawai‘i Department of Land and Natural Resources / State Historic Preservation Division (DLNR / SHPD); State of Hawai‘i Department of Health / Office of Environmental Quality Control (DOH / OEQC)</td>
</tr>
<tr>
<td>Project Description</td>
<td>The proposed project involves the construction of a new commercial building along Kalākaua Avenue. Associated ground disturbance will include excavation related to the project area’s development, to include structural footings, utility installation, roadway and parking area installation, and landscaping.</td>
</tr>
<tr>
<td>Project Acreage</td>
<td>Approximately 1 acre</td>
</tr>
<tr>
<td>Area of Potential Effect (APE) and Survey Acreage</td>
<td>For the current cultural impact assessment, the project’s Area of Potential Effect (APE) is the same as the project area, i.e., the approximately 1-acre footprint of the proposed 1944 Kalākaua Avenue project. While this investigation focused on the project APE, the study area also included the entire ahupua'a of Waikīkī.</td>
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<tr>
<td>Document Purpose</td>
<td>At the request of Patrick Sequirant, CSH undertook this cultural impact assessment (CIA). The project requires compliance with the State of Hawai‘i environmental review process [Hawai‘i Revised Statutes (HRS) Chapter 343], which requires consideration of a proposed project’s effect on cultural practices. Through document research and cultural consultation efforts this document provides information pertinent to the assessment of the proposed project’s impacts to cultural practices (per the OEQC’s Guidelines for Assessing Cultural Impacts). The document is intended to support the project’s environmental review and may also serve to support the project’s historic preservation review under HRS Chapter 6E-42 and Hawai‘i Administrative Rules Chapter 13-284.</td>
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Consultation Effort

Hawaiian organizations, agencies and community members were contacted in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the project area and the vicinity. The organizations consulted included the SHPD, the Office of Hawaiian Affairs (OHA), O'ahu Island Burial Council (OIBC), Hui Mālama I Nā Kāpuna O Hawai'i Nei, Waikīkī Neighborhood Board, and Waikīkī Community Center, and lineal descendants of Kālia. This effort was made by letter, e-mail, telephone, and in person contact.

Cultural Impact Assessment Results

Background research results include:

(1) The proposed project area is located in the old land section of Waikīkī known as Kālia, which was well-known for its loko i'a (fishponds) and lo'i kalo (taro ponds).

(2) The proposed project area is located at or immediately adjacent to one of these loko i'a known as Kaipuni. The construction of the Ala Wai Canal in the 1920s resulted in the widespread draining and filling of these ponds, including Kaipuni.

(3) Archaeological work throughout Waikīkī has documented a wide variety and diversity of pre-Contact native Hawaiians sites and features dating from at least 1,000 years ago; as well as more recent historic-era resources. Hundreds of burials have been documented in Waikīkī and many more additional burials from both pre-Contact and historic times have yet to be discovered.

(4) Archaeological work at the subject parcel (Tulchin and Hammatt 2007), which included subsurface excavation, did not identify any historic properties or significant resources. However, given the unpredictable nature of the archaeological record in Waikīkī—which is frequently characterized by discontinuous remnant cultural deposits, it is still possible that iwi kāpuna (ancestral remains) and/or other cultural resources may be discovered during planned ground disturbance.

Consultation results include:

(1) Given the degree of development and alteration of the natural environment of Waikīkī, it is generally no longer possible for native Hawaiians to engage in traditional cultural practices or gathering activities.

(2) Despite this development and alteration, the rich oral history of the Kālia area is important and should not be
forgotten.

(3) Even though the sediments in the subject project area appear to consist of mainly fill deposits, and even though archaeological testing has thus far yielded negative results, participants are still concerned about the possibility of encountering *iwī kūpuna* and/or other cultural resources; in part, this is based on recent experiences at other locations in Waikīkī and Kaka‘ako, which have yielded remnant cultural deposits.

(4) Several participants voiced concerns about the proposed project not directly benefiting the residential and local community. In particular, some participants believe that many or most of the existing retail outlets in Waikīkī do not cater to the majority of local residents; the proposed project is unlikely to improve this situation.

(5) A few participants stated the beauty and green space of Waikīkī and Hawai‘i is being negatively impacted by development, which precludes any traditional gathering practices; the establishment or maintenance of green space would on the other hand benefit all residents and members of the Waikīkī community.

<table>
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<tr>
<th>Cultural Impact Assessment Recommendations</th>
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<tr>
<td>(1) Despite the absence of any documented ongoing cultural practices at the subject project area, and despite the negative results of the archaeological inventory survey, CSH recommends that all applicable historic preservation laws and procedures be followed before, during and after the proposed ground disturbing activities at the subject project area.</td>
</tr>
<tr>
<td>(2) If human remains and/or burials are discovered during the proposed ground disturbance, CSH recommends proactive and culturally sensitive treatment of the <em>iwī kūpuna</em>. In particular, CSH recommends proactive consultation with potential lineal and cultural descendents of these remains, which should be treated with respect and proper protocol with regards to reburial.</td>
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</tbody>
</table>
# Table of Contents

Management Summary ................................................................. i

Section 1 Introduction ................................................................ 1

1.1 Project Background .......................................................... 1
1.2 Archaeological Assessment ............................................. 1
1.3 Scope of Work ................................................................. 1
1.4 Environmental Setting ...................................................... 2
   1.4.1 Natural Environment ............................................... 2
   1.4.2 Built Environment .................................................. 2

Section 2 Methods ..................................................................... 7

Section 3 Background Research .............................................. 8

3.1 Mythological and Traditional Accounts of Waikīkī Ahupuaʻa ................................................................. 8
   3.1.1 Place Names of Waikīkī .......................................... 8
   3.1.2 ʻŌlelo Noʻeau ......................................................... 10
   3.1.3 Hāloa, Kalo, and Loʻi ............................................. 11
   3.1.4 Loko iʻa and Moʻo ................................................ 11
   3.1.5 Kamōʻiliʻili (the pebble lizard) ............................... 12
   3.1.6 Surfing with Kelea ............................................... 12
   3.1.7 The Shark God Kaʻehu ......................................... 13
   3.1.8 Healing Waters of Kawehewehe .............................. 14

3.2 Historic Background ............................................................. 15
   3.2.1 Pre-Contact to Early 1800s .................................... 15
   3.2.2 Missionaries ......................................................... 17
   3.2.3 Disease and Decrease of Population ....................... 17
   3.2.4 Mid-Nineteenth Century and the Māhele ............... 18
   3.2.5 Mid to Late 1800s ................................................ 21
   3.2.6 1900 to 1920 ....................................................... 23
   3.2.7 1920s to 1930s .................................................... 24
   3.2.8 1940s ................................................................. 27
   3.2.9 1950s ................................................................. 27

3.3 Historic Documentation of the Project Area ...................... 27
3.4 Archaeological Research .................................................... 32
3.5 CSH Archaeological Assessment ........................................ 46

Section 4 Community Consultations ....................................... 47

Section 5 Kamaʻaina Responses .............................................. 53

5.1 Mrs. Paulette Kaʻanohi Kaleikini ...................................... 53
5.2 Mr. Samuel Alapai Taula Kahanamoku III ...................... 55
5.3 Ms. Kehaulani Kruse ..................................................... 57
5.4 Ms. Joan Naguwa .......................................................... 57
5.5 Mr. Les Among ............................................................ 58
List of Figures

Figure 1. U.S. Geological Survey (USGS) 7.5 Minute Series Topographic Map, Honolulu (1998) Quadrangle, showing the location of the project area ......................................................... 3
Figure 2. Tax Map Key [1] 2-6-014, showing the location of the project area ...................... 4
Figure 3. Aerial Photograph, showing the location of the project area (source: USGS Orthoimagery 2005) ................................................................................................. 5
Figure 4. Overlay of Soil Survey of the State of Hawai‘i (Foote et al. 1972), indicating sediment types within the project area .................................................................................... 6
Figure 5. Trails from Punchbowl Street to Waialae as described by ‘Ītī, map by Gerald Ober (‘Ītī 1959:93) ...................................................................................................................... 9
Figure 6. Portion of Registered Map 1398, a 1881 map by S.E. Bishop with location of present project area .................................................................................................................. 20
Figure 7. Circa 1890s photograph of Kālia fishponds; view toward Diamond Head (Bishop Museum Archives) ................................................................................................. 22
Figure 8. View of Waikīkī shoreline, circa 1880s (Bishop Museum Archives) ......................... 23
Figure 9. Portion of 1914 Sanborn Fire Insurance Map of Waikīkī ........................................... 25
Figure 10. Floating dredge line in the Ala Wai Canal, circa 1924 (Bishop Museum Archives) 26
Figure 11. Portion of 1910 U.S. Engineers map with location of present project area indicated..29
Figure 12. 1927 Sanborn Fire Insurance map of project area .................................................. 30
Figure 13. 1956 Sanborn Fire Insurance map of project area ................................................... 31
Figure 14. Previous archaeological studies in the vicinity of the project area focusing on the locations of burials ........................................................... 41
Figure 15. December 6, 2007 review letter from the Office of Hawaiian Affairs .................... 52

List of Tables

Table 1. Previous Archaeological Investigations in Waikīkī Ahupua‘a .................................. 34
Table 2. List of Community Contacts .................................................................................... 48
Section 1  Introduction

1.1 Project Background

At the request of Patrick Sequirant, Cultural Surveys Hawaii, Inc. (CSH) conducted a cultural impact assessment (CIA) of an approximately 1-acre parcel in the Waikīkī Ahupua’a, Kona District, O‘ahu, TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019 & 058. The project area is located at 1944 Kalākaua Avenue approximately 80 m (262 ft) southwest of the Ala Wai Canal (Figure 1 & Figure 2). The project area is bounded by urban development to the northeast, Kalākaua Avenue to the southwest, Pau Street to the southeast, and Niu Street to the northwest (Figure 3).

The parcel is privately owned by Nihonkai and 1958 Kalakaua LLC. The proposed project involves the construction of a new commercial building along Kalākaua Avenue. Associated ground disturbance will include excavation related to the project area’s development, to include structural footings, utility installation, roadway and parking area installation, and landscaping.

The proposed project requires compliance with the State of Hawai‘i environmental review process [Hawai‘i Revised Statutes (HRS) Chapter 343], which requires consideration of a proposed project’s effect on traditional cultural practices. At the request of Patrick Sequirant, CSH undertook this CIA Through document research and cultural consultation efforts this document provides information pertinent to the assessment of the proposed project’s impacts to cultural practices [per the Office of Environmental Quality Control’s (OEQC) Guidelines for Assessing Cultural Impacts]. The document is intended to support the project’s environmental review and may also serve to support the project’s historic preservation review under HRS Chapter 6E-42 and Hawai‘i Administrative Rules Chapter 13-284.

1.2 Archaeological Assessment

CSH conducted an archaeological inventory survey, including subsurface testing, at the subject project area. The results of the archaeological study—which yielded no significant historic properties or resources—are presented in a companion report titled “Archaeological Assessment for the 1944 Kalākaua Avenue Project, Waikīkī Ahupua’a, Kona District, O‘ahu. TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058” (Tulchin and Hammatt 2007).

1.3 Scope of Work

The scope for the CIA includes:

1. Examination of historical documents, Land Commission Awards, and historic maps with the specific purpose of identifying traditional Hawaiian activities including gathering of plant, animal and other resources or agricultural pursuits as may be indicated in the historic record.

2. A review of the existing archaeological information pertaining to the sites on the property as they may allow us to reconstruct traditional land use activities and identify and
describe the cultural resources, practices and beliefs associated with the parcel and identify present uses, if appropriate.

3. Interviews with persons knowledgeable about the historic and traditional practices in the project area and region.

4. Preparation of a report on items 1-3 summarizing the information gathered related to traditional practices and land use. The report will assess the impact of the proposed action on the cultural practices and features identified.

1.4 Environmental Setting

1.4.1 Natural Environment

The project area is located approximately 745 m (0.5 miles) northeast of Waikīkī Beach, near the southeastern coastline of the island of O‘ahu. The terrain within the project area is level with an elevation of 0.9 m (3 ft.) above mean annual sea level.

According to U.S. Department of Agriculture (USDA) soil survey data (Foote et al. 1972) the sediments within the project area consist entirely of Fill land, mixed (FL) (Figure 4). Fill land, mixed is described as “areas filled with material dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources…used for urban development including airports, housing areas, and industrial facilities” (Foote et al. 1972). The project area receives an average of 20 to 30 in. (1000 to 1500 mm) of annual rainfall (Giambelluca et al. 1986). The entire project area has been extensively disturbed and transformed by human activity leaving no naturally occurring vegetation within the subject parcel.

1.4.2 Built Environment

The project area is located within central Honolulu and is surrounded by modern urban development including high-rise condominiums, apartments and hotels, streets, sidewalks, and utility infrastructure. The project area is bounded by urban development to the northeast, Kalākaua Avenue to the southwest, Pau Street to the southeast, and Niu Street to the northwest (see Figure 3 above). The southwestern half of the project area contains a two-story commercial building housing a Local Motion surf shop and associated asphalt parking areas. Additionally, two concrete pads and a small wooden kiosk are located in the southwestern half of the project area utilized by the VIP Car Rental Hawaii as a staging area for car rentals. The northeastern half of the project area consists of an empty lot.
Figure 1. U.S. Geological Survey (USGS) 7.5 Minute Series Topographic Map, Honolulu (1998) Quadrangle, showing the location of the project area
Figure 2. Tax Map Key [1] 2-6-014, showing the location of the project area

Cultural Impact Assessment for the 1944 Kalakaua Avenue Project

TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058
Figure 3. Aerial Photograph, showing the location of the project area (source: USGS Orthoimagery 2005)
Figure 4. Overlay of Soil Survey of the State of Hawai‘i (Foote et al. 1972), indicating sediment types within the project area.
Section 2  Methods

Historical documents, maps and existing archaeological information pertaining to historic properties in the vicinity of this project were researched at the SHPD library and the CSH library. Information on Land Commission Awards was accessed through Waihona Aina Corporation’s Māhele Data Base (www.waihona.com). CSH contacted SHPD, OHA, OIBC, and members of other community organizations in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the study area and the surrounding vicinity. The names for potential community contacts were also provided by colleagues at CSH and from the researchers’ familiarity with people who live in or around the study area. Some of the prospective community contacts were not available to be interviewed as part of this project. A discussion of the consultation process can be found in Section 4 (Community Consultations). Please refer to Table 2 for a complete list of individuals and organizations contacted.
Section 3  Background Research

This section includes discussions on different types of historic background, traditional practices, cultural resources, beliefs, mo‘olelo (oral history), and archaeology associated with Waikīkī.

3.1 Mythological and Traditional Accounts of Waikīkī Ahupua‘a

Waikīkī Ahupua‘a is a wahi pana (storied place), rich in mo‘olelo about mo‘o (water spirits) associated with fishponds, springs and the water resource areas they guard and protect. For Hawaiians, the mo‘olelo does more than explain an area; it reconnects the land with its own spiritual past. Rekindling a love for Waikīkī’s past has been the passion of author/historian Dr. George Kanahele. In his book Waikīkī 100 B.C. to 1900 A.D. An Untold Story, Dr. Kanahele documents a wide variety of legends, stories and mo‘olelo about Waikīkī. He focuses on the importance of fresh water sources (e.g., springs and streams) that once flourished in the area, as well as the rolling surf that still breaks upon the shores of Waikīkī (Kanahele 1995:1-2).

3.1.1 Place Names of Waikīkī

Place names are a vital aspect of Hawaiian culture:

Hawaiians named taro patches, rocks and trees that represented deities and ancestors, sites of houses and heiau (places of worship), canoe landings, fishing stations in the sea, resting places in the forests, and the tiniest spots where miraculous or interesting events are believed to have taken place. (Pukui et al. 1974:x)

In Hawai‘i, most place names, including towns, streets, rural areas, mountains, valleys, surfing areas and stones, are in Hawaiian. This is far different from the mainland United States where names from an indigenous group may be in use, but in many cases the history, stories, and meanings of the names are lost. By utilizing the Hawaiian names for these natural landscapes, the meanings and stories associated with these areas perpetuate a living and thriving Hawaiian culture that is passed on to the younger generations today. Therefore it is important that these areas are referred to with the traditional names given to them by Hawaiians, either many years ago or in the more recent historical record.

Even in the current environment of development in Hawai‘i, place names are still important to reinforcing Hawaiian culture and presence. These names are constantly changing and far from static.

The change from rural to urban living in Hawai‘i, the rapid increase in population by birth and immigration, the development of new towns and the expansion of old ones, with attendant obliteration of natural landmarks, and the gradual disappearance of the Hawaiian language, have brought many additions and changes in the names of places, as well as changes in other aspects of island life. (Pukui et al. 1974:x)

In Fragments of Hawaiian History John Papa ʻĪʻī described the “Honolulu trails of about 1810” (ʻĪʻī 1959: 89), including the trail from Honolulu to Waikīkī (Figure 5):
The trail from Kawaiahao which led to lower Waikiki went along Kaananiau, into the coconut grove at Pawa'a, the coconut grove of Kuakuaka, then down to Piinaio; along the upper side of Kahanaumaikai's coconut grove, along the border of Kahiikapu pond, into Kawehewehe; then through the center of Helumoa of Puualiliilii, down to the mouth of the Apuakehau stream; along the sandy beach of Ulu'uku to Kapuni, where the surfs roll in; thence to the stream of Kuekaunahi; to Waiaula . . . (ʻĪi 1959:92)

Figure 5. Trails from Punchbowl Street to Waialae as described by ʻĪi, map by Gerald Ober (ʻĪi 1959:93)
The marshland of Waikiiki was watered from streams in the Makiki, Manoa, and Pālolo Valleys and from springs in Manoa (Punahou and Kānewai) (see Figure 5). The name Waikiiki, which means “water spurtin from many sources,” was well adapted to the character of the swampy land of ancient Waikiiki, where water from the upland valleys of Manoa and Pālolo would gush forth from underground. Before the construction of the Ala Wai Canal, the Manoa and Pālolo Streams did not merge until deep within the Waikiiki. As they entered the flat Waikiiki Plain, the names of the streams changed; the Manoa became the Kalia and the Pālolo became the Pāhoa. They joined near Hamohamo (now an area mauka of the Kapahulu Library) and then divided into three new streams, the Kuekaunahi, Āpuakēhau, and Pi‘inaio. The Kuekaunahi once emptied into the sea at Hamohamo (near the intersection of ‘Ohua and Kalākaua Avenues and south of the study area), the ‘Āpuakēhau, also called the Muliwai o Kawehewehe, or “the stream that opens the way” (Kanahele 1995:7) on some maps, emptied in the ocean at Helumoa (between the Royal Hawaiian and Moana Hotels), and the Pi‘inaio entered the sea at Kalia as a wide delta. The land between these three streams was called Waikolu, meaning “three waters” (Kanahele 1995:7-8).

3.1.2 ‘ōlelo No‘eau

‘ōlelo no‘eau are traditional Hawaiian sayings that translate loosely into the Western concept of proverbs, words of wisdom and/or poetical or political sayings.

They reveal with each new reading ever deeper layers of meaning, giving understanding not only of Hawai‘i and its people but of all humanity. Since the sayings carry the immediacy of the spoken word, considered to be the highest form of cultural expression in old Hawai‘i, they bring us closer to everyday thoughts and lives of the Hawaiians who created them. (Pukui 1983:vii)

‘ōlelo no‘eau often reveal the importance of land areas, physical landscapes, social concepts, and Hawaiian values. The Kalia area was known for lo‘i kalo (taro ponds) and loko i‘a (fish ponds). Two ‘ōlelo no‘eau of Kalia describe the abundant sealife along the shoreline in Waikiiki:

Ho‘i i Kalia i ka ‘ai ‘alamihi.

Gone to Kalia to eat ‘alamihi crabs.

He is in a repentant mood. A play on ‘ala-mihi (path-of-repentance). Kālia, O‘ahu, is a place where ‘alamihi crabs were once plentiful. (Pukui 1983:110)

Ka i‘a pīkoi kānaka o Kalia; he kānaka ka pīkoi, he kānaka ka pōhaku.

The fish caught by the men of Kālia; men are the floaters, men are the sinkers.

In ancient days, when a school of mullet appeared at Kalia, O‘ahu, a bag net was set and the men swam out in a row and surrounded the fish. Then the men would slap the water together and kick their feet, driving the frightened fish into the opening of their bag net. Thus the fishermen of Kālia became known as human fishnets. (Pukui 1983:150)
3.1.3 Haloa, Kalo, and Lo'i

Hawaiian genealogy reveals the importance of kalo (taro) and the reasons Hawaiians have such a sacred connection to this plant. According to Hawaiian mythology, the first man was born from the taro plant. Wākea, the sky father, and Papahanaumoku, the earth mother, birthed a child who was premature.

The first-born son of Wakea was of premature birth (keiki alualu) and was given the name of Haloa-naka. The little thing died, however, and its body was buried in the ground at one end of the house. After a while, from the child’s body, shot up a taro plant, the leaf of which was named lau-kapa-lili, quivering leaf; but the stem was given the name Haloa.

After that, another child was born to them whom they called Haloa, from the stalk of the taro. He is the progenitor of all the peoples of the earth. (Malo 1951:244)

Haloa is therefore both plant and man. “Wākea’s stillborn son is reborn as a taro plant which produces his second son, a human child Haloa” (Kanahele 1995:18). Taro therefore becomes a metaphor for life, because both need to be rooted in good soil and nourished with waters of Kāne. The kalo stalks and Hawaiians both grow towards the sun, striving to be nearer to the heavenly spirit, and as every plant must die, so too will every human. What remains of the plants live on for the next generations. Because of this close interconnection between life and kalo, kalo and poi (pounded taro thinned with water) thereby became the main staples of the Hawaiian diet (Kanahele 1995:18).

For nutritional and spiritual significance lo'i kalo became vital for Hawaiian way of life. The work was for men and required marshland, a large supply of kalo cuttings, and advanced irrigation systems. Waikīkī became the ideal spot for lo'i kalo because of the abundance of sun and water in the area (Kanahele 1995:19-22).

3.1.4 Loko i'a and Mo'o

Loko i'a were traditional Hawaiian fishponds that provided a ready source of food for Hawaiians. Unique to Hawai‘i, loko i'a, in type and abundance, were not found elsewhere in Polynesia (Apple and Kikuchi 1975:2-3). Waikīkī had numerous loko i'a with i'a (fish) that “left their original stream habitat and found their way into taro fields or canals from a stream, especially during rainstorms when overflowing streams swept many fish to the lowlands of Waikīkī (Kanahele 1995:41).” As discussed earlier, the spiritual and physical aspects of the landscape of Hawai‘i coincided with the importance of naming of areas. Kaipuni is the name of the loko i'a that existed in the proposed project area prior to the building of the Ala Wai Canal in the 1920s. In a fishpond study conducted in 1989, research found two ponds named Kaipuni existed in the ahupua'a of Waikīkī, and although no surface remains are visible, the location is known (Cleghorn et al. 1989:III:4).

Loko i’a were closely guarded by mo‘o, who like many spirits of Hawai‘i could change form. ‘O’opu (common goby) is a fish that was frequently found in the loko i’a in Waikīkī. Hawaiians believed the ‘o’opu was a kino lau (body form) of the mo‘o. Hawaiians may have revered the ‘o’opu as an ‘aumakua (family or personal god) and if so, would not have eaten the fish out of respect (Kanahele 1995:41-42). “Mo‘o deities were often described as monsters with terrifying
black bodies, 12 to 30 feet in length. The reputedly resided in marshlands and fish ponds. Hawaiians believed they were, in fact, the guardian spirits of fish ponds” (Kanahele 1995:42) deities would not only protect the fishponds, but could punish those hosts who were stingy to their guests (Kanahele 1995:42). They built nests in the water and were only seen on rare occasions (Apple and Kikuchi 1975:51-52).

3.1.5 Kamō‘ili‘ili (the pebble lizard)

Waikīkī’s earliest mo‘o was probably Kamō‘ili‘ili (literally, the pebble lizard) who was slain by Hi‘iaka, Pele’s sister. The legend relates that:

Hi‘iaka and Wahine‘ōma‘o were escorting Lohi‘au (Pele’s lover-prince) back to Pele on the island of Hawai‘i. During the return journey they left their canoe at Waikīkī and walked up toward Kamō‘ili‘ili. When they arrived at the particular spot (said to be where the old stone church stood in the 1920s), a heavy gust of wind blew, and Wahine‘ōma‘o and Lohi‘au felt invisible hands pulling their ears back. They called Hi‘iaka for help. She knew that it was the lizard god, Kamō‘ili‘ili, who did it and told the other gods to keep closely behind her. A short distance away, they met Kamō‘ili‘ili who wanted to fight. Hi‘iaka removed her outside skirt which concealed bolts of lightning and struck him with them. His body was cut to pieces and the pieces turned into the long, low hill across from Waikīkī’s Kūhiō School. (Kanahele 1995:42)

3.1.6 Surfing with Kelea

Surfing was one of the principal attractions of Waikīkī to both chiefs and commoners. So important was surfing that there is a major heiau dedicated to the nalu or surf, and its riders. At the “surfing heiau” of Papa‘ena‘ena, a terraced structure built at the foot of Lē‘ahi (Diamond Head), is where surfers came to offer their sacrifices in order to obtain mana (spiritual power) and knowledge of the surf. The heiau overlooked what surfers call today “First Break,” the start of the Kalehuawehe surfing course that extended to Kawewehe (the deep, dark surf) at Kālia. Although everyone, including women and children, surfed, it was the chiefs who dominated the sport, and one of the best among Waikīkī’s chiefs was Kalamakua. He came from a long ancestry of champion surfers whose knowledge, skill and mana were handed down and passed on from generation to generation. The story of his romantic meeting with Keleanuinoho‘ana‘api‘api (“Great Kelea who flutters”) has been preserved as a reminder of the role that surfing played in the history of Waikīkī (Kanahele 1995:56-58).

One day this beautiful chiefess with “clear skin and sparkling eyes,” who then resided in Wahiawā (in Central O‘ahu), was visiting Waikīkī with a few of her ladies-in-waiting. She entered the coconut grove and beach of Kawehewehi which was located just east of the Halekulani Hotel. Here is where the sick came to bathe and to be healed. They would wear limu kala (seaweed) leis and leave them in the water as a request to the gods for forgiveness of past wrongs which was the cause of much illness.

The residents welcomed Keleanuinoho‘ana‘api‘api and offered her coconuts to eat. She remarked that Waikīkī was “the most pleasant place we have seen,” to
which her hosts replied, “This is a place for enjoyment. Over there is the kou
grove of Kahaloa where one may view the surfing of the chiefs and of the ali`i mui
Kalamakua.” Kahaloa, or “Long Place,” was also a beach area located today
between the Royal Hawaiian and Halekulani hotels and noted for its fragrant lipoa
seaweed. When she asked if she could borrow a surfboard, the Waikikians were
surprised because they thought people from Waihiawa were only adept at “slicing
mo`okilau ferns and poholo stalks,” not at surfing. They did not know that their
visitor was originally from Maui where she surfed with all the chiefs. She was
too beautiful to refuse and someone gave her a board.

Before she entered the water, she “rubbed off the red dirt of ‘Ewa from her feet so
as to look fresh,” and then paddled off like an expert, moving easily and
noiselessly without the least heeling over. Instead of starting at the first break
where kama`aina (native born) surfers congregated, she went beyond and waited
for a large wave. She let the first, second and third waves pass, and rode the
fourth one all the way to shore. The chiefs and commoners were so impressed
with her skill and grace that they immediately joined in loud cheers of admiration.

Meanwhile, Kalamakua, who was working in his taro fields nearby asked his men
who was causing the commotion. They replied that the people were amazed at
the performance of a female surfer. A skilled surfer himself, Kalamakua rushed
to the edge of the beach to see for himself. He recognized Kelea at once as the
chiefess from Maui famed for her surfing prowess.

When she reached shore, he took hold of her board and asked, “Are you Kelea?”
“Yes,” she answered. As she stood up, in naked splendor, he removed his
feathered shoulder cape and wrapped it around her. Then he guided her to a kapu
place and made her his ali`i wahine mō`ī, or queen. (Kanahele 1995:56-58)

3.1.7 The Shark God Ka`e`ahu

Shark stories accompany surfing stories in myth as well as in real life because the ‘man-
eating’ shark is the most feared element in surfing. One legend that is popular even today is
about the little yellow shark Ka`e`ahu of Pearl Harbor who was endowed with magical power by
his ancestor Kamohoa`li`i, the shark god and brother of Pele.

One day Ka`e`ahu called his shark friends to accompany him to Puna. On the way
they stopped at Waikiki where they met Pehu, a man-eating shark from Maui,
who was swimming back and forth at Kalaheuwehe in wait for an unsuspecting
surfer.

Ka`e`ahu asked what Pehu was doing there and he replied, “I’m catching a crab for
my breakfast.” “We’ll help you catch your crab,” Ka`e`ahu said, and told him to go
near the coral reef while he and his friends would drive them shoreward, allowing
Pehu to catch this crab easily. He was pleased with the plan and swam close to
the reef where he hid himself in its shadows.

Then Ka`e`ahu told his friends, “We must kill this man-eater because he is
destroying our people. Let’s try to push him into the shallow water.”
Soon two surfers appeared and when Pehu leaped to catch one, Ka'ehu and his friends pushed the surfer aside and hurled Pehu over the reef into a deep hole in the coral. The more he thrashed about to escape, the more trapped he became.

When the surfers saw what had happened, they were not as afraid of Pehu and moved to the hole to kill him. As they cut into his body they discovered the remains of their own people. Out of respect, they delivered them to Pele'ula (an area with many healing heiau located in Kou, now downtown Honolulu) and burned the remains. Ka'ehu had many more adventures that had a similar objective, the punishment of other man-eaters from the great sea. (Kanahele 1995:58-59)

3.1.8 Healing Waters of Kawehewehe

One of the most noteworthy wahi pana located near the proposed project area is Kawehewehe (visible on Figure 5). Kawehewehe takes its meaning from the root word, wehe, which can be translated as “to remove” (Pukui et al. 1974:383). Thus, as the name implies, Kawehewehe was a traditional place where people went to be cured of all types of physical and spiritual illnesses. Two healing areas share the name Kawehewehe, one being a healing pond and the other a beach. Kawehewehe pond is located in the vicinity of Saratoga Road on the Diamond Head side of the proposed project area. The beach area is in front of the Sheraton Waikīkī hotel on the ‘Ewa side of the Royal Hawaiian Hotel (adjacent to Helumoa), just east of the Halekūlani Hotel. As a treatment for illness and defilement, the sick were brought here to bathe in the healing waters of the ocean. As part of the healing ritual, the ill might wear a lei made from the limu kala and leave it in the water as a request that his sins be forgiven; hence the origin of the name kala (the removal, Pukui et al. 1974:99). By ducking under the water, the ill releases the lei from around his neck, letting the lei kala float out to sea. Upon turning around to return to shore, the custom is to never look back, symbolizing the ‘oki (to sever or end) and putting an end to the illness; as well as forgiveness (kala) and the leaving of anything negative behind. It is uncertain if the tradition of Kawehewehe as a healing place originated hundreds of years ago in Hawaiian history or whether it began after the introduction of foreign diseases and epidemics that decimated thousands of Hawaiians.
3.2 Historic Background

3.2.1 Pre-Contact to Early 1800s

According to Martha Beckwith (1940), by the end of the fourteenth century Waikīkī had become “the ruling seat of the chiefs of Oahu.” Around the year 1400 the king of O‘ahu, Ma‘ilikūkahi, moved the seat of the government of O‘ahu to Waikīkī. This was a defining moment in the history of Waikīkī. In the years to follow, Waikīkī would remain the seat of political and economic power. Ma‘ilikūkahi urged the ali‘i (chieftly class, Hawaiian royalty) and maka‘āinana to work the land and cultivate food, and personally oversaw the development of land divisions. Under Ma‘ilikūkahi the island was divided into six moku (districts), containing one or more ahupua‘a. Subsequent land divisions of the moku included ‘ili kāpono [nearly independent land divisions within ahupua‘a (Pukui and Elbert 1986:98)], ‘ili ‘āina [an ‘ili land division whose chief pays tribute to the chief of the ahupua‘a of which it is a part, rather than directly to the king (Pukui and Elbert 1986:97)], and mo‘o ‘āina [a narrow strip of land smaller than an ‘ili (Pukui and Elbert 1986:253)]. The entire island was surveyed and land divisions were clearly marked, and still exist today (Kanahele 1995:64).

By the time of the arrival of Europeans in the Hawaiian Islands during the late eighteenth century, Waikīkī was still the center of population and political power on O‘ahu. The preeminence of Waikīkī continued into the eighteenth century and is betokened by Kamehameha’s decision to reside there upon wresting control of O‘ahu. In 1795 at the Battle of Nu‘uanu (Kaleleka‘anae), Kamehameha defeated the island’s chief, Kalaniikūpule. Following Kalaniikūpule’s defeat, Kamehameha I established residence in Waikīkī. The nineteenth-century Hawaiian historian John Papa ʻĪtī (1959:17), himself a member of the ali‘i, described the king’s Waikīkī residence:

\[\text{Kamehameha’s houses were at Puaaliilii, makai of the old road, and extended as far as the west side of the sands of ‘Apuakehau. Within it was Helumo where Ka‘ahumanu mā went to walk away the time. The king built a stone house there, enclosed by a fence... (ʻĪtī 1959:17)}\]

ʻĪtī further noted that the “place had long been a residence of chiefs. It is said that it had been Kekuapoi’s home, through her husband Kahahana, since the time of Kahekili” (ʻĪtī 1959:17).

Chiefly residences, however, were only one element of a complex of features characterizing Waikīkī up to pre-Contact times. Beginning in the fifteenth century, a vast system of irrigated taro fields was constructed, extending across the littoral plain from Waikīkī to lower Mānoa and Pālolo valleys. This field system, an impressive feat of engineering the design of which is traditionally attributed to the chief Kalamakua, took advantage of streams descending from Makiki, Mānoa and Pālolo valleys which also provided ample fresh water for the Hawaiians living in the ahupua‘a. Water was also available from springs in nearby Mō‘ili‘ili and Punahou. Closer to the Waikīkī shoreline, coconut groves and fishponds dotted the landscape. A sizeable population developed amidst this Hawaiian-engineered abundance. Captain George Vancouver (1798:161-164), arriving at “Whytecte” in 1792, captured something of this profusion in his journals:
On shores, the villages appeared numerous, large, and in good repair; and the surrounding country pleasingly interspersed with deep, though not extensive valleys; which, with the plains near the sea-side, presented a high degree of cultivation and fertility.

[Our] guides led us to the northward through the village, to an exceedingly well-made causeway, about twelve feet broad, with a ditch on each side.

This opened our view to a spacious plain, which, in the immediate vicinity of the village, had the appearance of the open common fields in England; but, on advancing, the major part appeared to be divided into fields of irregular shape and figure, which were separated from each other by low stone walls, and were in a very high state of cultivation. These several portions of land were planted with the eddo or taro root, in different stages of inundation; none being perfectly dry, and some from three to six or seven inches under water. The causeway led us near a mile from the beach, at the end of which was the water we were in quest of. It was a rivulet five or six feet wide, and about two or three feet deep, well banked up, and nearly motionless; some small rills only, finding a passage through the dams that checked the sluggish stream, by which a constant supply was afforded to the taro plantations.

[We] found the plain in a high state of cultivation, mostly under immediate crops of taro; and abounding with a variety of wild fowl, chiefly of the duck kind... The sides of the hills, which were at some distance, seemed rocky and barren; the intermediate vallies, which were all inhabited, produced some large trees, and made a pleasing appearance. The plain, however, if we may judge from the labour bestowed on their cultivation, seemed to afford the principal proportion of the different vegetable productions on which the inhabitants depend for their subsistence.

Further details of the exuberant life that must have characterized the Hawaiians use of the lands that included the ahupua'a of Waikiki are given by Archibald Menzies (1920:23-24), a naturalist accompanying Vancouver's expedition:

The verge of the shore was planted with a large grove of cocoanut palms, affording a delightful shade to the scattered habitations of the natives. Some of those near the beach were raised a few feet from the ground upon a kind of stage, so as to admit the surf to wash underneath them. We pursued a pleasing path back to the plantation, which was nearly level and very extensive, and laid out with great neatness into little fields planted with taro, yams, sweet potatoes and the cloth plant. These, in many cases, were divided by little banks on which grew the sugar cane and a species of Draecena without the aid of much cultivation, and the whole was watered in a most ingenious manner by dividing the general stream into little aqueducts leading in various directions so as to be able to supply the most distant fields at pleasure, and the soil seemed to repay the labour and industry of these people by the luxuriancy of its productions. Here and there we met with ponds of considerable size, and besides being well stocked with fish,
they swarmed with water fowl of various kinds such as ducks, coots, water hens, bitterns, plovers and curlews.

However, the traditional Hawaiian focus on Waikīkī as a center of chiefly and agricultural activities on southeastern Oʻahu was soon to change – disrupted by the same Euro-American contact which produced the first documentation (including the records cited above) of that traditional life. The ahupuaʻa of Honolulu - with the only sheltered harbor on Oʻahu - became the center for trade with visiting foreign vessels, drawing increasing numbers of Hawaiians away from their traditional environments. Kamehameha himself moved his residence from Waikīkī to the coast near Honolulu harbor, likely in order to maintain his control of the lucrative trade in sandalwood that had developed.

3.2.2 Missionaries

In the 1820s protestant missionaries arrived in Hawaiʻi with hopes of starting a Christian mission in Honolulu. Granted permission by Liholiho, Kamehameha II, to open their missions, by the end of 1820 there were numerous missions located throughout the Hawaiian Islands with about one hundred students. Missionaries quickly learned the Hawaiian language and sought to create a written form in order to distribute Christian materials. In 1822 the mission press produced the first document printed in the Hawaiian Islands (Knuykendall and Day 1961:44-45).

Hawaiians quickly learned the written form of their own language and by 1861 the Hawaiian-language newspaper Ka Hoku o ka Pakipika (The Star of the Pacific) was published. Ka Hoku o ka Pakipika asserted the Kanaka Maoli (native born) identity, mastered the technology of the predominantly white missionaries, and displayed skills of traditional storytelling and contemporary writing (Silva 2004:55,73). With the advent of the printing press, many moʻolelo and accounts of the Hawaiian Islands were put into print.

