

EXHIBIT "A"
LIST OF PERSONS / ENTITIES
COMPRISING THE MARK A. ROBINSON TRUST
(TMK 2-6-2: 26)

WENDY BRANDT JOHNSON,
Trustee of that certain unrecorded
Wendy Brandt Johnson Declaration of Trust
dated December 16, 1987,
a Short Form of which is recorded in Liber 21484 at Page 769,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.009039215 interest,

SUSAN BRANDT,
Trustee of that certain unrecorded
Susan Brandt Declaration of Trust
dated December 16, 1987,
a Short Form of which is recorded in Liber 21484 at Page 741,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.009039215 interest,

REX BRANDT,
Trustee of that certain unrecorded
Rex Brandt Declaration of Trust
dated December 16, 1987,
a Short Form of which is recorded in Liber 21484 at Page 756,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.009039215 interest,

EDITH BETSY LEE,
Trustee under Declaration of Trust
dated October 1, 1991,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.028238235 interest,

HARVEY PARTICK LEE,
Trustee under Declaration of Trust
dated October 1, 1991,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.028238235 interest,

DIANA WORTHINGTON KRIEG and
JAN KRIEG,
Trustees of the Diana and Jan Krieg 1993 Trust
dated May 7, 1993,

with powers to sell, mortgage, lease, etc.,
as to an undivided 0.0159289567 interest,

CYNTHIA BANNING WORTHINGTON,
wife of James Gilbert Cliff,
as to an undivided 0.0159289567 interest,

WILLIAM JOHN WORTHINGTON and
DE NIECE WALLACE WORTHINGTON,
Trustees of the William John Wallace Worthington Revocable Trust
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.0159289566 interest,

MARY ELIZABETH SMART REYNOLDS,
wife of Arthur McKinley Reynolds, III,
as to an undivided 0.013155795 interest,

LIVING DESERT RESERVE,
a California non-profit corporation,
as to an undivided 0.013155795 interest,

THE HEIRS AND DEVISEES OF PAMELA GARWOOD,
as to an undivided 0.026311600 interest,

SAMUEL A. KUHN and
EDWIN R. KUHN,
Successor Trustees of The Paloma J. Kuhn Hawaiian Trust
dated February 22, 1990, executed by
Paloma Jaeger Kuhn, as Trustor,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.005423525 interest,

CYNTHIA N. ANAMIZU,
Trustee of the Cynthia N. Anamizu Revocable Trust
dated September 21, 1999,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.00436405335 interest,

CAROLE ANAMIZU,
Trustee of the Carole Anamizu Revocable Trust
dated September 21, 1999,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.00436405335 interest,

LOUISE S. HO,
Trustee of the Louise S. Ho-McWayne Revocable Living Trust
dated November 9, 1999,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.0174562133 interest,

JAYNE H. ABE,
Trustee of the Jayne H. Abe Revocable Trust
dated November 6, 1999,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.00218202668 interest,

CALVIN K. ABE,
Trustee of The Calvin K. Abe Revocable Trust
dated November 6, 1999,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.00218202667 interest,

CLYDE T. ANAMIZU,
Trustee under that certain unrecorded Living Trust
dated May 23, 2001,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.00436405335 interest,

REVONDALEI YUKA BORGERDING,
wife of Jeffry John Borgerding,
as to an undivided 0.00872810665 interest,

JOHN ANTHONY FUJITO SAKURAI,
husband of Laurene Mamokuipoaloha Sakurai,
as to an undivided 0.00872810665 interest,

LUCILLE ELAINE ROBINSON,
as to an undivided 0.002150000 interest,

DAVID N. ROBINSON,
Trustee of the David N. Robinson Trust
U.T.A. restated January 12, 2005,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.007964478 interest,

JANET L. ROBINSON,
Trustee of the Nancy A. Robinson Living Trust
dated May 30, 1997,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.007964478 interest,

MICHAEL A. ROBINSON,
Trustee of the Michael A. Robinson Living Trust
dated April 7, 1999,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.007964479 interest,

J.L.P. ROBINSON LIMITED PARTNERSHIP,
a registered Hawaii limited partnership,
as to an undivided 0.192962490 interest,

WILLIAM RHETT TABER,
ALLAN ZAWTOCKI, and
WILLIAM W. PATY,
Trustees under the Will and of the Estate of
Mark Alexander Robinson, deceased in Trust,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.390361675 interest,

WILLIAM RHETT TABER,
ALLAN ZAWTOCKI, and
WILLIAM W. PATY,
Trustees under that certain Deed of Trust executed by
Mark Alexander Robinson and Mary Kapuahaulani Hart Robinson,
husband and wife, as Settlers,
dated July 30, 1953,
filed as Land Court Document No. 151326,
recorded in Liber 2720 at Page 352,
with powers to sell, mortgage, lease, etc.,
as to an undivided 0.14883606 interest,
as Fee Owner

EXHIBIT B

Correspondence with State Historic Preservation Division
and the Oahu Island Burial Council





April 24, 2007

Ms. Melanie A. Chinen, Administrator
State Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

Dear Ms. Chinen:

Subject: Royal Hawaiian and Sheraton Hotels
Waikiki, Kona, Oahu, TMK: (1) 2-6-002: 005, 006, & 026

Thank you for providing the Kyo-ya Consulting Team an opportunity to brief you and your staff about the proposed improvements at the Royal Hawaiian and Sheraton Waikīkī Hotels on April 9, 2007. The purpose of the meeting was to provide State Historic Preservation Division (SHPD) an overview of the proposed improvements and begin early coordination on addressing the various cultural, historical and archaeological issues that may be involved in the proposed project. Kyo-ya is committed to proactively gaining information during the planning stage that can assist in minimizing disturbance to cultural and historical features, including human burial remains. Undoubtedly, there is agreement that the project site is culturally and historically very significant and great care must be taken to conduct all activities in a respectful and culturally sensitive manner.

Accordingly, we discussed specifically the following:

- Kyo-ya's decision to do an archaeological inventory survey plan as recommended by both SHPD and the Office of Hawaiian Affairs in their responses to the early consultation on the draft environmental assessment for the project, and that we would be submitting that document for SHPD review before the end of April;
- Kyo-ya will be submitting for SHPD's review and approval an Archaeological Monitoring Plan for Geotechnical Testing for the Project. The Geotechnical testing will provide useful information about the project site, including areas that may have been extensively filled in previous construction activities to assist in developing applicable engineering studies. This report is a priority as it will provide critical information during the construction design stage and SHPD's timely review and approval of this report is greatly appreciated;

Ms. Melanie Chinen

April 24, 2007

Page Two

- Like other projects Ku‘iwalu is involved in, we will be initiating early consultation with the Office of Hawaiian Affairs, Hui Malama I Na Kupuna, and potential lineal and cultural descendants who have been recognized in other Waikiki projects seeking their comments on the project; and
- Finally, we would like to do an initial informational presentation to the Oahu Island Burial Council at their May 9, 2007 meeting. We would greatly appreciate being placed on the agenda and would ask for your confirmation once the agenda has been set.