Of the English language sources, the missionaries were very detailed in their descriptions of life in Hawaiʻi and Waikīkī. By 1828, the missionary Levi Chamberlain (1957:26), describing a journey into Waikīkī, would note:

Our path led us along the borders of extensive plats of marshy ground, having raised banks on one or more sides, and which were once filled with water, and replenished abundantly with esculent fish; but now overgrown with tall rushes waving in the wind. The land all around for several miles has the appearance of having once been under cultivation. I entered into conversation with the natives respecting this present neglected state. They ascribed it to the decrease of population. (Chamberlain 1957:26)

3.2.3 Disease and Decrease of Population

The depopulation of Waikīkī was not simply a result of the attractions of Honolulu (where, by the 1820s, the population was estimated at 6,000 to 7,000) but also of the European and Asian diseases that had devastating effects upon the Hawaiian population. In 1812 when Kamehameha moved his court from Waikīkī to Kona, on Hawaiʻi Island, for the last and final time, Waikīkī had suffered a population loss of approximately 1,000. In 1804 the ka maʻiʻōkuʻu epidemic was estimated to have reduced the population of Oʻahu (35,000 to 40,000 at the time) to between 5,000 and 22,000. ‘Ōkuʻu (to squat on the haunches, crouch, sit hunched up, Pukui and Elbert
1986:282) was perhaps used to describe this sickness (ma’i, Pukui and Elbert 1986:221) because “it was dysenteric, and people were squatting (‘oku’u) much at stool” (Pukui and Elbert 1986:282). Due to the close contact Waikīkī residents had with soldiers, it is very likely these diseases would have devastating consequences on the population of Waikīkī. A number of diseases plagued the Hawaiians including: typhoid, dysentery, small pox, whooping cough, mumps, measles, syphilis, and gonorrhea (Kanahele 1995:110).

The tragedy of the disappearance of the Hawaiians in Waikīkī and elsewhere was that little could be done to stop the dying. Traditional medicine had failed. Not the healing gods, prayers, herbs, “wizard stones,” the clear waters of Kumalae or Kawehewehwe – none of these offered a cure. Foreign physicians in Hawai‘i were also unable to stop the dying. In fact, one of their main treatments was still bloodletting done with leeches and lancets. (Kanahele 1995:113)

John Papa ʻĪʻī mentions the small pox epidemic that swept through the island of O‘ahu in 1853 in his discussion of trails of Honolulu.

The trail from Kalia led to Kukuluaeco, then along the graves of those who died in the smallpox epidemic of 1853, and into the center of the coconut grove of Honuakaha. On the upper side of the trail was the place of Kinu, the father of Kekauonohi. His houses were made kapu after his death, and no one was permitted to pass in front of them. (ʻĪ‘ī 1959:89)

3.2.4 Mid-Nineteenth Century and the Māhele

The depopulation of Waikīkī, however, was not total and the ahupua‘a continued to sustain traditional Hawaiian subsistence activities into the mid-nineteenth century. The Organic Acts of 1845 and 1846 were passed when Kamehameha III was working towards constitutional reforms. These acts initiated the process of the Māhele, the division of Hawaiian lands, the process that introduced private property into Hawaiian society.

The first Organic Act divided the executive branch of the government into five departments. Those ministers who were foreign-born and appointed head of the departments became naturalized Hawaiian subjects.

The second Organic Act went into effect in 1846 and created a Board of Commissioners to Quiet Land Titles. This “Land Commission” as it was called, was part of the scheme for placing all land tenures in the kingdom on a more satisfactory basis. Consideration of this problem resulted in doing away completely with the old feudal system of landholding, and in putting all land holdings under fee-simple title. (Kuykendall and Day 1961: 70)

With the beginning of this process those who swore allegiance to the mōʻī (king), including foreigners, could claim interest in the lands. “The establishment of the Land Commission was seen as an attempt to reach some sort of fair compromise between foreign desires for secure title to ‘Āina [land] and Ali‘i nui [high chief] desire to retain control of the kingdom” (Kame‘eleihiwa 1992: 210). The third Organic Act affected the judiciary branch of the government and informed the conduct of trials and lawsuits (Kuykendall and Day 1961: 71).
In 1848, the crown (Hawaiian government) and the aliʻi received their land titles. Subsequently in the Māhele, Land Commission Awards (LCAs) for kuleana parcels were awarded to commoners and others who could prove residency on and use of the parcels they claimed.

The Māhele transformed the traditional Land system from one of communal tenure to private ownership on the capitalist model. Whereas under the communal system all people had access to Land, which was administered by the Chiefs and cultivated by the commoners, the new model of private ownership required both Chiefs and commoners claim and hold private title to their land. (Kameʻelehiwa 1992:8-9)

The general theory of the Māhele was to share and divide the communal interests in the ‘Āina. It was and is a difficult thing for Hawaiians to understand. ‘Āina is something that all Hawaiians need to live. How can it be divided for exclusive use? It is like dividing the air that we all breathe, or the water we all must drink. (Kameʻelehiwa 1992:210)

The land division among the king and approximately 250 of his chiefs was the initial wave of land claims. “Each chief had to present a claim and pay a transfer fee before a land grant, or title, was issued. Later the king further divided his lands into private lands, so-called Crown Lands, and land for the government” (Kanahele 1995:115). In 1850 another law passed allowing commoners to file claims for the lands they lived on and cultivated. “The process was complicated by the fact that a commoner had to have his land surveyed, file a claim with the Land Commission, and prove the land was being cultivated for the purpose of earning a living” (Kanahele 1995:115).

About 250 Hawaiians filed claims for land in Waikīkī and were approved by the Land Commission. 240 of these claimants were konohiki (a headman of an ahupua’a who managed the land, water, and other assets of its chief; land agent or manager), chiefly retainers, or commoners. LCA records document awardees continued to maintain fishponds and irrigated and dryland agricultural plots, though on a greatly reduced scale than what had been previously possible with adequate manpower.

An 1881 map (Figure 6) shows the locations of these LCAs. Three ʻāpana (parcels) associated with three Land Commission Awards – LCA 2083 to Kahiloaho, LCA 1409 to Nakoko, and LCA 8559 B to Lunalilo– are located immediately vicinity of the project area.

Documents for LCA 2083 and LCA 1409, indicate the presence of lo‘i and house lots, suggesting that in the vicinity of the present project area, land usage and activity by the mid-nineteenth century included habitation and wetland agriculture (see Appendix A). This may reflect the continuation into that century of traditional Hawaiian land use, along with the farming of fishponds, in this portion of Waikīkī.

Documents for LCA 8559 B did not contain any land use information but is of note as it was awarded to William Charles Lunalilo, who was confirmed as King of Hawai‘i in 1873.
Figure 6. Portion of Registered Map 1398, a 1881 map by S.E. Bishop with location of present project area
3.2.5 Mid to Late 1800s

As the nineteenth century progressed, Waikīkī was becoming a popular location among mostly American foreigners who had settled on O'ahu. An 1865 article in the Pacific Commercial Advertiser mentioned a small community that had developed along the beach. The area continued to be popular with the ali‘i and several notables had residences there. A visitor to O'ahu in 1873 described Waikīkī as “a hamlet of plain cottages, whither the people of Honolulu go to revel in bathing clothes, mosquitoes, and solitude, at odd times of the year” (Bliss 1873).

Other developments during the second half of the nineteenth century include changes that would dramatically alter the landscape of Waikīkī during the twentieth century, including the improvement of the road connecting Waikīkī to Honolulu (the route of the present Kalākaua Ave.), the building of a tram line between the two areas, and the opening of Kapi‘olani Park on June 11, 1877. Traditional land uses in Waikīkī were abandoned or modified. By the end of the nineteenth century Chinese farmers started to utilize fishponds that previously proliferated under fulltime Hawaiian care as fish and duck ponds. The remaining taro fields were planted with rice to supply the growing numbers of immigrant laborers imported from China and Japan, and for shipment to the west coast of the United States.

As the sugar industry throughout the Hawaiian Kingdom expanded in the second half of the nineteenth century, the need for increased numbers of field laborers prompted passage of contract labor laws. In 1852, the first Chinese contract laborers arrived in the islands. Contracts were for five years, and pay was $3 a month plus room and board. Upon completion of their contracts, a number of the immigrants remained in the islands, many becoming merchants or rice farmers. As was happening in other locales, in the 1880s, groups of Chinese began leasing and buying (from the Hawaiians of Waikīkī) former taro lands for conversion to rice farming. The taro lands’ availability throughout the islands in the late 1800s reflected the declining demand for taro as the Native Hawaiian population diminished.

The Hawaiian Islands were well positioned for rice cultivation. A market for rice in California had developed as increasing numbers of Chinese laborers immigrated there since the mid-nineteenth century. Similarly, as Chinese immigration to the islands also accelerated, a domestic market opened.

The primary market for both husked rice and paddy raised in all parts of the Hawaiian Islands was in Honolulu. The number of Chinese in the islands created a large home demand.

In 1880 the home market was made more secure by an increase in the duty on rice imported into Hawai‘i to 1½ cents on paddy and 2½ cents on hulled rice. It resulted in further checking the importation of foreign rice and giving an immense impetus to the home product. (Coulter and Chun 1937: 13)

By 1892, Waikīkī had 542 acres planted in rice, representing almost 12% of the total 4,659 acres planted in rice on O‘ahu. Most of the former taro lo‘i converted to rice fields were located mauka of the present Ala Wai Boulevard.

In addition to leasing and buying lands for rice farming, Chinese immigrants during the second half of the nineteenth century leased Hawaiian ponds for raising fish – including
ʻamaʻama (mullet), awa (milkfish), and goldfish — and ducks. In the 1890s, ponds in the Kālia area were being leased to and managed by Chinese named Ah Kaiu and Leong Fook (Kanahele 1995:128). While they no longer operated the Kālia fishponds, several Hawaiian fishermen were recorded as living in the Kālia area of Waikīki in the last decade of the nineteenth century; among those listed in the Directory of the Hawaiian Kingdom in 1890 were: George Aina, Kahananui, Kainoa, Kalaa, Kamanou, Kaua, Kanohi, Liuiwa, Paahao, Puke, Kepa, and Nakooko (Kanahele 1995:151).

Historic photographs from the late nineteenth century reveal the character of the Waikīkī landscape in the vicinity of the project area. Figure 7 is a view of the Kālia fishponds, looking toward Leahi Crater (Diamond Head). Coordinating the features shown in the photograph — including the buildings and configuration of the ponds — with those indicated on the 1881 map, it is likely that the photograph shows the southeast end of the Kālia pond field that includes Loko Kapuʻuiki and Loko Kaʻohai in the present project. Figure 8 shows the Waikīkī coastline, apparently in the vicinity of the present Hālekūlan Hotel grounds. The photograph indicates the area was occupied by closely packed wooden structures — again, likely the same ones indicated in this area on the 1881 map.

Figure 7. Circa 1890s photograph of Kālia fishponds; view toward Diamond Head (Bishop Museum Archives)
3.2.6 1900 to 1920

During the first decade of the twentieth century, the U.S. War Department acquired more than 70 acres in the Kālia portion of Waikīkī for the establishment of a military reservation called Fort DeRussy, named in honor of Brig. Gen. R.E. DeRussy of the Army Corps of Engineers.

On 12 November 1908, a detachment of the 1st Battalion of Engineers from Fort Mason, California, occupied the new post...

Between 1909 and 1911 the engineers were primarily occupied with mapping the island of O'ahu. At DeRussy other activities also had to be attended to - especially the filling of a portion of the fishponds which covered most of the Fort. This task fell to the Quartermaster Corps, and they accomplished it through the use of an hydraulic dredger which pumped fill from the ocean continuously for nearly a year in order to build up an area on which permanent structures could be built. Thus the Army began the transformation of Waikīkī from wetlands to solid ground. (Hibbard and Franzen 1986:79)

All the fishponds were filled by 1928.

A fire insurance map of 1914 shows that there were five areas in Waikīkī where residential and commercial structures were concentrated in the early twentieth century (Figure 9). These
areas were located: 1) clustered at Saratoga Road and Lewers Road; 2) near the intersection of Ena Road and Kalākaua Avenue; 3) makai of Kālia Road on the east side of Ft. DeRussy; 4) clustered around the Moana Hotel on Kalākaua Avenue; and 5) in Kapahulu on the ‘Ewa side of Makee Road (the present Kapahulu Avenue). The fire insurance map also reveals the relative isolation of Waikīkī, in the early twentieth century, from the encroaching grid of modern Honolulu streets.

3.2.7 1920s to 1930s

During the 1920s, the Waikīkī landscape would be transformed when the construction of the Ala Wai Drainage Canal, begun in 1921 and completed in 1928, resulted in the draining and filling in of the remaining ponds and irrigated fields of Waikīkī (Figure 10). The canal was one element of a plan to urbanize Waikīkī and the surrounding districts:

The [Honolulu city] planning commission began by submitting street layout plans for a Waikīkī reclamation district. In January 1922 a Waikīkī improvement commission resubmitted these plans to the board of supervisors, which, in turn, approved them a year later. From this grew a wider plan that eventually reached the Kapahulu, Mōʻiliʻili, and McCully districts, as well as lower Makiki and Mānoa...

The standard plan for new neighborhoods, with allowances for local terrain, was to be that of a grid, with 80-foot-wide streets crossing 70-foot-wide avenues at right angles so as to leave blocks of house lots about 260 by 620 feet. Allowing for a 10-foot-wide sidewalk and a 10-foot right-of-way [alley] down the center of each block, there would be twenty house lots, each about 60 by 120 feet, in each block. (Johnson 1991:311)

During the course of the Ala Wai Canal’s construction, the banana patches and ponds between the canal and the mauka side of Kalākaua Avenue were filled and the present grid of streets was laid out. These newly created land tracts spurred a rush to development in the 1930s. An article in the Honolulu Star-Bulletin in 1938 extolled the area’s progress:

The expansion of apartment and private residence construction is no secret. Examination of building permits will show that more projects have been completed during the past year, and more are now underway in this area, than in any other section of the territory.

These developments are being made by island residents who have recognized the fact that Waikīkī presents the unparalleled possibility for safe investment with excellent return. (Newton 1938: 10)

The writer speculated that the “future of Waikīkī is assured.”
Figure 9. Portion of 1914 Sanborn Fire Insurance Map of Waikīkī
Figure 10. Floating dredge line in the Ala Wai Canal, circa 1924 (Bishop Museum Archives)
3.2.8 1940s

The entrance of the United States into World War II following the Japanese bombing of Pearl Harbor on December 7, 1941 put on hold plans for the development of Waikīkī as a tourist destination. Until the war’s end in 1945, the tourist trade was non-existent “...since the Navy controlled travel to and from Hawai‘i and did not allow pleasure trips” (Brown 1989: 141). For the duration of the war, Waikīkī was transformed into a recreation area for military personnel.

It was not the same Waikīkī as before the war, though; barbed wire barricades now lined its sands, and there were other changes too. Fort DeRussy became a huge recreation center, with a dance hall called Maluhia that attracted thousands of men at a time. The Moana Hotel continued to function, but many other establishments and private homes in the area were taken over by the military. (Brown 1989:141)

Nearing the war’s end, concerns began arising over the future of Waikīkī. An article in the Honolulu Advertiser of July 16, 1945 decried “honky-tonks” that had sprung up in Waikīkī during the course of the war, and asked: “Can anyone look at present-day Kalākaua Ave. – lined with makeshift curio shops, noisy ‘recreation’ centers, eyesores that pass under the name of lunchrooms and miscellany of ‘joints’ – and hope that Waikīkī can stage a comeback [as a tourist destination]?"

3.2.9 1950s

By the mid-1950s there were more than fifty hotels and apartments from the Kālia area to the Diamond Head end of Kapi‘olani Park. The Waikīkī population, by the mid-1950s, was not limited to transient tourists but included 11,000 permanent residents living in 4,000 single dwellings and apartments in stucco or frame buildings.

3.3 Historic Documentation of the Project Area

The present project area is located on the mauka fringe of a portion of Waikīkī that, in traditional Hawaiian times and before the massive drainage accomplished by the Ala Wai Canal, comprised a complex of numerous large fishponds that extended between the present Saratoga Road and the grounds of Fort DeRussy to present Atkinson Drive and Ala Moana Shopping Center. An 1881 Hawaiian Government survey map by S.E. Bishop provides a detailed record of the physical landscape of Waikīkī before the transformations of the twentieth century. Drawn before the extensive drainage and land filling of the Waikīkī landscape, accomplished by the construction of the Ala Wai Canal in the 1920s, the 1881 map likely represents the project area as it had appeared in traditional Hawaiian times: a marsh environment surrounded by fishpond ponds and wetland fields (see Figure 6). When the map was copied in 1922, additional material from subsequent government surveys was added, including locations of road corridors not present in 1881.

The 1881 map also indicates locations of mid-nineteenth century LCAs. Māhele records for these awards provide the first specific documentation of land use in the vicinity of the present project area. Three ‘āpama associated with LCA 2083 to Kahiloaho, LCA 1409 to Nakoko, and LCA 8559 B to Lunalilo are located in the immediate vicinity of the project area.
Subsequent historic maps record the development of the project area through the first half of the twentieth century. A 1910 U.S. Engineers map of Waikīkī indicates that at this time the project area was undeveloped marshland surrounded by small dwellings, ponds, and wetland agricultural fields (Figure 11). A 1927 Sanborn Fire Insurance map indicates that the project area was still undeveloped, but has been subdivided (Figure 12). This suggests that the project area had been drained and filled in and was being prepped for development.

A 1956 Sanborn Fire Insurance map showing the project area reflects mid-twentieth century changes occurring within Waikīkī (Figure 13). Multiple dwelling structures and apartments are now present in the northeastern half of the project area, while the southwestern half of the project area contains an auto repair shop, gas station, and restaurant.

In summary, historic documentation indicates that the project area consisted of marshland that was not intensively utilized until the mid-twentieth century when Waikīkī became urbanized following the draining and filling of the area initiated in the 1920s. However, historic documentation also indicates extensive traditional Hawaiian agriculture and habitation in the immediate vicinity of the project area, as evidenced by the presence of fishponds, wetland agricultural fields, and habitation sites. By 1927 the project area was drained, filled in, and subdivided in preparation for development. By 1956 the project area was completely developed and was being utilized for both residential and commercial purposes.
Figure 11. Portion of 1910 U.S. Engineers map with location of present project area indicated
Figure 12. 1927 Sanborn Fire Insurance map of project area
Figure 13. 1956 Sanborn Fire Insurance map of project area
3.4 Archaeological Research

Before the arrival of Europeans, Waikīkī Ahupua‘a was an intensely utilized area, with abundant natural and cultivated resources, that supported a large population. In the nineteenth and early twentieth centuries, after a period of depopulation, Waikīkī was reanimated by Hawaiians and foreigners residing there, and by farmers continuing to work the irrigated field system, which had been converted from taro to rice. Farming continued up to the first decades of this century until the Ala Wai Canal drained the remaining ponds and irrigated fields. Remnants of the pre-Contact and historical occupation of Waikīkī have been discovered and recorded in archaeological reports, usually in connection with construction activities. These discoveries have included many traditional Hawaiian and historic burials, as well as pre-Contact Hawaiian and historic cultural deposits. A representative list of projects conducted in the Waikīkī area is listed in Table 1. A discussion of projects focusing on burials (Figure 14) follows.

N.B. Emerson reported on the uncovering of human burials during the summer of 1901 on the property of James B. Castle (location of the present Elks Club) in Waikīkī during excavations for the laying of sewer pipes (Emerson 1902:18-20). Emerson noted:

The soil was white coral sand mixed with coarse coral debris and sea-shells together with a slight admixture of red earth and perhaps an occasional trace of charcoal. The ground had been trenched to a depth of five or six feet, at about which level a large number of human bones were met with, mostly placed in separate groups apart from each other, as if each group formed the bones of a single skeleton. Many of the skulls and larger bones had been removed by the workmen before my arrival, especially the more perfect ones. (Emerson 1902:18)

Emerson describes the remains of at least four individuals, all presumable Hawaiian. Burial goods were also exposed during excavation; these included “a number of conical beads of whale-teeth such as the Hawaiians formerly made” and “a number of round glass beads of large size”. The glass beads “can be assigned with certainty to some date subsequent to the arrival of the white man” (Emerson 1902:19). Also located with the beads was “a small sized niho-palaoa, such as was generally appropriated to the use of the chiefs” which had been “carved from the tooth of the sperm-whale” and which was “evidently of great age” (Emerson 1902:19).

In the 1920s and 30s the first systematic archaeological survey of O‘ahu was conducted by J. G. McAllister (1933). He recorded four heiau, three of which were located at the mauka reaches of Waikīkī Ahupua‘a in lower Mānoa Valley. The fourth heiau – Papa‘ena‘ena - was located at the foot of Diamond Head crater in the environs of the present Hawai‘i School for Girls. Papa‘ena‘ena Heiau is traditionally associated with Kamehameha I, who was said to have visited the heiau before setting off to battle for Ni‘ihau and Kaua‘i in 1804. Five years later, according to John Papa I‘i‘i, Kamehameha placed at Papa‘ena‘ena the remains of an adulterer - “all prepared in the customary manner of that time” (“I‘i‘i 1959:50-51).

In 1963, two human skulls and other human remains were discovered in a construction trench at 2431 Prince Edward St. (Bishop Museum Site Oa-A4-23, cited in Neller 1984). Multiple burials were encountered in 1963 during excavation for the construction of the present Outrigger Canoe Club at the Diamond Head end of Kalākaua Avenue. As reported in a newspaper article on Jan. 24, 1963:
The Outrigger Canoe Club yesterday dedicated its new site [on land adjacent to and leased from the Elks Club], an ancient Hawaiian burial ground in Waikīkī.

Robert Bowen of the Bishop Museum has been working closely with Ernest Souza, Hawaiian Dredging superintendent, on the removal of skeletons unearthed on the site, between the Colony Surf and the Elks Club.

Most of the bodies were buried in the traditional hooliwa position, with the legs bound tightly against the chest.

One of the skeletons, Bowen said, shows evidence of a successful amputation of the lower forearm, indicating that the Hawaiians knew this kind of operation before the arrival of Europeans.

The ages of the skeletons ranged from children to 40-year-old men and women. The average life span of the Hawaiians at the time was about 32 years. (Honolulu Star-Bulletin; Jan. 24, 1963: 1A)

A total of 27 burials were encountered at the Outrigger Canoe Club (Yost 1971: 28). Apparently, no formal archaeological report on the burials was produced.

In 1964, sand dune burials, a traditional Hawaiian mortuary practice, were revealed as beach sand eroded fronting the Surfrider Hotel (Bishop Museum Site Files).

In 1976, during construction of the Hale Koa Hotel, adjacent to the Hilton Hawaiian Village Hotel, six burials were unearthed, five of apparent prehistoric or early historic age, and one of more recent date (Bishop Museum Site Files).

In 1980, three burials were exposed at the Hilton Hawaiian Village during construction of the hotel's Tapa Tower. Earl Neller of the (then named) State Historic Preservation Program was called in upon discovery of the burials and conducted fieldwork limited to three brief inspection of the project area. Neller's (1980) report noted:

The bones from three Hawaiian burials were partially recovered; one belonged to a young adult male, on a young adult female, and one was represented by a single bone. An old map showed that rapid shoreline accretion had occurred in the area during the 1800s, and that the beach in the construction area was not very old. It is possible the burials date back to the smallpox epidemic of 1853. It is likely that burials will continue to be found in the area. It is also possible that early Hawaiian sites exist farther inland, beneath Mōʻiliʻili, adjacent to where the shoreline would have been 1000 years ago. (Neller 1980:5)

Neller also documented the presence of trash pits, including one from the 1890s which contained "a large percentage of luxury items, including porcelain tablewares imported from China, Japan, the United States, and Europe" (Neller 1980:5). He further notes:

It is suspected that other important historic archaeological sites exist in the highly developed concrete jungle of Waikīkī, with discrete, dateable trash deposits related to the different ethnic and social groups that occupied Waikīkī over the last 200 years. (Neller 1980:5)
<table>
<thead>
<tr>
<th>Reference</th>
<th>Type of Investigation</th>
<th>General Location</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>McAllister 1933</td>
<td>Island-wide survey</td>
<td>All of O‘ahu</td>
<td>All of Waikīkī designated SIHP No. 50-80-14-60.</td>
</tr>
<tr>
<td>Nakamura 1979</td>
<td>History Graduate Thesis</td>
<td>Waikīkī</td>
<td>History of Waikīkī with focus on the radical changes in land use that occurred in the early 20th century.</td>
</tr>
<tr>
<td>Neller 1980</td>
<td>Monitoring Report</td>
<td>Kālia Burial Site: Hilton Hawaiian Village</td>
<td>Brief field inspection: partial recovery of 3 historic Hawaiian burials, trash pit from 1890’s, no prehistoric Hawaiian sites.</td>
</tr>
<tr>
<td>Bishop Museum 1981</td>
<td>Testing, Excavations, and Monitoring</td>
<td>Halekulani Hotel</td>
<td>Intact cultural deposits found.</td>
</tr>
<tr>
<td>Neller 1981</td>
<td>Reconnaissance Survey</td>
<td>Halekulani Hotel</td>
<td>Limited background research on area</td>
</tr>
<tr>
<td>Acson 1983</td>
<td>Historical Research</td>
<td>‘Ewa to Diamond Head</td>
<td>Nine walks through Waikīkī, photos, maps and historical info.</td>
</tr>
<tr>
<td>Bishop Museum 1984</td>
<td>Burial Remains List</td>
<td>Waikīkī Ahupua‘a</td>
<td>Listing of burial remains found in Waikīkī Ahupua‘a at the Bishop Museum</td>
</tr>
<tr>
<td>Davis 1984</td>
<td>Archaeological and Historical Investigation</td>
<td>Halekulani Hotel</td>
<td>48 historic and prehistoric features excavated.</td>
</tr>
<tr>
<td>Neller 1984</td>
<td>Informal Narrative Report</td>
<td>Paoakalani Street</td>
<td>Recovery of human skeletons at construction area</td>
</tr>
<tr>
<td>Griffin 1987</td>
<td>Burial Recovery Report</td>
<td>Along Kalākaua Ave. near corner of Kai‘ulani St.</td>
<td>Bones removed and bagged by construction crew, burial found in makai wall of gas pipe excavation.</td>
</tr>
<tr>
<td>SHPD 1987</td>
<td>Burial, PA Report</td>
<td>Kalākaua Ave.</td>
<td>From excavation adjacent to Moana Hotel (SIHP No. 50-80-14-9901).</td>
</tr>
<tr>
<td>Davis 1989</td>
<td>Reconnaissance Survey and Historical Research</td>
<td>Fort DeRussy</td>
<td>Fishponds and other features are buried in this area4573 through -4577 are fishponds, SIHP No. 50-80-14-4570 is a remnant cultural deposit.</td>
</tr>
<tr>
<td>Riford 1989</td>
<td>Background Literature Search</td>
<td>TMK: 2-6-014:039</td>
<td>List of literature pertaining to Waikīkī area.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
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</tr>
<tr>
<td>Rosendahl 1989</td>
<td>Inventory Survey, Prelim. Report</td>
<td>Fort DeRussy</td>
<td>Historic artifacts, no human remains</td>
</tr>
<tr>
<td>Athens 1990</td>
<td>Letter</td>
<td>TMK: 2-6-023:025</td>
<td>Letter to SHPD listing human remains at IARIJ lab from Pacific Beach Hotel, and Barbers Point Generating Station.</td>
</tr>
<tr>
<td>Hurst 1990</td>
<td>Historical Literature Search</td>
<td>Waikikian Hotel</td>
<td>Background and planning document. No fieldwork was done.</td>
</tr>
<tr>
<td>Davis 1991</td>
<td>Monitoring Report</td>
<td>Fort DeRussy</td>
<td>See also Davis 1989. Subsurface features and material remains date to early post-contact times (c. 1780s to 1790s) through the mid-19th century.</td>
</tr>
<tr>
<td>Kennedy 1991</td>
<td>Monitoring Report</td>
<td>TMK: 2-6-022:014 IMAX theatre location</td>
<td>Pollen and bulk-sediment $^{14}$C samples from ponded sediments were recovered. The three $^{14}$C dates and pollen sequence were inverted.</td>
</tr>
<tr>
<td>SHPD 1991</td>
<td>Public Inquiry</td>
<td>TMK: 2-6-024:036</td>
<td>Bones were determined to be non-human and part of the extensive fill material present</td>
</tr>
<tr>
<td>Simons et al. 1991</td>
<td>Interim Field Study, Monitoring and Data Recovery</td>
<td>Moana Hotel Area</td>
<td>8 burials, preliminary osteological analysis indicates pre-Contact type; pre- and post artifactual material recovered.</td>
</tr>
<tr>
<td>Hurlbett 1992</td>
<td>Monitoring Report</td>
<td>TMK: 2-6-008:001</td>
<td>SIHP No. 50-80-14-2870 (3 burials) found by Neller in 1980. This report is on testing and monitoring in same area.</td>
</tr>
<tr>
<td>Pietruszewsky 1992a</td>
<td>PA Report</td>
<td>Moana Hotel</td>
<td>Right half of human mandible found by hotel guest.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
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</tr>
<tr>
<td>Streck 1992</td>
<td>Memorandum for Record</td>
<td>Fort DeRussy</td>
<td>Human burial discovery (believed to be late prehistoric Hawaiian) during data recovery excavations, May, 20, 1992.</td>
</tr>
<tr>
<td>Cleghorn 1993</td>
<td>Inadvertent Discovery of Human Remains</td>
<td>Waikīkī Aquarium</td>
<td>Remains of one human individual, mandible identified.</td>
</tr>
<tr>
<td>Dagher 1993</td>
<td>Inadvertent Discovery of Human Remains</td>
<td>Waikīkī Aquarium</td>
<td>Human remains of at least one person identified, excavation recommended.</td>
</tr>
<tr>
<td>Dega &amp; Kennedy</td>
<td>Inadvertent Discovery of Remains</td>
<td>Waikīkī Aquarium</td>
<td>Discovery of unidentified bone fragments, all remains turned over to SHPD.</td>
</tr>
<tr>
<td>Hammatt &amp; Chiogioji 1993</td>
<td>Archaeological Assessment</td>
<td>16-Acre Portion of the Ala Wai Golf Course</td>
<td>Not associated with any know surface archaeological site, however prehistoric and early historic occupation layers associated with lo‘i system remain intact below modern fill. Specific sampling strategy and potential burial testing recommended.</td>
</tr>
<tr>
<td>Maly et al.</td>
<td>Archaeological and Historical Assessment Study</td>
<td>Convention Center Project Area</td>
<td>Recommend subsurface testing to determine presence or absence of cultural deposits and features.</td>
</tr>
<tr>
<td>Hammatt &amp; Shideler 1995</td>
<td>Sub-surface Inventory Surface</td>
<td>Hawai‘i Convention Center, 1777 Kalākaua Ave.</td>
<td>No further work recommended.</td>
</tr>
<tr>
<td>Jourdane 1995</td>
<td>Inadvertent Discovery of Human Remains</td>
<td>Paoakalani Avenue</td>
<td>Human skeletal remains discovered in planted strip between street and sidewalk fronting hotel.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
<tr>
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</tr>
<tr>
<td>Simons et al. 1995</td>
<td>Data Recovery Excavations</td>
<td>Fort DeRussy</td>
<td>Historic and prehistoric artifacts, and midden materials collected from 7 occupation layers. 6 prehistoric cultural features recorded: &quot;auwai bunds and channels, fishpond walls and sediments, a possible lo'i, and hearths.</td>
</tr>
<tr>
<td>Cleghorn 1996</td>
<td>Inventory Survey</td>
<td>TMK: 2-6-016:23, 25, 26, 28, 61, 69</td>
<td>7 backhoe trenches excavated, no sites located.</td>
</tr>
<tr>
<td>Grant 1996</td>
<td>Historical Reference</td>
<td>Waikīkī</td>
<td>Historical information about Waikīkī prior to 1900.</td>
</tr>
<tr>
<td>Hammatt &amp; Shideler 1996</td>
<td>Data Recovery</td>
<td>Hawai‘i Convention Center</td>
<td>No clear evidence that Kuwili Pond sediments present in project area; no further work recommended.</td>
</tr>
</tbody>
</table>
| McDermott et al. 1996 | Inventory Survey | ‘Āinahau Estate | Buried remnants of ‘auwai and lo‘i and human burial found. 
| Denham et al. 1997 | Data Recovery Report | Fort DeRussy | Excavations conducted at fishponds, 
| Denham & Pantaleo 1997 | Monitoring and Excavations Report | Fort DeRussy | Final Report does not include SHPD recommendations. 10 subsurface features and 9 burial locations found. 
| Beardsley & Kaschko 1997 | Monitoring and Data Recovery Report | Pacific Beach Hotel Office Annex | Traditional Hawaiian cultural deposits and 2 human burials. 3 
<p>| Hammatt &amp; Chigioji 1998 | Assessment | King Kalākaua Plaza Phase II | No surface archaeological sites, documented human burials, presence of subsurface cultural deposits (both of pre-Contact Hawaiian and historic provenance). |
| Hammatt &amp; McDermott 1999 | Burial Disinterment Plan and Report | Kalākaua Avenue | Two human burials found |
| Perzinski et al. 1999 | Monitoring Report | Along Ala Wai Blvd., Kalākaua Ave., and ʻEna Rd. | Two human burials found (1 preceding monitoring); pockets of undisturbed layers still exist. Burial #2 previously disturbed. |
| Rosendahl 1999 | Interim Report: Inventory Survey | Fort DeRussy | This area is part of the old shoreline. |</p>
<table>
<thead>
<tr>
<th>Reference</th>
<th>Type of Investigation</th>
<th>General Location</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hammatt &amp; Chiogioji 2000</td>
<td>Archaeological Assessment</td>
<td>Honolulu Zoo Parcel</td>
<td>Majority of zoo parcel unlikely to yield significant cultural deposits. However, strong possibility of significant subsurface cultural deposits in the SW portion. Monitoring is recommended in this area.</td>
</tr>
<tr>
<td>LeSuer et al. 2000</td>
<td>Inventory Survey</td>
<td>King Kalākaua Plaza Phase II</td>
<td>SIHP No. 50-80-14-5796 has been adversely affected by land alteration of the project area. SIHP No. 50-80-14-4970, has been adequately documented.</td>
</tr>
<tr>
<td>Perzinski et al. 2000</td>
<td>Burial Findings</td>
<td>Kalākaua Ave. between Kai’ulani and Monsarrat Avenues</td>
<td>44 sets of human remains; 37 disinterred, 7 left in place; believed to be Native Hawaiian, interred prior to 1820.</td>
</tr>
<tr>
<td>Cleghorn 2001</td>
<td>Mitigation</td>
<td>Burger King Construction</td>
<td>Concerning three incidents of uncovered human remains while locating a buried sewer-line for the ABC’s store.</td>
</tr>
<tr>
<td>Corbin 2001</td>
<td>Inventory Survey</td>
<td>Hilton Waikiki Property</td>
<td>No archaeological sites were found during excavations of the area</td>
</tr>
<tr>
<td>Elmore &amp; Kennedy 2001</td>
<td>Burial Report</td>
<td>Royal Hawaiian Hotel</td>
<td>Human remains found during trench excavations for conduit. The in situ remains were left in place, while the disturbed remains were re-interred with the others.</td>
</tr>
<tr>
<td>McGuire &amp; Hammatt 2001</td>
<td>Cultural Assessment for Waikī Beach Walk Project</td>
<td>Along Lewers St., Beach Walk, Kālia Rd. and Saratoga Rd.</td>
<td>Primary cultural concern identified as inadvertent burial discovery. Cultural monitoring recommended for all subsurface work within project area.</td>
</tr>
<tr>
<td>Perzinski &amp; Hammatt 2001a</td>
<td>Monitoring Report</td>
<td>Kapiʻōlani Bandstand</td>
<td>A charcoal layer was observed, concentrated on the SW side of the bandstand; recovered indigenous basalt lamp with a handle, from the SE end of the bandstand.</td>
</tr>
<tr>
<td>Perzinski &amp; Hammatt 2001b</td>
<td>Monitoring Report</td>
<td>Kapiʻōlani Park</td>
<td>No cultural layer, artifacts, midden or human burials were encountered during the excavations.</td>
</tr>
<tr>
<td>Perzinski &amp; Hammatt 2001c</td>
<td>Monitoring Report</td>
<td>Kalākaua Avenue from the Natatorium to Poni Moʻi Road</td>
<td>No cultural layer, artifacts, midden or human burials were encountered during the excavations.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
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<td>----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rosendahl 2001</td>
<td>Assessment Study</td>
<td>Outrigger Beach Walk</td>
<td>Assessment of previous archaeology and historical literature.</td>
</tr>
<tr>
<td>Winieski &amp; Hammatt 2001</td>
<td>Monitoring Report</td>
<td>TMK: 1-2-6-025:000</td>
<td>There is a possibility that Hawaiian or Historic materials as well as human burials may still be present within the project area.</td>
</tr>
<tr>
<td>Borthwick et al. 2002</td>
<td>Inventory Survey</td>
<td>71,000 sq. ft. parcel, TMK: 2-6-016:002</td>
<td>No burials were found during testing; absence of dry jauca sand deposits indicate that burial finds are unlikely in project area.</td>
</tr>
<tr>
<td>Bush et al. 2002</td>
<td>Monitoring Report</td>
<td>Kalākaua Avenue, between Ala Moana Blvd. and Kapahulu Ave.</td>
<td>Encountered 4 human burials, probably pre-Contact Native Hawaiians; several historic trash pits; entire pig within an imu pit (estimated date, A.D. 1641-1671); gleyed muck associated with former ponds.</td>
</tr>
<tr>
<td>Calis 2002</td>
<td>Monitoring Report</td>
<td>Lemon Road</td>
<td>No historic deposits, major previous disturbance</td>
</tr>
<tr>
<td>Elmore &amp; Kennedy 2002</td>
<td>Monitoring Report</td>
<td>Fort DeRussy</td>
<td>No findings.</td>
</tr>
<tr>
<td>Mann &amp; Hammatt 2002</td>
<td>Monitoring Report</td>
<td>Liliʻuokalani Avenue and Uluniu Avenue</td>
<td>5 burial finds of 6 individuals; two historic trash pits.</td>
</tr>
<tr>
<td>Winieski et al. 2002a</td>
<td>Monitoring Report</td>
<td>Kalākaua Ave. between Kaʻiulani and Monsarrat Avenues.</td>
<td>44 human burials encountered, 37 disinterred; buried habitation layer identified, with traditional Hawaiian artifacts, midden, firepits, and charcoal; fragment of light gauge rail, remnant of Honolulu Transit trolley system, observed; low energy alluvial sediments associated with the new channelized miliwai Kukaunahi also observed.</td>
</tr>
<tr>
<td>Winieski et al. 2002b</td>
<td>Monitoring Report</td>
<td>Kūhiō Beach</td>
<td>Skeletal remains of 10 individuals, six disinterred, only 2 in situ. 4 indigenous artifacts, none in situ. Discontinuous cultural layer, historic seawall.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
<tr>
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</tr>
<tr>
<td>Bush et al. 2003</td>
<td>Monitoring Report</td>
<td>International Marketplace</td>
<td>Historic trash found.</td>
</tr>
<tr>
<td>Tulchin &amp; Hammatt 2003</td>
<td>Archaeological &amp; Cultural Impact Assessment</td>
<td>2284 Kalākaua Ave.</td>
<td>Notes possibility of burials in the project area; recommends an inventory survey with subsurface testing.</td>
</tr>
<tr>
<td>Freeman et al. 2005</td>
<td>Archaeological Inventory Survey</td>
<td>Hobron Lane</td>
<td>Four sites identified during subsurface testing; 1 disturbed burial; 1 coffin burial with two individuals; 1 cultural deposit; and, 1 fishpond sediment</td>
</tr>
<tr>
<td>O’Hare et al. 2005</td>
<td>Archaeological Inventory Survey</td>
<td>Kaio‘o Drive</td>
<td>SIHP No. 50-80-14-6848, a pre-Contact firepit radiocarbon dated to AD 1470-1660, was recorded.</td>
</tr>
<tr>
<td>O’Leary et al. 2005</td>
<td>Archaeological Inventory Survey</td>
<td>Former Waikiki 3 Theater</td>
<td>A likely pre-Contact Native Hawaiian human burial (SIHP # 50-80-14-6819) was identified</td>
</tr>
<tr>
<td>Bell &amp; McDermott 2007</td>
<td>Archaeological Inventory Survey</td>
<td>Former Waikiki</td>
<td>Two traditional Hawaiian burials of undetermined age (SIHP # 50-80-14-6873 &amp; SIHP # 50-80-14-6875) and a subsurface cultural layer, of pre- and post-Contact origin (SIHP # 50-80-14-6874) were identified.</td>
</tr>
</tbody>
</table>
Figure 14. Previous archaeological studies in the vicinity of the project area focusing on the locations of burials
Between December 1981 and February 1982, archaeologists from the Bishop Museum led by Bertell Davis conducted a program of excavations and monitoring during construction of the new Halekulani Hotel (Davis 1984). Six human burials were recovered along with “animal burials [and] cultural refuse from prehistoric Hawaiian firepits, and a large collection of bottles, ceramics, and other materials from trash pits and privies dating to the late 19th century” (Davis 1984:ii). Age analysis of volcanic glass recovered from the site led Davis to conclude: “For the first time we can now empirically date . . . settlement in Waikiki to no later than the mid-1600s” (Davis 1984:i). Just as significant to Davis was the collection of historic era material at the Halekulani site; he states:

[The] Halekulani excavations clearly demonstrate...that there is a definite need to consider historic-period archaeology as a legitimate avenue of inquiry in Hawaiian research. Furthermore, archaeology in the urban context can yield results every bit as significant as in less developed areas. Development in the 19th and early 20th centuries clearly has not destroyed all archaeological resources in Waikiki, Honolulu, or in any of the other urbanized areas of Hawai‘i. (Davis 1984:i)

In 1983, at the Lili‘uokalani Gardens condominium, seven traditional Hawaiian burials were recovered (Neller 1984). This had been the location of a bungalow owned by Queen Lili‘uokalani at the end of the nineteenth century. In addition to the burials, the site contained plentiful historic artifacts, and a pre-historic cultural layer pre-dating the burials.