On behalf of Kyo-ya, we would like to extend our appreciation for your anticipated cooperation in timely reviewing the various documents that may be submitted to your office for review and approval. As always, your assistance has been greatly appreciated. Should you have any questions, please do not hesitate to contact me or Lani.

Very truly yours,

A handwritten signature in black ink, appearing to read 'DAWN N.S. CHANG', with a long horizontal line extending to the right.

DAWN N.S. CHANG
Principal

c: Mr. Greg Dickhens, Kyo-ya
Mr. Mark Taylor, Kyo-ya
Mr. Earl Matsukawa, Wilson Okamoto
Mr. Rob Iopa, WCIT Architecture
Mr. David Shideler, Cultural Surveys Hawaii
Ms. Rhona McFarlane, Rider Hunt Levett & Bailey

2007.2122



Date: June 18, 2007 RECEIVED HISTORIC PRES. DIV. DEPT. OF LAND & NATURAL RESOURCES

Submittal Sheet for Historic Preservation Review Filing Fees 2007 JUN 20 A 9:46

State Historic Preservation Division 601 Kamokila Blvd., #555, Kapolei, Hawai'i 96707

Agency/Firm (Requesting Review): Cultural Surveys Hawai'i, Inc.

Contact: David W. Shideler Phone: 262-9972 Fax: 262-4950 E-Mail: dshideler@culturalsurveys.co Address: P. O. Box 1114 Kailua Hawaii 96734

Title of Report/Plan: Archaeological Inventory Survey Plan for Improvements to the Royal Hawaiian and Sheraton Hotels, Waikiki, Kona District, Oahu

Island: Oahu District: Kona Ahupua'a: Waikiki TMK [(1) 1-1-001:001]: [1] 2-6-002: 005, 006 & 026

Submitted Plan/Report Fee & Type: (All reports or plans submitted to the SHPD for review shall be accompanied by the appropriate fee in accordance with HAR §13-275-4 and §284-4).

- X Indicate here (X) if report is a re-submittal (no fee charged)
\$50 Archaeological Assessment
\$150 Archaeological Inventory Survey Plan
\$450 Archaeological, Architectural or Ethnographic Survey Report
\$150 Preservation Plan
\$25 Monitoring Plan
\$150 Archaeological Data Recovery Plan
\$250 Burial Treatment Plan
\$100 Archaeological Monitoring Report, if resources reported
\$450 Archaeological Data Recovery Report
\$450 Ethnographic Documentation Report
\$25 Burial Disinterment Report
\$50 Osteological Analysis Report

Make check payable to "Hawai'i Historic Preservation Special Fund." A service charge of \$15 will be assessed on all dishonored checks pursuant to HRS §40-35.5" A copy of this form will be mailed or faxed back to you and will serve as your receipt.

Fee Total: \$ 0

For Office Use Only:

Form with fields: Date Received: JUN 20 2007, Receipt No., Payment Method: Cash \$ 0, Check, Receipt Issued by, Treasury Deposit Receipt No., Log. No.: 2007.2122

WAIKIKI 13
2007.2121

Date: June 18, 2007



Submittal Sheet for Historic Preservation Review Filing Fees

State Historic Preservation Division
601 Kamokila Blvd., #555, Kapolei, Hawai'i 96707

Agency/Firm (Requesting Review): Cultural Surveys Hawai'i, Inc.

Contact: David W. Shideler
Phone: 262-9972 Fax: 262-4950 E-Mail: dshideler@culturalsurveys.com
Address: P. O. Box 1114 KailuaHawaii 96734

Title of Report/Plan: Archaeological Monitoring Plan for Geotechnical Testing at the Royal Hawaiian and Sheraton Hotels, Waikiki, Kona District, Oahu

Island: Oahu District: Kona Ahupua'a: Waikiki
TMK [(1) 1-1-001:001]: [1] 2-6-002: 005, 006 & 026

Submitted Plan/Report Fee & Type: (All reports or plans submitted to the SHPD for review shall be accompanied by the appropriate fee in accordance with HAR §13-275-4 and §284-4).

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.....	\$50 Archaeological Assessment
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Fee Total: \$ 0

For Office Use Only:

Date Received: JUN 20 2007	Receipt No.:
	Payment Method: Cash \$ -0- Check: Check No.:
Log. No.: 2007.2121	Receipt Issued by: Treasury Deposit Receipt No:

2007 JUN 20 A 9:46
RECEIVED
HISTORIC PRES. DIV.
DEPT. OF LAND &
NATURAL RESOURCES

June 20, 2007

Mr. Jace McQuivey, Chair
O'ahu Island Burial Council
c/o State Historic Preservation Division
Kakuhihewa Building
601 Kamokila Boulevard, Suite 555
Kapolei, Hawai'i 96707

Dear Chair McQuivey and Members of the O'ahu Island Burial Council,

On behalf of Kyo-ya Hotels & Resorts, LP, dba The Sheraton Waikiki and the Royal Hawaiian Hotels, mahalo nui loa for the opportunity to brief you on the proposed improvements to the Royal Hawaiian/Sheraton Waikiki Hotels at your June 13, 2007 meeting.

We appreciate your guidance and recommendations during the early stages of this project. As suggested, we will be following up with Kamehameha Schools to identify potential re-interment site areas for the skull currently in the custody of the State Historic Preservation Division (SHPD) as well as any future burials that may be found on site. We also appreciate the opportunity to provide information and coordinate directly with Ms. Kehaulani Kruse, Kona district representative, regarding burial matters that do not require official Council action.

We are very much aware of the historic and cultural significance of the project area and are sensitive to concerns regarding ground disturbing activities. Accordingly, we have submitted an archaeological inventory survey plan and geo-tech testing and monitoring plan and are coordinating the review and approval for this effort with SHPD.

As you know, we have published a statewide notice in the Star Bulletin, Advertiser and Ka Wai Ola, seeking potential claimants so that we can begin meaningful discussions with those claiming ancestral connections to the project area, as well as other interested parties, including Native Hawaiian organizations.

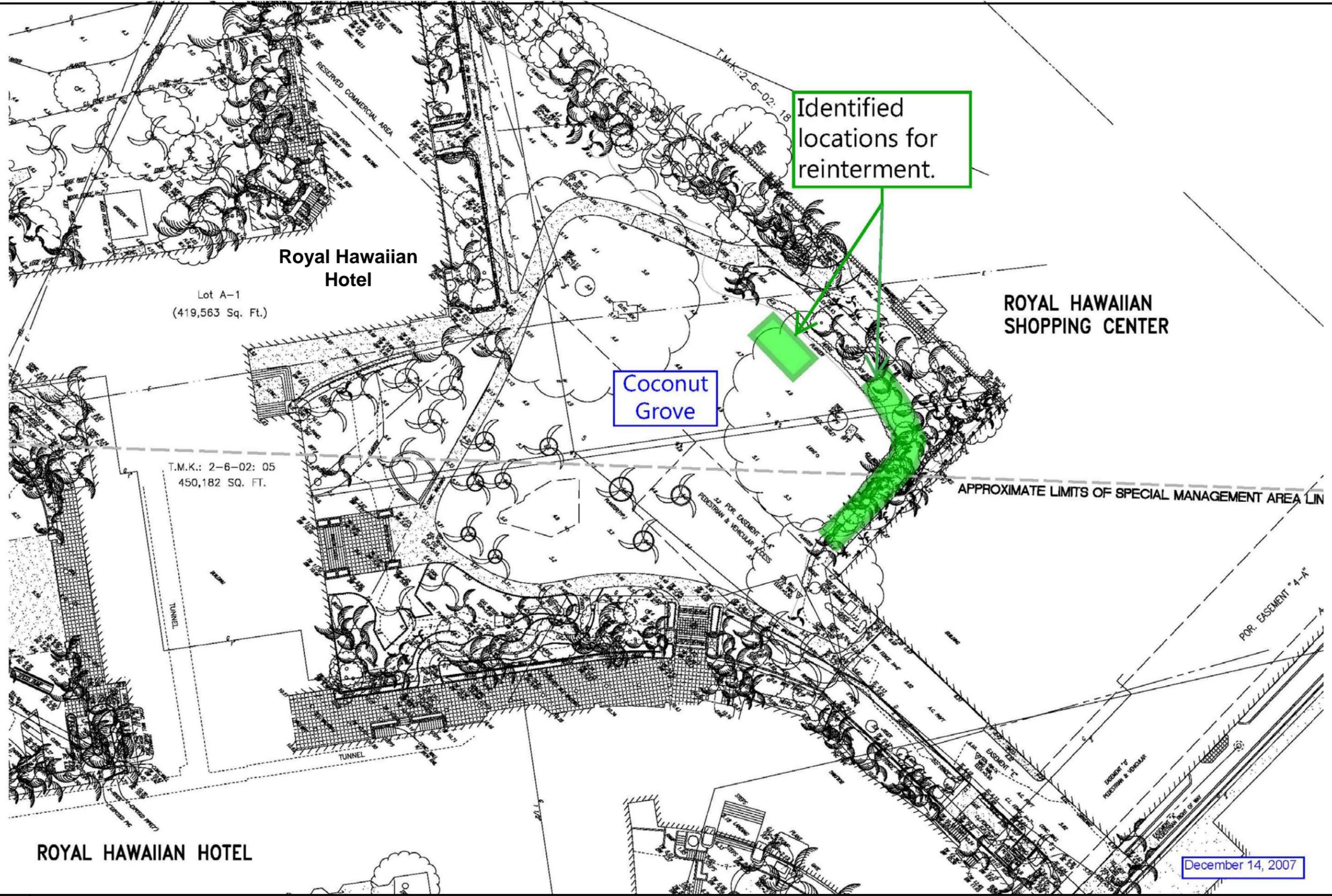
Again, mahalo nui loa for your time and we look forward to working with you on this project. If you have any questions, please feel free to contact me at 539-3582. Malama pono kakou.

'O au iho nō,



LANI MA'A LAPILIO
Ku'iwalu

c: Ms. Melanie Chinen
Administrator, SHPD
Ms. Kehaulani Kruse
Mr. Greg Dickens, Kyo-ya

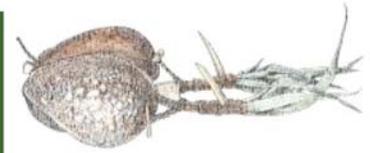


ROYAL HAWAIIAN HOTEL AND SHERATON WAIKIKI MASTER PLAN IMPROVEMENTS

Identified Re-interment Locations

Cultural Surveys Hawai'i Inc.

Archaeological and Cultural Impact Studies
Hallett H. Hammatt, Ph.D., President



Providing Excellence in Cultural Resource Management

November 19, 2007

Ms. Melanie Chinen, Administrator
State Historic Preservation Division
Room 555, Kākūhihewa Building
601 Kamōkila Blvd.
Kapolei, Hawai'i, 96707

Subject: Royal Hawaiian and Sheraton Waikiki Renovation
Project: Request for Evaluation of human remains
encountered during archaeological inventory survey

O'ahu	P.O. Box 1114 Kailua, HI 96734 Ph.: (808) 262-9972 Fax.: (808) 262-4950
Maui	16 S. Market St., #2N Wailuku, HI 96793 Ph.: (808) 242-9882 Fax.: (808) 244-1994
Hawai'i	15-3011 Mako Way Pahoa, HI. 96778 Ph.: (866) 965-6478 Fax.: (808) 965-6582
Kaua'i	P.O. Box 498 Lawai, HI 96765 Ph.: (808) 245-4883

Dear Ms. Melanie Chinen:

During the course of Cultural Surveys Hawai'i's archaeological inventory survey field work completed November 16, 2007 two, small, isolated human bones, believed to be more than 50 years old on the basis of appearance and context, were identified within a much disturbed soil deposit: a distal phalange (finger tip bone) and a second cuneiform (foot bone). In on-location consultation with the SHPD we reached an accord to at least temporarily re-inter the two bones at an existing re-interment location near the banyan tree by the Sheraton Waikiki grand staircase approximately 40 m from where the bones were found. We request the assistance of the SHPD in determining how these remains should be treated with regard to Hawaii Administrative Rules Chapter 13-300.