In 1985, International Archaeological Research Institute, Inc. performed archaeological monitoring and data recovery at the Pacific Beach Hotel Office Annex (Beardsley and Kaschko 1997). Two traditional Hawaiian burials were discovered and removed. Intact buried traditional Hawaiian cultural deposits, including a late pre-Contact habitation layer, contained pits, firepits, post molds, artifacts, and food debris. The artifacts included basalt and volcanic glass flakes and cores, a basalt adze and adze fragments, worked pearl shells, a coral file and abraders, and a pearl shell fishhook fragment. Additionally, a late nineteenth century trash pit was discovered, which contained a variety of ceramics, bottles, and other materials.

During 1985 and 1986, archaeologists from Paul H. Rosendahl, Ph.D. Inc. (PHRI) conducted archaeological monitoring at the location of the Mechanical Loop Project at the Hilton Hawaiian Village, Waikiki. Much of this project area was disturbed by historic and modern construction and modification. Fifteen subsurface features were uncovered during the monitoring, all of which were determined to be historic trash pits or trenches. The dating of these features was based on dating the artifactual material they contained. All 15 features are thought to post-date 1881 based on this artifact analysis. The three partial burials reported by Neller (1980) were found within this project area (see above). No further burials were encountered during the PHRI field work (Hurlbrett et al. 1992).

In 1987, a human burial was discovered and removed at the intersection of Kalakaua Avenue and Ka‘iulani Street during excavations for a gas pipe fronting the Moana Hotel (Griffin 1987).

In 1988, the Moana Hotel Historical Rehabilitation Project (Simons et al. 1991) encountered human remains that amounted to at least 17 individuals. Based on stratigraphic association these burials were interred over time as the land form at the site changed. The sediment surrounding
these burials yielded traditional midden and artifact assemblages. The burials and human remains were found in the Banyan Court and beneath the hotel itself.

In 1989, skeletal remains were unearthed on the grounds of the Ala Wai Golf Course during digging of an electrical line trench for a new sprinkler system. The trench had exposed a pit containing two burials (Bath and Kawachi 1989: 2). The report suggests that one of the burials may have been disturbed earlier during grading for the Territorial Fair Grounds. The osteological analysis included in the report concludes that both sets of remains “appear ancient” (Bath and Kawachi 1989: 2).

Davis’ (1989, 1991) excavation and monitoring work at Fort DeRussy documented substantial subsurface archaeological deposits, prehistoric, historic, and modern. These deposits included buried fishpond sediments, ‘auwai (irrigation ditch) sediments, midden and artifact enriched sediments, structural remains such as post holes and fire pits, historic trash pits, and a human burial. Davis’ (1991) report documents human activity in the Fort DeRussy beach front area from the sixteenth century to the present.

The work at Fort DeRussy continued in 1992 when BioSystems researchers built upon Davis’ work (Simons et al. 1995). BioSystems research documents the development and expansion of the fishpond and ‘auwai system in this area. The ‘auwai system was entered on the State Inventory of Historic Properties (SIHP) as SIHP No. 50-80-14-4970. As indicated on the 1881 map by S. E. Bishop discussed above, this ‘auwai enters the Fort DeRussy grounds through the present project area. Remains of the fishpond and ‘auwai deposits, as well as habitation deposits, were documented below modern fill deposits. This research, along with that of Davis (1991), clearly demonstrates that historical document research can be an effective guide to locating late prehistoric/early historic subsurface deposits, even amidst the development of Waikīkī.

In 1992, Hurlbett et al. (1992) conducted additional monitoring and testing in this same area as Neller (1980). The three burials first found by Neller were designated SIHP No. 50-80-14-2870. Additional subsurface features, postdating 1881, were found during trenching operations.

The realignment of Kālia Road at Fort DeRussy in 1993 uncovered approximately 40 human burials. A large majority of these remains was recovered in a large communal burial feature (Carlson et al. 1994). The monitoring and excavations associated with this realignment uncovered a culturally enriched layer that contained post holes.

In 1993, during construction activities at the Waikīkī Aquarium, fragmentary human remains were discovered scattered in a back dirt pile, although no burial pit was identified (Dega and Kennedy 1993).

On April 28, 1994, an inadvertent burial discovery was made during excavation for a water line at the intersection of Kalākaua Avenue and Kuamo’o Street (just mauka of Fort DeRussy). These remains represented a single individual (McMahon 1994).

In 1995, the remains of one individual were discovered in situ during construction activities on Paoakalani Street, fronting the Waikīkī Sunset Hotel (Jourdane 1995).

In 1996, Pacific Legacy, Inc. conducted an archaeological inventory survey of the block bounded by Kalākaua Avenue, Kūhiō Avenue, ‘Olohana Street, and Kālaimoku Street (Cleghorn
The survey included excavation of seven backhoe trenches. The subsurface testing indicated that

\[\ldots\text{this area was extremely wet and probably marshy. This type of environment was not conducive for traditional economic practices.}\ldots\text{The current project area appears to have been unused because it was too wet and marshy. Several peat deposits, containing the preserved remains of organic plant materials were discovered and sampled. These deposits have the potential to add to our knowledge of the paleoenvironment of the area. (Cleghorn 1996:15)}\]

The report concluded that no further archaeological investigations of the parcel were warranted since “no potentially significant traditional sites or deposits were found”, but cautioned of the “possibility, however remote in this instance, that human burials may be encountered during large scale excavations” (Cleghorn 1996:15).

In 1996, a traditional Hawaiian burial was discovered and left in place during test excavations on two lots at Lili‘uokalani Avenue and Tusitala Street (McDermott et al. 1996). Indigenous Hawaiian artifacts and historic artifacts were also found within the project area.

In 1997, during archaeological monitoring by CSH for the Waikīkī Force Main Replacement project, scattered human bones were encountered on ʻŌhua Street (Winicski and Hammatt 2000). These included the proximal end and mid-shaft of a human tibia, a patella, and the distal end and mid-shaft of a femur. These remains occurred within a coralline sand matrix that had been heavily disturbed by previous construction, and by the on-going construction project. No precise location for the original burial site was identified.

In April 1999, two human burials were inadvertently encountered near the intersection of Ena Road and Kalākaua Avenue during excavation activities for the first phase of the Waikīkī Anti-Crime Lighting Improvements Project (Perzinski et al. 1999). These discoveries were the closest to the current project area on the makai side of Kalākaua Avenue.

From July 1999 to October 2000, four sets of human remains were inadvertently encountered during excavation activities relating to the Waikīkī Anti-Crime Street Lighting Improvement project along portions of Kalākaua Avenue (Bush et al. 2002). The first burial was encountered on Kalākaua Avenue, just before Dukes Lane and assigned SIHP No. 50-80-14-5864. The burial was left in place however, and the light post was repositioned. The second burial was encountered at the intersection of Kalākaua Avenue and Kaʻiulani Avenue. Earlier, during archaeological monitoring for the water mains project, two burials were encountered in the immediate area of the second burial find; they were assigned SIHP No. 50-80-14-5856 features A and B. Due to the close proximity to the previously encountered burials, the second burial was assigned the same SIHP No. 50-80-14-5856, and designated feature C. Burials 3 and 4 were recovered at the intersection of Kalākaua Avenue and Kealohilani, near an area of concentrated burials assigned SIHP No. 50-80-14-5860 during monitoring for the water mains project. Consequently, burials 3 and 4 were also assigned SIHP No. 50-80-14-5860, features U and V. In addition to human remains, pre-Contact deposits, historic and modern rubbish concentrations, and pond sediments were also encountered.

From November, 1999, to May, 2000, 44 human burials, with associated cultural deposits, were encountered during excavation for a waterline project on Kalākaua Avenue between the
Ka‘iulani and ‘Ōhua Avenues (Winieski et al. 2002a). Except for previously disturbed partial burials in fill, most of the burials were encountered within a coralline sand matrix. Additionally, a major cultural layer was found and documented.

From January 2000, to October 2000, 10 human burials were encountered during archaeological monitoring of the Kūhiō Beach Extension/Kalākaua Promenade project (Winieski et al. 2002b). Six of these were located within a coralline sand matrix. The four others were partial and previously disturbed within fill. Additionally, a major cultural layer was found and documented, apparently part of the same major cultural layer associated with the waterline project between Ka‘iulani and ‘Ōhua Avenues.

In April 2001, human remains were inadvertently disturbed during excavations associated with the construction of a spa at the Royal Hawaiian Hotel (Elmore et al. 2001). Archaeological Consultants of the Pacific, Inc was responsible for the documentation of the remainder of the burial and carrying out the instruction of DLNR/ SHPD. The burial and place it was encountered was assigned SIHP No. 50-80-14-5937. The burial was encountered on the North side of the hotel in the spa garden and partially disturbed through the thoracic region and anatomical left side. The disturbed remains were wrapped in muslin cloth and placed with the in situ remains and reburied. The burial was recorded as a post-Contact burial based on artifacts associated with it. The associated artifacts included one shell button found in situ and three more shell buttons found in the disturbed material. A single drilled dog tooth was found also during excavation but could not be positively associated with the site.

On May 2nd and June 14th, 2001, two in situ and two previously disturbed human burials were encountered at the location of a new Burger King (Cleghorn 2001a) and an adjoining ABC Store (Cleghorn 2001b). The finds were located at the intersection of ‘Ōhua Street and Kalākaua Avenue (Cleghorn 2001a and 2001b). Because of their proximity to five burials encountered during the Kalākaua 16" Water Main Installation (Winieski et al. 2002a), they were included in the previously assigned SIHP No. 50-80-14-5861. Three of these burials were recovered, and one was left in place. Volcanic glass fragments were found in association with one of the burials. A cultural layer was also observed which contained moderate to heavy concentrations of charcoal and fragments of volcanic glass. Historic era artifacts, including a bottle fragment, plastic and glass buttons, a ceramic fragment, and metal fragments were also encountered within fill materials.

In 2001 and 2002, CSH (Mann and Hammatt 2002) performed archaeological monitoring for the installation of 8- and 12-inch water mains on Uluniu Avenue and Lili‘uokalani Avenue. During the course of monitoring, five burials finds, consisting of six individuals, were recorded within the project area. Four burial finds were recorded on Uluniu Avenue; three of these inadvertent finds were found in fill sediment. Due to the nature of the three burial finds in fill, it was concluded that no site numbers be assigned to these three previously disturbed burials. The only primary in situ burial encountered on Uluniu Avenue was assigned SIHP No. 50-80-14-6369. The fifth burial, consisting of two individuals in fill material, was recorded from Lili‘uokalani Avenue. Since three burials had been found in the immediate vicinity during a previous project (Winieski et al. 2002b) and had been assigned to SIHP No. 50-80-14-5859, the two new individuals were recorded as Feature H of this previously recorded site.
In 2004, CSH conducted an archaeological inventory survey and cultural impact evaluation for the Ala Wai Gateway project site (Freeman et al. 2005). The project site was located at TMK 2-6-011:001, 002, 004, 32, 37, and 40, which are bounded by Ala Wai and Ala Moana boulevards, Hobron Lane, and Līpe'epe'e Street. Four historic properties were documented in the survey: SIHP No. 50-80-14-6700, a disturbed set of ethnicity undetermined, human skeletal remains; SIHP No. 50-80-14-6701, a historic coffin burial, with two individuals, ethnicity undetermined; SIHP No. 50-80-14-6702, a culturally enriched buried A horizon; and, SIHP No. 50-80-14-6703, a fishpond remnant.

In 2005, CSH conducted an archaeological inventory survey of a 1-acre parcel at 2284 Kalākaua Avenue, the location of the former Waikiki 3 Theater (O’Leary et al. 2005). A pre-Contact Native Hawaiian burial (SIHP No. 50-80-14-6819) was encountered during subsurface testing in the southeastern corner of the project close to Kalākaua Avenue and Dukes Lane. The burial was found at approximately 150 cmbs (4.9 ft. below surface) within organically stained (very dark grey to black) wetland agricultural soils present throughout the project area.

In 2007, CSH conducted an archaeological inventory survey of a 2.3-acre parcel located at the corner of Kalākaua Avenue and Ena Road (Bell and McDermott 2007). Two traditional Hawaiian burials of undetermined age (SIHP # 50-80-14-6873 and SIHP # 50-80-14-6875) and a subsurface cultural layer, of pre- and post-Contact origin (SIHP # 50-80-14-6874) were identified.

3.5 CSH Archaeological Assessment

CSH conducted an archaeological inventory survey (AIS), including subsurface testing, at the subject project area. The results of the archaeological study—which yielded no significant historic properties or resources—are presented in a companion report titled “Archaeological Assessment for the 1944 Kalākaua Avenue Project, Waikīkī Ahupua'a, Kona District, O'ahu. TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058” (Tulchin and Hammatt 2007). Because the AIS by CSH at the subject project area yielded no historic properties or resources, it was written up as an “archaeological assessment,” in accordance with HAR Chapter 13-13-284-5.

The fieldwork results of the AIS generally support the background research of the subject CIA, which indicates the project area consisted of loko i'a (fishponds) and/or lo'i kalo (taro ponds) that were utilized until the early twentieth century when Waikīkī became urbanized following the draining and filling of the area. Background research also indicates extensive traditional Hawaiian agriculture and habitation in the immediate vicinity of the project area, as evidenced by the presence of fishponds, wetland agricultural fields, and habitation sites. For these reasons, it is possible that remnant cultural deposits are still located within the project area.

The naturally deposited soils observed in the project area consist of a loam formed by the alluvial deposit of sediment and the decomposition of organic matter. This soil would have been excellent for agriculture and thus makes the potential for encountering cultural deposits associated with traditional Hawaiian agriculture more likely. Additionally, cultural deposits, including historic trash pits, associated with early twentieth century commercial and residential sites, may also be present.
Section 4  Community Consultations

Throughout the course of this CIA an effort was made to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about cultural practices and resources related to the project area and the Waikīkī Ahupua’a. This effort was made by letter, e-mail, telephone and in person contact. In the majority of cases, letters along with a map and aerial photograph of the project area were mailed with the following text:

At the request of American Commercial Equities Three, LLC, LP, (ACE3), Cultural Surveys Hawai‘i is conducting a cultural impact assessment for a proposed approximately 1.1 acre project at 1944 Kalakaua Avenue in Waikīkī Ahupua’a, Honolulu (Kona) District, Island of O‘ahu (Tax Map Keys: [1] 2-6-014: 001, 004, 006, 007, 008, 019, 058).

American Commercial Equities Three, LLC proposes to develop an approximately 14,300 square foot two-story commercial building and at-grade parking at the corner of Kalakaua Avenue and Niu Street, near the existing Local Motion Store. The proposed new building’s architectural character and scale, as well as the overall landscaping, would complement the existing Local Motion site. A sister company of ACE3, named “1958 Kalakaua Avenue LLC”, recently purchased the Local Motion property and building. No changes to the Location Motion building are proposed. ACE3 will seek a Conditional Use Permit for Joint Development of eight TMK parcels. The total area for the proposed development is 44,871 square feet. The proposed uses for the 1944 Kalakaua Avenue LLC project would be approximately 7,300 square feet of retail space on the ground floor and a 190-seat 7,000 square foot restaurant space on the upper floor. The existing driveway of Kalakaua Avenue would be removed. Vehicular access is proposed to be from Pau Street and Niu Street. See attached maps of the project area.

The purpose of this cultural study is to assess potential impacts to cultural practices as a result future development in the Waikīkī Ahupua’a. We are seeking your kōkua and guidance regarding the following aspects of our study:

- General history and present and past land use of the project, and surrounding, area.
- Knowledge of cultural sites which may be impacted by future development of the project area - for example, historic sites, archaeological sites and burials.
- Knowledge of Hawaiian gathering practices in and near the project area both past and ongoing.
- Cultural associations of the project area, legends and traditional uses.
- Referrals of kūpuna or elders and kama‘āina who might be willing to share their cultural knowledge of the project area and the surrounding ahupua’a lands and near-shore environment.
• Any other cultural concerns the community might have related to Hawaiian cultural practices and ongoing within or in the vicinity of the project area.

Several (3-5) attempts were made to contact individuals, organizations, and agencies apposite to the cultural impact assessment for Waikīkī Ahupua'a. The results of the community consultation process are presented in Table 2 and Figure 15.

Table 2. List of Community Contacts

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization, Affiliation</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ailā, William</td>
<td>Hui Mālama I Nā Kūpuna O Hawai‘i Nei</td>
<td>See Section 5 below for comment.</td>
</tr>
<tr>
<td>Among, Les</td>
<td>Waikīkī Neighborhood Board Subdistrict 1</td>
<td>Does not support the development. See Section 5 below for comment.</td>
</tr>
<tr>
<td>Apaka, Jeff</td>
<td>Waikīkī Neighborhood Board Subdistrict 2</td>
<td>Forwarded information to Native Hawaiian Hospitality Association.</td>
</tr>
<tr>
<td>Ayau, Edward</td>
<td>Hui Mālama I Nā Kūpuna O Hawai‘i Nei</td>
<td>CSH emailed letter on November 9, 2007. Email returned as undeliverable.</td>
</tr>
<tr>
<td>Halealoha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chinen, Melanie</td>
<td>State Historic Preservation Division, Administrator</td>
<td>CSH sent letter on November 5, 2007. As of December 7, 2007 Ms. Chinen is no longer the Administrator for the SHPD. CSH received a response from Linda Kaleo Paik, Cultural Specialist at SHPD. In an email sent on December 18, 2007, Ms. Paik recommended that recognized cultural and lineal descendants from the Waikīkī area be contacted about the proposed project, and offered to provide a list of descendants upon request.</td>
</tr>
<tr>
<td>Finley, Bob</td>
<td>Chair, Waikīkī Neighborhood Board</td>
<td>Unable to comment at this time.</td>
</tr>
<tr>
<td>Kaleikini, Paulette</td>
<td>Cultural Descendant of Waikīkī</td>
<td>Mrs. Kaleikini responded via email requesting that CSH use the mana‘o shared with CSH from a previous project in the Kālia area. See Section 5 for interview.</td>
</tr>
<tr>
<td>Ka‘anohi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Organization, Affiliation</td>
<td>Results</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Kahanamoku III, Samuel</td>
<td>Cultural Descendant of Waikīkī, Kālia</td>
<td>Mr. Kahanamoku responded via email requesting that CSH use the mana‘o shared with CSH from a previous project in the Kālia area. See Section 5 below for comment.</td>
</tr>
<tr>
<td>Kruse, T. Kehaulani</td>
<td>O‘ahu Island Burial Council</td>
<td>Ms. Kruse commented on the possible presence of burials due to the high population of Waikīkī in traditional times. Also loko i’a and lo‘i kalo were prevalent in that area. See Section 5 below for detailed response.</td>
</tr>
<tr>
<td>McQuivey, Jace</td>
<td>O‘ahu Island Burial Council, Chair</td>
<td>Mr. McQuivey has no comment at this time, but forwarded information to Kehaulani Kruse and Hina Wong of the O‘ahu Island Burial Council.</td>
</tr>
<tr>
<td>Naguwa, Joan</td>
<td>Waikīkī Community Center, Executive Director</td>
<td>Ms. Naguwa spoke as a representative of the community and is against commercial development of this area. See below for response.</td>
</tr>
<tr>
<td>Nāmu‘o, Clyde</td>
<td>Administrator, Office of Hawaiian Affairs</td>
<td>See Figure 15 for OHA response letter.</td>
</tr>
<tr>
<td>Nobrega, Malia</td>
<td>Waikīkī Hawaiian Civic Club</td>
<td>No response. All letters returned as undeliverable.</td>
</tr>
<tr>
<td>Name</td>
<td>Organization, Affiliation</td>
<td>Results</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Souza, William D.</td>
<td>Royal Order of Kamehameha, Kūhiō Chapter</td>
<td>CSH sent letter on November 5, 2007. Follow-up telephone and email correspondence, although no final comment.</td>
</tr>
</tbody>
</table>
December 6, 2007

Lisa Gollin  
Project Manager  
Cultural Surveys Hawai‘i, Inc.  
P.O. Box 1114  
Kailua, Hawai‘i 96734

Re: Cultural Impact Assessment  
Waikīkī Ahupua‘a, Kona District, Island of O‘ahu  
Tax Map Keys: 2-6-014:001, 004, 006, 007, 008, 019, 058

The Office of Hawaiian Affairs (OHA) is in receipt of your November 5, 2007 letter initiating consultation ahead of a cultural impact assessment for a proposed development project on the above mentioned tax map key parcels.

As you know, beginning in the 20th century, the landscape of Waikīkī has been modified significantly. Certain traditional accounts detail that the high chief Ma‘ilikukahi made Waikīkī his permanent residence c. 1400 and with a few exceptions, Waikīkī remained a location of the residences of ruling O‘ahu ali‘i into historic times. ‘Āpuakehau Heiau, located to the east of the project area, was of the luakini class and was where ali‘i such as Kauhiakama and Kahahana were offered as sacrifices. Several notable ali‘i were born in Waikīkī, which also became known as a training ground for both sport and warfare and for the construction of large lo‘i and loko i‘a.

The project area appears to be in the immediate vicinity of the loko i‘a known as Kaipuni. While the information in your letter indicates that the proposed project area is currently developed, there is a possibility that iwi kūpuna may be discovered during ground disturbance. Thus, OHA seeks assurances that if this project moves forward, should Native Hawaiian traditional, cultural, or burial sites be identified during ground disturbance, all work will immediately cease, and the appropriate agencies notified pursuant to applicable law.
Thank you for initiating consultation at this early stage and we look forward to the opportunity for a comprehensive review of the completed cultural impact assessment. Should you have any questions, please contact Keola Lindsey, Lead Advocate-Culture at (808) 594-1904 or keolal@oha.org.

'O wau iho nō,

[Signature]

Clyde W. Nāmu'o
Administrator
Section 5  Kamaʻāina Responses

CSH invited *kamaʻāina* and *kāpuna* with knowledge of Waikīkī and the proposed project area, located in the Kālia area of Waikīkī, to participate in “talk-story” sessions for this CIA. CSH employs snowball sampling, an informed consent process and semi-structured interviews (Bernard 2005). CSH typically provides study participants an opportunity to review transcriptions and/or interview notes, in order to make any changes to the substance of information they have shared. To assist in discussion of natural and cultural resources and any traditional cultural practices specific to the project area, CSH initiates the consultation process by asking consultants to address five broad categories: Gathering Practices, Marine and Freshwater Resources, Burials, Trails and Historic Properties. Six participants provided information about the proposed project and shared their knowledge of the history and *moʻolelo* of the Kālia area. The actual project is located within the *ahupuaʻa* of Waikīkī in an area known as Kālia. As stated in the Area of Potential Effect (APE) section of the Management Summary, some *moʻolelo* and history about Kālia and Waikīkī that was shared by participants for other nearby projects is also relevant to this project.

5.1 Mrs. Paulette Kaʻanohi Kaleikini

During a previous interview with CSH, Mrs. Paulette Kaleikini, a lineal descendant of Waikīkī, shared her concerns about development in Waikīkī. Upon consultation for the 1944 Kalākaua Avenue project, Mrs. Kaleikini requested CSH use information provided in previous interviews about the Kālia area for this report.

Mrs. Paulette Kaleikini was born on June 13, 1952, to Samuel Kekoʻo Kawainui and Alice Kekahiilokamokukeli Keaweamahi. Mrs. Kaleikini’s great-grandfather’s home was situated along Kalākaua Avenue and Makanoe Lane in the Kālia area of Waikīkī. All of his children were born there including her mother Alice. Her great-grandfather was given the land by his cousin, W.L. Moehonua, the son of ‘Aikanaka, the grandfather of Kalākaua and Liliʻuokalani. Mrs. Kaleikini commented on the Kālia area in a “talk-story” session on May 25, 2006:

Regarding the project area, it is at the exact site of where my ‘ohana had their home, ka hale o kuʻu makauhine or the house of my mother was located. The name of the lane was Makanoe; listed is Makao. My great-grandfather's home, G.W. Keaweamahi, was situated along Kalākaua Avenue and Makanoe Lane. All his children were born in that hale. My mother was born in that hale, as well along with her siblings. There were several homes on that block and my mother's aunts and uncles lived on that compound. Those homes were situated from Kalākaua to Hobron Lane. My parents later occupied the home of one of her aunts that was situated on Hobron Lane. All my kuaʻana or older siblings were born in that hale.

My great-grandfather was given this ‘āina by his cousin, W.L. Moehonua, the son of ‘Aikanaka, the grandfather of Kalākaua and Liliʻuokalani.

My mother is Alice Kekahiilokamoku Keliilumilani Keaweamahi. She was born in Kālia on this property proposed for development. My father is Samuel Kekoʻo Kawainui and he is from Punaluʻu, Kaʻū on the Big Island.
My mother’s father was William Nehemaia Keaweamahi. He was the son of George William Keaweamahi and Caroline Kamake’e Fern. Caroline Fern was the sister of Joseph James Fern who was the first mayor of Honolulu. My great grandfather George William Keaweamahi, was the son of Ialua who had come over here to O‘ahu with the early chiefs, mainly in the days of ‘Aikanaka when they were cutting sandalwood. They came here and this is how Moehonua was born at the time of sandalwood in Mokulē‘ia. My great-great grandfather Ialua who also is Keaweamahi, my great grandfather was named after him. Ialua was the kahū of ‘Aikanaka, he and his brother were kahū of ‘Aikanaka. My great-great grandfather’s sister Napua was the wahine of Keaweamahi. She also became ‘Aikanaka’s wife. So Moehonua’s parents are Napua and ‘Aikanaka.

There were two lanes that run parallel to each other, Makanoe Lane and Makaoe Lane. My mother used to bring us here. I was the only one of my siblings that was not born here on this land. What I know is that this area once belonged to Moehonua and when he passed away it went into probate, so my great grandfather George William had fought King Kalākaua for this ‘āina, who was also by blood was the nephew of Moehonua. It was the King’s mother, Keohokālole who would not acknowledge that Moehonua was indeed her koko or blood, so in the end my great grandfather won the probate and got back the ‘āina. That is why my grand father was born here and my mother and all my siblings. We lost the ‘āina when my great grandfather George William had passed away. My great grand mother Caroline Kamakee Fern was still raising her children, so it was Eaton Magoon, who saved the day and helped her to raise the keiki. So in gratitude she let them have the ‘āina and then Caroline also had a child by him too.

In the 1950s we would come to this place with my mother, we often came down here to go to Gray’s Beach on the other side of the Hawaiian Village. Gray’s Beach was where we used to gather limu. She mentioned that from her home on Makanoe Lane, you could see clear to the beach and even to where the ‘Ilikai Hotel is today, there was nothing to obstruct the view to the sea.

The lifestyle when my grand parents where here was becoming westernized already. There were certain lā‘au or medicine plants around here. My mother knew a lot about plant uses and would come back to the area to gather. I do not remember the plants she gathered.

I do not remember any kalo cultivation in my time. The ponds were dried up already. The area was being developed by my time. My family moved away around 1948, ’49.

I do not remember any trails in the area. My siblings used to take trails to the beach. My family was not fishing people; they were more in charge of the fishpond Moehonua in the early years of the chief.

I never heard any legends other than when my grandfather and his brothers who were swimmers and lifeguards, along with the Kahanamoku Family. The story told to me was that after work in the evenings they would see Princess Ka‘iulani following them home.

My grandfather’s brother was named “Tough Bill.” He was an early prison guard and later a chauffer for the actors that used to come here. One in particular was Errol Flynn. Every time he came to Waikīkī, “Tough Bill” would pick him up and bring him to Kālia. Then one of my
sisters on her first birthday, when the family made an old style lū‘au, Errol Flynn threw the bash. They closed down Makanehe Lane and Kalākaua Avenue.

There was a place that went along Makanehe Lane on the corner and what is now Hobran Lane called “Squatters Ville”. People like Gabby Pahinui used to live there. That is how my family knows Gabby. The Pahinui Family and my mother were raised together. My mother’s only brother used to play music with Gabby. The other families that used to live there were the Palimoʻo Family. Squatter Ville was a housing area where the Hawaiians lived for awhile in transition. All the families that lived there and in my family’s area knew each other.

The White Family had more of a mansion house on the other side of my family’s house. The Jermiles had a house right in front next to where The Wave is today [in 2006] on Kalākaua Avenue. There was also a family by the name of Kaina who also lived in the area.

There was something on Ena Road and Kalākaua Avenue where the parking lot is today. There was a photography gallery right on the corner, Baker was the name. He often took pictures of people living in Kālia area

There was a lot of Kiawe in the area. My family did have an imu for whenever they had lū‘au. My tū́ū’s house was right where the parking structure for Waipuna is today.

There are no on-going cultural practices today. There is one mango tree planted by my brother which would mark the lānai of my family’s hale. It is the one with the straight trunk. There were also a lot of hau trees around the house.

What concerns me now, is that some of my kūpuna that traveled to Oʻahu with ‘Aikanaka, never made it back to Moku o Keawe or the Island of Hawaiʻi. My great-great grandfather never made it back to Kaʻawaloa. His cousin, the kahu of ‘Aikanaka and Moehonua, also never made it back. It was normal cultural practice that the ‘ohana be buried on the ʻāina where they lived. I am feeling a lot sadness in that they may be buried there. My great-great-grandfather, Ialua, took care of the mullet fishpond that was situated on the Moehonua property. The mullet from this fishpond was frequently provided to Kamehameha I whenever he was on Oʻahu, as he was ‘ohana to my great-great-grandfather, Ialua. Kamehameha also lived in this area for a while and tended to loʻi that he developed. Ialua may be buried somewhere on the land in flexed position.

The kahu of Moehonua, Kauā, was left here by ‘Aikanaka to attend Moehonua. When Kauā passed away, he was buried western style in a coffin. He was placed in the coffin with the niho palaoa and malo that belonged to ‘Aikanaka. The exact location of the burial I do not know.

5.2 Mr. Samuel Alapai Taula Kahanamoku III

Mr. Samuel Alapai Taula Kahanamoku III is a member of the Kahanamoku Family who are kamaʻaina of Waikīkī. On March 27, 2008, Mr. Kahanamoku kindly gave CSH permission to use information previously given to CSH regarding a project in the Kālia area, adjacent to the subject project area. Responding via email on May 31, 2006, Mr. Kahanamoku’s manaʻo (thoughts or concerns) is presented in its entirety below:
Received your letter concerning the TMK [1] 2-6-13:1,3,4,7,8,9,11,12 of Waikiki Ahupua’a, Kona District, Island of Oahu.

In regards to the following issues:

- General history and present and past use of the studies of the area.
- Knowledge of cultural sites that may be impacted by the project, e.g., historic sites, archaeological sites, burials.
- Knowledge of traditional gathering practices in the study area both past and present.
- Cultural association with the study area through legends, traditional use of otherwise.
- Referrals of Kūpuna or elders who might be willing to share their culture knowledge of the study area in general.
- Any other cultural concerns the community might have related to Hawaiian or other cultural practices in this section of Waikiki.

As what has been handed down by family knowledge the section you are referring to was one of semi dry land before Ben Dillingham dug the Ala Wai.

As the area from the Magoon Estate to the semi fishing village Kālia from whence I come from, encompass all the area except the Moody Property. At the corner of what was Waikīkī Blvd. and John ‘Ena Road. Was the most famous area in the Territory of Hawai‘i, after the canal was finished, but has lost its prestige from time even in memory, but may be found in books dare to publish for the masses to acquire as history of the Territory of Hawai‘i or true Hawaiian history recorded by the courts of that era. But before entering I shall indulge you of the land area that the developers of Fifield Companies are interested in future production in their interest of commercialization to which they have that right! That area was Chinese owned I remember the Wong’s and their restaurant the Lee Family Ching, Ah fuk, Martins, whom Sargent Kahanamoku married into Martin/Furtado i.e. Anne Furtado (Maui). Most of the homes eventually became rentals in the latter 30s and two night clubs existed one was called The Good Earth, a Chinese restaurant and a bar called Kalākaua Inn but do not quote me on the Inn it may have had a different name, but it was a beach boy hang out.

As far as I was told no Hawaiian were buried in that area as the ground was not suitable for burial as the ground before the Ala Wai Canal was swamp and not suitable for the purpose if remains (bones) are found it will be dated from after the Ala Wai, as the dirt removed from the canal was used to fill the swamp and that area known back then as the Magoons. Perhaps it has been lost over time but the land was blue clay like quick sand one of weight would sink and would need help to get out, most of the ponds were filled with sand and mud, the mud from the St. Louis river and the Pawaa River and Kapahulu had a river but sporadic in flow. Most of Waikīkī was swamp that till today the hotels are jacked to keep it from sinking into the swamp. What people and Archaeologist don’t realize is that Waikīkī mostly Kālia is a volcanic chimney of Punchbowl and is below sea level. The Ala Wai was semi solid land at
the time of construction. The only heiau were kuula type and unsound as the tide at that time would destroy it and the process was repeated. Only known heiau till today is at Lē‘ahi.

2,3,4,5,6 Which are assumptions if referred to by anyone now of that district as most of the populace at the time of the construction of the canal moved to Ka‘a‘awa (Hawaiian taro growers, Chinese rice growers) and those that stayed were from the Kalia fishing village encompassed the Nu‘umalu Bay known for its opae.

As for the corner of 'Eina Road and Kalākaua it’s fame is that is where the fornication by one Sam Kahanamoku from his 1934 Packard only to be follow in a vehicle by the four accused and accused by said wife of rape. If interested it can be found over the internet or in books. Thus began the hatred for the white race i.e. HAOLE. Now that incident has implied it self into the genes of the Hawaiian and Multi Races of Hawai‘i. As no one is thought to hate the haole it is now genetic we are with it. The strength of propagandizing can leave the memory banks and create a genetic cell! Call hate.

The ramifications can never be viewed beyond greed as over population is like the crabs in a bucket syndrome, while being in the mists of the revolution between the microbes and the faunas.

5.3 Ms. Kehaulani Kruse

CSH conducted a telephone interview with Ms. Kehaulani Kruse on February 14, 2008. Other correspondence via mail occurred following the initial interview. A member of the O‘ahu Island Burial Council who has also learned about the history of Waikīkī, Ms. Kruse shared her concerns and comments about this particular project area.

Historically the area of Waikīkī was very important. Ms. Kruse shared during the interview that “Waikīkī had a large population and it is known that due to this large population of people, there are burials located throughout Waikīkī.” She also mentioned the very real possibility that iwi may be discovered, and if so, they should be treated respectfully and appropriately.