A first point that we wish to bring to your attention is our uncertainty regarding whether the finds constitute a "Burial Site" as defined by HAR 13-300-2. The two small bones in question were encountered in different excavation units, at significantly different depths within a thick, heavily disturbed stratum. No other human remains were encountered within the 2 m by 2m square excavation block. There was no evidence of a burial pit or burial goods. Modern trash was encountered in abundance below the human bone finds. It is our considered professional opinion that there is no evidence of a burial in the area actually excavated (other than the two bones themselves) and that the remains were in much-disturbed sediments mechanically moved into their present location. This would appear to fit the discussion under HAR 13-300-31(b) (3) where human skeletal remains discovered during archaeological inventory survey are not situated in a burial site context. The find was promptly reported to the SHPD as required under HAR 13-300-31(b) (3). My understanding is that the discovery of human skeletal remains more than 50 years old that are not situated in a burial site context may fall to the SHPD.

Another question involves determination of ethnicity. It is our considered professional opinion that there is no archaeological evidence (other than general geographic and historic context) of the ethnicity of the remains or to believe that they are, or are not, Native Hawaiian. We seek the guidance of the SHPD whether this is a case where [following HAR 13-300-31(h) (4)] existing evidence fails to clarify ethnicity by a reasonable belief and appropriate treatment of the human skeletal remains shall be determined by the department.

November 19, 2007

Ms. Melanie Chinen, State Historic Preservation Division Administrator,
Page 2

Again the two small bones in question presently are (in consultation with the SHPD) within a re-interment location in very close proximity but outside of the foot print of proposed construction disturbance. While the SHPD has clearly reserved the right to direct some different re-interment the present arrangement certainly seems appropriate for the short term and possibly for the longer term as well.

Aloha,

A handwritten signature in cursive script that reads "David W. Shideler".

David Shideler
Cultural Surveys Hawai'i, Inc.

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

LAURA H. THULEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL V. YSLIN
FIRST DEPUTY

KERN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCE
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCE ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAIULAWI ISLAND RESERVE COMMISSION
LAND
STATE PARKS

December 12, 2007

David Shideler
Cultural Surveys Hawai'i
P.O. Box 1114
Kailua, Hawai'i 96734

LOG NO: 2007.4127
DOC NO: 0712LM02
Archaeology

Dear Mr. Shideler:

**SUBJECT: Recommendations for Treatment of Isolated Human Remains Identified During Archaeological Inventory Survey of the Royal Hawaiian and Sheraton Waikiki Renovation Project Waikiki Ahupua'a, Kona District, Island of O'ahu
TMK: (1) 2-6-002:006**

This letter is in regard to the human remains identified during the Archaeological Inventory Survey conducted by Cultural Surveys Hawai'i Inc., for the Kyoya Management Company Ltd. The two isolated bone fragments, a distal phalange and a second cuneiform, were identified during manual archaeological excavation. The two fragments are believed to be more than 50 years old, based on context and appearance. The remains were identified within a disturbed context with an abundance of modern trash below the level of the identified remains.

Per HAR 13-300-31 (3) these remains do not constitute a "burial site". The remains were not identified within a burial site context and were not associated with any burial pit or burial goods. Additionally while there exists a possibility that the remains are Native Hawaiian, the existing evidence fails to clarify precisely the ethnicity of the remains HAR 13-300-31(h) (4). SHPD has assumed jurisdiction over these remains.

Consultation facilitated by Lani Ma'a Lapilio of Ku'iwalu between the O'ahu Island Burial Council (OIBC) representative for the Kona District Kehau Cruse, cultural specialist Linda K. Paik (SHPD), and Kamehameha Schools Representatives was conducted after the remains were identified. The results of this consultation were that the remains should be curated at the existing re-interment facility located approximately 40 meters from where the remains were identified. We believe that this is a safe and culturally appropriate area for the remains to be re-interred.

Please contact Lauren Morawski (O'ahu Archaeologist) at (808) 692-8015 if you have any questions or concerns regarding this letter.

Aloha,

Nancy McMahon Acting Archaeology Branch Chief
State Historic Preservation Division

LM

**Archaeological Inventory Survey Plan for
Improvements to the Royal Hawaiian and Sheraton Hotels
Waikīkī, Kona District, O‘ahu
TMK: [1] 2-6-002:005, 006, & 026**

**Prepared for
Wilson Okamoto Corporation**

**Prepared by
Hallett H. Hammatt, Ph.D.
and
David W. Shideler M.A.**

**Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i
(Job Code: WAIKI 13)**

May 2007

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P.O. Box 1114
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16 S. Market Street, Suite 2N
Wailuku, Hawai‘i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994*

Management Summary

Reference	Archaeological Inventory Survey Plan for Improvements to the Royal Hawaiian and Sheraton Hotels Waikīkī, Kona District, O'ahu TMK: [1] 2-6-002:005, 006, & 026
Date	May 2007
Project Number (s)	CSH project code WAIKI 13
Investigation Permit Number	Cultural Surveys Hawai'i undertook this project under archaeological permit # 07-19.
Project Location	This study focuses on the lands of the Royal Hawaiian Hotel and Sheraton Waikiki Hotel in central Waikīkī on the south shore of O'ahu
Tax Map Keys and Recorded Fee Owner	TMK [1] 2-6-2: 5 (10.3 Acres) Kyo-ya Hotels & Resorts LP BP Bishop Trust Estate TMK [1] 2-6-2: 6 (3.5 Acres) Kyo-ya Hotels & Resorts LP TMK [1] 2-6-2: 26 (0.9 Acres) For interest shareholders please see Exhibit A (at end of plan)
Agencies	This study was prepared for State Historic Preservation Division review to guide archaeological inventory survey work in advance of the proposed renovation work and in response to requests by the SHPD and Office of Hawaiian Affairs for such a plan.
Project Description	The precise details of the proposed renovation project are still evolving. There are five specific areas in which renovation related excavations may potentially adversely impact cultural resources
Project Acreage	The area of the Royal Hawaiian Hotel and Sheraton Waikiki resorts is understood as approximately 601,205 square feet (13.8 acres or 55,853 m ²).
Area of Potential Effect (APE) and Survey Acreage	The Area of Potential Effect is understood as any portions of the five areas of the renovation in which related subsurface work may impact natural sediments potentially including cultural resources and/or human burial remains.
Number of Historic Properties Identified	The Royal Hawaiian Hotel and Sheraton Waikiki hotels are not listed on the State or National Registers of Historic Places. The only formal site in the vicinity is Site # 50-80-14-5937 a human burial on the grounds of the Royal Hawaiian Hotel.
Effect Recommendation	The proposed renovation work has the potential to adversely impact pre-contact and early historic archaeological deposits and/or burials