Waikīkī had an abundance of loko i‘a and lo‘i kalo. These ponds existed long before the construction of the Ala Wai in the early 1920s. Ms. Kruse notes, “There were large patches of lo‘i kalo and loko i‘a throughout that entire area. These ponds were then used as duck ponds, and later were drained for the construction of the Ala Wai.” Today the loko i‘a and lo‘i kalo that historically existed adjacent to the project site have been filled in and no longer exist.

5.4 Ms. Joan Naguwa

CSH conducted a phone interview with Ms. Joan Naguwa on February 14, 2008. Subsequent correspondence via letters and email supplemented the initial interview. Ms. Naguwa is the Executive Director of the Waikīkī Community Center located in the heart of Waikīkī. During the phone interview with CSH, Ms. Naguwa spoke from a local perspective and voiced the concerns of the community regarding this project area.

This project area is located in Waikīkī and is currently an empty lot: “Something needs to be done with this empty lot.” Ms. Naguwa focused on the manner in which this space is going to be used. “Is building another retail space something that will be beneficial for the local and
residential community? Is this new development going to be a clone of the other restaurant/retail spaces that already exist in Waikīkī? Waikīkī does not need another one of those types of spaces.”

Also noted was the overabundance of high-end retail spaces and how they cater, or not cater, to residents of Waikīkī. The profit accrued from these current properties was also in question: “What does exist in Waikīkī is out of reach (financially) of most people who live there. Development in Waikīkī has brought an influx of high-end retail and restaurant options that are struggling to survive. If other high-end retail businesses are able to survive, there may be hope for this new development.”

One recommendation is “this area could be better used as a green space; the residents of Waikīkī would like that. Waikīkī has become a very urban environment, and most residents are there because of what urban environments can offer, but they would really like a green space.”

5.5 Mr. Les Among

Mr. Les Among is a member of the Waikīkī Neighborhood Board, Subdistrict 1. CSH was in contact with Mr. Among via email and received a response with regards to the 1944 Kalākaua Avenue project on February 14, 2008. Mr. Among wrote there will be a cultural impact on the native Hawaiian community and the residents of Hawai‘i in Waikīkī. He is primarily concerned that “good old fashioned greed has reared its head again in this case.” Waikīkī has been full of development, and “Hawai‘i is in danger of losing its natural beauty and culture. We must do all we can to preserve our islands and its open space. I truly believe our islands are overcrowded and cannot handle any more outsiders who buy-up properties and build to sell at high prices that the local residents cannot afford, this practice must stop.”

5.6 Mr. William Ailā

CSH received a response from Mr. William Ailā via email on February 17, 2008 regarding this project. Mr. Ailā, a member of Hui Mālama I Nā Kāpuna O Hawai‘i Nei, noted the importance of feedback from cultural and lineal descendants with regards to this building project in Waikīkī, and advised CSH that SHPD should be contacted in order to obtain a list of the cultural and lineal descendants of the area. Also, due to the high number of burials located throughout Waikīkī, Mr. Ailā strongly recommends “that the applicant conduct as complete an archeological survey as possible to avoid impacting burials. This should be done prior to any architectural drawings, so that in the event iwi are discovered, redesign is not required.”
Section 6  Cultural Landscape of the Project Area

Discussions of specific aspects of traditional Hawaiian culture as they may relate to the project area in the broader context of the encompassing Waikīkī Ahupua’a landscape are presented below. Excerpts from the aforementioned Kamaʻaina Responses (Section 5) are incorporated throughout this section where applicable.

6.1 Hawaiian Agriculture

Beginning in the fifteenth century, a vast system of irrigated taro fields was constructed, extending across the littoral plain from Waikīkī to lower Mānoa and Pālolo valleys. This field system – an impressive feat of engineering the design of which is traditionally attributed to the chief Kalamakua – took advantage of streams descending from Makiki, Mānoa and Pālolo valleys which also provided ample fresh water for the Hawaiians living in the ahupua‘a. It is likely that, during traditional Hawaiian times, environs like the present project area were used for less intensive cultivation of patches of ‘uala (sweet potato, Ipomoea batatas), pia (Polynesian arrow root, Tacca leontopetaloides), and wauke (paper mulberry, Broussonetia papyrifera), and the gathering of hala (pandanus, Pandanus odoratissimus), kukui (candlenut tree, Aleurites moluccana), and other upland resources.

Originally elevated above surrounding fishponds and wetland fields, the project area, from the latter nineteenth century into the twentieth century, was integrated into development of Waikīkī as a residential area and subsequently as a resort and commercial district.

The depopulation of Waikīkī, however, was not total and the ahupua‘a continued to sustain Hawaiians living traditionally into the mid-nineteenth century. The Organic Acts of 1845 and 1846 initiated the process of the Māhele (the division of Hawaiian lands), which introduced private property into Hawaiian society. In 1848, the crown (Hawaiian government) and the ali‘i received their land titles. Subsequently in the Māhele, LCAs for kuleana parcels were awarded to commoners and others who could prove residency on and use of the parcels they claimed. Land Commission Award records document awardees continuing to maintain fishponds and irrigated and dry land agricultural plots, though on a greatly reduced scale than had been previously possible with adequate manpower.

Kalo or taro, from which poi is made, was a major food staple in the traditional Hawaiian diet. Evidence from the Māhele LCAs indicates that kalo was cultivated on kuleana land in Waikīkī. Documents for LCA 2083 and LCA 1409, indicate the presence of lo‘i and houselots, suggesting that in the vicinity of the present project area, land usage and activity by the mid-nineteenth century included habitation and wetland agriculture (see Appendix A). For example, Nakoko (LCA 1409) indicated they maintained 2 lo‘i (taro pond) on their land.

6.2 Hawaiian Aquaculture

Hawaiian aquaculture is especially significant, as it was not practiced elsewhere in the Pacific. The majority of fishponds most likely were constructed in the sixteenth century. The prefix loko means “body of water” and the suffix describes the specific type. The four types of ponds are: loko i‘a kalo (fish and taro raised together in a pond), loko wai (inland freshwater fishpond), loko
pu‘uone (isolated shore fishpond formed by a barrier sand berm creating a single elongated ridge parallel to the coast) and loko kuapā (seawall on a reef with sluice gates). In 1902, Cobb recorded the fishponds at Kālia as freshwater loko wai (Cobb 1902). Davis (1989, 1991) labeled the ten fishponds at Fort DeRussy to be loko pu‘uone with salt-water lens intrusion and fresh water entering from upland 'auwai. Kāhawai Pi‘inaio was this type of stream. The ten ponds are inland, swale-based ponds constructed between beach ridges that may have formed along the coast within the last millennium. Existing depressions in the sand were chosen to make the loko pu‘uone, and brush was cleared out. During traditional times, the ponds were used to farm fish, usually for the Hawaiian ali‘i. The ‘ama‘ama (mullet) and the awa (milkingfish) were the two types of fish traditionally raised. During his 1973 archaeological studies, Kikuchi categorized the ponds at Kālia as type IIIB; “A man-altered loko wai which has a dirt and stone embankment wall separating from a river or stream and which has a sluice gate” (Kikuchi 1976:229).

Kikuchi writes that fishponds evolving “from a simple technological device into a symbol of status and power is significant from the vantage point of the development of stratified societies in the Pacific” (Kikuchi 1976:296). Fishponds were a crucial component of food production as well as symbols of status. Water from ‘auwai (irrigation ditch or canal) would have been used for both agriculture and aquaculture, therefore requiring a cooperative system of water utilization. The types of fish that thrived in the brackish water were the Euryhaline fish mullet (Mugil cephalus) and milkfish (Chanos chanos). These fish have a natural inclination to swim against currents toward freshwater sources. Maintenance of the ponds would have been constant and necessitated a fulltime caretaker or caretakers.

Motivated by business in the late 1880s, Chinese farmers began leasing the ponds from Hawaiians to raise fish and ducks and the taro fields were converted to rice fields.

Mrs. Paulette Kaleikini mentioned that in the 1950s she would come to the area with her mother and go to Gray’s Beach on the other side of the Hawaiian Village to gather limu. It was her great-great-grandfather, Ialua, who took care of the mullet fishpond that was situated on the Mochonua property. The mullet from this fishpond was frequently provided to Kamehameha I whenever he was on ‘Oahu. During this assessment there were no ongoing practices related to marine and freshwater resources identified in the present project area.

Mr. Samuel Kahanamoku III spoke of the presence of the Kālia fishing village that existed in the area. This area was known for ‘ōpae (shrimp) and taro farms. At time of the dredging of the Ala Wai, most of the taro farmers left the Kālia area.

Many ponds in the Kālia area were filled in when Fort DeRussy was built and when the Ala Wai Canal was dredged in the 1920s. Earl Vida, whose father supervised the construction of the Ala Wai, related that Dillingham had a dual-purpose scheme, not only to build the canal, but also to fill in the ponds. “We don’t need the ponds. We need the land” (Center for Oral History 1985:597). The filling in of the ponds (and the taro fields) had dramatic implications for future generations of Hawaiians: it forever altered the traditional landscape and it prevented Hawaiians from being able to return to this traditional way of life in Waikīkī. Ms. Kehaulani Kruse and OHA both mentioned that the present project area is located in the vicinity of the fishpond, Loko Kaipuni.
6.3 Gathering of Plant Resources

Hawaiians utilized upland resources for a multitude of purposes. Forest resources were gathered, for not only the basic needs of food and clothing, but for tools, weapons, canoe building, house construction, dyes, adornments, hula, medicinal and religious purposes. Within the project area itself no specific documentation was found in regards to gathering of plants during traditional Hawaiian times. Mrs. Paulette Kaleikini stated her mother knew a lot about plant uses, including lā‘au (medicinal plants) and would come back to their families’ lands within the project area to gather. Ms. Mary Clarke, who was 84 at the time of her interview with the Center for Oral History, spoke of a large group of algaroba trees across from her family home, the Paoa family home, in Kālia. “You see, right next to us we had nothing but algaroba trees -- kiawe wood, first (1985:654).” During her interview, Mrs. Kaleikini also mentioned the previous abundance of kiawe in the Kālia area.

6.4 Marine and Freshwater Resources

The ocean was just as important a gathering place as the land. A study of ocean resources indicated that although the entire coastline along Kālia and Waikīkī was utilized for gathering and subsistence, particular spots seemed richer in certain resources than others. Generally, the whole coastline of Waikīkī was accessed because certain fish are known to frequent certain areas and an experienced fisherman knows where to go to catch a particular fish. Where one chooses to fish might also depend on the crowds at the beach and time of day. In Waikīkī, especially due to the high volume of people on the beaches, many fishermen these days go fishing at night. The more favorable fishing grounds were in front of the old Niumalu Hotel (Hilton Hawaiian Village), the Royal Hawaiian and Halekulani, and the area fronting the Natatorium. Specifically, the area between Diamond Head and the Kapahulu Groin was considered better fishing grounds than the Outrigger Reef on the Beach/Ft. DeRussy portion of the shoreline. Likewise, the squid grounds are located between the Kapahulu groin and Diamond Head.

Kālia was renowned for the fragrant limu lipoa, as well as several other varieties of seaweed such as manaua, wāwae’iolo, ‘ele’ele, kala and some kohu. The area between the Royal Hawaiian and the Halekulani was the area where limu lipoa was traditionally gathered.

The ‘ele’ele existed in relation to Po‘inoio Stream and the two other streams feeding into Waikīkī. It seems this resource is no longer found in Waikīkī today, because the streams no longer flow to the sea. ‘Ele’ele normally grows in areas where there is freshwater intrusion, such as where freshwater streams enter the ocean (Abbott and Williamson 1974:10). Interviews from a prior cultural impact evaluation (Chiogioji et al. 2005) confirmed that the Waikīkī shoreline was abundant in many varieties of fish and limu, certain varieties of crab and lobster, as well as being good squid grounds. Talk-story with fishermen who presently use the Waikīkī coast confirms, for the most part, this is still true today.

Before the Ala Wai Canal was built and the streams diverted, the streams feeding into Waikīkī were once abundant in ‘o‘opu (species of Hawaiian endemic fish in the Goby family) and ‘ōpae (shrimp). Local kama‘aina attest that by the time they were born these two resources were no longer available. However, stories passed down by their elders and parents indicated the
stream was once an important cultural resource for them. Sadly, these two cultural resources are no longer found in Waikīkī today.

Fred Ho‘olae Paoa was born and raised in the Paoa family home in Kālia, Waikīkī, and lived on the property until 1955. He was 81 at the time of his interview with the Center for Oral History in 1985, and a retired Assistant Police Chief. Mr. Paoa discussed the importance of marine and freshwater resources that used to exist in the Kālia area. When asked if limu ‘ele’ele could be found today Mr. Paoa responded, “You don’t find limu (‘ele’ele) in those areas (in Waikīkī) anymore because they have -- you know the swimming tanks there? They have the chlorine in the water. A lot of places at Waikīkī, they let the water run out to the ocean. (Most of the limu in Waikīkī and Kālia are not edible because of the pollution that enters the seashores.)” (1985:543) He also spoke of the abundance of ʻoʻopus. “Catch quite a bit of ʻoʻopus. In the Pi‘ināiʻo Stream. It wasn’t a river, just a stream. (Laughs) (Center for Oral History 1985:535).”

Mrs. Paulette Kaʻanoʻi Kaleikini shared that the fresh water pond at Kālia was where her great great-grandfather, Ialua, raised moi (threadfish, Polydactylus sexfilis) preferred by the chiefs, including Kamehameha I who was a close relative to her kūpuna. She also talks about gathering limu on the beach across from the project area in the 1950s. Mrs. Kaleikini’s ‘ōhana were kahu of the chiefs.

6.5 Burials

The discovery of burials in the Waikīkī area during recent construction projects has been a cause of concern over the last few years.

According to Kanahele (1995), here are approximately 14,500 records associated with LCA claims during the Māhele of 1847-1853. Of these records, 432 are for claims both awarded and unawarded in Waikīkī. Among these 432 claims, there is only one mention of a graveyard or burial place, Claim 613 (to Kuluwaihelua) which was not awarded (www.waihona.com). Although it is uncertain where the reported burial ground is located, based on the boundaries given in the testimony (Native Register, Vol. 2: 299-300 found in www.waihona.com), it is speculated that it might be adjacent to the former location of Waikīkī Church, near Kaʻiulani Avenue.

It seems the circumstances of the burials discovered in the vicinity of the project area are much more mundane than battle deaths or human sacrifices - namely that the vast majority of the deceased were the common people of Kālia. Withington (1953:16), probably referring to the ʻokuʻu plague (circa 1804), wrote: “...a few years of peace settled over the Islands. Kamehameha and other warring chiefs took this opportunity to re-establish their forces, which had been greatly reduced through war and disease. A terrible epidemic of measles had attacked the people of the islands. It is claimed that more than three hundred bodies were carried out to sea from Waikīkī in one day” (Withington: 1953:16). It is possible that some of the Kālia burials discovered to date reflect such early depopulation by introduced diseases.

Social rank appears to have had profound influences on places available for burial sites. A king’s body, or those of his attendants, could be placed within the district of the king’s authority. Many geographical features were available. Fewer were available to lesser chiefs and their
attendants, who were presumably limited to their own districts. The number of geographical features available for burial sites seems to have decreased as rank decreased. Burial sites for members of an extended family living in an 'ili was restricted to those geographical features located within the land unit, whether broken lava flats, lava tubes, earth plains, or sand dunes (Bowen 1961:21).

According to Bowen (1961:21), most Hawaiians in the pre-Contact period belonged to the maka'aina (commoner) class and their bones were usually buried in no other area than their particular 'ili (land division within an ahupua'a).

Burials are commonly reported from clean, consolidated sand deposits, as this was clearly a common method of interment practiced by Hawaiians (Cleghorn 1987:42). One of the earliest references to traditional Hawaiian burial practices was made by Urey Lisiansky, who visited Hawai‘i in June 1804. He notes: “The poor are buried anywhere along the beach...” (1814: 122).

Commenting on the nature of burial areas and body positions used in burial, William Ellis (1827:361-363) wrote: “...the common people committed their dead to the earth in a most singular manner.” The body was flexed, bound with cord, wrapped in a coarse mat, and buried one or two days after death. Graves were:

...either simply pits dug in the earth, or large enclosures...Occasionally they buried their dead in sequestered places at a short distance from their habitations, but frequently in their gardens and sometimes in their houses. Their graves were not deep and the bodies were usually placed...in a sitting posture. (Ellis 1827:361)

Hawaiians placed significance on the 'iwi (the bones of the dead, considered the most cherished possession, were hidden, and hence there are many figurative expressions with 'iwi meaning life, old age), which were regarded as a lasting physical manifestation of the departed person and spirit. “The bones of the dead were guarded, respected, treasured, venerated, loved or even deified by relatives; coveted and despoiled by enemies” (Pukui et al. 1972:107). These areas are the final resting places for 'iwi kūpuna.

Archaeological reports have documented human burials, both pre-Contact Hawaiian and historic, throughout the breadth of Waikīkī as far mauka as the Ala Wai Golf Course. Especially relevant to the present project area are two burials that were encountered in a project area on the ‘Ewa side of Hobron Lane (Perzinski et al. 1999). Mrs. Paulette Kaleikini stated that it was normal cultural practice that the 'ōhana be buried on the 'āina where they lived. She voiced her concern that her great-great grandfather Ialua may be buried somewhere in the flexed position and that the kahu of ‘Aikanaka, Kaua, was placed in a coffin and buried with personal cultural artifacts that belonged to ‘Aikanaka somewhere ion the vicinity. She does not know the exact location of the burials and if they could be in the present study area. Mr. Samuel Kahanamoku mentioned that as far as he was told no Hawaiians were buried in that area as the ground was not suitable for burial; this is because the ground before the construction of the Ala Wai Canal was swamp.

Waikīkī historically had a large number of inhabitants. During the interview with CSH, Ms. Kruse noted the likely presence of burials in the area. “Waikīkī had a large population and it is
known that due to this large population of people, there are burials located throughout Waikīkī.” It is of utmost importance to be aware of these burials and the very real possibility of discovering ʻiwi during development projects. In the event that ʻiwi are discovered, it is imperative that they be treated with respect. Ms. Kruse conveyed the importance of proper reburials and an example of her involvement with the reburial of ʻiwi. “Previously during construction (of other development projects), ʻiwi have been treated without respect. It is painful to know that this has occurred. In the future, there needs to be more respect for these remains and proper burials when ʻiwi are discovered. It is important that these ʻiwi be reburied in a better place when they are discovered.” Mr. Ailā also stated the importance of a thorough archaeological assessment prior to development to avoid impacting burials and so in the event that ʻiwi are discovered, redesign is not required.

6.6 Moʻo

Traditionally, moʻo are associated with fishponds, springs and water resource areas that they guard and protect. Moʻo are known to take on more than one form (kīna lau), many times taking on the form of a part-human or human. Often, ponds were associated with a particular named moʻo who was worshiped and to whom offerings were made. Kamehameha promised one of his ʻakua (gods), Kihawahine, that he would build her a hale puaniu – a house where offerings were made with ʻawa (Piper methysticum) (Kamakau 1964: 85-86).

“Moʻo dieties were often described as monsters with terrifying black bodies, 12 to 30 feet in length. The reputedly resided in marshlands and fish ponds. Hawaiians believed they were, in fact, the guardian spirits of fish ponds” (Apple and Kikuchi 1975:51-52). They built nests in the water and were only seen on rare occasions. These dieties would not only protect the fishponds, but could punish those hosts who were stingy to their guests (Kanahele 1995:42). Those contacted, including Ms. Kruse and OHA, mentioned the presence of loko iʻa, namely Kaipuni, in or immediately adjacent to the project area prior to the building of the Ala Wai Canal. Although there is no mention of a specific moʻo associated with the Kaipuni loko iʻa, it is likely that moʻo would have guarded Kaipuni.

6.7 Hawaiian Trails

In Fragments of Hawaiian History John Papa ʻĪʻī described the “Honolulu trails of about 1810” (1959: 89), including the trail from Honolulu to Waikīkī:

The trail from Kawaihae which led to lower Waikiki went along Kaananiau, into the coconut grove at Pawaa, the coconut grove of Kuakuaka, then down to Piinao; along the upper side of Kahanaumaikai’s coconut grove, along the border of Kahiikapu pond, into Kawhehehe; then through the center of Helumoa of Puualiiili, down to the mouth of the Apuakehau stream. (ʻĪʻī 1959: 92)

Based on ʻĪʻī’s description, the trail from Honolulu to Waikīkī in 1810 coursed through the makai side of the present Ft. DeRussy grounds and continued makai of the present project area in the vicinity of Kalia Road. It is likely that this trail was a long-established traditional route through Waikīkī (see Figure 5).
Section 7  Summary and Recommendations

Cultural Surveys Hawai‘i, Inc. (CSH) undertook this cultural impact assessment at the request of Patrick Sequirant for the 1944 Kalākaua Avenue Project, Waikīkī Ahupua‘a, Kona District, O‘ahu, TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058. The proposed project involves the construction of a new commercial building along Kalākaua Avenue. Associated ground disturbance will include excavation related to the project area’s development, to include structural footings, utility installation, roadway and parking area installation, and landscaping.

7.1 Summary of Results

Background research results include:

1. The proposed project area is located in the old land section of Waikīkī known as Kālia, which was well-known for its loko i‘a (fishponds) and lo‘i kalo (taro ponds).

2. The proposed project area is located at or immediately adjacent to one of these loko i‘a known as Kaipuni. The construction of the Ala Wai Canal in the 1920s resulted in the widespread draining and filling of these ponds, including Kaipuni.

3. Archaeological work throughout Waikīkī has documented a wide variety and diversity of pre-Contact native Hawaiians sites and features dating from at least 1,000 years ago; as well as more recent historic-era resources. Hundreds of burials have been documented in Waikīkī and many more additional burials from both pre-Contact and historic times have yet to be discovered.

4. Archaeological work at the subject parcel (Tulchin and Hammatt 2007), which included subsurface excavation, did not identify any historic properties or significant resources. However, given the unpredictable nature of the archaeological record in Waikīkī—which is frequently characterized by discontinuous remnant cultural deposits, it is still possible that iwī kūpuna (ancestral remains) and/or other cultural resources may be discovered during planned ground disturbance.

Consultation results include:

1. Given the degree of development and alteration of the natural environment of Waikīkī, it is generally no longer possible for native Hawaiians to engage in traditional cultural practices or gathering activities.

2. Despite this development and alteration, the rich oral history of the Kālia area is important and should not be forgotten.

3. Even though the sediments in the subject project area appear to consist of mainly fill deposits, and even though archaeological testing has thus far yielded negative results, participants are still concerned about the possibility of encountering iwī kūpuna and/or
other cultural resources; in part, this is based on recent experiences at other locations in Waikīkī and Kaka‘ako, which have yielded remnant cultural deposits.

4. Several participants voiced concerns about the proposed project not directly benefiting the residential and local community. In particular, some participants believe that many or most of the existing retail outlets in Waikīkī do not cater to the majority of local residents; the proposed project is unlikely to improve this situation.

5. A few participants stated the beauty and green space of Waikīkī and Hawai‘i is being negatively impacted by development, which precludes any traditional gathering practices; the establishment or maintenance of green space would on the other hand benefit all residents and members of the Waikīkī community.

7.2 **Recommendations**

1. Despite the absence of any documented ongoing cultural practices at the subject project area, and despite the negative results of the archaeological inventory survey, CSH recommends that all applicable historic preservation laws and procedures be followed before, during and after the proposed ground disturbing activities at the subject project area.

2. If human remains and/or burials are discovered during the proposed ground disturbance, CSH recommends proactive and culturally sensitive treatment of the *iwi kāpuna*. In particular, CSH recommends proactive consultation with potential lineal and cultural descendents of these remains, which should be treated with respect and proper protocol with regards to reburial.
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# Appendix A  LCA Documentation

![Waihona 'Aina Logo](image)

**DOCUMENT DELIVERY**

Change password  Log out

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**Mahele Database Documents**

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Cultural Impact Assessment for the 1944 Kalilaua Avenue Project

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To the Land Commissioners, Greetings and peace: I, the undersigned, hereby tell of my claims for one 1/4, a lot at Kalia, in Waikiki, Island of Oahu.

Nakoko
Residence: Kapapala

F.T. 12v3
Cl. 1409, Nakoko, October 11, 1848

Kawao, sworn, This land is in the il of Aikahi, Wai'iti, Oahu, in two lots.

1. House lot, Kalia, partly fenced and one house on it.
   Mauka is Kekuanoea's waste land
   Waialae is Paele's
   Makai is Kaluahinenui's
   Honolulu, Kimo's.

2. Kalo land in Aikahi, two patches and an auwai.
   Mauka is Lilikalani's
   Waialae, Kulualiehau's
   Makai, Peleul's
   Honolulu, Kaloahinenui's.

I gave claimant these lands in time of Kaahumanu I and he has held them in peace ever since. I am konohiki of them under Victoria.

N.T. 333v3
No. 1409, Nakoko, October 11, 1848

Kawao, sworn, I have seen his interest at Kapapala in Waikiki. The house lot is Makai at Kealia in Waikiki.

1. One house lot:
   Mauka, Kekuanoea's place
   Waialae, Paele's place
   Makai, Kaluahinenui's place
   Honolulu, Kimo's place.
   One side of the property has been enclosed while the other is open.

2. Two patches and a stream:
   Mauka, Lilikalani's place
   Waialae, Paele's place
   Makai, Peleul's place
Honolulu, Kaluahinenui's place.

All of these interests have been from me given at the time of Kaahumanu I and since that time to the present, he has lived there peacefully without any objections. I am the konohiki for this place since Kaahumanu I to the present time. Pikolia is the landlord.

[Award 1409; R.P. 4154; Kalia Waikiki Kona; 1 ap.; 2.92 Aos]

---

Number: 08559B'O

Claim Number: 08559B'O
Claimant: Lunailo, William C.
Other claimant: Kanaina, Charles for King
Other name: 
Island: Oahu
District: Kona, Koolauoa
Ahupua'a: Waikiki, Kapahulu, Kaalae, Laie, Pahipahialua, Kapaka
Ill: Kamoku, Pau, Kalauakou, Laiewai, Laemaloo,
Apane: 9
Awarded: 1
Loi: FR:
Plus: NR:
Mala Taro: FT: 551V3, 82V16
Kula: NT: 185V10
House lot: RP: 6688, 7394, 7631, 7635, 7
Khapai/Pakanu: Number of Royal Patents: 12
Salt lands: Koele/Poalima: No
Wauke: Loko: No
Olona: Lokoia: No
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No. 8569B'O, (W.C. Lunalilo) C. Kanaina  
F.T. 561-652v3

W. H. Uana, sworn, says he knows the house lot of Lunalilo, in Kaluaaha, Molokai. It is bounded:

Ma'uka by the public road
On the Halawa side by a fish pond of the government called "Neapala"
Makai by the sea beach
On Kaluaako side by a government fish pond called "Kaluaaha."

This lot formerly was ordered to be enclosed by Hoapili wahine and Kekauoluhe when Eseta Kipa was Governess of Molokai. The people of Kekauoluhe's lands erected a stone house on this lot in the year 1835. It is now in possession of Lunalilo as heir of Kekauoluhi.

E. Kipa, sworn says, she knows the lot. I was Governess of Molokai under Hoapili wahine &
Kekauluohi in former times, and by their orders enclosed this lot and built a stone house on it with the labor of the people of their own lands. When the government sold the land of "Kaluaha" to the Missionaries, I heard Kalolou come and ask permission from Kanaina to live in the stone house, which permission she got.

(A. Paki sets up a claim for this lot as heir of Kalaolou.)

L. Haalelea, sworn says, he knows the house lot claimed by Lunalilo in Kailua, Hawaii. It is bounded.

On Kiholo side by the church lots  
Makai by the public road  
On Keauhou side by a road leading mauka  
Mauka by some house lots.

It is enclosed by a wall. This lot I have heard belonged formerly to Keaho, the father of Mahuka. I have heard that when Keaho died he left this lot to Kekauluohi, and I have recently seen a letter from Mahuka to W.C. Lunalilo requesting him to allow Mahuka to retain charge of this lot under Lunalilo. In 1843 I was at Kailua & Kekauluohi was there. I then saw the later Governor Adams give her some money which he said was rent received for this same lot. Part of this lot is claimed by the heir of W.P. Leleiohoku. There is a fence remaining though and dividing the lot into two parts.

**F.T. 82-84v16 and N.T. 82-84v16**

No. 8559B, William C. Lunalilo

Polea, sworn says, he knows the lots claimed by William C. Lunalilo, at Lahaina, Maui.

The first called Luaehu, is bounded as follows:
Mauka by Kaheekai and Hiram's land  
Olowalu by King's land  
Makai by Sea beach  
Kaanapali by Polea and M.J. Nouliau [Nowlien].

The second in Pakala is bounded as follows:
Mauka by Public street  
Olowalu by Kaheekai's land  
Makai by H.S. Swinton's and others' land.
Kaanapali by Public road.

The third lot called Hawaikaekea is also bounded as follows:
Mauka by Kalaleikio's land
Olowalu by Public road
Makai by Alaaia Kahiko street
Kaanapali by Daniela Ii's land.

This lot is disputed by Manushina the wife of George Shaw, whose claim in right of her father. She has already got an award for a part of this lot.

The fourth lot in Paunau is bounded as follows:
Mauka by Keaweihuhu's and Kahula's land
Olowalu by Keaweluole's land
Makai by Old road
Kaanapali by Street leading to Lahainaluna.

The fifth lot called Loinui is bounded as follows:
Mauka by Keaweluole; Kauhi and Kaloio's land
Olowalu by Mr. Baldwin's
Makai by Old road
Kaanapali by Kamakinui's land.

The sixth lot in Aki is bounded as follows:
Mauka by Kaweka's land
Olowalu by Wahie's land
Makai by Main road
Kaanapali by M.I. Nowlein's land.

The seventh lot in Puunoa is bounded as follows:
Mauka by Main road
Olowalu by Iosua Kaeo
Makai by Iosua Kaeo
Kaanapali by King's land.

The eighth lot in Kelaweia is bounded as follows:
Mauka by Lahainaluna
Olowalu by Road from the beach  
Makai by Kelekini and Kahookano's lands  
Kaanapali by A stream.

All these lots have descended to William C. Lunalilo from his mother, Kekauluohi, and are now in the hands of his lunas. The lot in "Pakaia" is disputed by Paki and others.

N.T. 619-620v3  
No. 8559, [C. Kanaina], Section 49, C. Kanaina, From pg. 597 Vs. No. 2619 Pahau

C. Kanaina has come before the land commissioners and stated, "I am opposing Pahau's interest in section 2 consisting of nine patches. They are in my land which is the ilele Opukaala of the Pau ili land in Waikiki.

Here is the reason Pahau had acquired that land. Kaaha had given land to him and when he /Kaaha / died all of the lands in Pau were returned to Wm. C. Lunalilo; therefore, I feel that these patches in that section should be returned to me permanently, or else they should be divided between him and me.

Postponed until they make their own settlements and present the best one to the land officers who will approve it.

N.T. 185-187v10  
No. 8559B, William Charles Kanaina, [for Lunalilo], Honolulu, 24 April 1850

COPY  
Greetings to you Highness, John Young, the Minister of Interior.
My desire is to have the government claim separated from my lands; therefore I hereby give some of my land for the government to have forever and the same shall apply to mine. Here are the names of my lands:

Kawela ahupuaa, Hamakua, Hawaii.  
Waikaeke ahupuaa, Hamakua, Hawaii.  
Makapala ahupuaa, Kohala, Hawaii.
Kehena ahupuaa, Kohala, Hawaii.
Puhaui ili of Iole, Kohala, Hawaii.
Puako ili of Waimea, Kohala, Hawaii.
Honuainonui ahupuaa, Kona, Hawaii.
Puapuanui ahupuaa, Kona, Hawaii.
Lehuulanui ahupuaa, Kona, Hawaii.
Kawaiinui ahupuaa, Kona, Hawaii.
Lanihaunui ahupuaa, Kona, Hawaii.
Pakinili ahupuaa, Kau, Hawaii.
Hanuapo ahupuaa, Kau, Hawaii.
Kahanalea ahupuaa, Puna, Hawaii.
Keahialaka ahupuaa, Puna, Hawaii.
Keauu ahupuaa, Puna, Hawaii.
Makahanaaloa ahupuaa, Hilo, Hawaii.
Pepekeo ahupuaa, Hilo, Hawaii.

Kaapuhu ahupuaa, Kipahulu, Maui.
2 Waiehu, PuAli, West Maui.
Ahipuli ili for Waiehu, West Maui.
Pepee ili for Waikuku, West Maui.
Honolua ahupuaa, Kanaapali, Maui.
Kalimaoleh ahupuaa, Lahaina, Maui.
Polanui ahupuaa, Lahaina, Maui.
Kuholilea ahupuaa, Lahaina, Maui.

Waiulua ahupuaa, Kona, Molokai.
Kawela ahupuaa, Kona, Molokai.

Pau ili for Waikiki in Manoa, Kona, Oahu.
Kamoku ili for Waikiki in Manoa, Kona, Oahu.
Kaluaokau ili for Waikiki in Manoa, Kona, Oahu.
Kapahulu ili for Waikiki in Manoa, Kona, Oahu.
Kaalaea ahupuaa, Koolaupoko, Oahu.
Kapaka ahupuaa, Koolaupoa, Oahu.
Laelehalo ahupuaa, Koolaupoa, Oahu.
Laiemalo ahupuaa, Koolaupoa, Oahu.
Pahipahialua, Koolaupoa, Oahu.
Kahili, Koolauloa [sic], Kooleu, Kauai.
Kaliihiwai, Koolauloa [sic], Koolau, Kauai.
Pilauwai, Koolauloa [sic], Koolau, Kauai.
Manuahi ili, Kona, Kauai.
Waipouli ahupuaa, Puna, Kauai.

These lands listed above shall be for me fee simple forever, it would not be right for the government to claim my land.

The following lands, I shall give to the government fee simple forever.
Kapulena ahupuaa, Hamakua, Hawaii.
Kukuihaele ahupuaa, Hamakua, Hawaii.
Auau ahupuaa, Kohala, Hawaii.
Keopuhuihari ahupuaa, Kona, Hawaii.
Papaakoko ili of Honokohau, Kona, Hawaii.
Ninole ahupuaa, Kau Hawaii.
Laepaoo ahupuaa, Puna, Hawaii.
Koa 1 ahupuaa, Puna, Hawaii.
Koa 2 ahupuaa, Puna, Hawaii.
Laapuki ahupuaa, Puna, Hawaii.
Kaiuliiki ahupuaa, Hilo, Hawaii.
Kahuku ahupuaa, Hilo, Hawaii.
Waiakoa ahupuaa, Kula, Maui.
Kou ili of Waiehu Puali, Komohana Maui.
Kapoino ili of Waiehu Puali, Komohana, Maui.
Halelena ili of Waiehu Puali, Komohana, Maui.
Keokamu ili of Waiehu Puali, Komohana, Maui.
Wainee ahupuaa, Lahaina, Maui.

Mahana ahupuaa, Lanai.
Kamalomalo ahupuaa, Puna, Kauai.
Kumukumu ahupuaa, Koolau, Kauai.

I’ve given the lands listed above to the government forever, all of them are for the government.
Please consider my request with compassion for me.
With appreciation, I am,
William Charles Lunalilo, Charles Kanaina (child guardian)
Department of Interior, 6 April 1852.

This is a true copy of Lunalilo's division with the government,
A.G. Thruston, Secretary

N.T. 450v10
No. 8559B, William C. Lunalilo, Protested by Kaai

Mahuna, sworn, it is true my own place was written in the bill of sale to C. Kanaina, the place is just mauka of the land in Kailua of Kona, Hawaii, over which there is a dispute by Kaai. That is the lot I have transmitted to him, Kanaina, but I have not seen the property Kaai has at this present time; however, I had seen my parents living on this land at the time [off] Kaahumanu I. I had gone on a tour. Houses had been built, but I have not lived there since that time to the present, nor have I seen this lot over which there is a dispute with Kaai.

C. Kanaina, relates - the witnesses for this land on which Kaai and I are working are dead; although, I had thought they (two) would be my witnesses, but today they have denied by claim to this place. It is true this place had been for their father, Keoho, where he lived until he had died and they (two) are his own children, but I am demanding according to the old bequest of Keaho to M. Keakaluohi as well as by many other statements.

Naea, sworn, I have seen Kaai's place in Keopu of Kona, Hawaii, which is a house lot.

Mauka by Mahuka's lot
South Kona by a road
Makai by Government road
Kohala by vacant lot.

Land from Keoho (his father) upon his (Keoho) death in 1833. Keoho had obtained it long ago as idle land.

Kaai has always lived there peacefully to the present time.
Now C. Kanaina has offered a protest, I do not know the reason for it.

Kioioa, sworn, all of the statements above are true. I have known in the same way. I have not known the place was for C. Kanaina. It had been for Keoho, Kaai's father and now Kaai is the true claimant of this place.