Mitigation Recommendation	<p>Consideration has been given in the course of re-development planning to the minimization of subsurface disturbance of undisturbed deposits in the renovation work. This is to be accomplished through restricting development to existing fill deposits and/or to importing fill deposits to effectively cap and preserve underlying sediments as may contain cultural remains.</p> <p>An Archaeological Monitoring Program during geotechnical testing and renovation work is recommended. An archaeological monitoring plan is actively being prepared for submittal to the SHPD.</p> <p>An Archaeological Inventory Survey is recommended for which the present document is to supply details and direction. This archaeological inventory survey plan recommends a program of auger testing followed up with hand excavation where appropriate. The rationale for testing in three of the five areas in which renovation work may potentially adversely impact cultural resources includes consideration of past land use history and present land use. The other two areas addressed in this inventory survey plan will be covered in the geotechnical testing work that will inform this project. The proposed approach to the archaeological inventory survey was discussed with the SHPD in a meeting of April 9, 2007.</p>
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Section 1 Introduction

1.1 Project Background

Cultural Surveys Hawai'i, Inc. was contacted on August 18, 2006 regarding providing archaeological services in support of proposed renovations at the Sheraton Waikiki and Royal Hawaiian Hotel resorts in central coastal Waikīkī, O'ahu, Hawai'i (Figures 1 to 3). Potential ground disturbance is anticipated to occur in five areas adjacent to the resorts on the north, south and east sides of the Sheraton and on the east and southwest sides of the Royal Hawaiian Hotel (Figure 4). The State Historic Preservation Division/Department of Land and Natural Resources (SHPD) has recommended preparation of an archaeological inventory survey plan for this renovation project (Chapter 6E-42 review letter of February 28, 2007; Log No. 2007.4189, Doc No. 0702amj16). Interests in these lands are held as follows: TMK [1] 2-6-2: 5 (10.3 Acres) Kyo-ya Hotels & Resorts LP and B P Bishop Trust Estate; TMK [1] 2-6-2: 6 (3.5 Acres) Kyo-ya Hotels & Resorts LP; TMK [1] 2-6-2: 26 (0.9 Acres) interests are held by numerous parties - please see Exhibit A (at end of plan).

1.2 Scope of Work

An archaeological inventory survey plan is recommended when the SHPD believes that: "unusual archaeological conditions may be present in a project area." (Hawai'i Administrative Rules Chapter 13-284). An archaeological inventory survey plan typically is to be approved before an archaeological inventory survey may be conducted. The present archaeological inventory survey plan was prepared to satisfy HAR Chapter 13-284 and includes the following:

1. Information which identifies the project area (including appropriate maps), identifies the project owner, describes the environment, provides the results of background research as appropriate, and reviews any relevant prior archeological studies;
2. Description of existing conditions that may affect survey methods and results.
3. A research design for the identification of historic properties within the areas of proposed renovation work that we understand may impact in situ soils that may contain cultural resources and/or human remains.

1.3 Natural Setting

The project area is flat and averages 2 to 3 meters above mean sea level. The average rainfall in this coastal area of Waikīkī is between 20-30 inches per year, with temperatures ranging from 60 to 85 degrees Fahrenheit (Armstrong 1973:56). Northeasterly trade winds prevail throughout the year, although their frequency varies from more than 90% during the summer months to 50% in January; the average annual wind velocity is approximately 10 miles per hour (Okamoto 1998:2-1).

Although the area has been graded the natural soil deposit is Jaucus sand (JaC), and Beaches (BS) (Figure 5), calcareous soils developed in wind and water deposited sand from coral and seashells (Foote et al. 1972).

A major feature of the immediate project area until it was filled in c. 1922 was the outlet of 'Āpuakēhau Stream (see historic maps in Figures 8, 11, 14 & 15 and historic photos Figures 7, 10, 12, 13 & 16). This stream formed a lagoonal backwater (*muliwai*) just back from the coast. It appears that the configuration of the stream mouth changed significantly shortly before it was filled in. Maps from 1881 (see Figure 8) and 1893 (see Figure 11) appear to show the *muliwai* entering the sea where the east side of the Royal Hawaiian Hotel is today but by 1919 (see Figures 12, 14 & 15) the stream appears to have been straightened and shortened to enter the sea further to the east between the present Moana and Royal Hawaiian Hotels.

The project lands were famous as the locus of the Helumoa cocoanut grove (see Figures 6 and 7) said to have been planted by the ruling chief Kākuhihewa and to have included nearly 10,000 palm trees (Hibbard and Franzen 1986:4 & 5). It is popularly understood that a portion of the Helumoa grove “still stands on the Royal Hawaiian Hotel grounds today.” (Hibbard and Franzen 1986:7) Generally, vegetation in the Waikīkī area today includes mainly introduced exotics, such as Banyan, MacArthur Palm, Brassia, Cocoanut, Plumeria, Money, Alexander Palm, Manila Palm, Date Palm, Fern, Monkey Pod, Tulip Wood, and Opiuma trees and a variety of grasses.

1.4 Built Environment

The Royal Hawaiian Hotel was formally opened on February 1 1927 and with a maximum height of 150 feet was the tallest privately owned building in the Territory at that time (Hibbard and Franzen 1986:99).

The thirtyone story Sheraton Waikiki was completed in 1971 and with 1,904 rooms was the largest resort hotel in the world at that time (Hibbard and Franzen 1986:165).