[Award 85598; (Oahu); R.P. 7635; Kamoku Waikiki (apana 30); R.P. 8193, 8311 & 8416; Pau Waikiki (apana 29); see Kapahulu award]; R.P. 8434; Pau Waikiki Kona; (ap. 29); R.P. 8124; Kapahulu Kona; 1 ap.; 31.50 Acs (apana 32); R.P. 8165; Kapahulu Kona; 2 ap.; 2,184.44 Acs (apana 32); R.P. 8514; Kaea Kapahulu Waikiki; 1 ap.; 6.16 Acs; R.P. 7652; Kaluakou Waikiki (apana 31); R.P. 7531; Kaalaeo Koolau; 1 ap.; 1340 Acs (apana 33); R.P. 7494; Laie-wail Koolau; (apana 35); Laie-maloo Koolau (apana 36); R.P. 5688; Pahipahialua Koolau (apana 37); 704 Acs; no R.P.; Kapaka Koolau (apana 34); (Maui) R.P. 8395; Pohanui Lahaina; 1 ap.; 440 Acs (apana 25); R.P. 8129; Honolulu Kaanapali; 1 ap.; 3360 Acs (ahunua a, apana 23); R.P. 7564; Pepee Wailuku; R.P. 8396; 1 ap.; 255.7 Acs; Kalimahe Lahaina; 2 ap.; 493 Acs; (apana 24); R.P. 8397; Kuohole Lahaina; 2 ap.; 184.5 Acs (apana 26); R.P. 5637; Paunui Lahaina; 1 ap.; 2 roos 24 perkas (apana 4); R.P. 5638; Aki Lahaina; 1 ap.; 16 perkas (apana 6); no R.P.; Paoehi Lahaina; 1 ap.; 1 Ac. 52 rods; R.P. 5699; Loinlu (Luehue Waianae) Lahaina; 2 ap.; 2.75 Acs 37 rods; R.P. S8550/S8546 & S8537. Kaapahu Kipahulu; 1 ap.; (ahunuaa, apana 19); Waihue 2 Wailuku; no R.P. Ahikuli Waiehu; (Hawaii) R.P. 478; Pakini Kau; 1 ap.; 2357 Acs; Makanaloa Hilo; 2 ap.; 7600 Acs; R.P. 7049; Honuapo Kau; 1 ap.;ahunua 2200 Acs; Honuaino nui; 1 ap.; 262 Acs; R.P. 7454; Kawaiui iki Kona; 1 ap.; 380 Acs; R.P. 7455; Lehua nui; 1 ap.; 290 Acs; Lehua nui; 1 ap.; 2840 Acs; Puuauaau Kona; 1 ap.; 370 Acs; R.P. 7680; Kahen 2 N. Kohala; 1 ap.; (ap.4); hfunuua; Puako S. Kohala; 1 ap.; Ilnaia (Ap.6); Kahausle Puna; 1 ap.; 26,000; Keahialaka Puna; 1 ap.; 5562 Acs; Pepeekoe Hilo; Kesa Puna; 1 ap.; 64.275 Acs; Kavala Hanakua; R.P. 7434; Honuainonui N. Kona; R.P. 7456; Lan hiatus Nu Kona; R.P. 8452; Waikoeoeha Hanakua; no R.P.; Makapala Kohala; R.P. 7192 Makanaloa Hilo; 2 ap.; 7600 Acs; (Molokai) R.P. 7655; Wailuku; R.P. 7655 Kavala; (Kauai) R.P. 8173; Kalilau Halele; no R.P. Manuhi Hanapepe; R.P. 8323; Kohili Koolau; R.P. 7060; Piiaia Koolau; R.P. 7373; Waipouli Puna; See 8559 to C. Kanaina who is awarded a property at Ukumehame under 85598; see also Award 277]
<table>
<thead>
<tr>
<th>Claim Number:</th>
<th>02083</th>
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<tbody>
<tr>
<td>Claimant:</td>
<td>Kahiolaho</td>
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<tr>
<td>Other claimant:</td>
<td></td>
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<tr>
<td>Other name:</td>
<td></td>
</tr>
<tr>
<td>Island:</td>
<td>Oahu</td>
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<tr>
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<td>Kona</td>
</tr>
<tr>
<td>Ahupuaa:</td>
<td>Waikiki</td>
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<tr>
<td>Il:</td>
<td>Kamookahi, Kanukukahi, Pinaio, Moolki, Pinao</td>
</tr>
<tr>
<td>Apana:</td>
<td>3</td>
</tr>
<tr>
<td>Loi:</td>
<td>3</td>
</tr>
<tr>
<td>Plus:</td>
<td>NR:</td>
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<tr>
<td>Mala Taro:</td>
<td>FT:</td>
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<td>Kula:</td>
<td>NT:</td>
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<td>House lot:</td>
<td>1</td>
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<tr>
<td>Kihapai/Pakanu:</td>
<td>Number of Royal Patents: 1</td>
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<tr>
<td>Salt lands:</td>
<td>Koele/Poalima: No</td>
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<td>Wauke:</td>
<td>Loko: No</td>
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<td>Oloha:</td>
<td>Lokola: No</td>
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<tr>
<td>Noni:</td>
<td>Fishing Rights: No</td>
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<td>Hala:</td>
<td>Sea/Shore/Dunes: No</td>
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<td>Sweet Potatoes:</td>
<td>Auwai/Ditch: No</td>
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<td>Irish Potatoes:</td>
<td>Other Edifice: No</td>
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<td>Bananas:</td>
<td>Spring/Well: No</td>
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<td>Breadfruit:</td>
<td>Pigpen: No</td>
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</table>
Coconut: Road/Path: No
Coffee: Burial/Graveyard: No
Oranges: Wall/Fence: No
Bitter Melon/Gourd: Stream/Muliwai/River: No
Sugar Cane: Pail: No
Tobacco: Disease: No
Koa/Kou Trees: Claimant Died: No
Other Plants: Other Trees:
Other Mammals: No Miscellaneous:

**No. 2083, Kahiloaho**
**N.R. 350v3**

I, the one those name is below, hereby state my claim for two lo’i. One is at Aipae, and anu Kauluku’ahia and also/ my house lot and five ponds. This is my claim of which I am telling. Keiki; two lo’i at Moookahi.

KAHILOAOHO X, his mark
Waikiki, Oahu, 23 December 1847

**N.T. 638v3**
No. 2083, Kahiloaho, July 3, 1850

Ku, sworn, I have seen his land at Waikiki - 3 sections in the ill below:

Section 1 - 1 patch in Mooki illi.
Section 2 - 2 patches in Mookahi illi.
Section 3 - House lot in Kalia illi.

He received section 1 from Kamakahonu, the konohiki, in 1844. It had been from the king to Kamakahonu; Section 2, from Kaaukuali in 1834; section 3, an idle land on which he worked in 1838, before the death of Kinau and he has lived there comfortably to the present time. No objected.

1. The boundaries are:
Mauka, Kahanaumakai
Waialae, Kamakahonu
Makai, Kaiakoli
Honolulu, Kauhoa.

2. Mauka, Kanemakua
Waialae, Haumalu
Makai, Koomahnahulu
Honolulu, Keaka.

2. Kalauhinenui’s land is around completely.
Haumalu, sworn, Everything which has been mentioned above is true. I have known in the way.

[Award 2083; R.P. 3923; Kamookahi Waikiki Kona; 2 ap.; .44 Ac.; Kanukukahi Waikiki Kona .34 Ac.; Piinao Waikiki Kona; 1 ap.; 1.73 Acs]
Appendix G
Archaeological Assessment for the 1944 Kalākaua Avenue Project, Waikīkī Ahupuaʻa, Kona District, Oʻahu

TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058

Prepared for
Patrick Sequirant

Prepared by
Jon Tulchin, B.A.
and
Hallett H. Hammatt, Ph.D.

Cultural Surveys Hawaiʻi, Inc.
Kailua, Hawaiʻi
(Job Code: WAIKIKI 12)

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# Management Summary

<table>
<thead>
<tr>
<th>Reference</th>
<th>Archaeological Assessment for the 1944 Kalākaua Avenue Project, Waikīkī Ahupua‘a, Kona District, O‘ahu, TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, &amp; 058 (Tulchin &amp; Hammatt 2007)</th>
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</thead>
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<tr>
<td>Date</td>
<td>December 2007</td>
</tr>
<tr>
<td>Project Number (s)</td>
<td>Cultural Surveys Hawai‘i job code: WAIKIKI 12</td>
</tr>
<tr>
<td>Investigation Permit Number</td>
<td>Fieldwork for this investigation was performed under archaeological fieldwork permit number 07-19, issued by the Hawai‘i Department of Land and Natural Resources / State Historic Preservation Division (DLNR / SHPD).</td>
</tr>
<tr>
<td>Project Location</td>
<td>The project area is located approximately 80 m (262 ft) southwest of the Ala Wai Canal, and is bounded by urban development to the northeast, Kalākaua Avenue to the southwest, Pau Street to the southeast and Niu Street to the northwest. It is depicted on the 1998 U.S. Geological Survey (USGS) 7.5 Minute Series topographic map, Honolulu Quadrangle.</td>
</tr>
<tr>
<td>Land Jurisdiction</td>
<td>Private</td>
</tr>
<tr>
<td>Agencies</td>
<td>State of Hawai‘i Department of Land and Natural Resources / State Historic Preservation Division (DLNR / SHPD)</td>
</tr>
<tr>
<td>Project Description</td>
<td>The proposed project involves the construction of a new commercial building along Kalākaua Avenue and Pau Street. Associated ground disturbance will include excavation related to the project area’s development, to include structural footings, utility installation, roadway and parking area installation, and landscaping.</td>
</tr>
<tr>
<td>Project Acreage</td>
<td>Approximately 1 acre.</td>
</tr>
<tr>
<td>Area of Potential Effect (APE) and Survey Acreage</td>
<td>Based on available information, the proposed commercial building development will not impose adverse visual, auditory or other environmental impact to any known historic properties, including standing architecture, located outside the project area. Accordingly, the proposed project, based on available information lacks potential to affect historic properties outside the project area. As a result the project’s Area of Potential Effect (APE) is the same as the project area. The survey area for the current investigation included the entire approximately 1-acre APE/project area.</td>
</tr>
<tr>
<td>Historic Preservation Regulatory Context</td>
<td>The 1944 Kalākaua Avenue Project constitutes a project requiring compliance with and review under state of Hawai‘i historic preservation legislation [Hawai‘i Revised Statutes (HRS) Chapter 6E-8 and Hawai‘i Administrative Rules (HAR) Chapter 13-13-275]. At the request of Patrick Sequirant, CSH completed what began as an archaeological inventory survey investigation of the project area, per the requirements of HAR Chapter 13-13-276. Because no historic properties were located, this investigation became an archaeological assessment, per the language of HAR Chapter 13-13-275-5. This archaeological assessment report was prepared to support the proposed project’s historic preservation review (under HAR 13-13-275) and any other project-related historic preservation consultation.</td>
</tr>
<tr>
<td>Fieldwork Effort</td>
<td>Ra‘imana Hunkin, B.A., and Doug Thurman, B.A., assisted project director Jon Tulchin, B.A., with the field effort, which required 12 person-days to complete. Fieldwork took place between November 8th and November 15th 2007 under the general supervision of Hallett H. Hammatt, Ph.D. (principal investigator).</td>
</tr>
<tr>
<td>Number of Historic Properties Identified</td>
<td>None</td>
</tr>
<tr>
<td>Historic Properties Recommended Eligible to the Hawai‘i Register of Historic Places (Hawai‘i Register)</td>
<td>None</td>
</tr>
<tr>
<td>Historic Properties Recommended Ineligible to the Hawai‘i Register</td>
<td>None</td>
</tr>
<tr>
<td>Effect Recommendation</td>
<td>Based on the current investigation, there are no historic properties recommended Hawai‘i Register-eligible within the project’s APE. Accordingly, based on the available information, it is recommended that the proposed project will have no effect on significant (i.e. Hawai‘i Register-eligible) historic properties. A project-specific effect determination of “no historic properties affected” is warranted for the project.</td>
</tr>
<tr>
<td>Mitigation Recommendation</td>
<td>The proposed 1944 Kalākaua Avenue Project will not have an adverse impact to any historic properties and no further work is recommended for the project. In the unlikely event that previously unidentified subsurface historic properties are encountered by project construction, the project proponents should immediately stop work in the vicinity and contact SHPD’s O‘ahu Office [Tel. (808) 692-8015].</td>
</tr>
</tbody>
</table>
# Table of Contents

**Management Summary** ................................................................................. i

**Section 1 Introduction** .............................................................................. 1  
1.1 Project Background .............................................................................. 1  
1.2 Scope of Work ....................................................................................... 1  
1.3 Environmental Setting ......................................................................... 5  
  1.3.1 Natural Environment ...................................................................... 5  
  1.3.2 Built Environment ........................................................................... 7  

**Section 2 Methods** ................................................................................... 8  
2.1 Field Methods ....................................................................................... 8  
  2.1.1 2.1.1 Pedestrian Inspection .......................................................... 8  
  2.1.2 2.1.2 Subsurface Testing .............................................................. 8  
  2.1.3 2.1.3 Documentation of Stratigraphy ........................................... 8  
  2.1.4 2.1.4 GPS ....................................................................................... 8  
2.2 Laboratory Methods ........................................................................... 9  
2.3 Document Review .............................................................................. 9  

**Section 3 Background Research** .............................................................. 10  
3.1 Traditional and Historical Background ............................................. 10  
  3.1.1 Pre-Contact to Early 1800's .......................................................... 10  
  3.1.2 Mid-Nineteenth Century and the Mähele .................................... 12  
  3.1.3 Mid to Late 1800s.......................................................................... 12  
  3.1.4 1900 to 1920 .................................................................................. 13  
  3.1.5 1920's to 1930's ........................................................................... 14  
  3.1.6 1940's ........................................................................................... 17  
  3.1.7 1950's ........................................................................................... 17  
3.2 Historic Documentation of the Project Area ..................................... 17  
3.3 Previous Archaeological Research .................................................... 19  
3.4 Background Summary and Predictive Model ................................... 37  

**Section 4 Results of Fieldwork** ............................................................... 39  
4.1 Subsurface Testing .............................................................................. 39  
  4.1.1 Stratigraphic Summary .................................................................. 39  
  4.1.2 Trench Documentation .................................................................. 41  

**Section 5 Summary and Interpretation** .................................................. 83  

**Section 6 Project Effect and Mitigation Recommendations** ................... 85  
6.1 Project Effect ....................................................................................... 85  
6.2 Mitigation Recommendations ............................................................ 85  
6.3 Disposition of Materials .................................................................... 85  

**Section 7 References Cited** ............................................................. 86  

**Appendix A LCA Documentation** .................................................. A-1  

Archaeological Assessment for the 1944 Kalākaua Avenue Project iv  
TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058
List of Figures

Figure 1. U.S. Geological Survey (USGS) 7.5 Minute Series Topographic Map, Honolulu (1998) Quadrange, showing the location of the project area .......................................................... 2

Figure 2. Tax Map Key [1] 2-6-014, showing the location of the project area .................................................. 3

Figure 3. Aerial Photograph, showing the location of the project area (source: USGS Orthoimagery 2005) ......................................................................................... 4

Figure 4. Overlay of Soil Survey of the State of Hawai‘i (Foote et al. 1972), indicating sediment types within the project area .................................................................................. 6

Figure 5. Portion of 1914 Sanborn Fire Insurance Map of Waikīkī................................................................. 15

Figure 6. Floating Dredge Line in the Ala Wai Canal, circa 1924 (Bishop Museum Archives) .......... 16

Figure 7. Portion of Registered Map 1398, a 1881 map by S.E. Bishop with location of present project area ........................................................................................................ 18

Figure 8. Portion of 1910 U.S. Engineers map with location of present project area indicated .... 20

Figure 9. 1927 Sanborn Fire Insurance map of project area ............................................................................. 21

Figure 10. 1956 Sanborn Fire Insurance map of project area ............................................................................. 22

Figure 11. Previous archaeological studies in the vicinity of the project area focusing on the locations of burials ........................................................................................................ 31

Figure 12. Aerial photograph showing the locations of Trenches 1-17 ........................................................................ 40

Figure 13. Photograph of Trench 1, northeast sidewall, view to east .............................................................. 42

Figure 14. Stratigraphic profile of Trench 1, northeast sidewall ......................................................................... 42

Figure 15. Photograph of Trench 2, northeast sidewall, view to north ............................................................ 44

Figure 16. Stratigraphic profile of Trench 2, northeast sidewall ......................................................................... 44

Figure 17. Photograph of Trench 3, northeast sidewall, view to east .............................................................. 47

Figure 18. Stratigraphic profile of Trench 3, northeast sidewall ......................................................................... 47

Figure 19. Photograph of Trench 4, southeast sidewall, view to south ............................................................. 49

Figure 20. Stratigraphic profile of Trench 4, southeast sidewall ......................................................................... 49

Figure 21. Photograph of Trench 5, southeast sidewall, view to west .............................................................. 52

Figure 22. Stratigraphic profile of Trench 5, southeast sidewall ......................................................................... 52

Figure 23. Photograph of Trench 6, northwest sidewall, view to northwest ..................................................... 54

Figure 24. Stratigraphic profile of Trench 6, northwest sidewall ......................................................................... 54

Figure 25. Photograph of Trench 7, southeast sidewall, view to southeast ..................................................... 57

Figure 26. Stratigraphic profile of Trench 7, southeast sidewall ......................................................................... 57

Figure 27. Photograph of Trench 8, southeast sidewall, view to southeast ..................................................... 59

Figure 28. Stratigraphic profile of Trench 8, southeast sidewall ......................................................................... 59

Figure 29. Photograph of Trench 9, southeast sidewall, view to southeast ..................................................... 62

Figure 30. Stratigraphic profile of Trench 9, southeast sidewall ......................................................................... 62

Figure 31. Photograph of Trench 10, southeast sidewall, view to southeast ..................................................... 64

Figure 32. Stratigraphic profile of Trench 10, southeast sidewall ......................................................................... 64

Figure 33. Photograph of Trench 11, southwest sidewall, view to southwest .................................................... 67

Figure 34. Stratigraphic profile of Trench 11, southwest sidewall ......................................................................... 67

Figure 35. Photograph of Trench 12, northeast sidewall, view to northeast ..................................................... 69

Figure 36. Stratigraphic profile of Trench 12, northeast sidewall ......................................................................... 69

Figure 37. Photograph of Trench 13, southeast sidewall, view to southeast ..................................................... 72

Figure 38. Stratigraphic profile of Trench 13, southeast sidewall ......................................................................... 72

Archaeological Assessment for the 1944 Kalakaua Avenue Project

TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058
Figure 39. Photograph of Trench 14, west sidewall, view to southwest ........................................73
Figure 40. Stratigraphic profile of Trench 14, west sidewall ..............................................................73
Figure 41. Photograph of Trench 15, southwest sidewall, view to south .............................................76
Figure 42. Stratigraphic profile of Trench 15, southwest sidewall .......................................................76
Figure 43. Photograph of Trench 16, northeast sidewall, view to east ..................................................78
Figure 44. Stratigraphic profile of Trench 16, northeast sidewall .......................................................78
Figure 45. Photograph of Trench 17, northeast sidewall, view to northeast .........................................81
Figure 46. Stratigraphic profile of Trench 17, northeast sidewall .......................................................81
List of Tables

Table 1. Previous Archaeological Investigations in Waikīkī Ahupua'a .......................................... 24
Table 2. Strata Observed at Trench 1 ......................................................................................... 43
Table 3. Strata Observed at Trench 2 ......................................................................................... 45
Table 4. Strata Observed at Trench 3 ......................................................................................... 48
Table 5. Strata Observed at Trench 4 ......................................................................................... 50
Table 6. Strata Observed at Trench 5 ......................................................................................... 53
Table 7. Strata Observed at Trench 6 ......................................................................................... 55
Table 8. Strata Observed at Trench 7 ......................................................................................... 58
Table 9. Strata Observed at Trench 8 ......................................................................................... 60
Table 10. Strata Observed at Trench 9 ...................................................................................... 63
Table 11. Strata Observed at Trench 10 ..................................................................................... 65
Table 12. Strata Observed at Trench 11 .................................................................................... 68
Table 13. Strata Observed at Trench 12 .................................................................................... 70
Table 14. Strata Observed at Trench 13 .................................................................................... 74
Table 15. Strata Observed at Trench 14 .................................................................................... 77
Table 16. Strata Observed at Trench 15 .................................................................................... 79
Table 17. Strata Observed at Trench 17 .................................................................................... 82
Section 1  Introduction

1.1 Project Background

At the request of Patrick Sequirant, Cultural Surveys Hawaii, Inc. (CSH) conducted an archaeological inventory survey of an approximately 1-acre parcel in the ahupua'a of Waikiki, Kona District, Island of O'ahu, TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058. The project area is located at 1944 Kalākaua Avenue and is approximately 80 m (262 ft) southwest of the Ala Wai Canal (Figure 1 & Figure 2). The project area is bounded by urban development to the northeast, Kalākaua Avenue to the southwest, Pau Street to the southeast, and Niu Street to the northwest (Figure 3).

The proposed project involves the construction of a new commercial building along Kalākaua Avenue and Pau Street. Associated ground disturbance will include excavation related to the project area’s development, to include structural footings, utility installation, roadway and parking area installation, and landscaping.

Based on available information, the proposed commercial building development will not impose adverse visual, auditory or other environmental impact to any known historic properties, including standing architecture, located outside the project area. Accordingly, the proposed project, based on available information lacks potential to affect historic properties outside the project area. As a result the project’s Area of Potential Effect (APE) is the same as the project area. The survey area for the current investigation included the entire approximately 1-acre APE/project area.

The proposed project constitutes a project requiring compliance with and review under state of Hawai‘i historic preservation legislation [Hawai‘i Revised Statutes (HRS) Chapter 6E-42 and Hawai‘i Administrative Rules (HAR) Chapter 13-13-275]. At the request of Patrick Sequirant, CSH completed what began as an archaeological inventory survey investigation of the project area, per the requirements of HAR Chapter 13-13-276. Because no historic properties were located, this investigation became an archaeological assessment, per the language of HAR Chapter 13-13-275-5. This archaeological assessment report was prepared to support the proposed project’s historic preservation review (under HAR 13-13-275) and any other project-related historic preservation consultation.

1.2 Scope of Work

The following archaeological inventory survey scope of work was developed and implemented to satisfy SHPD requirements. The scope of work for this inventory survey (which later became an archaeological assessment because no historic properties were located within the project) was designed in accord with State Historic Preservation Division rules governing standards for archaeological inventory surveys and reports (HAR 13-13-276):
Figure 1. U.S. Geological Survey (USGS) 7.5 Minute Series Topographic Map, Honolulu (1998) Quadrangle, showing the location of the project area
Figure 3. Aerial Photograph, showing the location of the project area (source: USGS Orthoimagery 2005)
1. A complete ground survey of the entire project area for the purpose of historic property inventory. If historic properties were located the following would be applicable: All historic properties would be located, described, and mapped with evaluation of function, interrelationships, and significance; and documentation in the form of photographs and scale drawings of selected sites and complexes.

2. Research on historic and archaeological background, including search of historic maps, written records, and Land Commission Award documents. This research focused on the specific area with general background on the ahupua‘a and district and emphasizes settlement patterns.

3. Preparation of this inventory survey report including the following:
   - A project description;
   - A topographic map of the survey area showing all record historic properties;
   - Descriptions of all historic properties, including selected photographs, scale drawings, and discussions of age, function, and significance, per the requirements of HAR Title 13, Subtitle 13, Chapter 276 “Rules Governing Standards for Archaeological Inventory Surveys and Reports.” Cultural resources were assigned State Inventory of Historic Properties (SIHP) numbers;
   - Historical and archaeological background sections summarizing prehistoric and historic land use of the project area and its vicinity;
   - A summary of cultural resource categories and significance based upon the Hawai‘i Register of Historic Places (Hawai‘i Register) criteria;
   - A project effect recommendation; and
   - Treatment recommendations to mitigate the project’s adverse effect on historic properties recommended eligible to the Hawai‘i Register (i.e. “significant historic properties”).

This scope of work includes full coordination with the State Historic Preservation Division (SHPD), and the City and County of Honolulu relating to archaeological matters. This coordination takes place after consent of the landowner or representatives.

1.3 Environmental Setting

1.3.1 Natural Environment

The project area is located approximately 745 m (0.5 miles) northeast of Waikīkī Beach, near the southeastern coastline of the island of O‘ahu. Lands within the project area are level with an elevation of 0.3 m (1 ft.) a.m.s.l.

According to U.S. Department of Agriculture (USDA) soil survey data (Foote et al. 1972) the sediments within the project area consist entirely of Fill land, mixed (FL) (Figure 4). Fill land, mixed is described as “areas filled with material dredged from the ocean or hauled from nearby
Figure 4. Overlay of Soil Survey of the State of Hawai‘i (Foote et al. 1972), indicating sediment types within the project area
areas, garbage, and general material from other sources...used for urban development including airports, housing areas, and industrial facilities” (Foote et al. 1972).

The project area receives an average of 20 to 30 in. (1000 to 1500 mm) of annual rainfall (Giambelluca et al. 1986). The entire project area has been extensively disturbed and transformed by human activity leaving no naturally occurring vegetation within the subject parcel.

1.3.2 Built Environment

The project area is located within central Honolulu and is surrounded by modern urban development including high-rise condominiums, apartments and hotels, streets, sidewalks, and utility infrastructure. The project area is bounded by urban development to the northeast, Kalākaua Avenue to the southwest, Pau Street to the southeast, and Niu Street to the northwest (see Figure 3 above). The southwestern half of the project area contains a two-story commercial building housing a Local Motion surf shop and associated asphalt parking areas. Additionally two concrete pads and a small wooden kiosk are located in the southwestern half of the project area utilized by the VIP Car Rental Hawaii as a staging area for car rentals. The northeastern half of the project area consists of an empty lot.
Section 2   Methods

2.1 Field Methods

Ra’iman Hunkin, B.A., and Doug Thurman, B.A., assisted project director Jon Tulchin, B.A., with the field effort, which required 12 person-days to complete. Fieldwork took place between November 8th and November 15th 2007 under the general supervision of Hallett H. Hammatt, Ph.D. (principal investigator). The fieldwork was performed under CSH’s annual archaeological research permit, No. 07-19, issued by DLNR / SHPD.

2.1.1 2.1.1 Pedestrian Inspection

A 100 percent pedestrian inspection of the project area confirmed that all standing architecture was less than 50 years old and that there were no surface historic properties. Accordingly, the inventory survey focused on a program of subsurface testing to locate any buried cultural deposits that were potentially within the project area. For this report, historic is defined as anything older than 50 years and modern is defined as anything younger than 50 years.

2.1.2 2.1.2 Subsurface Testing

Subsurface testing consisted of the excavation of 17 backhoe trenches. Trenches were distributed throughout the project area to provide representative coverage and assess the stratigraphy and potential for subsurface cultural resources within the project area. The test trenches generally measured 5-7 m in length, 0.8 m in width, and were excavated down to the water table (approximately 2 m deep). Certain areas could not be tested due to the presence of subsurface concrete slabs and a utility easement that ran through the middle of the project area (see Section 4 Results of Fieldwork below).

2.1.3 2.1.3 Documentation of Stratigraphy

The stratigraphy in each trench was drawn and photographed. The sediments were described for each of the trenches using USDA soil description observations/terminology. Sediment descriptions include Munsell color, texture, consistence, structure, plasticity, cementation, origin of sediments, descriptions of any inclusions such as cultural material and/or roots and rootlets, lower boundary distinctiveness and topography, and other general observations. Feature documentation included profiles and/or plan views, collected samples, stratigraphic descriptions, and photographs.

2.1.4 2.1.4 GPS

The location of each of the trenches was recorded using a Trimble Pro XR backpack GPS unit with a TSCI Datalogger and real-time differential correction. This unit provides submeter horizontal accuracy in the field. GPS field data were post-processed, yielding horizontal accuracy between 0.5 and 0.3 m. GPS location information was converted into GIS shape files using Trimble’s Pathfinder Office software, version 2.80, and graphically displayed using ESRI’s ArcGIS 9.1.
2.2 Laboratory Methods

No materials were collected during the inventory survey and thus, no laboratory methods were applied.

2.3 Document Review

Background research included a review of previous archaeological studies on file at the State Historic Preservation Division (SHPD) of the Department of Land and Natural Resources (DLNR); a review of geology and cultural history documents at Hamilton Library of the University of Hawai‘i, the Hawai‘i State Archives, the Mission Houses Museum Library, the Hawai‘i Public Library, and the Archives of the Bishop Museum; study of historic photographs at the Hawai‘i State Archives and the Archives of the Bishop Museum; and a study of historic maps at the Survey Office of the DLNR. Information on LCAs was accessed through Waihona ‘Āina Corporation’s Māhele Data Base (<www.waihona.com>).

This research provided the environmental, cultural, historic, and archaeological background for the project area. The sources studied were used to formulate a predictive model regarding the expected type and location of sub-surface pre and post-contact historic properties in the project area.
Section 3 Background Research

This section begins with a review of the available documentary evidence for the general character of the Waikīkī area as it had evolved in the years before western contact in the later 18th century. The development of Waikīkī lands adjacent to and including the present project area during the 19th century and into the early 20th century was recorded in increasingly detailed documentation — including photographs, maps and government records. Finally, during subsequent decades of the 20th century, abundant documentation of the Waikīkī area allows a more precise focus on the development of the project area itself up to the 1950s.

3.1 Traditional and Historical Background

3.1.1 Pre-Contact to Early 1800's

By the time of the arrival of Europeans in the Hawaiian Islands during the late eighteenth century, Waikīkī had long been a center of population and political power on O‘ahu. According to Martha Beckwith (1940), by the end of the fourteenth century Waikīkī had become “the ruling seat of the chiefs of Oahu.” The preeminence of Waikīkī continued into the eighteenth century and is betokened by Kamehameha’s decision to reside there upon wrestling control of O‘ahu by defeating the island’s chief, Kalaniikūpule. The 19th-century Hawaiian historian John Papa ʻĪi (1959:17), himself a member of the aliʻi (chiefly class), described the king’s Waikīkī residence:

Kamehameha’s houses were at Puaāliilii, makai of the old road, and extended as far as the west side of the sands of ʻApuahealani. Within it was Helumo where Kaʻahumanu mā went to while away the time. The king built a stone house there, enclosed by a fence . . . (ʻĪi 1959:17).

ʻĪi further noted that the “place had long been a residence of chiefs. It is said that it had been Kekuapoi’s home, through her husband Kahahana, since the time of Kahekili” (ʻĪi 1959:17).

Chiefly residences, however, were only one element of a complex of features — that characterized Waikīkī up to pre-contact times. Beginning in the fifteenth century, a vast system of irrigated taro fields was constructed, extending across the littoral plain from Waikīkī to lower Mānoa and Pālolo valleys. This field system — an impressive feat of engineering the design of which is traditionally attributed to the chief Kalamakua — took advantage of streams descending from Makiki, Mānoa and Pālolo valleys which also provided ample fresh water for the Hawaiians living in the ahupua’a. Water was also available from springs in nearby Mōʻiliʻili and Punahou. Closer to the Waikīkī shoreline, coconut groves and fishponds dotted the landscape. A sizeable population developed amidst this Hawaiian-engineered abundance. Captain George Vancouver (1798:161-164), arriving at “ʻWhyteete” in 1792, captured something of this profusion in his journals:

On shores, the villages appeared numerous, large, and in good repair; and the surrounding country pleasingly interspersed with deep, though not extensive valleys; which, with the plains near the sea-side, presented a high degree of cultivation and fertility.
[Our] guides led us to the northward through the village, to an exceedingly well-made causeway, about twelve feet broad, with a ditch on each side.

This opened our view to a spacious plain, which, in the immediate vicinity of the village, had the appearance of the open common fields in England; but, on advancing, the major part appeared to be divided into fields of irregular shape and figure, which were separated from each other by low stone walls, and were in a very high state of cultivation. These several portions of land were planted with the eddo or taro root, in different stages of inundation; none being perfectly dry, and some from three to six or seven inches under water. The causeway led us near a mile from the beach, at the end of which was the water we were in quest of. It was a rivulet five or six feet wide, and about two or three feet deep, well banked up, and nearly motionless; some small rills only, finding a passage through the dams that checked the sluggish stream, by which a constant supply was afforded to the taro plantations.

[We] found the plain in a high state of cultivation, mostly under immediate crops of taro; and abounding with a variety of wild fowl, chiefly of the duck kind... The sides of the hills, which were at some distance, seemed rocky and barren; the intermediate vallies, which were all inhabited, produced some large trees, and made a pleasing appearance. The plain, however, if we may judge from the labour bestowed on their cultivation, seemed to afford the principal proportion of the different vegetable productions on which the inhabitants depend for their subsistence.

Further details of the exuberant life that must have characterized the Hawaiians use of the lands that included the ahupua'a of Waikīkī are given by Archibald Menzies (1920:23-24), a naturalist accompanying Vancouver's expedition:

The verge of the shore was planted with a large grove of cocoanut palms, affording a delightful shade to the scattered habitations of the natives. Some of those near the beach were raised a few feet from the ground upon a kind of stage, so as to admit the surf to wash underneath them. We pursued a pleasing path back to the plantation, which was nearly level and very extensive, and laid out with great neatness into little fields planted with taro, yams, sweet potatoes and the cloth plant. These, in many cases, were divided by little banks on which grew the sugar cane and a species of Draecena without the aid of much cultivation, and the whole was watered in a most ingenious manner by dividing the general stream into little aqueducts leading in various directions so as to be able to supply the most distant fields at pleasure, and the soil seemed to repay the labour and industry of these people by the luxuriance of its productions. Here and there we met with ponds of considerable size, and besides being well stocked with fish, they swarmed with water fowl of various kinds such as ducks, coots, water hens, bitterns, plovers and curlews.

However, the traditional Hawaiian focus on Waikīkī as a center of chiefly and agricultural activities on southeastern O'ahu was soon to change — disrupted by the same Euro-American
contact which produced the first documentation (including the records cited above) of that traditional life. The *ahupua‘a* of Honolulu - with the only sheltered harbor on O‘ahu - became the center for trade with visiting foreign vessels, drawing increasing numbers of Hawaiians away from their traditional environments. Kamehameha himself moved his residence from Waikīkī to the coast near Honolulu harbor, likely in order to maintain his control of the lucrative trade in sandalwood that had developed. By 1828, the missionary Levi Chamberlain (1957:26), describing a journey into Waikīkī, would note:

> Our path led us along the borders of extensive plats of marshy ground, having raised banks on one or more sides, and which were once filled with water, and replenished abundantly with esculent fish; but now overgrown with tall rushes waving in the wind. The land all around for several miles has the appearance of having once been under cultivation. I entered into conversation with the natives respecting this present neglected state. They ascribed it to the decrease of population. (Chamberlain 1957:26)

Tragically, the depopulation of Waikīkī was not simply a result of the attractions of Honolulu (where, by the 1820’s, the population was estimated at 6,000 to 7,000) but also of the European diseases that had devastating effects upon the Hawaiian population.

### 3.1.2 Mid-Nineteenth Century and the Māhele

The depopulation of Waikīkī, however, was not total and the *ahupua‘a* continued to sustain Hawaiians living traditionally into the mid-19th century. The Organic Acts of 1845 and 1846 initiated the process of the Māhele (the division of Hawaiian lands) which introduced private property into Hawaiian society. In 1848, the crown (Hawaiian government) and the *ali‘i* (royalty) received their land titles. Subsequently in the Māhele, Land Commission Awards (LCAs) for *kuleana* parcels were awarded to commoners and others who could prove residency on and use of the parcels they claimed. Land Commission Award records document awardees continuing to maintain fishponds and irrigated and dryland agricultural plots, though on a greatly reduced scale than had been previously possible with adequate manpower.

### 3.1.3 Mid to Late 1800s

As the 19th century progressed, Waikīkī was becoming a popular site among foreigners – mostly American – who had settled on O‘ahu. An 1865 article in the Pacific Commercial Advertiser mentioned a small community that had developed along the beach. The area continued to be popular with the *ali‘i* – the Hawaiian royalty – and several notables had residences there. A visitor to O‘ahu in 1873 described Waikīkī as “a hamlet of plain cottages, whither the people of Honolulu go to revel in bathing clothes, mosquitoes, and solitude, at odd times of the year” (Bliss 1873).

Other developments during the second half of the 19th century a prelude of changes that would dramatically alter the landscape of Waikīkī during the 20th century – include the improvement of the road connecting Waikīkī to Honolulu (the route of the present Kalākaua Ave.), the building of a tram line between the two areas, and the opening of Kapi‘olani Park on June 11, 1877. Traditional land-uses in Waikīkī were abandoned or modified. By the end of the 19th century most of the fishponds that had previously proliferated had been neglected and
allowed to deteriorate. The remaining taro fields were planted in rice to supply the growing numbers of immigrant laborers imported from China and Japan, and for shipment to the west coast of the United States.

As the sugar industry throughout the Hawaiian kingdom expanded in the second half of the 19th century, the need for increased numbers of field laborers prompted passage of contract labor laws. In 1852, the first Chinese contract laborers arrived in the islands. Contracts were for five years, and pay was $3 a month plus room and board. Upon completion of their contracts, a number of the immigrants remained in the islands, many becoming merchants or rice farmers. As was happening in other locales, in the 1880’s, groups of Chinese began leasing and buying (from the Hawaiians of Waikīkī) former taro lands for conversion to rice farming. The taro lands’ availability throughout the islands in the late 1800’s reflected the declining demand for taro as the Native Hawaiian population diminished.

The Hawaiian Islands were well positioned for rice cultivation. A market for rice in California had developed as increasing numbers of Chinese laborers immigrated there since the mid-19th century. Similarly, as Chinese immigration to the islands also accelerated, a domestic market opened.

The primary market for both husked rice and paddy raised in all parts of the Hawaiian Islands was in Honolulu. The number of Chinese in the islands created a large home demand.

In 1880 the home market was made more secure by an increase in the duty on rice imported into Hawai‘i to 1½ cents on paddy and 2½ cents on hulled rice. It resulted in further checking the importation of foreign rice and giving an immense impetus to the home product [Coulter and Chun, 1937: 13]

By 1892, Waikīkī had 542 acres planted in rice, representing almost 12% of the total 4,659 acres planted in rice on O‘ahu. Most of the former taro lo‘i converted to rice fields were located mauka of the present Ala Wai Boulevard.

3.1.4 1900 to 1920

During the first decade of the 20th century, the U.S. War Department acquired more than 70 acres in the Kālia portion of Waikīkī for the establishment of a military reservation called Fort DeRussy, named in honor of Brig. Gen. R.E. DeRussy of the Army Corps of Engineers.

On 12 November 1908, a detachment of the 1st Battalion of Engineers from Fort Mason, California, occupied the new post...

Between 1909 and 1911 the engineers were primarily occupied with mapping the island of O‘ahu. At DeRussy other activities also had to be attended to - especially the filling of a portion of the fishponds which covered most of the Fort. This task fell to the Quartermaster Corps, and they accomplished it through the use of an hydraulic dredger which pumped fill from the ocean continuously for nearly a year in order to build up an area on which permanent structures could be
built. Thus the Army began the transformation of Waikīkī from wetlands to solid ground, [Hibbard and Franzen 1986:79].

All the fishponds were filled by 1928.

A fire insurance map of 1914 shows that there were five areas in Waikīkī where residential and commercial structures were concentrated in the early 20th century (Figure 5). These areas were located: 1) clustered at Saratoga Road and Lewers Road; 2) near the intersection of Ena Road and Kalākaua Avenue; 3) makai of Kālia Road on the east side of Ft. DeRussy; 4) clustered around the Moana Hotel on Kalākaua Avenue; and 5) in Kapahulu on the ‘Ewa side of Makee Road (the present Kapahulu Avenue). The fire insurance map also reveals the relative isolation of Waikīkī, in the early 20th century, from the encroaching grid of modern Honolulu streets.