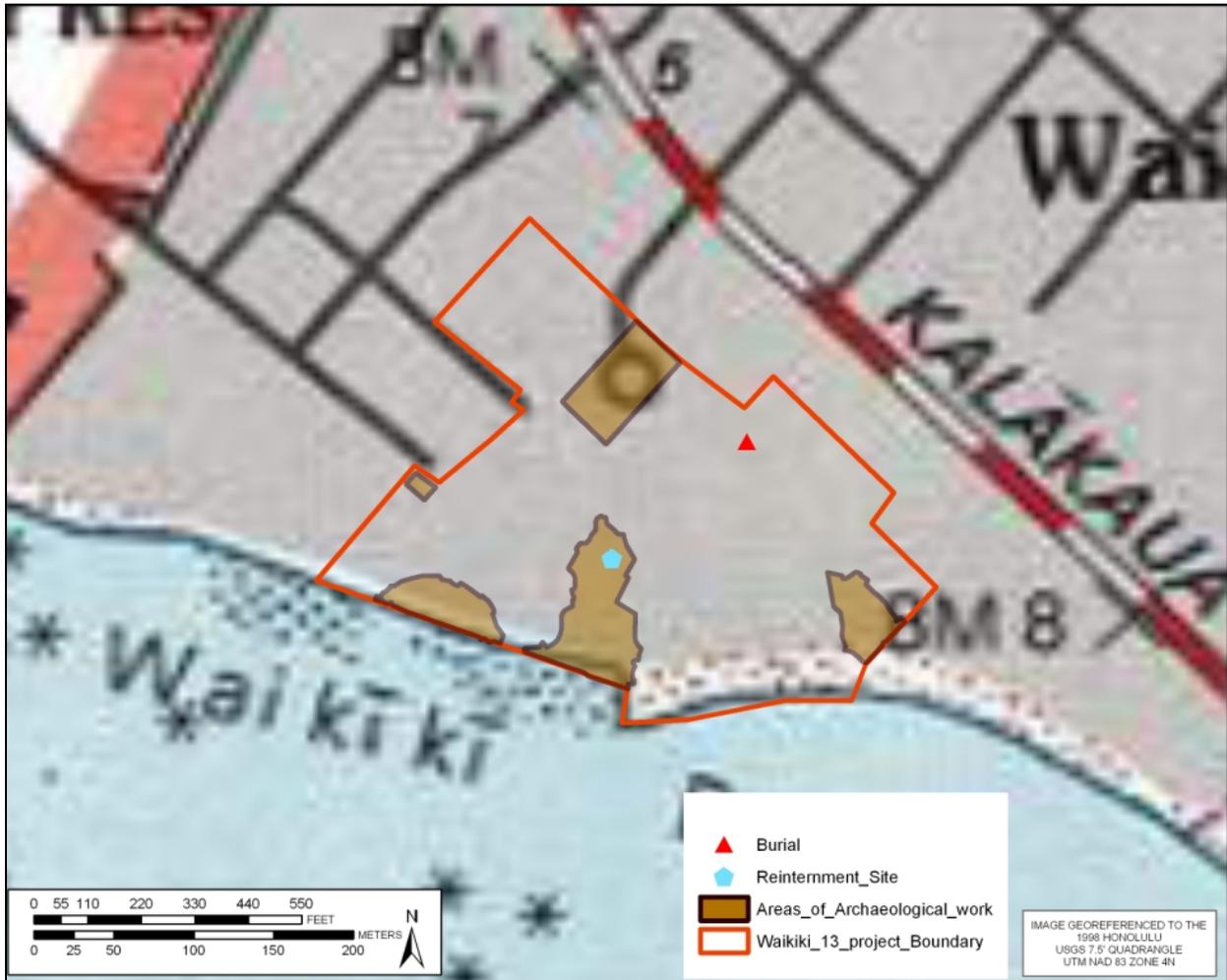


Figure 1. Portion of USGS Topographic Map, Honolulu Quad, with overlay of SW/RHH property and five areas where proposed renovation work may encounter cultural deposits

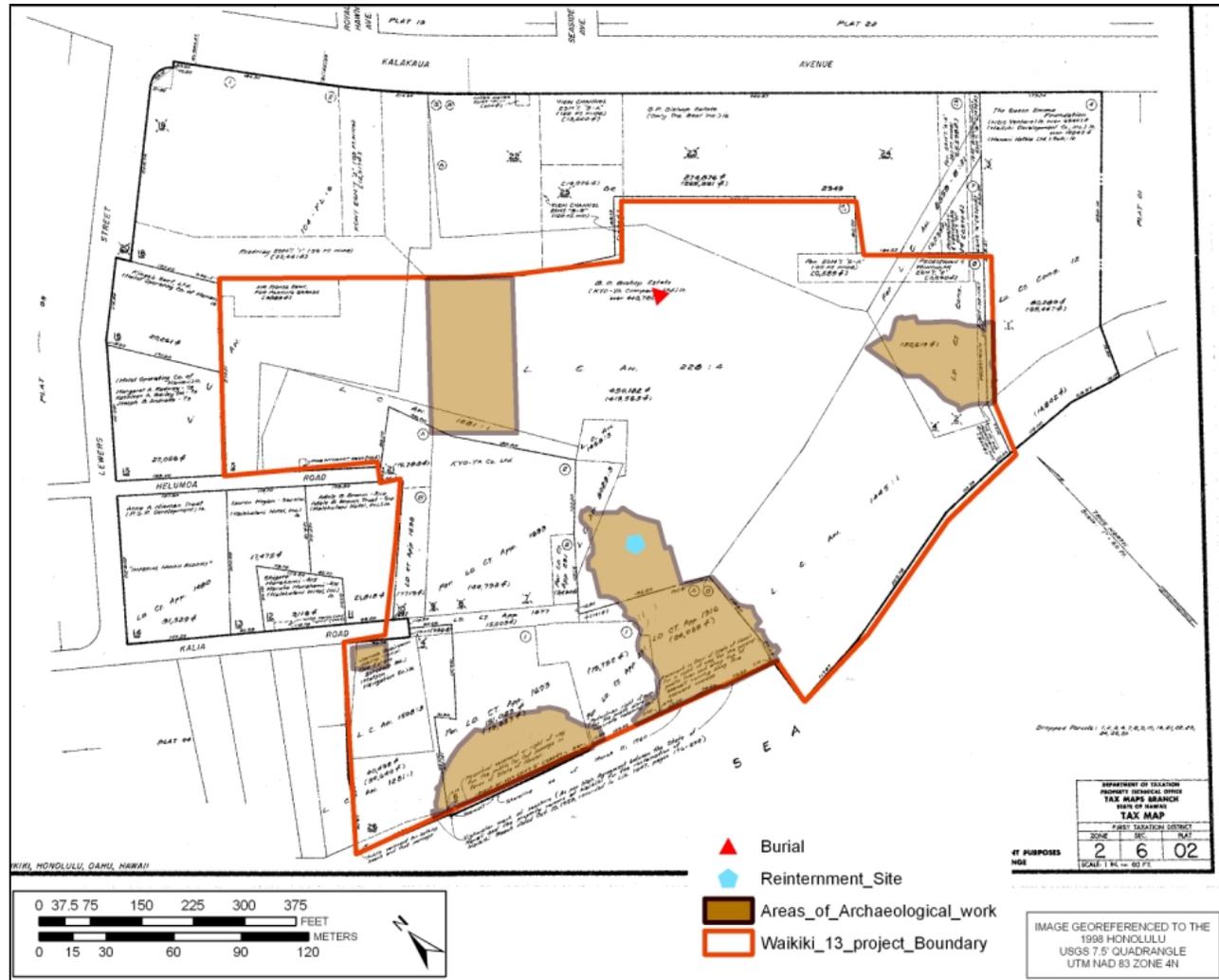


Figure 2. Tax map (2-6-02) with overlay of SW/RHH property and and five areas where proposed renovation work may encounter cultural deposits



Figure 3. Aerial photograph with overlay of SW/RHH property and and five areas where proposed renovation work may encounter cultural deposits

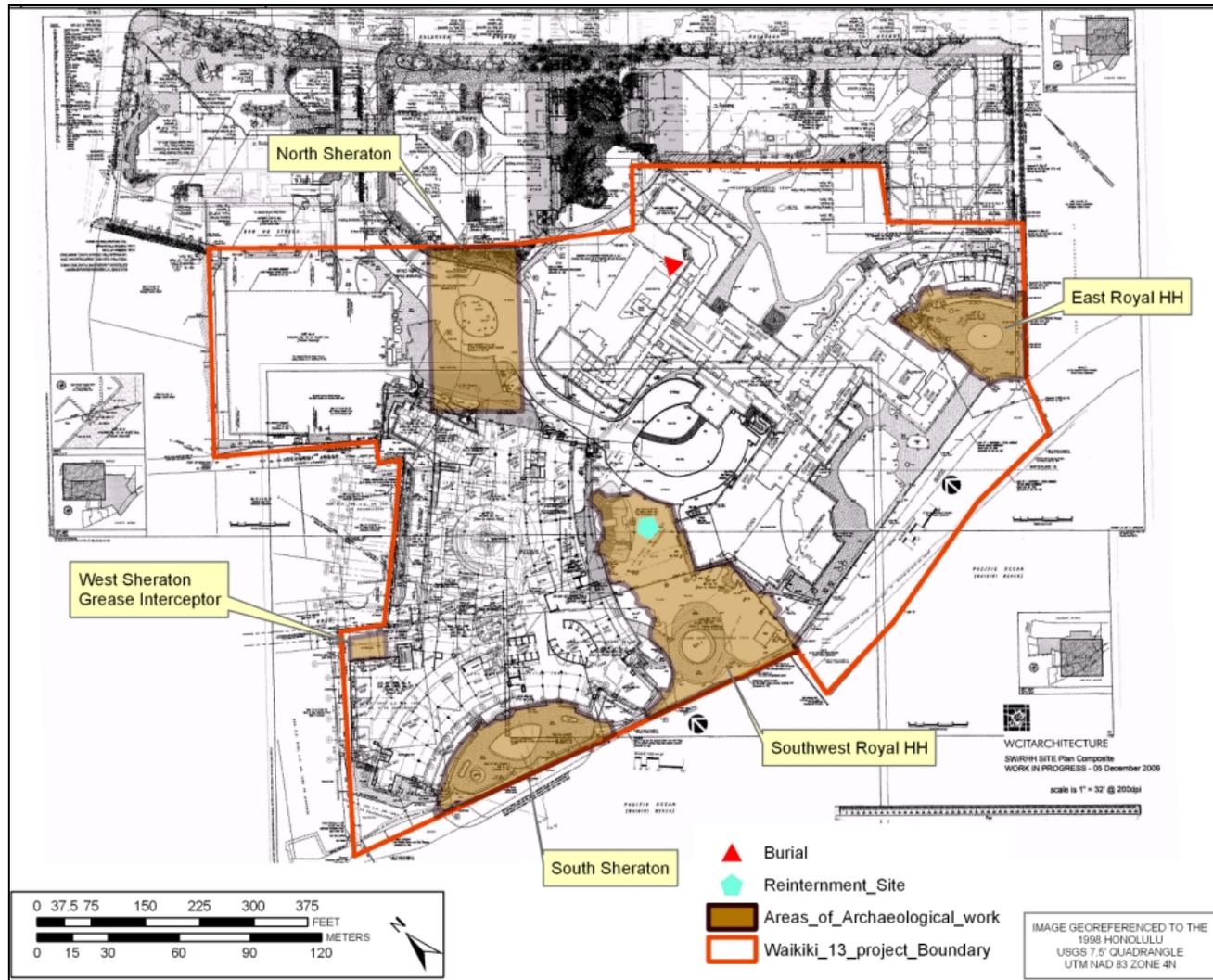


Figure 4. Site Plan showing SW/RHH property and and five areas where proposed renovation work may encounter cultural deposits with geographic references used in this study