3.1.5 1920's to 1930's

During the 1920's, the Waikīkī landscape would be transformed when the construction of the Ala Wai Drainage Canal, begun in 1921 and completed in 1928, resulted in the draining and filling in of the remaining ponds and irrigated fields of Waikiki (Figure 6). The canal was one element of a plan to urbanize Waikīkī and the surrounding districts:

The [Honolulu city] planning commission began by submitting street layout plans for a Waikīkī reclamation district. In January 1922 a Waikīkī improvement commission resubmitted these plans to the board of supervisors, which, in turn, approved them a year later. From this grew a wider plan that eventually reached the Kapahulu, Mō‘ili‘ili, and McCully districts, as well as lower Makiki and Mānoa...

The standard plan for new neighborhoods, with allowances for local terrain, was to be that of a grid, with 80-foot-wide streets crossing 70-foot-wide avenues at right angles so as to leave blocks of house lots about 260 by 620 feet. Allowing for a 10-foot-wide sidewalk and a 10-foot right-of-way [alley] down the center of each block, there would be twenty house lots, each about 60 by 120 feet, in each block [Johnson 1991:311]

During the course of the Ala Wai Canal’s construction, the banana patches and ponds between the canal and the mauka side of Kalākaua Avenue were filled and the present grid of streets was laid out. These newly created land tracts spurred a rush to development in the 1930’s. An article in the Honolulu Star-Bulletin in 1938 extolled the area’s progress:

The expansion of apartment and private residence construction is no secret. Examination of building permits will show that more projects have been completed during the past year, and more are now underway in this area, than in any other section of the territory.
Figure 5. Portion of 1914 Sanborn Fire Insurance Map of Waikīkī
Figure 6. Floating Dredge Line in the Ala Wai Canal, circa 1924 (Bishop Museum Archives)
These developments are being made by island residents who have recognized the fact that Waikīkī presents the unparalleled possibility for safe investment with excellent return. (Newton 1938: 10)

The writer speculated that the “future of Waikīkī is assured.”

3.1.6 1940's

The entrance of the United States into World War II following the Japanese bombing of Pearl Harbor on December 7, 1941 put on hold plans for the development of Waikīkī as a tourist destination. Until the war’s end in 1945, the tourist trade was non-existent “...since the Navy controlled travel to and from Hawai‘i and did not allow pleasure trips” (Brown 1989: 141). For the duration of the war, Waikīkī was transformed into a recreation area for military personnel.

It was not the same Waikīkī as before the war, though; barbed wire barricades now lined its sands, and there were other changes too. Fort DeRussy became a huge recreation center, with a dance hall called Maluhia that attracted thousands of men at a time. The Moana Hotel continued to function, but many other establishments and private homes in the area were taken over by the military. [Brown 1989:141]

Nearing the war’s end, concerns began arising over the future of Waikīkī. An article in the Honolulu Advertiser of July 16, 1945 decried “honky-tonks” that had sprung up in Waikīkī during the course of the war, and asked: “Can anyone look at present-day Kalākaua Ave. – lined with makeshift curio shops, noisy ‘recreation’ centers, eyesores that pass under the name of lunchrooms and miscellany of ‘joints’ – and hope that Waikīkī can stage a comeback [as a tourist destination]?”

3.1.7 1950's

By the mid-1950’s there were more than fifty hotels and apartments from the Kālia area to the Diamond Head end of Kapi‘olani Park. The Waikīkī population, by the mid-1950’s, was not limited to transient tourists but included 11,000 permanent residents living in 4,000 single dwellings and apartments in stucco or frame buildings.

3.2 Historic Documentation of the Project Area

The present project area is located on the mauka fringe of a portion of Waikīkī that, in traditional Hawaiian times and before the massive drainage accomplished by the Ala Wai Canal, comprised a complex of numerous large fishponds that extended between the present Saratoga Road and the grounds of Fort DeRussy to present Atkinson Drive and Ala Moana Shopping Center. An 1881 Hawaiian Government survey map by S.E. Bishop provides a detailed record of the physical landscape of Waikīkī before the transformations of the 20th century. Drawn before the extensive drainage and landfilling of the Waikīkī landscape, accomplished by the construction of the Ala Wai Canal in the 1920s, the 1881 map likely represents the project area as it had appeared in traditional Hawaiian times: a marsh environment surrounded by fishpond ponds and wetland fields (Figure 7). When the map was copied in 1922, additional material from
Figure 7. Portion of Registered Map 1398, a 1881 map by S.E. Bishop with location of present project area
subsequent government surveys was added, including locations of road corridors not present in 1881.

The 1881 map also indicates locations of mid-nineteenth century Land Commission Awards. Māhele records for these awards provide the first specific documentation of land use in the vicinity of the present project area. Three *apana* (parcels) associated with three Land Commission Awards – LCA 2083 to Kahiloaho, LCA 1409 to Nakoko, and LCA 8559 B to Lunalilo– are located immediately vicinity of the project area.

Documents for LCA 2083 and LCA 1409, indicate the presence of *lo‘i* and houselots, suggesting that in the vicinity of the present project area, land usage and activity by the mid-nineteenth century included habitation and wetland agriculture (see Appendix A). This may reflect the continuation into that century of traditional Hawaiian land use, along with the farming of fishponds, in this portion of Waikīkī.

Documents for LCA 8559 B did not contain any land use information but is of note as it was awarded to William Charles Lunalilo, who was confirmed as King of Hawai‘i in 1873.

Subsequent historic maps record the development of the project area through the first half of the twentieth century. A 1910 U.S. Engineers map of Waikīkī indicates that at this time the project area was undeveloped marshland surrounded by small dwellings, ponds, and wetland agricultural fields (Figure 8). A 1927 Sanborn Fire Insurance map indicates that the project area was still undeveloped, but has been subdivided and girded off (Figure 9). This suggests that the project area had been drained and filled in and was being prepped for development.

A 1956 Sanborn Fire Insurance map showing the project area reflects mid-twentieth century changes occurring within Waikīkī (Figure 10). Multiple dwelling structures and apartments are now present in the northeastern half of the project area, while the southwestern half of the project area contains an auto repair shop, gas station, and restaurant.

In summary, historic documentation indicates that the project area consisted of marshland that was not intensively utilized until the mid-twentieth century when Waikīkī became urbanized following the draining and filling of the area initiated in the 1920’s. However, historic documentation also indicates extensive traditional Hawaiian agriculture and habitation in the immediate vicinity of the project area, as evidenced by the presence of fishponds, wetland agricultural fields, and habitation sites. By 1927 the project area was drained, filled in, and subdivided in preparation for development. By 1956 the project area was completely developed and was being utilized for both residential and commercial purposes.

### 3.3 Previous Archaeological Research

The *ahu‘pua‘a* of Waikīkī, in the centuries before the arrival of Europeans, was an intensely utilized area, with abundant natural and cultivated resources, that supported a large population. In the nineteenth and early twentieth centuries, after a period of depopulation, Waikīkī was reanimated by Hawaiians and foreigners residing there, and by farmers continuing to work the irrigated field system, which had been converted from taro to rice. Farming continued up to the first decades of this century until the Ala Wai Canal drained the remaining ponds and irrigated fields. Remnants of the pre-Contact and historical occupation of Waikīkī have been discovered.
Figure 8. Portion of 1910 U.S. Engineers map with location of present project area indicated
Figure 9. 1927 Sanborn Fire Insurance map of project area
Figure 10. 1956 Sanborn Fire Insurance map of project area
and recorded in archaeological reports, usually in connection with construction activities related to urban development, or infrastructural improvements. These discoveries, which have occurred throughout Waikīkī, have included many human burials, traditional Hawaiian and historic, as well as pre-contact Hawaiian and historic cultural deposits. A full list of projects conducted in the Waikīkī area is listed in Table 1. A discussion of projects focusing on burials (Figure 11) follows.

N.B. Emerson reported on the uncovering of human burials during the summer of 1901 on the property of James B. Castle - site of the present Elks Club - in Waikīkī during excavations for the laying of sewer pipes (Emerson 1902:18-20). Emerson noted:

The soil was white coral sand mixed with coarse coral debris and sea-shells together with a slight admixture of red earth and perhaps an occasional trace of charcoal. The ground had been trenched to a depth of five or six feet, at about which level a large number of human bones were met with, mostly placed in separate groups apart from each other, as if each group formed the bones of a single skeleton. Many of the skulls and larger bones had been removed by the workmen before my arrival, especially the more perfect ones [Emerson 1902:18].

Emerson’s report on the find describes the remains of at least four individuals, all presumed to be Hawaiian. Associated burial goods were also exposed during excavation; these included “a number of conical beads of whale-teeth such as the Hawaiians formerly made” and “a number of round glass beads of large size”. The glass beads “can be assigned with certainty to some date subsequent to the arrival of the white man” (Emerson 1902:19). Also located with the beads was “a small sized niho-palaoa, such as was generally appropriated to the use of the chiefs” which had been “carved from the tooth of the sperm-whale” and which was “evidently of great age” (Emerson 1902:19).

In the 1920s and 30s the first systematic archaeological survey of O'ahu was conducted by J. C. McAllister (1933). He recorded four heiau (temples), three of which were located at the mauka reaches of Waikīkī Ahupua'a in lower Mānoa Valley. The fourth heiau – Papa'ena'ena - was located at the foot of Diamond Head crater in the environs of the present Hawai'i School for Girls. Papa'ena'ena Heiau is traditionally associated with Kamehameha I, who was said to have visited the heiau before setting off to battle for Ni‘ihau and Kaua‘i in 1804. Five years later, according to John Papa ‘Ītī, Kamehameha placed at Papa'ena'ena the remains of an adulterer - "all prepared in the customary manner of that time" (‘Ītī 1959:50-51).

In 1963, two human skulls and other human remains were discovered in a construction trench at 2431 Prince Edward St. (Bishop Museum site Oa-A4-23, cited in Neller 1984). Multiple burials were encountered in 1963 during excavation for the construction of the present Outrigger Canoe Club at the Diamond Head end of Kalākaua Avenue. As reported in a newspaper article on Jan. 24, 1963:
Table 1. Previous Archaeological Investigations in Waikīkī Ahupua’a

<table>
<thead>
<tr>
<th>Reference</th>
<th>Type of Investigation</th>
<th>General Location</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>McAllister 1933</td>
<td>Island-wide survey</td>
<td>All of O‘ahu</td>
<td>Waikīkī listed as Site 60.</td>
</tr>
<tr>
<td>Nakamura 1979</td>
<td>History Graduate Thesis</td>
<td>Waikīkī</td>
<td>History of Waikīkī with focus on the radical changes in land use that occurred in the early 20th century.</td>
</tr>
<tr>
<td>Neller 1980</td>
<td>Monitoring Report</td>
<td>Kālia Burial Site: Hilton Hawaiian Village</td>
<td>Brief field inspection: partial recovery of 3 historic Hawaiian burials, trash pit from 1890’s, no prehistoric Hawaiian sites.</td>
</tr>
<tr>
<td>Bishop Museum 1981</td>
<td>Testing, Excavations, &amp; Monitoring</td>
<td>Halekulani Hotel</td>
<td>Intact cultural deposits found.</td>
</tr>
<tr>
<td>Neller 1981</td>
<td>Reconnaissance Survey</td>
<td>Halekulani Hotel</td>
<td>Limited background research on area</td>
</tr>
<tr>
<td>Acson 1983</td>
<td>Historical Research</td>
<td>‘Ewa to Diamond Head</td>
<td>Nine walks through Waikīkī, photos, maps and historical info.</td>
</tr>
<tr>
<td>Bishop Museum 1984</td>
<td>Burial Remains List</td>
<td>Waikīkī Ahupua’a</td>
<td>Listing of burial remains found in Waikīkī Ahupua’a at the Bishop Museum</td>
</tr>
<tr>
<td>Davis 1984</td>
<td>Archaeological and Historical Investigation</td>
<td>Halekulani Hotel</td>
<td>48 historic and prehistoric features excavated.</td>
</tr>
<tr>
<td>Neller 1984</td>
<td>Informal Narrative Report</td>
<td>Paoakalani Street</td>
<td>Recovery of human skeletons at construction site</td>
</tr>
<tr>
<td>Griffin 1987</td>
<td>Burial Recovery Report</td>
<td>Along Kalākaua Ave. near corner of Kai‘ulani St.</td>
<td>Bones removed and bagged by construction crew, burial found in makai wall of gas pipe excavation.</td>
</tr>
<tr>
<td>SHPD 1987</td>
<td>Burial, PA Report</td>
<td>Kalākaua Ave.</td>
<td>From excavation adjacent to Moana Hotel (site -9901).</td>
</tr>
<tr>
<td>Davis 1989</td>
<td>Reconnaissance Survey &amp; Historical Research</td>
<td>Fort DeRussy</td>
<td>Fishponds and other features are buried in this area. Sites -4573 thru -4577 are fishponds, 4570 is a remnant cultural deposit.</td>
</tr>
<tr>
<td>Riford 1989</td>
<td>Background Literature Search</td>
<td>TMK: 2-6-014:039</td>
<td>List of literature pertaining to Waikīkī area.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
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</tr>
<tr>
<td>Rosendahl 1989</td>
<td>Inventory Survey, Prelim. Report</td>
<td>Fort DeRussy</td>
<td>Historic artifacts, no human remains</td>
</tr>
<tr>
<td>Athens 1990</td>
<td>Letter</td>
<td>TMK: 2-6-023:025</td>
<td>Letter to SHPD listing human remains at IARI lab from Pacific Beach Hotel, and Barbers Point Generating Station.</td>
</tr>
<tr>
<td>Hurst 1990</td>
<td>Historical Literature Search</td>
<td>Waikikian Hotel</td>
<td>Background and planning document. No fieldwork was done.</td>
</tr>
<tr>
<td>Chigioji 1991</td>
<td>Assessment</td>
<td>2 parcels, TMK 2-6-24:65-68 and 80-83, TMK 2-6-24:34-40 &amp; 42-45</td>
<td>Formerly a corner of the ʻĀinahau estate; remainder of parcels, former ʻauwai, kalo and rice fields; test excavations and specific sampling strategy recommended.</td>
</tr>
<tr>
<td>Davis 1991</td>
<td>Monitoring Report</td>
<td>Fort DeRussy</td>
<td>See also Davis 1989. Subsurface features and material remains date to early post-contact times (c. 1780s to 1790s) through the mid-19th century.</td>
</tr>
<tr>
<td>Kennedy 1991</td>
<td>Monitoring Report</td>
<td>TMK: 2-6-022:014 IMAX theatre location</td>
<td>Pollen and bulk-sediment $^{14}$C samples from ponded sediments were recovered. The three $^{14}$C dates and pollen sequence were inverted.</td>
</tr>
<tr>
<td>SHPD 1991</td>
<td>Public Inquiry</td>
<td>TMK: 2-6-024:036</td>
<td>Bones were determined to be non-human and part of the extensive fill material present</td>
</tr>
<tr>
<td>Simons et al. 1991</td>
<td>Interim Field Study, Monitoring &amp; Data Recovery</td>
<td>Moana Hotel Area</td>
<td>8 burials, preliminary osteological analysis indicates pre-contact type; pre- and post artifactual material recovered.</td>
</tr>
<tr>
<td>Hurlbett 1992</td>
<td>Monitoring Report</td>
<td>TMK: 2-6-008:001</td>
<td>Site -2870 (3 burials) found by Neller in 1980. This report is on testing and monitoring in same area.</td>
</tr>
<tr>
<td>Pietrusewsky 1992a</td>
<td>PA Report</td>
<td>Moana Hotel</td>
<td>Right half of human mandible found by hotel guest.</td>
</tr>
<tr>
<td>Pietrusewsky 1992b</td>
<td>PA Report</td>
<td>Liliʻuokalani Gardens Site, Hamohamo</td>
<td>Human Remains from the Liliʻuokalani Gardens Site, Hamohamo, Waikīkī, Oʻahu</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
<tr>
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<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Streck 1992</td>
<td>Memorandum for Record</td>
<td>Fort DeRussy</td>
<td>Human burial discovery (believed to be late prehistoric Hawaiian) during data recovery excavations, May, 20, 1992.</td>
</tr>
<tr>
<td>Cleghorn 1993</td>
<td>Inadvertent Discovery of Human Remains</td>
<td>Waikīkī Aquarium</td>
<td>Remains of one human individual, mandible identified.</td>
</tr>
<tr>
<td>Dagher 1993</td>
<td>Inadvertent Discovery of Human Remains</td>
<td>Waikīkī Aquarium</td>
<td>Human remains of at least one person identified, excavation recommended.</td>
</tr>
<tr>
<td>Dega &amp; Kennedy 1993</td>
<td>Inadvertent Discovery of Remains</td>
<td>Waikīkī Aquarium</td>
<td>Discovery of unidentified bone fragments, all remains turned over to SHPD.</td>
</tr>
<tr>
<td>Hammatt &amp; Chiogioji 1993</td>
<td>Archaeological Assessment</td>
<td>16-Acre Portion of the Ala Wai Golf Course</td>
<td>Not associated with any know surface archaeological site, however prehistoric and early historic occupation layers associated with lo'i system remain intact below modern fill. Specific sampling strategy and potential burial testing recommended.</td>
</tr>
<tr>
<td>Maly et al. 1994</td>
<td>Archaeological and Historical Assessment Study</td>
<td>Convention Center Project Area</td>
<td>Recommend subsurface testing to determine presence or absence of cultural deposits and features.</td>
</tr>
<tr>
<td>Hammatt &amp; Shideler 1995</td>
<td>Sub-surface Inventory Surface</td>
<td>Hawai‘i Convention Center Site, 1777 Kalākaua Ave.</td>
<td>No further work recommended.</td>
</tr>
<tr>
<td>Jourdane 1995</td>
<td>Inadvertent Discovery of Human Remains</td>
<td>Paoakalani Avenue</td>
<td>Human skeletal remains discovered in planted strip between street and sidewalk fronting hotel.</td>
</tr>
</tbody>
</table>

Archaeological Assessment for the 1944 Kalākaua Avenue Project

TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058
<table>
<thead>
<tr>
<th>Reference</th>
<th>Type of Investigation</th>
<th>General Location</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simons et al. 1995</td>
<td>Data Recovery Excavations</td>
<td>Fort DeRussy</td>
<td>Historic and prehistoric artifacts, and midden materials collected from 7 occupation layers. 6 prehistoric cultural features recorded: ‘auwai bunds and channels, fishpond walls and sediments, a possible lo‘i, and hearths.</td>
</tr>
<tr>
<td>Cleghorn 1996</td>
<td>Inventory Survey</td>
<td>TMK: 2-6-016:23, 25, 26, 28, 61, 69</td>
<td>7 backhoe trenches excavated, no sites located.</td>
</tr>
<tr>
<td>Grant 1996</td>
<td>Historical Reference</td>
<td>Waikiki</td>
<td>Historical information about Waikiki prior to 1900.</td>
</tr>
<tr>
<td>Hammatt &amp; Shideler 1996</td>
<td>Data Recovery</td>
<td>Hawai‘i Convention Center Site</td>
<td>No clear evidence that Kuwili Pond sediments present in project area; no further work recommended.</td>
</tr>
<tr>
<td>McDermott et al. 1996</td>
<td>Inventory Survey</td>
<td>‘Āinahau Estate</td>
<td>Buried remnants of ‘auwai and lo‘i and human burial found. ¹⁴C dates</td>
</tr>
<tr>
<td>Denham et al. 1997</td>
<td>Data Recovery Report</td>
<td>Fort DeRussy</td>
<td>Excavations conducted at fishponds, ¹⁴C dates mid-17th C.</td>
</tr>
<tr>
<td>Denham &amp; Pantaleo 1997</td>
<td>Monitoring and Excavations Report</td>
<td>Fort DeRussy</td>
<td>Final Report does not include SHPD recommendations. 10 subsurface features and 9 burial locations found. ¹⁴C dates</td>
</tr>
<tr>
<td>Beardsley &amp; Kaschko 1997</td>
<td>Monitoring and Data Recovery Report</td>
<td>Pacific Beach Hotel Office Annex</td>
<td>Traditional Hawaiian cultural deposits and 2 human burials. 3 ¹⁴C dates</td>
</tr>
<tr>
<td>Hammatt &amp; Chiogiyoji. 1998</td>
<td>Assessment</td>
<td>King Kalākaau Plaza Phase II</td>
<td>No surface archaeological sites, documented human burials, presence of subsurface cultural deposits (both of pre-contact Hawaiian and historic provenance).</td>
</tr>
<tr>
<td>Hammatt &amp; McDermott 1999</td>
<td>Burial Disinterment Plan and Report</td>
<td>Kalākaau Avenue</td>
<td>Two human burials found</td>
</tr>
<tr>
<td>Perzinski et al. 1999</td>
<td>Monitoring Report</td>
<td>Along Ala Wai Blvd., Kalākaau Ave., Ala Moana Blvd., &amp; ‘Ena Rd.</td>
<td>Two human burials found (1 preceding monitoring); pockets of undisturbed layers still exist. Burial #2 previously disturbed.</td>
</tr>
<tr>
<td>Rosendahl 1999</td>
<td>Interim Report: Inventory Survey</td>
<td>Fort DeRussy</td>
<td>This area is part of the old shoreline.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
<tr>
<td>---------------------------</td>
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</tr>
<tr>
<td>Hammatt &amp; Chiogioji 2000</td>
<td>Archaeological</td>
<td>Honolulu Zoo Parcel</td>
<td>Majority of zoo parcel unlikely to yield significant cultural deposits. However, strong possibility of significant subsurface cultural deposits in the SW portion. Monitoring is recommended in this area.</td>
</tr>
<tr>
<td></td>
<td>Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LeSuer et al. 2000</td>
<td>Inventory Survey</td>
<td>King Kalākaua Plaza Phase II</td>
<td>Site -5796 has been adversely affected by land alteration of the project area. Site -4970, has been adequately documented.</td>
</tr>
<tr>
<td>Perzinski et al. 2000</td>
<td>Burial Findings</td>
<td>Kalākaua Ave. between Kai‘ulani &amp; Monsarrat Avenues</td>
<td>44 sets of human remains; 37 disinterred, 7 left in place; believed to be Native Hawaiian, interred prior to 1820.</td>
</tr>
<tr>
<td>Cleghorn 2001</td>
<td>Mitigation</td>
<td>Burger King Construction Site</td>
<td>Concerning three incidents of uncovered human remains while locating a buried sewer-line for the ABC’s store.</td>
</tr>
<tr>
<td>Corbin 2001</td>
<td>Inventory Survey</td>
<td>Hilton Waikikian Property</td>
<td>No arch. sites were found during excavations of the area.</td>
</tr>
<tr>
<td>Elmore &amp; Kennedy 2001</td>
<td>Burial Report</td>
<td>Royal Hawaiian Hotel</td>
<td>Human remains found during trench excavations for conduit. The in situ remains were left in place, while the disturbed remains were re-interred with the others.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McGuire &amp; Hammatt 2001</td>
<td>Cultural Assessment</td>
<td>Along Lewers St., Beach Walk, Kālia Rd. &amp; Saratoga Rd.</td>
<td>Primary cultural concern identified as inadvertent burial discovery. Cultural monitoring recommended for all subsurface work within project area.</td>
</tr>
<tr>
<td></td>
<td>for Waikī Beach Walk Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perzinski &amp; Hammatt 2001a</td>
<td>Monitoring Report</td>
<td>Kapi‘olani Bandstand</td>
<td>A charcoal layer was observed, concentrated on the SW side of the bandstand; recovered indigenous basalt lamp with a handle, from the SE end of the bandstand.</td>
</tr>
<tr>
<td>Perzinski &amp; Hammatt 2001b</td>
<td>Monitoring Report</td>
<td>Kapi‘olani Park</td>
<td>No cultural layer, artifacts, midden or human burials were encountered during the excavations.</td>
</tr>
<tr>
<td>Perzinski &amp; Hammatt 2001c</td>
<td>Monitoring Report</td>
<td>Kalākaua Avenue from the Natatorium to Poni Mo‘i Road</td>
<td>No cultural layer, artifacts, midden or human burials were encountered during the excavations.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
<tr>
<td>-----------</td>
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<td>------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Rosendahl 2001</td>
<td>Assessment Study</td>
<td>Outrigger Beach Walk</td>
<td>Assessment of previous archaeology and historical literature.</td>
</tr>
<tr>
<td>Winieski &amp; Hammatt 2001</td>
<td>Monitoring Report</td>
<td>TMK: 1-2-6-025:000</td>
<td>There is a possibility that Hawaiian or Historic materials as well as human burials may still be present within the project area.</td>
</tr>
<tr>
<td>Borthwick et al. 2002</td>
<td>Inventory Survey</td>
<td>71,000 sq. ft. parcel, TMK: 2-6-016:002</td>
<td>No burials were found during testing; absence of dry jaucus sand deposits indicate that burial finds are unlikely in project area.</td>
</tr>
<tr>
<td>Bush et al. 2002</td>
<td>Monitoring Report</td>
<td>Kalākaua Avenue, between Ala Moana Blvd. and Kapahulu Ave.</td>
<td>Encountered 4 human burials, probably pre-contact Native Hawaiians; several historic trash pits; entire pig within an imu pit (estimated date, A.D. 1641-1671); gleyed muck associated with former ponds.</td>
</tr>
<tr>
<td>Calis 2002</td>
<td>Monitoring Report</td>
<td>Lemon Road</td>
<td>No historic deposits, major previous disturbance</td>
</tr>
<tr>
<td>Elmore &amp; Kennedy 2002</td>
<td>Monitoring Report</td>
<td>Fort DeRussy</td>
<td>No findings.</td>
</tr>
<tr>
<td>Mann &amp; Hammatt 2002</td>
<td>Monitoring Report</td>
<td>Lili‘uokalani Avenue and Uluniu Avenue</td>
<td>5 burial finds of 6 individuals; two historic trash pits.</td>
</tr>
<tr>
<td>Winieski, Perzinski, Shideler et al. 2002</td>
<td>Monitoring Report</td>
<td>Kalākaua Ave. between Ka‘iulani and Monsarrat Avenues.</td>
<td>44 human burials encountered, 37 disinterred; buried habitation layer identified, with traditional Hawaiian artifacts, midden, firepits, &amp; charcoal; fragment of light gauge rail, remnant of Honolulu Transit trolley system, observed; low energy alluvial sediments associated with the now channelized miliwai Kukaunahi also observed.</td>
</tr>
<tr>
<td>Winieski, Perzinski, Souza et al. 2002</td>
<td>Monitoring Report</td>
<td>Kūhiō Beach</td>
<td>Skeletal remains of 10 individuals, six disinterred, only 2 in situ. 4 indigenous artifacts, none in situ. Discontinuous cultural layer, historic seawall.</td>
</tr>
<tr>
<td>Reference</td>
<td>Type of Investigation</td>
<td>General Location</td>
<td>Findings</td>
</tr>
<tr>
<td>--------------------</td>
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<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bush et al. 2003</td>
<td>Monitoring Report</td>
<td>International Marketplace</td>
<td>Historic trash found.</td>
</tr>
<tr>
<td>Tulchin &amp; Hammatt 2003</td>
<td>Archaeological &amp; Cultural Impact Assessment</td>
<td>2284 Kalākaua Ave.</td>
<td>Notes possibility of burials in the project area; recommends an inventory survey with subsurface testing.</td>
</tr>
<tr>
<td>Freeman et al. 2005</td>
<td>Archaeological Inventory Survey</td>
<td>Hobron Lane</td>
<td>Four sites identified during subsurface testing; 1 disturbed burial; 1 coffin burial with two individuals; 1 cultural deposit; and, 1 fishpond sediment</td>
</tr>
<tr>
<td>O’Hare et al. 2005</td>
<td>Archaeological Inventory Survey</td>
<td>Kaio’o Drive</td>
<td>Site 50-80-14-6848, a pre-contact firepit radiocarbon dated to AD 1470-1660, was recorded.</td>
</tr>
<tr>
<td>O’Leary et al. 2005</td>
<td>Archaeological Inventory Survey</td>
<td>Former Waikiki 3 Theater</td>
<td>A likely pre-Contact Native Hawaiian human burial (SIHP # 50-80-14-6819) was identified</td>
</tr>
<tr>
<td>Bell &amp; McDermott 2007</td>
<td>Archaeological Inventory Survey</td>
<td>Former Waikiki</td>
<td>Two traditional Hawaiian burials of undetermined age (SIHP # 50-80-14-6873 &amp; SIHP # 50-80-14-6875) and a subsurface cultural layer, of pre- and post-Contact origin (SIHP # 50-80-14-6874) were identified.</td>
</tr>
</tbody>
</table>
Figure 11. Previous archaeological studies in the vicinity of the project area focusing on the locations of burials
The Outrigger Canoe Club yesterday dedicated its new site [on land adjacent to and leased from the Elks Club], an ancient Hawaiian burial ground in Waikīkī.

Robert Bowen of the Bishop Museum has been working closely with Ernest Souza, Hawaiian Dredging superintendent, on the removal of skeletons unearthed on the site, between the Colony Surf and the Elks Club.

Most of the bodies were buried in the traditional hooliwa position, with the legs bound tightly against the chest.

One of the skeletons, Bowen said, shows evidence of a successful amputation of the lower forearm, indicating that the Hawaiians knew this kind of operation before the arrival of Europeans.

The ages of the skeletons ranged from children to 40-year-old men and women. The average life span of the Hawaiians at the time was about 32 years [*Honolulu Star-Bulletin*, Jan. 24, 1963: 1A].

A total of 27 burials were encountered (Yost 1971: 28). Apparently, no formal archaeological report on the burials was produced.

In 1964, sand dune burials, a traditional Hawaiian mortuary practice, were revealed as beach sand eroded fronting the Surfrider Hotel (Bishop Museum Site Files).

In 1976, during construction of the Hale Koa Hotel, adjacent to the Hilton Hawaiian Village Hotel, six burials were unearthed, five of apparent prehistoric or early historic age, and one of more recent date (Bishop Museum Site Files).

In 1980, three burials were exposed at the Hilton Hawaiian Village during construction of the hotel’s Tapa Tower. Earl Neller of the (then named) State Historic Preservation Program was called in upon discovery of the burials and conducted fieldwork limited to three brief inspection of the project area. Neller’s (1980) report noted:

The bones from three Hawaiian burials were partially recovered; one belonged to a young adult male, on a young adult female, and one was represented by a single bone. An old map showed that rapid shoreline accretion had occurred in the area during the 1800s, and that the beach in the construction area was not very old. It is possible the burials date back to the smallpox epidemic of 1853. It is likely that burials will continue to be found in the area. It is also possible that early Hawaiian sites exist farther inland, beneath Mō‘ili‘ili, adjacent to where the shoreline would have been 1000 years ago [Neller 1980:5].

Neller also documented the presence of trash pits, including one from the 1890s which contained "a large percentage of luxury items, including porcelain tablewares imported from China, Japan, the United States, and Europe" (Neller 1980:5). He further notes:

It is suspected that other important historic archaeological sites exist in the highly developed concrete jungle of Waikīkī, with discrete, dateable trash deposits.
related to the different ethnic and social groups that occupied Waikīkī over the last 200 years [Neller 1980:5].

Between December 1981 and February 1982, archaeologists from the Bishop Museum led by Bertell Davis conducted a program of excavations and monitoring during construction of the new Halekūlani Hotel (Davis 1984). Six human burials were recovered along with “animal burials [and] cultural refuse from prehistoric Hawaiian firepits, and a large collection of bottles, ceramics, and other materials from trash pits and privies dating to the late 19th century” (Davis 1984:ii). Age analysis of volcanic glass recovered from the site led Davis to conclude: “For the first time we can now empirically date . . . settlement in Waikīkī to no later than the mid-1600s” (Neller 1980:5). Just as significant to Davis was the collection of historic era material at the Halekūlani site; he states:

[The] Halekūlani excavations clearly demonstrate...that there is a definite need to consider historic-period archaeology as a legitimate avenue of inquiry in Hawaiian research. Furthermore, archaeology in the urban context can yield results every bit as significant as in less developed areas. Development in the 19th and early 20th centuries clearly has not destroyed all archaeological resources in Waikīkī, Honolulu, or in any of the other urbanized areas of Hawai‘i [Neller 1980:5].

In 1983, at the Lili‘uokalani Gardens condominium construction site, seven traditional Hawaiian burials were recovered (Neller 1984). This had been the site of a bungalow owned by Queen Lili‘uokalani at the end of the nineteenth century. In addition to the burials, the site contained plentiful historic artifacts, and a pre-historic cultural layer pre-dating the burials.

In 1985, International Archaeological Research Institute, Inc. performed archaeological monitoring and data recovery at the Pacific Beach Hotel Office Annex (Beardsley and Kaschko 1997). Two traditional Hawaiian burials were discovered and removed. Intact buried traditional Hawaiian cultural deposits, including a late pre-contact habitation layer, contained pits, firepits, post molds, artifacts, and food debris. The artifacts included basalt and volcanic glass flakes and cores, a basalt adze and adze fragments, worked pearl shells, a coral file and abraders, and a pearl shell fishhook fragment. Additionally, a late nineteenth century trash pit was discovered, which contained a variety of ceramics, bottles, and other materials.

During 1985 and 1986, archaeologists from Paul H. Rosendahl, Ph.D. Inc. conducted archaeological monitoring at the site of the Mechanical Loop Project at the Hilton Hawaiian Village, Waikīkī. Much of this project area was disturbed by historic and modern construction and modification. Fifteen subsurface features were uncovered during the monitoring, all of which were determined to be historic trash pits or trenches. The dating of these features was based on dating the artifactual material they contained. All 15 features are thought to post-date 1881 based on this artifact analysis. The three partial burials reported by Neller (1980) were found within this project area (see above). No further burials were encountered during the PHRI field work (Hurlbett et. al. 1992).

In 1987, a human burial was discovered and removed at the intersection of Kalākaua Avenue and Ka‘iulani Street during excavations for a gas pipe fronting the Moana Hotel (Griffin 1987).
In 1988, the Moana Hotel Historical Rehabilitation Project (Simons et. al. 1991) encountered human remains that amounted to at least 17 individuals. Based on stratigraphic association these burials were interred over time as the land form at the site changed. The sediment surrounding these burials yielded traditional midden and artifact assemblages. The burials and human remains were found in the Banyan Court and beneath the hotel itself.

In 1989, skeletal remains were unearthed on the grounds of the Ala Wai Golf Course during digging of an electrical line trench for a new sprinkler system. The trench had exposed a pit containing two burials (Bath and Kawachi 1989: 2). The report suggests that one of the burials may have been disturbed earlier during grading for the Territorial Fair Grounds. The osteological analysis included in the report concludes that both sets of remains "appear ancient." (Bath and Kawachi 1989: 2)

Davis' (1989, 1991) excavation and monitoring work at Fort DeRussy documented substantial subsurface archaeological deposits, prehistoric, historic, and modern. These deposits included buried fishpond sediments, 'auwai [irrigation ditch] sediments, midden and artifact enriched sediments, structural remains such as post holes and fire pits, historic trash pits, and a human burial. Davis' (1991) report documents human activity in the Fort DeRussy beach front area from the sixteenth century to the present.

The work at Fort DeRussy continued in 1992 when BioSystems researchers built upon Davis' work (Simons et al. 1995). BioSystems research documents the development and expansion of the fishpond and 'auwai system in this area. The 'auwai system was entered on the State Inventory of Historic Places (SIHP) as State Site 50-80-14-4970. As indicated on the 1881 map by S. E. Bishop discussed above, this 'auwai enters the Fort DeRussy grounds through the present project area). Remains of the fishpond and 'auwai deposits, as well as habitation deposits, were documented below modern fill deposits. This research, along with that of Davis (1991), clearly demonstrates that historical document research can be an effective guide to locating late prehistoric/early historic subsurface deposits, even amidst the development of Waikīkī.

In 1992, Hurlbet et al. (1992) conducted additional monitoring and testing in this same area as Neller (1980). The state site -2870 was given to the three burials first found by Neller. Additional subsurface features, postdating 1881, were found during trenching operations.

The realignment of Kālia Road at Fort DeRussy in 1993 uncovered approximately 40 human burials. A large majority of these remains were recovered in a large communal burial feature (Carlson et al. 1994). The monitoring and excavations associated with this realignment uncovered a cultural enriched layer that contained post holes.

In 1993, during construction activities at the Waikīkī Aquarium fragmentary human remains were discovered scattered in a back dirt pile, although no burial pit was identified (Dega and Kennedy 1993).

On April 28, 1994, an inadvertent burial discovery was made during excavation for a water line at the intersection of Kalākaua Avenue and Kuamoʻo Street (just mauka of Fort. DeRussy). These remains represented a single individual (McMahon 1994).

In 1995, the remains of one individual were discovered in situ during construction activities on Paoakalani Street, fronting the Waikīkī Sunset Hotel (Jourdan 1995).
In 1996, Pacific Legacy, Inc. conducted an archaeological inventory survey of the block bounded by Kalākaua Avenue, Kūhiō Avenue, ‘Olohana Street, and Kālaimoku Street (Cleghorn 1996). The survey included excavation of seven backhoe trenches. The subsurface testing indicated that

... this area was extremely wet and probably marshy. This type of environment was not conducive for traditional economic practices. ... The current project area appears to have been unused because it was too wet and marshy. Several peat deposits, containing the preserved remains of organic plant materials were discovered and sampled. These deposits have the potential to add to our knowledge of the paleoenvironment of the area [Cleghorn 1996:15].

The report concluded that no further archaeological investigations of the parcel were warranted since “no potentially significant traditional sites or deposits were found”, but cautioned of the “possibility, however remote in this instance, that human burials may be encountered during large scale excavations” (Cleghorn 1996:15).

In 1996, a traditional Hawaiian burial was discovered and left in place during test excavations on two lots at Lili‘uokalani Avenue and Tusitala Street (McDermott et al. 1996). Indigenous Hawaiian artifacts and historic artifacts were also found within the project area.

In 1997, during archaeological monitoring by CSH for the Waikīkī Force Main Replacement project, scattered human bones were encountered on ‘Ohua Street (Winieski and Hammatt 2000). These included the proximal end and mid-shaft of a human tibia, a patella, and the distal end and mid-shaft of a femur. These remains occurred within a coralline sand matrix that had been heavily disturbed by previous construction, and by the on-going construction project. No precise location for the original burial site was identified.

In April 1999, two human burials were inadvertently encountered near the intersection of Ena Road and Kalākaua Avenue during excavation activities for the first phase of the Waikīkī Anti-Crime Lighting Improvements Project (Perzinski et al. 1999).

From July 1999 to October 2000, four sets of human remains were inadvertently encountered during excavation activities relating to the Waikīkī Anti-Crime Street Lighting Improvement project along portions of Kalākaua Avenue (Bush et al. 2002). The first burial was encountered on Kalākaua Avenue, just before Dukes Lane and assigned State Site 50-80-14-5864. The burial was left in place however, and the light post was repositioned. The second burial was encountered at the intersection of Kalākaua Avenue and Ka‘iulani Avenue. Earlier, during archaeological monitoring for the water mains project, two burials were encountered in the immediate area of the second burial find; they were assigned state site 50-80-14-5856 features A and B. Due to the close proximity to the previously encountered burials, the second burial was assigned the same State Site 50-80-14-5856, and designated feature C. Burials 3 and 4 were recovered at the intersection of Kalākaua Avenue and Kealohilani, near an area of concentrated burials assigned State Site 50-80-14-5860 during monitoring for the water mains project. Consequently, burials 3 and 4 were also assigned State Site 50-80-14-5860, features U and V. In addition to human remains, pre-contact deposits, historic and modern rubbish concentrations, and pond sediments were also encountered.
From November, 1999, to May, 2000, 44 human burials, with associated cultural deposits, were encountered during excavation for a waterline project on Kalākaua Avenue between the Kaʻiulani and ʻŌhua Avenues (Winiesski et al. 2002a). Except for previously disturbed partial burials in fill, the bulk of the burials were encountered within a coralline sand matrix. Additionally, a major cultural layer was found and documented.

From January 2000, to October 2000, 10 human burials were encountered during archaeological monitoring of the Kūhio Beach Extension/Kalākaua Promenade project (Winiesski et al. 2002b). Six of these were located within a coralline sand matrix. The four others were partial and previously disturbed within fill. Additionally, a major cultural layer was found and documented, apparently part of the same major cultural layer associated with the waterline project between Kaʻiulani and ʻŌhua Avenues.

In April 2001 human remains were inadvertently disturbed during excavations associated with the construction of a spa at the Royal Hawaiian Hotel (Elmore et al. 2001). Archaeological Consultants of the Pacific, Inc was responsible for the documentation of the remainder of the burial and carrying out the instruction of DLNR/ SHPD. The burial and place it was encountered was assigned State Site # 50-80-14-5937. The burial was encountered on the North side of the hotel in the spa garden. The burial was partially disturbed through the thoracic region and anatomical left side. The disturbed remains were wrapped in muslin cloth and placed with the in-situ remains and reburied. The burial was recorded as a post contact burial based on artifacts associated with it. The associated artifacts included one shell button found in-situ and three more shell buttons found in the disturbed material. A single drilled dog tooth was found also during excavation but could not be positively associated with the site.

On May 2nd and June 14th, 2001, two in situ and two previously disturbed human burials were encountered at the site of a new Burger King (Cleghorn 2001a) and an adjoining ABC Store (Cleghorn 2001b). The finds were located at the intersection of ʻŌhua Street and Kalākaua Avenue (Cleghorn 2001a and 2001b). Because of their proximity to five burials encountered during the Kalākaua 16" Water Main Installation (Winiesski et al. 2002a), they were included in the previously assigned State Site 50-80-14-5861. Three of these burials were recovered, and one was left in place. Volcanic glass fragments were found in association with one of the burials. A cultural layer was also observed which contained moderate to heavy concentrations of charcoal and fragments of volcanic glass. Historic era artifacts, including a bottle fragment, plastic and glass buttons, a ceramic fragment, and metal fragments were also encountered within fill materials.

In 2001 and 2002, CSH (Mann and Hammatt 2002) performed archaeological monitoring for the installation of 8- and 12-inch water mains on Ulunui Avenue and Liliʻuokalani Avenue. During the course of monitoring, five burials finds, consisting of six individuals, were recorded within the project area. Four burial finds were recorded on Ulunui Avenue; three of these inadvertent finds were found in fill sediment. Due to the nature of the three burial finds in fill, it was concluded that no State Site number(s) be assigned to these three previously disturbed burials. The only primary in situ burial encountered on Ulunui Avenue was assigned State Site #50-80-14-6369. The fifth burial, consisting of two individuals in fill material, was recorded from Liliʻuokalani Avenue. Since three burials had been found in the immediate vicinity during a
previous project (Winieski et al. 2002b) and had been assigned to Site #50-80-14-5859, the two new individuals were recorded as Feature H of this previously recorded site.

In 2004, Cultural Surveys Hawai‘i conducted an archaeological inventory survey and cultural impact evaluation for the Ala Wai Gateway project site (Freeman et al. 2005). The project site comprised TMK 2-6-011:001, 002, 004, 32, 37, and 40, which are bounded by Ala Wai and Ala Moana boulevards, Hobron Lane, and Līpe‘epe‘e Street. Four historic properties were documented in the survey: Site 50-80-14-6700, a disturbed set of ethnicity undetermined, human skeletal remains; Site 50-80-14-6701, a historic coffin burial, with two individuals, ethnicity undetermined; Site 50-80-14-6702 a culturally enriched buried A horizon; and, Site 50-80-14-6703, a fishpond remnant.

In 2005, Cultural Surveys Hawai‘i conducted an archaeological inventory survey of a 1-acre parcel at 2284 Kalākaua Avenue, the site of the former Waikīkī 3 Theater (O’Leary et al. 2005). A pre-Contact Native Hawaiian burial (SIHP No. 50-80-14-6819) was encountered during subsurface testing in the southeastern corner of the project close to Kalākaua Avenue and Dukes Lane. The burial was found at approximately 150 embds (4.9 ft. below surface) within organically stained (very dark grey to black) wetland agricultural soils present throughout the project area.

In 2007, Cultural Surveys Hawai‘i conducted an archaeological inventory survey of a 2.3-acre parcel located at the corner of Kalākaua Avenue and Ena Road (Bell & McDermott 2007). Two traditional Hawaiian burials of undetermined age (SIHP # 50-80-14-6873 & SIHP # 50-80-14-6875) and a subsurface cultural layer, of pre- and post-Contact origin (SIHP # 50-80-14-6874) were identified.

3.4 Background Summary and Predictive Model

The ahupua‘a of Waikīkī in the centuries before the arrival of Europeans was a well-used locale with abundant natural and cultivated resources – including an expansive system of irrigated taro fields and numerous fishponds – supporting a large population that included the highest-ranking ali‘i (Hawaiian royalty). In the second half of the nineteenth century, after a period of depopulation and desuetude, Waikīkī was reanimated by the Hawaiian ali‘i and the foreigners residing there, and by farmers continuing to work the irrigated field system that had been converted from taro to rice. This farming continued up to the first decades of the twentieth century when the newly-constructed Ala Wai Canal drained the remaining ponds and irrigated fields of Waikīkī.

The present project area is located on the mauka fringe of a portion of Waikīkī that, in traditional Hawaiian times and before the massive drainage accomplished by the Ala Wai Canal, comprised a complex of numerous large fishponds. Also located in this portion of Waikīkī were wetland and dry land agricultural fields, and habitation sites. Land Commission Award documents from the mid-nineteenth century record continuing Native Hawaiian habitation and taro cultivation in parcels adjacent to the present project area. However, nineteenth and twentieth century maps indicate that the project area consisted of undeveloped marshland, suggesting that it was not actively utilized for traditional Hawaiian habitation or agriculture during this time period. By 1927 the project area was drained and filled in during a push to urbanize Waikīkī. By 1956 the project area was completely developed and was being utilized for both residential and commercial purposes.
Previous archaeological studies have documented subsurface cultural deposits and human burials – both pre-contact Hawaiian and historic – in the vicinity of the project area. These findings confirm the traditional Hawaiian and historic activities indicated in the vicinity of the project area through historic documents (LCAs, maps, etc.).

Based on background research it is possible that intact pre-Contact and early contact cultural deposits associated with Hawaiian habitation, agriculture, and burial interment are lying undisturbed beneath fill layers within the project area. Other cultural deposits, including historic trash pits, associated with early twentieth century commercial and residential sites may also be present.
Section 4  Results of Fieldwork

Ra'iman Bathkin, B.A., and Doug Thurman, B.A., assisted project director Jon Tulchin, B.A., with the field effort, which required 12 person-days to complete. Fieldwork took place between November 8th and November 15th 2007, under the general supervision of Hallett H. Hammatt, Ph.D. (principal investigator). Fieldwork in this report has been performed under CSH’s annual archaeological research permit, No. 07-19, issued by DLNR / SHPD.

A 100 percent pedestrian inspection of the project area’s surface confirmed that there were no surface historic properties within the project area. As their were no surface historic properties present, the inventory survey’s historic property identification efforts focused on the identification of subsurface cultural deposits through a regimen of subsurface testing.

4.1 Subsurface Testing

4.1.1 Stratigraphic Summary

Subsurface testing consisted of the excavation of 17 backhoe trenches (Figure 12). Trenches were distributed throughout the project area to provide representative coverage and assess the stratigraphy and potential for subsurface historic properties for all areas of the project area. The test trenches generally measured 6 m in length, 0.8 m in width, and were excavated down to the water table (approximately 2 m) Certain areas could not be tested due to the presence of subsurface concrete slabs, a utility easement that ran through the middle of the project area, as well as an existing two-story commercial building housing a Local Motion surf shop located in the southern end of the project area (see Figure 12).

Based on backhoe testing results, the stratigraphy within the project area is largely as expected. The following paragraphs provide an overview and summary of the backhoe testing results. For detailed information regarding each of the excavated trenches, please refer to the trench profiles, sediment descriptions, and photographs, which follow this more general summary discussion.

A stratigraphic profile was taken at each backhoe trench. In general the observed and documented stratigraphy consisted of varying fill layers, including historic fill associated with the draining and filling of Waikiki, overlying naturally occurring alluvial sediment. It is believed that the historic fill layers consist of dredge material collected during the construction of the Ala Wai Canal. Two types of dredge material were observed; a thick layer of crushed coral fill overlying a thinner layer of pump dredge, consisting of wet clays containing abundant micro striations, which is indicative of pump dredge deposits. These observations agree with the USDA soil data for the project area and its vicinity (Foote et al. 1972). All excavations were backfilled after completion of stratigraphic documentation.

No subsurface historic properties were observed during the course of subsurface testing.
Figure 12. Aerial photograph showing the locations of Trenches 1-17
4.1.2 Trench Documentation

4.1.2.1 Trench 1

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>6.0 m</td>
</tr>
<tr>
<td>Width</td>
<td>0.9 m</td>
</tr>
<tr>
<td>Maximum Depth</td>
<td>2.4 m</td>
</tr>
<tr>
<td>Orientation</td>
<td>NW-SE</td>
</tr>
</tbody>
</table>

The stratigraphy of Trench 1 (Figure 13, Figure 14, & Table 2) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 1.

4.1.2.2 Trench 2

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>6.0 m</td>
</tr>
<tr>
<td>Width</td>
<td>0.8 m</td>
</tr>
<tr>
<td>Maximum Depth</td>
<td>2.1 m</td>
</tr>
<tr>
<td>Orientation</td>
<td>NW-SE</td>
</tr>
</tbody>
</table>

The stratigraphy of Trench 2 (Figure 15, Figure 16, & Table 3) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Trench excavation was stopped once limestone bedrock was encountered.

No cultural material was observed during the excavation of Trench 2.
Figure 13. Photograph of Trench 1, northeast sidewall, view to east

Figure 14. Stratigraphic profile of Trench 1, northeast sidewall
Table 2. Strata Observed at Trench 1

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>20-30</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading for parking lot.</td>
</tr>
<tr>
<td>IIa</td>
<td>20-130</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>130-160</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>160-200</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>200-240*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
Figure 15. Photograph of Trench 2, northeast sidewall, view to north

Figure 16. Stratigraphic profile of Trench 2, northeast sidewall
Table 3. Strata Observed at Trench 2

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>20-30</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading for parking lot.</td>
</tr>
<tr>
<td>IIa</td>
<td>30-135</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>130-170</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>IIc</td>
<td>170-180</td>
<td>Fill; GLEY 2, 3/10B, very dark bluish gray; silty clay sand; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal.</td>
</tr>
<tr>
<td>III</td>
<td>180-210*</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
</tbody>
</table>

* Base of Excavation
4.1.2.3 Trench 3

Length: 6.0 m
Width: 0.8 m
Maximum Depth: 2.6 m
Orientation: NW-SE

The stratigraphy of Trench 3 (Figure 17, Figure 18, & Table 4) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 3.

4.1.2.4 Trench 4

Length: 6.0 m
Width: 0.8 m
Maximum Depth: 2.2 m
Orientation: NE-SW

The stratigraphy of Trench 4 (Figure 19, Figure 20, & Table 5) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III).

No cultural material was observed during the excavation of Trench 4.
Figure 17. Photograph of Trench 3, northeast sidewall, view to east

Figure 18. Stratigraphic profile of Trench 3, northeast sidewall
Table 4. Strata Observed at Trench 3

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>30-40</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading for parking lot.</td>
</tr>
<tr>
<td>IIa</td>
<td>30-130</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>130-155</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>IIc</td>
<td>155-170</td>
<td>Fill; GLEY 2 3/10B, very dark bluish gray; silty clay sand; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal.</td>
</tr>
<tr>
<td>III</td>
<td>170-215</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>215-250*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
Figure 19. Photograph of Trench 4, southeast sidewall, view to south

Figure 20. Stratigraphic profile of Trench 4, southeast sidewall
<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>40-50</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading for parking lot.</td>
</tr>
<tr>
<td>IIa</td>
<td>50-150</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>145-160</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>155-220</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
</tbody>
</table>

* Base of Excavation
4.1.2.5 Trench 5

- **Length:** 6.0 m
- **Width:** 0.8 m
- **Maximum Depth:** 2.6 m
- **Orientation:** NE-SW

The stratigraphy of Trench 5 (Figure 21, Figure 22, & Table 6) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 5.

4.1.2.6 Trench 6

- **Length:** 6.0 m
- **Width:** 0.9 m
- **Maximum Depth:** 2.5 m
- **Orientation:** NE-SW

The stratigraphy of Trench 6 (Figure 23, Figure 24, & Table 7) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 6.
Figure 21. Photograph of Trench 5, southeast sidewall, view to west

Figure 22. Stratigraphic profile of Trench 5, southeast sidewall
### Table 6. Strata Observed at Trench 5

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>40-50</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading for parking lot.</td>
</tr>
<tr>
<td>IIa</td>
<td>50-130</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>130-150</td>
<td>Fill; 10 YR 6/3, pale brown; sandy clay; strong, medium, blocky structure; moist firm consistency; very plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin brown bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>IIc</td>
<td>150-170</td>
<td>Fill; GLEY 2, 3/10B, very dark bluish gray; silty clay sand; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal.</td>
</tr>
<tr>
<td>III</td>
<td>170-220</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment formed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>220-240*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
Figure 23. Photograph of Trench 6, northwest sidewall, view to northwest.

Figure 24. Stratigraphic profile of Trench 6, northwest sidewall.
### Table 7. Strata Observed at Trench 6

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>50-60</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading for parking lot.</td>
</tr>
<tr>
<td>IIA</td>
<td>60-150</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIB</td>
<td>150-170</td>
<td>Fill; 10 YR 6/3, pale brown; sandy clay; strong, medium, blocky structure; moist firm consistency; very plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin brown bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>170-220</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>220-250*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
4.1.2.7 Trench 7

Length: 4.5 m  
Width: 0.8 m  
Maximum Depth: 2.3 m  
Orientation: NE-SW

The stratigraphy of Trench 7 (Figure 25, Figure 26, & Table 8) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 7.

4.1.2.8 Trench 8

Length: 6.0 m  
Width: 0.8 m  
Maximum Depth: 2.2 m  
Orientation: NE-SW

The stratigraphy of Trench 8 (Figure 27, Figure 28, & Table 9) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 8.
Figure 25. Photograph of Trench 7, southeast sidewall, view to southeast

Figure 26. Stratigraphic profile of Trench 7, southeast sidewall
Table 8. Strata Observed at Trench 7

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cms)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>35-55</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading for parking lot.</td>
</tr>
<tr>
<td>IIa</td>
<td>55-135</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>135-165</td>
<td>Fill; 10 YR 6/3, pale brown; sandy clay; strong, medium, blocky structure; moist firm consistency; very plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin brown bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>IIc</td>
<td>165-185</td>
<td>Fill; GLEY 2 3/10B, very dark bluish gray; silty clay sand; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal.</td>
</tr>
<tr>
<td>III</td>
<td>185-220</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>220-230*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
Figure 27. Photograph of Trench 8, southeast sidewall, view to southeast

Figure 28. Stratigraphic profile of Trench 8, southeast sidewall
Table 9. Strata Observed at Trench 8

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>25-35</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading for parking lot.</td>
</tr>
<tr>
<td>IIa</td>
<td>30-120</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>115-150</td>
<td>Fill; 10 YR 6/3, pale brown; sandy clay; strong, medium, blocky structure; moist firm consistency; very plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin brown bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>145-185</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment formed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>185-220*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
4.1.2.9 Trench 9

Length: 6.0 m
Width: 0.8 m
Maximum Depth: 2.1 m
Orientation: NE-SW

The stratigraphy of Trench 9 (Figure 29, Figure 30, & Table 10) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 9.

4.1.2.10 Trench 10

Length: 6.0 m
Width: 0.8 m
Maximum Depth: 2.2 m
Orientation: NE-SW

The stratigraphy of Trench 10 (Figure 31, Figure 32, & Table 11) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III).

No cultural material was observed during the excavation of Trench 10.
Figure 29. Photograph of Trench 9, southeast sidewall, view to southeast

Figure 30. Stratigraphic profile of Trench 9, southeast sidewall

Archaeological Assessment for the 1944 Kalikaua Avenue Project

TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058
Table 10. Strata Observed at Trench 9

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>20-40</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading of parcel.</td>
</tr>
<tr>
<td>IIa</td>
<td>40-120</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>120-140</td>
<td>Fill; 10 YR 6/3, pale brown; sandy clay; strong, medium, blocky structure; moist firm consistency; very plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin brown bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>IIc</td>
<td>140-160</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>160-190</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>190-210*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
Figure 31. Photograph of Trench 10, southeast sidewall, view to southeast

Figure 32. Stratigraphic profile of Trench 10, southeast sidewall
Table 11. Strata Observed at Trench 10

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia</td>
<td>0-10</td>
<td>Fill; 10 YR 3/2, very dark grayish brown; silt loam; weak fine crumb structure; dry loose consistency; non plastic; weak cementation; terrestrial origin; abrupt boundary; smooth topography. Modern A horizon consisting of imported construction fill associated with the leveling and grading of the parcel.</td>
</tr>
<tr>
<td>Ib</td>
<td>10-30</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading of parcel.</td>
</tr>
<tr>
<td>IIa</td>
<td>30-90</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>90-110</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>IIc</td>
<td>110-170</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; silty clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Contains 50% crushed coral. Imported pump dredge material associated with the dredging of the Ala Wai Canal.</td>
</tr>
<tr>
<td>III</td>
<td>170-190*</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
</tbody>
</table>

* Base of Excavation
4.1.2.11 Trench 11

<table>
<thead>
<tr>
<th>Property</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>6.0 m</td>
</tr>
<tr>
<td>Width</td>
<td>1.0 m</td>
</tr>
<tr>
<td>Maximum Depth</td>
<td>1.8 m</td>
</tr>
<tr>
<td>Orientation</td>
<td>NW-SE</td>
</tr>
</tbody>
</table>

The stratigraphy of Trench 11 (Figure 33, Figure 34, & Table 12) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 11.

4.1.2.12 Trench 12

<table>
<thead>
<tr>
<th>Property</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>6.0 m</td>
</tr>
<tr>
<td>Width</td>
<td>1.0 m</td>
</tr>
<tr>
<td>Maximum Depth</td>
<td>2.0 m</td>
</tr>
<tr>
<td>Orientation</td>
<td>NW-SE</td>
</tr>
</tbody>
</table>

The stratigraphy of Trench 12 (Figure 35, Figure 36, & Table 13) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III).

No cultural material was observed during the excavation of Trench 12.
Figure 33. Photograph of Trench 11, southwest sidewall, view to southwest

Figure 34. Stratigraphic profile of Trench 11, southwest sidewall
Table 12. Strata Observed at Trench 11

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0-40</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; wavy topography. Imported construction fill associated with leveling and grading of parcel.</td>
</tr>
<tr>
<td>IIa</td>
<td>40-80</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>80-110</td>
<td>Fill; 10 YR 6/3, pale brown; sandy clay; strong, medium, blocky structure; moist firm consistency; very plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin brown bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>IIc</td>
<td>110-140</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>140-160</td>
<td>Buried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>160-180*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
Figure 35. Photograph of Trench 12, northeast sidewall, view to northeast

Figure 36. Stratigraphic profile of Trench 12, northeast sidewall
Table 13. Strata Observed at Trench 12

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0-20</td>
<td>Fill; 10 YR 5/2, grayish brown; silt; structureless; dry loose consistency; non plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Contains 40% basalt gravel. Imported construction fill associated with leveling and grading of parcel.</td>
</tr>
<tr>
<td>IIa</td>
<td>20-120</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>120-150</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; silty clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Contains 50% crushed coral. Imported pump dredge material associated with the dredging of the Ala Wai Canal.</td>
</tr>
<tr>
<td>III</td>
<td>150-200*</td>
<td>Buried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment formed by alluvial deposits and decomposing organic matter.</td>
</tr>
</tbody>
</table>

* Base of Excavation
4.1.2.13 Trench 13

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>5.0 m</td>
</tr>
<tr>
<td>Width</td>
<td>0.9 m</td>
</tr>
<tr>
<td>Maximum Depth</td>
<td>0.6 m</td>
</tr>
<tr>
<td>Orientation</td>
<td>NW-SE</td>
</tr>
</tbody>
</table>

No stratigraphy was observed in Trench 13 due to the presence of subsurface concrete slabs approximately 60 cm below the existing ground surface (Figure 37 & Figure 38).

No cultural material was observed during the excavation of Trench 13.

4.1.2.14 Trench 14

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>6.0 m</td>
</tr>
<tr>
<td>Width</td>
<td>0.9 m</td>
</tr>
<tr>
<td>Maximum Depth</td>
<td>2.3 m</td>
</tr>
<tr>
<td>Orientation</td>
<td>N-S</td>
</tr>
</tbody>
</table>

The stratigraphy of Trench 14 (Figure 39, Figure 40, & Table 14) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 14.
Figure 37. Photograph of Trench 13, southeast sidewall, view to southeast.

Figure 38. Stratigraphic profile of Trench 13, southeast sidewall.
Figure 39. Photograph of Trench 14, west sidewall, view to southwest

Figure 40. Stratigraphic profile of Trench 14, west sidewall
Table 14. Strata Observed at Trench 14

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia</td>
<td>0-10</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherant consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading of parcel.</td>
</tr>
<tr>
<td>Ib</td>
<td>10-40</td>
<td>Fill; 10 YR 5/6, yellowish brown; silty sand; structureless; dry loose consistency; non plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported construction fill associated with the leveling and grading of the parcel. A 10 cm thick layer of asphalt, probably a remnant of an old parking lot or drive way, runs through the middle of this stratum.</td>
</tr>
<tr>
<td>IIa</td>
<td>40-150</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>150-180</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>180-210</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>210-230*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
4.1.2.15 Trench 15

**Length:** 4.0 m  
**Width:** 0.9 m  
**Maximum Depth:** 2.2 m  
**Orientation:** NW-SE

The stratigraphy of Trench 15 (Figure 41, Figure 42, & Table 15) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III). Underlying the buried A horizon was a layer of clay loam sludge (Stratum IV) formed by the natural decomposition of the limestone bedrock below.

No cultural material was observed during the excavation of Trench 15.

4.1.2.16 Trench 16

**Length:** 6.0 m  
**Width:** 0.9 m  
**Maximum Depth:** 2.0 m  
**Orientation:** NW-SE

The stratigraphy of Trench 16 (Figure 43, Figure 44, & Table 16) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III).

No cultural material was observed during the excavation of Trench 16.
Figure 41. Photograph of Trench 15, southwest sidewall, view to south

Figure 42. Stratigraphic profile of Trench 15, southwest sidewall
Table 15. Strata Observed at Trench 15

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia</td>
<td>0-15</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; smooth topography. Imported construction fill associated with leveling and grading of parcel.</td>
</tr>
<tr>
<td>IIA</td>
<td>15-140</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>140-170</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>170-200</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment fromed by alluvial deposits and decomposing organic matter.</td>
</tr>
<tr>
<td>IV</td>
<td>200-220*</td>
<td>C horizon (decomposing bedrock); GLEY 2 5/5B, bluish gray; sandy clay; structureless; wet sticky consistency; slightly plastic; no cementation; mixed origin. Sandy clay sludge formed by naturally decomposing limestone bedrock.</td>
</tr>
</tbody>
</table>

* Base of Excavation
Figure 43. Photograph of Trench 16, northeast sidewall, view to east

Figure 44. Stratigraphic profile of Trench 16, northeast sidewall
Table 16. Strata Observed at Trench 16

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0-20</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; wavy topography. Imported construction fill associated with leveling and grading of parcel.</td>
</tr>
<tr>
<td>IIa</td>
<td>20-150</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>150-180</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>180-200*</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment formed by alluvial deposits and decomposing organic matter.</td>
</tr>
</tbody>
</table>

* Base of Excavation
4.1.2.17 Trench 17

Length: 6.0 m
Width: 0.9 m
Maximum Depth: 2.0 m
Orientation: NW-SE

The stratigraphy of Trench 17 (Figure 45, Figure 46, & Table 17) consisted of modern imported construction fill (Stratum I), followed by historic dredge material (Stratum II) overlying a buried A horizon (former land surface) consisting of naturally deposited alluvial sediment and decomposing organic matter (Stratum III).

No cultural material was observed during the excavation of Trench 17.
Figure 45. Photograph of Trench 17, northeast sidewall, view to northeast

Figure 46. Stratigraphic profile of Trench 17, northeast sidewall

Archaeological Assessment for the 1944 Kaliakaua Avenue Project

TMK: [1] 2-6-014: 001, 004, 006, 007, 008, 019, & 058
<table>
<thead>
<tr>
<th>Stratum</th>
<th>Depth (cmbs)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>20-40</td>
<td>Fill; 10 YR 4/6, red; clay loam; moderate medium blocky structure; dry weakly coherent consistency; slightly plastic; no cementation; terrestrial origin; abrupt boundary; wavy topography. Imported construction fill associated with leveling and grading of parcel.</td>
</tr>
<tr>
<td>IIa</td>
<td>40-130</td>
<td>Fill; 10 YR 5/6, light yellowish brown; gravel; structureless; dry loose consistency; non plastic; no cementation; marine origin; abrupt boundary; smooth topography. Contains 40% sand. Crushed coral fill associated with the historic draining and filling of Waikiki, most likely dredge material from the construction of the Ala Wai Canal.</td>
</tr>
<tr>
<td>IIb</td>
<td>130-160</td>
<td>Fill; GLEY 2 7/5PB, light bluish gray; clay; strong, medium, blocky structure; wet sticky consistency; plastic; no cementation; mixed origin; abrupt boundary; smooth topography. Imported pump dredge material associated with the dredging of the Ala Wai Canal. Contains abundant micro striations, defined by thin black bands, which is indicative of pump dredge deposits.</td>
</tr>
<tr>
<td>III</td>
<td>160-200*</td>
<td>Burried A horizon (former land surface); 10 YR 3/2, very dark grayish brown; silt loam; moderate, medium, crumb structure; moist very friable consistency; plastic; no cementation; mixed origin; clear boundary; wavy topography. Contains abundant land snail shells, roots, and wood fragments. Marsh sediment formed by alluvial deposits and decomposing organic matter.</td>
</tr>
</tbody>
</table>

* Base of Excavation
Section 5  Summary and Interpretation

In compliance with and to fulfill applicable Hawai‘i state historic preservation legislation, CSH completed what began as an archaeological inventory survey investigation of the project area, but because no historic properties were located, this investigation became an archaeological assessment, per the language of HAR Chapter 13-13-275-5. Per the Hawai‘i state requirements for archaeological assessments, this report includes the results of historical and archaeological background research and fieldwork. The background research focused on summarizing the project area’s pre-Contact and historic land use, cultural significance, and types and locations of potential historic properties within the project area and its vicinity.

The present project area is located on the mauka fringe of a portion of Waikīkī that, in traditional Hawaiian times and before the massive drainage accomplished by the Ala Wai Canal, comprised a complex of numerous large fishponds. Also located in this portion of Waikīkī were wetland and dry land agricultural fields, and habitation sites. Land Commission Award documents from the mid-nineteenth century record continuing Native Hawaiian habitation and taro cultivation in parcels adjacent to the present project area. However, nineteenth and twentieth century maps indicate that the project area consisted of undeveloped marshland, suggesting that it was not actively utilized for traditional Hawaiian habitation or agriculture during this time period. By 1927 the project area was drained, filled in, and subdivided during a push to urbanize Waikīkī. By 1956 the project area was completely developed and was being utilized for both residential and commercial purposes.

Previous archaeological studies have documented subsurface cultural deposits and human burials – both pre-Contact Hawaiian and historic – in the vicinity of the project area. These findings confirm the traditional Hawaiian and historic activities indicated in the vicinity of the project area through historic documents (LCAs, maps, etc.).

As part of the field effort, carried out between November 8th and November 15th 2007, CSH conducted a systematic pedestrian inspection of the project area. No surface historic properties were identified. CSH also excavated seventeen (17) backhoe trenches to prospect for subsurface cultural deposits, including human burials. No subsurface historic properties were observed. In general the observed and documented stratigraphy consisted of varying fill layers, including historic fill associated with the draining and filling of Waikīkī, overlying naturally occurring alluvial sediment.

The fieldwork results support the background research, which indicates that the project area consisted of marshland that was not intensively utilized until the mid-twentieth century when Waikīkī became urbanized following the draining and filling of the area initiated in the 1920’s. However, background research also indicates extensive traditional Hawaiian agriculture and habitation in the immediate vicinity of the project area, as evidenced by the presence of fishponds, wetland agricultural fields, and habitation sites. Due to the proximity of this traditional Hawaiian occupation, it is still possible that intact pre-Contact and early contact cultural deposits associated with Hawaiian habitation, agriculture, and burial interment are lying undisturbed beneath the fill layers within the project area. It should be noted that typically cultural deposits associated with traditional Hawaiian habitation and burial interment are located in Jauca’s sand deposits, which were not observed within the project area, thus while there is the
potential to encounter these types of cultural deposits, it is unlikely. The naturally deposited soils observed in the project area consisted of a loam formed by the alluvial deposit of sediment and the decomposition of organic matter. This soil would have been excellent for agriculture and thus makes the potential for encountering cultural deposits associated with traditional Hawaiian agriculture more likely. Additionally, cultural deposits, including historic trash pits, associated with early twentieth century commercial and residential sites may also be present.
Section 6  Project Effect and Mitigation Recommendations

6.1 Project Effect

Based on the current investigation, there are no historic properties recommended Hawai’i Register-eligible within the project’s Area of Potential Effect (APE). Accordingly, based on the available information, it is recommended that the proposed project will have no effect on significant (i.e. Hawai’i Register-eligible) historic properties. A project specific effect determination of “no historic properties affected” is warranted for the project.

6.2 Mitigation Recommendations

The proposed 1944 Kalākaua Avenue Project will not have an adverse impact to any historic properties and no further work is recommended for the project.

In the unlikely event that previously unidentified subsurface historic properties are encountered by project construction, the project proponents should immediately stop work in the vicinity and contact SHPD’s O‘ahu Office [Tel. (808) 692-8015].

6.3 Disposition of Materials

No cultural materials were collected during this archaeological assessment.
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Appendix A  LCA Documentation

Mahele Database Documents
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**No. 1409, Nakoko**  
N.R. 100-102v3

To the Land Commissioners, Greetings and peace: I, the undersigned, hereby tell of my claims for one 1/4 I., named Alkali, also a house lot at Kalia, in Waikiki, Island of Oahu.

NAKOKO  
Residence: Kapapala

F.T. 12v3
Cl. 1409, Nakoko, October 11, 1848

Kawao, sworn, This land is in the ili of Aikahi, Waialii, Oahu, in two lots.

1. House lot, Kalia, partly fenced and one house on it.
   Mauka is Kekuanaoa's waste land
   Waialae is Paele's
   Makai is Kalahinenui's
   Honolulu, Kimo's.

2. Kalo land in Aikahi, two patches and an auwai.
   Mauka is Lilikalani's
   Waialae, Kuluwalihua's
   Makai, Peleul's
   Honolulu, Kalahinenui's.

I gave claimant these lands in time of Kaahumanu I and he has held them in peace ever since. I am konohiki of them under Victoria.

N.T. 333v3
No. 1409, Nakoko, October 11, 1848

Kawao, sworn, I have seen his interest at Kapapala in Waikiki. The house lot is Makai at Kealia in Waikiki.

1. One house lot:
   Mauka, Kekuanaoa's place
   Waialae, Paele's place
   Makai, Kalahinenui's place
   Honolulu, Kimo's place.
   One side of the property has been enclosed while the other is open.

2. Two patches and a stream:
   Mauka, Lilikalani's place
   Waialae, Paele's place
   Makai, Peleul's place
Honolulu, Kaluahinenui's place.

All of these interests have been from me given at the time of Kaahumanu I and since that time to the present, he has lived there peacefully without any objections. I am the konohiki for this place since Kaahumanu I to the present time. Pikolia is the landlord.

[Award 1409; R.P. 4154; Katia Waikiki Kona; 1 ap.; 2.92 Acs]

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No. 8559B*O, (W.C. Lunalillo) C. Kanaina
F.T. 551-552v3

W.H. Uana, sworn, says he knows the house lot of Lunalillo, in Kaluaaha, Molokai. It is bounded:

- Mauka by the public road
- On the Halawa side by a fish pond of the government called "Neupala"
- Makai by the sea beach
- On Kaluaakoi side by a government fish pond called "Kaluaaha."

This lot formerly was ordered to be enclosed by Hoapili wahine and Kekauluhoe when Eseta Kipa was Governess of Molokai. The people of Kekauluohi's lands erected a stone house on this lot in the year 1835. It is now in possession of Lunalillo as heir of Kekauluohi.

E. Kipa, sworn says, she knows the lot. I was Governess of Molokai under Hoapili wahine &
Kekauluohi in former times, and by their orders enclosed this lot and built a stone house on it with the labor of the people of their own lands. When the government sold the land of "Kaluaaha" to the Missionaries, I heard Kalolou come and ask permission from Kanaina to live in the stone house, which permission she got.

(A. Paki sets up a claim for this lot as heir of Kalaolu.)

L. Haalelea, sworn says, he knows the house lot claimed by Lunalilo in Kailua, Hawaii. It is bounded:

On Kiholo side by the church lots
Ma’kai by the public road
On Kealohou side by a road leading mauka
Mauka by some house lots.

It is enclosed by a wall. This lot I have heard belonged formerly to Keaho, the father of Mahuka. I have heard that when Keaho died he left this lot to Kekauluohi, and I have recently seen a letter from Mahuka to W.C. Lunalilo requesting him to allow Mahuka to retain charge of this lot under Lunalilo. In 1843 I was at Kailua & Kekauluohi was there. I then saw the later Governor Adams give her some money which he said was rent received for this same lot. Part of this lot is claimed by the heir of W.P. Leleiochoku. There is a fence remaining though and dividing the lot into two parts.

F.T. 82-84v16 and N.T. 82-84v16
No. 8559B, William C. Lunalilo

Polea, sworn says, he knows the lots claimed by William C. Lunalilo, at Lahaina, Maui.

The first called Luahau, is bounded as follows:
Mauka by Kalheekai and Hiram’s land
Olowalu by King’s land
Ma’kai by Sea beach
Kaanapali by Polea and M.J. Noula [Nowlen].

The second in Pakala is bounded as follows:
Mauka by Public street
Olowalu by Kalheekai’s land
Ma’kai by H.S. Swinton’s and others’ land.
Kaanapali by Public road.

The third lot called Hawaikaeka is also bounded as follows:
Mauka by Kalaleikio's land
Olowalu by Public road
Makai by Alaioe Kahiko street
Kaanapali by Daniela Il's land.

This lot is disputed by Manushina the wife of George Shaw, whose claim in right of her father. She has already got an award for a part of this lot.

The fourth lot in Paunau is bounded as follows:
Mauka by Keawehehu's and Kahula's land
Olowalu by Keaweluao's land
Makai by Old road
Kaanapali by Street leading to Lahainaluna.

The fifth lot called Loinui is bounded as follows:
Mauka by Keaveluaole; Kauhi and Kalolou's land
Olowalu by Mr. Baldwins
Makai by Old road
Kaanapali by Kamakinui's land.

The sixth lot in Aki is bounded as follows:
Mauka by Kaweka's land
Olowalu by Wahi's land
Makai by Main road
Kaanapali by M.I. Nowlein's land.

The seventh lot in Puunoa is bounded as follows:
Mauka by Main road
Olowalu by Iosua Kaeo
Makai by Iosua Kaeo
Kaanapali by King's land.

The eighth lot in Kelawe is bounded as follows:
Mauka by Lahainaluna
Olowalu by Road from the beach.
Makai by Keleikini and Kahookano’s lands
Kaanapali by A stream.

All these lots have descended to William C. Lunalilo from his mother, Kekauluohi, and are now in the hands of his lunas. The lot in “Pakaia” is disputed by Paki and others.

N.T. 619-620v3
No. 8559, [C. Kanaina], Section 49, C. Kanaina, From pg. 597 Vs. No. 2619 Pahau

C. Kanaina has come before the land commissioners and stated, “I am opposing Pahau’s interest in section 2 consisting of nine patches. They are in my land which is the lele Opukaala of the Pau ili land in Waikiki.

Here is the reason Pahau had acquired that land. Kaaha had given land to him and when he /Kaaha /died all of the lands in Pau were returned to Wm. C. Lunalilo; therefore, I feel that these patches in that section should be returned to me permanently, or else they should be divided between him and me.

Postponed until they make their own settlements and present the best one to the land officers who will approve it.

N.T. 185-187v10
No. 8559B, William Charles Kanaina, [for Lunalilo], Honolulu, 24 April 1850

COPY
Greetings to you Highness, John Young, the Minister of Interior.
My desire is to have the government claim separated from my lands; therefore I hereby give some of my land for the government to have forever and the same shall apply to mine. Here are the names of my lands:

Kawela ahupuaa, Hamakua, Hawaii.
Waikāekee ahupuaa, Hamakua, Hawaii.
Makapala ahupuaa, Kohala, Hawaii.
Kehena ahupuaa, Kohala, Hawaii.
Puhau ili of ile, Kohala, Hawaii.
Puako ili of Waimea, Kohala, Hawaii.
Honuainonui ahupuaa, Kona, Hawaii.
Puapuanui ahupuaa, Kona, Hawaii.
Lehuulanui ahupuaa, Kona, Hawaii.
Kawainui ahupuaa, Kona, Hawaii.
Lanihaunui ahupuaa, Kona, Hawaii.
Pakinihi ahupuaa, Kau, Hawaii.
Hanuapo ahupuaa, Kau, Hawaii.
Kahanalea ahupuaa, Puna, Hawaii.
Keahialaka ahupuaa, Puna, Hawaii.
Keaau ahupuaa, Puna, Hawaii.
Makahanaloa ahupuaa, Hilo, Hawaii.
Pepekeo ahupuaa, Hilo, Hawaii.

Kaapuhu ahupuaa, Kipahulu, Maui.
2 Waiehu, Puali, West Maui.
Ahipuli ili for Waiehu, West Maui.
Pepee ili for Wailuku, West Maui.
Honolua ahupuaa, Kaanapali, Maui.
Kalimaoho ahupuaa, Lahaina, Maui.
Polanui ahupuaa, Lahaina, Maui.
Kuholiole ahupuaa, Lahaina, Maui.

Waalua ahupuaa, Kona, Molokai.
Kawela ahupuaa, Kona, Molokai.

Pau ili for Waikiki in Manoa, Kona, Oahu.
Kamoku ili for Waikiki in Manoa, Kona, Oahu.
Kaluaokau ili for Waikiki in Manoa, Kona, Oahu.
Kapahulu ili for Waikiki in Manoa, Kona, Oahu.
Kaalaea ahupuaa, Koolaupoko, Oahu.
Kapaka ahupuaa, Koolauloa, Oahu.
Laiewai ahupuaa, Koolauloa, Oahu.
Laiemalo loosehupuaa, Koolauloa, Oahu.
Pahipahialua, Koolauloa, Oahu.
Kahili, Koolauloa [sic], Koolau, Kauai.
Kalihwai, Koolauloa [sic], Koolau, Kauai.
Pilawau, Koolauloa [sic], Koolau, Kauai.
Manuahi ili, Kona, Kauai.
Waipouli ahupuaa, Puna, Kauai.

These lands listed above shall be for me fee simple forever, it would not be right for the government to claim my land.

The following lands, I shall give to the government fee simple forever.
Kapulena ahupuaa, Hamakua, Hawaii.
Kukuihaele ahupuaa, Hamakua, Hawaii.
Auau ahupuaa, Kohala, Hawaii.
Keopuhiuahahuluih auhupuaa, Kona, Hawaii.
Papaokoko ili of Honokohau, Kona, Hawaii.
Ninole ahupuaa, Kau Hawaii.
Laepoo ahupuaa, Puna, Hawaii.
Koa 1 ahupuaa, Puna, Hawaii.
Koa 2 ahupuaa, Puna, Hawaii.
Laapuki ahupuaa, Puna, Hawaii.
Kaiuki ahupuaa, Hilo, Hawaii.
Kahuku ahupuaa, Hilo, Hawaii.

Waikoka ahupuaa, Kula, Maui.
Kou ili of Waiehu Puali, Komohana Maui.
Kapino ili of Waiehu Puali, Komohana, Maui.
Halelena ili of Waiehu Puali, Komohana, Maui.
Keokamu ili of Waiehu Puali, Komohana, Maui.
Wainee ahupuaa, Lahaina, Maui.

Mahana ahupuaa, Lanai.

Kamalomalo ahupuaa, Puna, Kauai.
Kumukumu ahupuaa, Koolau, Kauai.

I've given the lands listed above to the government forever, all of them are for the government.
Please consider my request with compassion for me.
With appreciation, I am,
William Charles Lunalilo, Charles Kanaina (child guardian)
Department of Interior, 6 April 1852.

This is a try copy of Lunalilo’s division with the government,
A. G. Thruston, Secretary

**N.T. 450v10**
No. 8559B, Willaim C. Lunalilo, Protested by Kaai

Mahuna, sworn, it is true my own place was written in the bill of sale to C. Kanaina, the place is just mauka of the land in Kailua of Kona, Hawaii, over which there is a dispute by Kaai. That is the lot I have transmitted to him, Kanaina, but I have not seen the property Kaai has at this present time; however, I had seen my parents living on this land at the time [of] Kaahumanu I. I had gone on a tour. Houses had been built, but I have not lived there since that time to the present, nor have I seen this lot over which there is a dispute with Kaai.

C. Kanaina, relates - the witnesses for this land on which Kaai and I are working are dead; although, I had thought they (two) would be my witnesses, but today they have denied by claim to this place. It is true this place had been for their father, Keoho, where he lived until he had died and they (two) are his own children, but I am demanding according to the old bequest of Keaho to M. Kekauluohi as well as by many other statements.

Naea, sworn, I have seen Kaai’s place in Keopu of Kona, Hawaii, which is a house lot.

Mauka by Mahuka’s lot
South Kona by a road
Makai by Government road
Kohala by vacant lot.

Land from Keoho (his father) upon his (Keoho) death in 1833. Keoho had obtained it long ago as idle land.

Kaai has always lived there peacefully to the present time.
Now C. Kanaina has offered a protest, I do not know the reason for it.

Kiloa, sworn, all of the statements above are true. I have known in the same way. I have not known the place was for C. Kanaina. It had been for Keoho, Kaai's father and now Kaai is the true claimant of this place.

[Award 8559B; (Oahu); R.P. 7635; Kamekua Waiiki (apana 30); R.P. 8193, 8311 & 8416; Pau Waiiki (apana 29)(see Kapahu award); R.P. 8434; Pau Waiiki Kona; (ap. 29); R.P. 8124; Kapahu Kona; 1 ap.; 31.50 Acs (apana 32); R.P. 8165; Kapahu Kona; 2 ap.; 2.184 44 Acs (apana 32); R.P. 8514; Kea Kapahu Waiiki; 1 ap.; 6.16 Acs; R.P. 7652; Kalaukou Waiiki (apana 31); R.P. 7531; Kalaeo Koolauloako; 1 ap.; 1340 Acs; (apana 33); R.P. 7494; Laie-wai Koolauloa (apana 35); Laie-maloo Koolauloa (apana 36); R.P. 5868; Pahipahiialua Koolauloa (apana 37); 704 Acs; no R.P.; Kapaua Koolauloa (apana 34); (Maui, R.P. 8395; Polunui Lahaina; 1 ap.; 440 Acs (apana 25); R.P. 8129; Honolua Kaanapali; 1 ap.; 3860 Acs (ahuapa a, apana 23); R.P. 7664; Pepee Walluku; R.P. 8396; 1 ap.; 255.7 Acs; Kalimahoe Lahaina; 2 ap.; 493 Acs; (apana 24); R.P. 8397; Kuholole Lahaina; 2 ap.; 184.5 Acs; (apana 26); R.P. 5637; Paunau Lahaina; 1 ap.; 2 roods 24 perchas (apana 4); R.P. 5639; Aki Lahaina; 1 ap.; 16 perchas (apana 6); no R.P.; Paehi Lahaina; 1 ap.; 1 Ac. 52 rods; R.P. 5699; Loiniu (Luahue Waianaeh) Lahaina; 2 ap.; 2.75 Acs 37 rods; R.P. S6550/S6546 & S6537. Kapahu Kipahu; 1 ap.; (ahuapa, apana 19); Waiehu 2 Walluku; no R.P. Ahikuli Waiehu; (Hawaii) R.P. 478; Pakiniiki Kau; 1 ap.; 2357 Acs; Makanaloa Hilo; 2 ap.; 7600 Acs; R.P. 7049; Honuapo Kau; 1 ap.; ahupuaa 2200 Acs; Honuaino nui; 1 ap.; 262 Acs; R.P. 7454; Kawaiini iki Kona; 1 ap.; 380 Acs; R.P. 7455; Lehuula nui; 1 ap.; 290 Acs; Lehuula nui; 1 ap.; 2640 Acs; Puapueenii Kona; 1 ap.; 370 Acs; R.P. 7630; Kahena 2 N. Kohala; 1 ap.; (ap. 4); ahupuaa; Puako S. Kohala; 1 ap.; Lilina (Ap.6); Kahaualae Puna; 1 ap.; 26,000; Keaialaka Puna; 1 ap.; 5562 Acs; Peokeeo Hilo; Kaaou Puna; 1 ap.; 64,275 Acs; Kawaia Hamakua; R.P. 7434; Honuainoonu N. Kona; R.P. 7456; Lainahu Nui Kona; R.P. 8452; Waikoeke Hamakua; no R.P.; Makapala Kohala; R.P. 7192 Makanaloa Hilo; 2 ap.; 7600 Acs; (Molokai) R.P. 7655; Waiau; R.P. 7656 Kavela; (Kauai) R.P. 8173; Kalihiwai Halelea; no R.P. Manua Hanepepe; R.P. 8323; Kahihi Koolau; R.P. 7060, Pilaau Koolau; R.P. 7373; Waipouli Puna; See 8559 to C. Kanaina who is awarded a property at Ukumehame under 8559B; see also Award 277]
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<td>Waikiki</td>
</tr>
<tr>
<td>Ili:</td>
<td>Kamookahi, Kanukukahi, Piinalo, Moolki, Pinao</td>
</tr>
<tr>
<td>Apana:</td>
<td>3</td>
</tr>
<tr>
<td>Loi:</td>
<td>3</td>
</tr>
<tr>
<td>Plus:</td>
<td>NR:</td>
</tr>
<tr>
<td>Mala Taro:</td>
<td>FT:</td>
</tr>
<tr>
<td>Kula:</td>
<td>NT:</td>
</tr>
<tr>
<td>House lot:</td>
<td>1</td>
</tr>
<tr>
<td>Kihapa/Pakanu:</td>
<td>Number of Royal Patents:</td>
</tr>
<tr>
<td>Salt lands:</td>
<td>Koele/Poalima:</td>
</tr>
<tr>
<td>Wauke:</td>
<td>Loko:</td>
</tr>
<tr>
<td>Olona:</td>
<td>Lokola:</td>
</tr>
<tr>
<td>Noni:</td>
<td>Fishing Rights:</td>
</tr>
<tr>
<td>Hala:</td>
<td>Sea/Ship/Seas:</td>
</tr>
<tr>
<td>Sweet Potatoes:</td>
<td>Auwai/Ditch:</td>
</tr>
<tr>
<td>Irish Potatoes:</td>
<td>Other Edifice:</td>
</tr>
<tr>
<td>Bananas:</td>
<td>Spring/Well:</td>
</tr>
<tr>
<td>Breadfruit:</td>
<td>Pigpen:</td>
</tr>
<tr>
<td></td>
<td>350v3</td>
</tr>
<tr>
<td></td>
<td>638v3</td>
</tr>
<tr>
<td></td>
<td>3923</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
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<td>No</td>
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<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>
Coconut:                   Road/Path:                No  
Coffee:                   Burial/Graveyard: No  
Oranges:                  Wall/Fence:            No  
Bitter Melon/Gourd:       Stream/Muliwai/River: No  
Sugar Cane:               Pali:                  No  
Tobacco:                  Disease:               No  
Koa/Kou Trees:            Claimant Died: No  
Other Plants:             Other Trees:           No  
Other Mammals:            Miscellaneous: No  

**No. 2083, Kahiloaoho**  
N.R. 350v3

I, the one those name is below, hereby state my claim for two lo'i. One is at Aipae, and another at Kalililo; and also, my house lot and five ponds. This is my claim of which I am telling you, two lo'i at Mookahi.  
KAHILOAHO X, his mark.  
Waikiki, Oahu, 23 December 1847

**N.T. 638v3**  
No. 2083. Kahiloaoho, July 3, 1850

Ku, sworn, I have seen his land at Waikiki - 3 sections in the ili below:  

Section 1 - 1 patch in Mookii ili.  
Section 2 - 2 patches in Moookahi ili.  
Section 3 - House lot in Kalia ili.  

He received section 1 from Kamakahonu, the konohiki, in 1844. It had been from the king of Kamakahonu; Section 2, from Kaukualii in 1834; section 3, an idle land on which he worked in 1838, before the death of Kinau and he has lived there comfortably to the present time. No objection.

1. The boundaries are:  
Mauka, Kahanaumaikai  
Waialae, Kamakahonu  
Makai, Kahakoli  
Honolulu, Kauhoa.  

2. Mauka, Kanemakua  
Waialae, Haumalu  
Makai, Kumoanahului  
Honolulu, Keaka.  

2. Kaluahinenui's land is around completely.
Haumalu, sworn, Everything which has been mentioned above is true. I have known in the way.

[Award 2083; R.P. 3923; Kamookahi Waikiki Kona; 2 ap.; .44 Ac.; Kanukukahi Waikiki Kona .34 Ac.; Piinaio Waikiki Kona; 1 ap.; 1.73 Acs]
Appendix H
May 27, 2008

Mr. Jim Park
c/o Patrick Seguirant Architect
91-1030 Kaihi Street
Ewa Beach, HI 96706

Re: Traffic Impact Assessment Report
Proposed Retail Store
1944 Kalakaua Avenue
Honolulu, Hawaii

Dear Mr. Park:

Phillip Rowell and Associates have completed the following Traffic Impact Assessment Report for the proposed retail store in Waikiki. The report is presented in the following format:

A. Project Location and Description
B. Purpose and Objective of Study
C. Methodology
D. Description of Existing Streets and Intersection Controls
E. Existing Peak Hour Traffic Volumes
F. Level-of-Service Concept and Existing Levels-of-Service
G. 2010 Background Traffic Projections
H. Project Trip Generation
I. 2010 Background Plus Project Traffic Projections
J. Impact Analysis of 2010 Conditions
K. Mitigation
L. Other Issues
M. Summary and Conclusions

A. Project Location and Description

1. The proposed project is located in the northeast quadrant of the intersection of Kalakaua Avenue at Niu Street in the Waikiki area of Honolulu. A preliminary site plan is provided as Attachment A.

2. The project is a two-story building. The ground floor will be 7,300 square feet of retail and the second floor will be a 7,000 square foot restaurant.

3. Parking will be provided on site. The existing parking lot for the adjacent Local Motion building will be expanded to include the area north of the proposed project and east of Niu Street.

4. Access to and egress from the project will be via an existing driveway along the west side of Pau Street and a new driveway along the east side of Niu Street. The existing driveway to the parking lot along the north side of Kalakaua Avenue approximately midway between Pau Street and Niu Street will be removed.
B. **Purpose and Objective of Study**

1. Quantify and describe the traffic related characteristics of the proposed project.

2. Identify potential deficiencies adjacent to the project that will impact traffic operations in the vicinity of the proposed project.

C. **Methodology**

1. *Define the Study Area*

   The first step in defining the study area was to estimate the number of peak hour trips that the proposed project will generate. The study area was defined based on information provided by the project architect following discussions with the Traffic Review Branch of the Department of Planning and Permitting. It was determined that the study area would include the following intersections:

   - Kalakaua Avenue at Niu Street
   - Kalakaua Avenue at Pau Street

2. *Analyze Existing Traffic Conditions.*

   Existing traffic volumes at the study intersections were obtained from traffic counts performed on Thursday November 8, 2007, Friday November 9, 2007 and Saturday May 17, 2008. The intersection configurations and right-of-way controls were verified at the time of the surveys. Existing traffic operating conditions of the study intersections were determined using the methodology described in the 2000 *Highway Capacity Manual* (HCM)\(^1\).

3. *Estimate Horizon Year Background Traffic Projections*

   The year 2010 was used as the horizon year. This does not necessarily represent the project completion date. It represents a date for which future background traffic projections were estimated.

   Background traffic conditions are defined as future traffic conditions without the proposed project and are estimated by superimposing traffic generated by related projects in the vicinity onto existing traffic volumes.

4. *Estimate Project-Related Traffic Characteristics*

   The number of peak-hour trips that the proposed project will generate was estimated using standard trip generation procedures outlined in the *Trip Generation Handbook*\(^2\) and data provided in *Trip Generation*\(^3\). These trips were distributed and assigned based on the available approach and departure routes.

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\(^1\) *Highway Capacity Manual*, Institute of Transportation Engineers, Washington, D.C., 2000


\(^3\) *Trip Generation*, Institute of Transportation Engineers, Washington, D.C., 2003
5. Analyze Project Related Traffic Impacts

The project-related traffic was then superimposed on 2010 background traffic volumes at the study intersections to estimate 2010 background plus project traffic projections. The traffic impacts of the project were assessed by analyzing the changes in traffic volumes and levels-of-service at the study intersections. The purpose of this analysis was to identify potential operational deficiencies in the vicinity of the proposed project.

D. Description of Existing Streets and Intersection Controls

A schematic diagram indicating the existing lane configurations and right-of-way controls of the study intersections is presented as Attachment B.

In the vicinity of the project, Kalakaua Avenue provides four eastbound lanes for all traffic and one westbound lane for buses only. Pau Street is a one-lane one-way northbound street and Niu Street is a two-lane one-way southbound street. The intersections of Kalakaua Avenue at Niu Street and Kalakaua Avenue at Pau Street are both signalized.

E. Existing Peak Hour Traffic Volumes

The existing traffic volumes are based on traffic counts completed in November 8 and 9, 2007 (Thursday and Friday, respectively) and Saturday May 17, 2008. The existing hour traffic volumes are summarized in Attachment B.

1. The traffic counts include buses, trucks and other large vehicles. Mopeds and bicycles were not counted.

2. The study intersections were counted from 6:30 AM to 9:00 AM and from 3:30 PM to 6:00 PM on weekdays and from 4:00 PM to 7:00 PM on Saturday.

3. The traffic volumes shown are the peak hourly volume of each movement rather than the peak sum of all approach volumes.

4. The traffic volumes of adjacent intersections may not match the volumes shown for an adjacent intersection because the peak hours of the adjacent intersections may not coincide and there are driveways between the intersections.

5. Pedestrian activity was not significant enough to affect the level-of-service calculations.

F. Level-of-Service Concept

"Level-of-Service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-service (LOS) is a qualitative measure of the effect of a number of factors which include space, speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. The characteristics of traffic operations for each level-of-service are summarized in Table 1. In general, LOS A represents free-flow conditions with no congestion. LOS F, on the other hand, represents severe congestion with stop-and-go conditions. Level-of-service D is typically considered acceptable for peak hour conditions in urban areas.

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

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Level-of-Service Definitions for Signalized Intersections(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Service</td>
<td>Interpretation</td>
</tr>
<tr>
<td>A, B</td>
<td>Uncongested operations; all vehicles clear in a single cycle.</td>
</tr>
<tr>
<td>C</td>
<td>Light congestion; occasional backups on critical approaches</td>
</tr>
<tr>
<td>D</td>
<td>Congestion on critical approaches but intersection functional. Vehicles must wait through more than one cycle during short periods. No long standing lines formed.</td>
</tr>
<tr>
<td>E</td>
<td>Severe congestion with some standing lines on critical approaches. Blockage of intersection may occur if signal does not provide protected turning movements.</td>
</tr>
<tr>
<td>F</td>
<td>Total breakdown with stop-and-go operation</td>
</tr>
</tbody>
</table>

Notes:
(2) This is the ratio of the calculated critical volume to Level-of-Service E capacity.

Like signalized intersections, the operating conditions of intersections controlled by stop signs can be
classified by a level-of-service from A to F. However, the method for determining level-of-service for
unsignalized intersections is based on the use of gaps in traffic on the major street by vehicles crossing or
turning through that stream. Specifically, the capacity of the controlled legs of an intersection is based on two
factors: 1) the distribution of gaps in the major street traffic stream, and 2) driver judgement in selecting gaps
through which to execute a desired maneuver. The criteria for level-of-service at an unsignalized intersection
is therefore based on delay of each turning movement. Table 2 summarizes the definitions for level-of-service
and the corresponding delay. A subsequent calculation to determine an overall LOS was made, and these
results are presented in tables to summarize traffic conditions using parameters similar to those used for
signalized intersections.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Level-of-Service Definitions for Unsignalized Intersections(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level-of-Service</td>
<td>Expected Delay to Minor Street Traffic</td>
</tr>
<tr>
<td>A</td>
<td>Little or no delay</td>
</tr>
<tr>
<td>B</td>
<td>Short traffic delays</td>
</tr>
<tr>
<td>C</td>
<td>Average traffic delays</td>
</tr>
<tr>
<td>D</td>
<td>Long traffic delays</td>
</tr>
<tr>
<td>E</td>
<td>Very long traffic delays</td>
</tr>
<tr>
<td>F</td>
<td>See note (2) below</td>
</tr>
</tbody>
</table>

Notes:
(2) When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe
congestion affecting other traffic movements in the intersection. This condition usually warrants improvement of the intersection.
The results of the level-of-service analysis of existing conditions is presented at Attachment C. The level-of-service analysis concluded that both the study intersections operate at Level-of-Service B, during both peak periods. All lane groups operate at Level-of-Service B, or better, during the morning peak hour and Level-of-Service C, or better, during the afternoon peak hour. These conclusions are consistent with conditions observed during the traffic counts.

G. 2010 Background Traffic Projections

2010 background traffic projections are defined as future background traffic conditions without the proposed project. Background traffic projections are estimated by superimposing traffic generated by other planned development projects in the area onto the existing background traffic projections previously discussed. The following other Waikiki projects were identified:

1. Allure Waikiki
2. The Grand Waikikian
3. Trump International Hotel and Tower
4. Outrigger Hotels Reconstruction

The traffic assignments of the other Waikiki projects traffic at the study intersections are shown on Attachment D.

The 2010 background traffic projections were estimated by superimposing the existing peak hour traffic volumes and the traffic assignments of the other Waikiki projects. The resulting 2010 background peak hour traffic projections are summarized on Attachment E.

H. Project Trip Generation

Future traffic volumes generated by the project were estimated using the procedures described in the *Trip Generation Handbook* and data provided in *Trip Generation*. This method used trip generation rates to estimate the number of trips that the project will generate during the peak hours of the project and along the adjacent streets.

The assumptions used for the trip generation analysis are:

1. The ground floor of the proposed project will be 7,300 square feet of retail. For this traffic study, it was assumed that the retail area would have traffic characteristics comparable to specialty retail as described by the Institute of Transportation Engineers.

2. The second floor of the project will be a 7,000 square foot restaurant.

3. *Trip Generation* provides trip generation data for the weekday AM peak hour of the adjacent street and AM and PM peak hour of the generator. Therefore, trip generation rates for the AM peak hour of the adjacent street were used for the morning peak hour trip generation estimates and trip generation rates for the peak hour of the generator were used for the afternoon peak hour trip generation estimates.

4. *Trip Generation* does not provide trip generation data for the Saturday peak hour. Trip generation data for shopping centers provided in *Trip Generation* were used to estimate the Saturday peak hour. The data for shopping centers provided in *Trip Generation* show that the Saturday peak hour is 1.44

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times the afternoon peak hour and that the inbound and outbound percentages are 56% and 44%, respectively. These data were used to estimate the Saturday peak hour trip that the retail portion of the project will generate.

5. No discounts for passby trips were assumed.

6. It is understood that restaurant and retail uses in Waikiki have a significant proportion of pedestrian traffic. However, the proportion of traffic has not been quantified and is not considered in the trip generation data provided by the Institute of Transportation Engineers. No discount for pedestrian traffic has been assumed. Therefore, the estimate of project generation vehicular traffic is conservative in that the estimates are higher than actual traffic anticipated.

7. The trip rates shown correspond to the peak hour of the adjacent street, which is typically between 7 and 9 am during the morning and between 4 and 6 pm during the afternoon.

The trip generation calculations are summarized in Table 3.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Direction</th>
<th>7,300 Specialty Retail (LU Code 814)</th>
<th>7,000 Restaurant (LU Code 931)</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rate or %(^{(1)})</td>
<td>Units</td>
<td>Trips</td>
</tr>
<tr>
<td>AM Peak Hour</td>
<td>Total</td>
<td>2.71%</td>
<td>7.3</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>In</td>
<td>44%</td>
<td>10</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>Out</td>
<td>56%</td>
<td>10</td>
<td>100%</td>
</tr>
<tr>
<td>PM Peak Hour</td>
<td>Total</td>
<td>5.02%</td>
<td>35</td>
<td>7.49</td>
</tr>
<tr>
<td></td>
<td>In</td>
<td>56%</td>
<td>20</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>Out</td>
<td>44%</td>
<td>15</td>
<td>33%</td>
</tr>
<tr>
<td>Saturday Peak Hour</td>
<td>Total</td>
<td>7.23%</td>
<td>50</td>
<td>10.82</td>
</tr>
<tr>
<td></td>
<td>In</td>
<td>56%</td>
<td>30</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>Out</td>
<td>44%</td>
<td>20</td>
<td>41%</td>
</tr>
</tbody>
</table>

NOTES:
(2) All numbers are rounded to nearest five (5).

The project generated traffic was distributed and assigned based on the existing approach and departure pattern of traffic at the study intersections. The project trip assignments are shown in Attachment F.

I. **2010 Background Plus Project Projections**

2010 background plus project traffic projections were estimated by superimposing the peak hourly traffic generated by the proposed project on the 2010 background (without project) peak hour traffic projections. This assumes that the peak hourly trips generated by the project coincide with the peak hour of the adjacent street. This represents a worse-case condition. The resulting 2010 background traffic plus project peak hour traffic projections are shown in Attachment G.

J. **Impact Analysis of 2010 Conditions**

Based on criteria recommended by the Institute of Transportation Engineers, a traffic impact study is not warranted because the project will generate only 60 inbound trips per hour during the Saturday peak hour, which is less than the 100 trips per hour required to warrant a traffic impact analysis. However, an analysis of the changes in peak hourly traffic at the study intersections and a level-of-service was performed to identify operational deficiencies adjacent to the project for 2010 background plus project conditions.
Analysis of Project’s Share of Total Intersection Approach Volumes

An analysis of the project’s share of 2010 background traffic plus project intersection approach volumes at the study intersections is summarized in Table 4. The table summarizes the project’s share of the total 2010 peak hour approach volumes at each intersection. The conclusion of this analysis is that project generated traffic will represent a small percentage of the total traffic using the study intersections.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Period</th>
<th>2010 Background</th>
<th>2010 Background Plus Project</th>
<th>Trips</th>
<th>Percent of Total Traffic (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kalakaua Avenue at Niu Street</td>
<td>AM</td>
<td>2815</td>
<td>2820</td>
<td>5</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>2890</td>
<td>2910</td>
<td>20</td>
<td>0.7%</td>
</tr>
<tr>
<td></td>
<td>SAT</td>
<td>2665</td>
<td>2885</td>
<td>20</td>
<td>0.7%</td>
</tr>
<tr>
<td>Kalakaua Avenue at Pau Street</td>
<td>AM</td>
<td>2490</td>
<td>2490</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>2910</td>
<td>2930</td>
<td>20</td>
<td>0.7%</td>
</tr>
<tr>
<td></td>
<td>SAT</td>
<td>2960</td>
<td>2975</td>
<td>15</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Notes:
(1) Volumes shown are total intersection approach volumes or projections.
(2) Percentage of total 2010 background plus project traffic.

Level-of-Service Analysis

The results of the level-of-service analysis for 2010 conditions without and with project generated traffic is summarized in Attachment C along with the existing levels-of-service. Shown in the table are the volume-to-capacity ratios, average vehicle delays and the levels-of-service of the controlled movements.

Both of the study intersections will operate at Level-of-Service B during the three peak periods without and with project generated traffic. There is no change in the level-of-service of any lane groups as a result of project generated traffic.

K. Mitigation

Level-of-Service D is generally considered to be the minimum acceptable peak hour level-of-service for urban intersections. Accordingly, the levels-of-service of all movements at the study intersections are acceptable and mitigation measures are not required.

L. Other Traffic Issues

1. Construction Traffic

Construction traffic will cause short term impacts as this traffic ceases upon completion of the project. During construction, efforts should be made to minimize the impacts of construction traffic on the adjacent street network. Typical measures include:

a. Limit deliveries of construction materials to off-peak periods.

b. Prohibit on-street parking by construction workers.

c. Do not allow closure of any traffic lanes at any time along Kalakaua Avenue as this will not only impede traffic operations but would also adversely affect the operation of the westbound bus lane.

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6 Institute of Traffic Engineers Transportation Impact Analyses for Site Development, A Recommended Practice, Washington, D.C., 2006, p 60.
2. **Widening Along Kalakaua Avenue**

The need for widening of Kalakaua Avenue adjacent to the project is one of the issues this traffic study was to address. The level-of-service analysis concluded that the intersections operate at Level-of-Service B during the peak periods. This is a high level-of-service considering the area. Accordingly, there is no capacity related benefit to be gained from widening Kalakaua Avenue at this time. Given this conclusion and considering the negative impacts of the construction activity on bus service along the designated bus lane, it is recommended that widening be deferred until justified by capacity considerations.

M. **Summary and Conclusions**

The conclusions of the traffic impact assessment are:

1. The proposed project will generate 10 inbound and 15 outbound trips during the morning peak hour. During the afternoon peak hour, the project will generate 55 inbound and 30 outbound trips. During the afternoon peak hour, the project will generate 60 inbound and 45 outbound trips. These are considered conservative estimates of the peak hour traffic that the project will generate.

2. An analysis of future traffic volumes at the study intersections estimated that project generated traffic will represent 0.7%, or less, of the peak hour traffic using the intersection.

3. The level-of-service analysis of the anticipated 2010 traffic conditions at the study intersections concluded that both intersections will operate at Level-of-Service B during peak periods with and without the project and other Waikiki project included in the analysis.

4. Construction deliveries should be restricted to off-peak periods, which is generally consider between 9 AM and 3 PM on weekdays. No lane closures or other activities that would impede the flow of traffic, including buses, should be allowed along Kalakaua Avenue at any time during the construction period.

5. Given that the intersections are expected to operate at good levels-of-service and considering the negative impacts of the construction activity on bus service along the designated bus lane, it is recommended that widening of Kalakaua Avenue be deferred until justified by capacity considerations.

Respectfully submitted,

PHILLIP ROWELL AND ASSOCIATES

[Signature]

Phillip J. Rowell, P.E.
Principal
List of Attachments

A. Preliminary Site Plan
B. Existing Lane Configurations and Peak Hour Traffic Volumes
C. Results of Level-of-Service Analysis (Existing, Background and Background Plus Project)
D. Other Waikiki Projects’ Trip Assignments
E. 2010 Background Peak Hour Traffic Projections
F. Project Trip Assignments
G. 2010 Background Plus Project Peak Hour Traffic Projections
Attachment B
EXISTING LANE CONFIGURATIONS AND EXISTING (2007) PEAK HOUR TRAFFIC VOLUMES
### Attachment C

**Detailed Results of Level-of-Service Analysis**

#### Intersection 1

<table>
<thead>
<tr>
<th>Intersection, Approach and Movement</th>
<th>Levels-of-Service Analysis for Kalakaua Avenue at Niu Street</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing</td>
<td>Background without Project</td>
<td>Background with Project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>V/C&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>Delay&lt;sup&gt;(2)&lt;/sup&gt;</td>
<td>LOS&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>V/C</td>
</tr>
<tr>
<td>AM Peak Hour</td>
<td>0.55</td>
<td>16.2</td>
<td>B</td>
<td>0.58</td>
</tr>
<tr>
<td>Eastbound Thru &amp; Right</td>
<td>0.69</td>
<td>16.5</td>
<td>B</td>
<td>0.74</td>
</tr>
<tr>
<td>Westbound Thru</td>
<td>0.02</td>
<td>4.3</td>
<td>A</td>
<td>0.02</td>
</tr>
<tr>
<td>Southbound Left &amp; Thru</td>
<td>0.36</td>
<td>15.7</td>
<td>B</td>
<td>0.37</td>
</tr>
<tr>
<td>PM Peak Hour</td>
<td>0.57</td>
<td>17.4</td>
<td>B</td>
<td>0.59</td>
</tr>
<tr>
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**NOTES:**
1. V/C denotes ratio of volume to capacity.
2. Delay is in seconds per vehicle.
3. LOS denotes Level-of-Service calculated using the operations method described in Highway Capacity Manual. LOS is based on delay.

#### Intersection 2

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<tr>
<th>Intersection, Approach and Movement</th>
<th>Levels-of-Service Analysis for Kalakaua Avenue at Pau Street</th>
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<td>LOS&lt;sup&gt;(3)&lt;/sup&gt;</td>
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**NOTES:**
1. V/C denotes ratio of volume to capacity.
2. Delay is in seconds per vehicle.
3. LOS denotes Level-of-Service calculated using the operations method described in Highway Capacity Manual. LOS is based on delay.
Attachment D
OTHER WAIKIK PROJECTS' TRIP ASSIGNMENTS
Attachment E
2010 BACKGROUND PEAK HOUR TRAFFIC PROJECTIONS
Attachment F
PROJECT TRIP ASSIGNMENTS
Attachment G
2010 BACKGROUND PLUS PROJECT PEAK HUR TRAFFIC PROJECTIONS
Appendix I
ATTN: Patrick Fegurant

Mr. Jim Cox
Local Motion Inc.
424 Sumner Street
Honolulu, Hawai‘i 96817

Dear Mr. Cox:

Subject: Jimmy's Chevron, 1958 Kalākaua Avenue
Facility ID 9 101106 / Release ID 970126

We have reviewed the July 22, 1997, Underground Storage Tank Closure and Soil Remediation report prepared by Dames & Moore regarding your response to a release of petroleum from an underground storage tank formerly located at the subject facility. Please note that this report has been included as part of the public record for this facility.

Based on the information provided, we concur with Dames & Moore's conclusion that no further action is necessary in response to this release. You should note, however, that if in the future new information and data indicate the presence of contamination at or originating from the former release location, additional investigative and cleanup actions may be required.

Should you have any questions regarding this letter, please contact Mr. Eric Sadoyama of our Underground Storage Tank Section by phone at (808) 586-4226 or by e-mail at esadoyama@eha.health.state.hi.us.

Sincerely,

[Signature]

STEVEN Y. K. CHANG, P.E., CHIEF
Solid and Hazardous Waste Branch

C:
Paul Liang, Chevron USA Products Company, Honolulu
Ed Tschupp, Dames & Moore, Honolulu
Underground Storage Tank Closure
and Soil Remediation
1958 Kalakaua Avenue
Honolulu, Oahu, Hawaii
For Local Motion Hawaii

Job Number 35371-003-011
July 22, 1997
EXECUTIVE SUMMARY

Two 60-gallon underground storage tanks (USTs) were identified at Local Motion Waikiki property located at 1958 Kalakaua Avenue in Honolulu, Oahu, Hawaii (Site). Upon discovery, the USTs were found to be full of fluid. During the removal of the USTs, one of the USTs ruptured and approximately 10 to 20 gallons of waste oil sludge was released. The released sludge was immediately recovered. After the USTs were removed, the excavation was over-excavated and groundwater in the excavation was skimmed to remediate the impacted soil and groundwater.

The USTs, residual waste oil, sludge, and all impacted soil and groundwater were disposed of properly. Laboratory results of the confirmation soil and groundwater samples indicate that all waste oil related constituents were below the State of Hawaii, Department of Health (DOH) Tier 1 Action Levels. Based on the laboratory data, it is Dames & Moore's opinion that no further action is warranted for the USTs.

In addition, gasoline impacted soil identified during a previous investigation was excavated and removed from the site for thermal treatment. Groundwater in the former gasoline UST excavation was skimmed. Confirmation soil samples were collected and analyzed from the former gasoline UST excavation, and all gasoline related constituents from this area were below DOH Tier 1 Action Levels.

Both of the excavations have been back filled and compacted. Based on the results of the laboratory analyses and our site investigations, it is our opinion that no further action is necessary for either the waste oil USTs, or the impacted soil from the former gasoline UST area, and we recommend that site closure status be granted by the DOH.
PHASE I ENVIRONMENTAL SITE ASSESSMENT
1958 KALAKAUA AVENUE
HONOLULU, OAHU, HAWAII 96815
TMK NO. 1-2-6-14-1

Prepared for:

AMERICAN COMMERCIAL EQUITIES
23805 STUART RANCH ROAD SUITE 220
MALIBU, CA 90265

Prepared by:

MURANAKA ENVIRONMENTAL CONSULTANTS, INC.
2850 PAA STREET SUITE 200
HONOLULU, HAWAII 96819
(808) 836-8822

Project No. 2006-0220

December 18, 2006
Executive Summary

A Phase I Environmental Site Assessment (ESA) was conducted by Muranaka Environmental Consultants, Inc. (MEC) on the property located at 1958 Kalakaua Avenue, Island of Oahu, Honolulu, Hawaii (The “Site” or “assessed property”). (TMK no. 1-2-6-14-1)

This Phase I Environmental Site Assessment’s onsite inspection was conducted on December 4, 2006 indicated the following:

- At the time of inspection, the Site was used for retail clothes and surfing paraphenilia purposes.

- There were no visible signs of underground fuel storage tanks (UST) or associated equipment on the Site.

- There were no signs of stressed vegetation or indicators of hazardous materials on the premises.

- Suspect-asbestos-containing materials were identified the building. Therefore, a comprehensive survey will be required if renovations or demolition of the structures are desired.

- Since the structures were constructed after 1978, it is unlikely that lead paint exists in the painted building components.

- A survey of the surrounding properties indicated there were no visible signs of recognized environmental conditions by their business activities.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of "1958 Kalakaua Avenue", the Site. Any exceptions to, or deletions from, this practice are described in Section 7.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property.