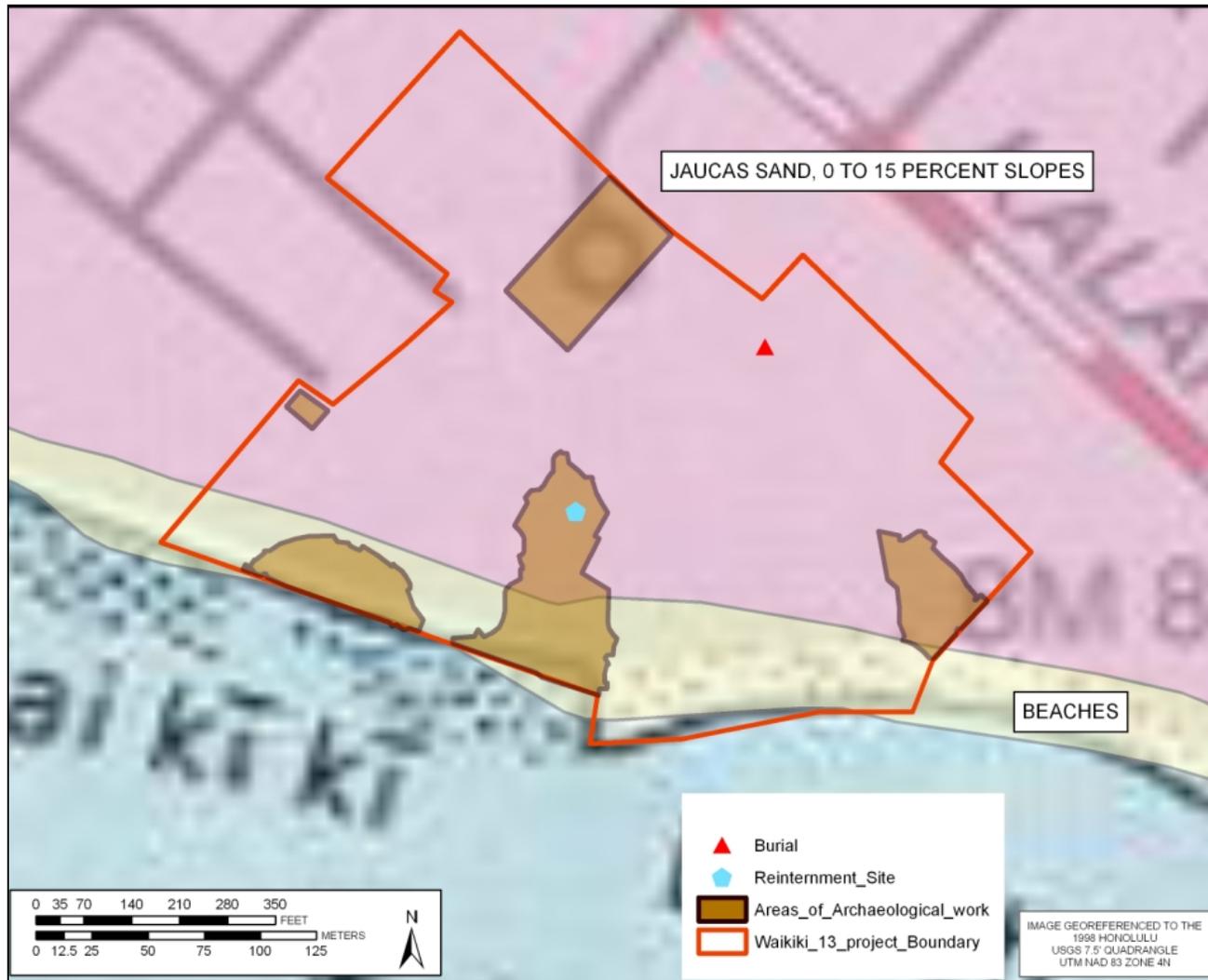


Figure 5. Soils map for project area

Section 2 Historical Background

2.1 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. Kanahele (1995:134) notes the continuity in the royal residences and provides the following account:

The royal residences were generally located in the same areas that all of Waikīkī's ancient chiefs had located their residences for hundreds of years. Kamehameha V's residence, for example, was at Helumoa where Kamehameha I's *kauhale*, or residence, was, as was Kahekili's and Kahahana's before him. His cottage stood on the site now occupied by the Royal Hawaiian Hotel; some identify the exact site as the hotel's present *lū'au* grounds (between the rear or *mauka* side of the hotel and the *makai* side of the Royal Hawaiian Shopping Center)

Kanahele (1995:134-1345) goes on to explain that: "Three features were common to royal locations in Waikīkī. They were situated 1) near the beach, 2) next to a stream or 'Auwai (canal) and 3) among a grove of cocoanut or *kou* trees." This account fits Helumoa particularly well with its famous cocoanut grove (Figures 6 & 7). It may well be that the immediate vicinity of the present Royal Hawaiian Hotel was a center of the royal court of O'ahu for centuries - as Kanahele indicates.

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 wresting control of O'ahu by defeating the island's chief, Kalanikūpule. Following his conquest of O'ahu in 1795 it is understood that Kamehameha I set up court at Pua'ali'ili'i "an area in Waikīkī that included all of Helumoa and 'Āpuakēhau" (Hibbard and Franzen 1986:2). This is understood as the lands of the present Royal Hawaiian Hotel extending to the east as far as the present Moana Hotel. (Hibbard and Franzen 1986:3). The 19th-century Hawaiian historian John Papa 'Ī'i (1959:17), himself a member of the *ali'i* (chiefly class), described the king's Waikīkī residence:

Kamehameha's houses were at Puaaliilii, *makai* of the old road, and extended as far as the west side of the sands of 'Āpuakehau. Within it was Helumoa where Ka'ahumanu mā went to while away the time. The king built a stone house there, enclosed by a fence . . . ('Ī'i 1959:17).

'Ī'i 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" ('Ī'i 1959:17). 'Ī'i provides more specific data in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 declaring that "Kamehameha himself lived on this land." (Appendix A, page A-4). The land referred to is basically a strip running just *mauka* of the Royal Hawaiian Hotel and just *makai* of the Royal Hawaiian Shopping Center – as Kanahele asserts above.



Figure 6. View of Helumoa Coconut grove c. 1870s (Royal Hawaiian Hotel location), view to east (adapted from Hibbard and Franzen 1986:4)



Figure 7. View of the 'Āpuakēhau Stream *muliwai* or lagoonal backwater c. 1880s, Helumoa grove in background, view to west, believed to be a view *mauka* of the present Kalākāua Avenue (adapted from Hibbard and Franzen 1986:4)

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 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 “Whyteete” 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 luxuriancy of its productions. Here and there we met with ponds of considerable size, and besides being well stocked with fish, they swarmed with waterfowl 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 Hawaiians.

2.2 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 dry land agricultural plots, though on a greatly reduced scale than had been previously possible with adequate manpower.

The Sheraton Waikiki/Royal Hawaiian Hotel project area was a patchwork of thirteen Land Commission Awards circa 1850. The Land Commission Award (LCA) documentation is provided in detail in Appendix A of this study and is summarized in Table 1 below. The location of many of these LCAs are shown on the 1881 Bishop map (Figure 8) and subsequent Land Court Application documents (Figure 9).

It appears that many of the LCAs were primarily residential and were awarded to loyal retainers of the Kamehameha dynasty. In 1847 John 'Ī'ī stated in testimony regarding LCA 228 granted to Kaleiheana:

. . . I have seen this land and these names which are written in this claim document are the attendants of Kameameha I [sic. Kamehameha the Great]. Their work was taking care of the house and preparing the food. These people were in constant contact with the chiefs and were close to each and every chief. When Kamehameha I died, they continued to live on the property and when the chief returned from Hawaii Kaleiheana went to live there. These people have lived there since Kamehameha II to Kaahumanu's reign, and to the year 1846 when Kuluwailehua had raised objections. (John 'Ī'ī's testimony regarding LCA 228 granted to Kaleiheana; see Appendix page A-5)

It is further stated that Kamehameha I lived on this land until his death and subsequently the land has been the resting place for the chiefs down to Kamehameha V. Many of the recipients of the LCAs indicated they were either "under" some adjacent party or had other parties "under" them on their land suggesting a continuity of high status parties in the mid-1800s.

Table 1. Land Commission Awards in Project Lands

LCA #	Claimant	Traditional Names	General Location	Comments
104 FL	Kekuanaoa	Kapuni	NW Sheraton	House site, also claimed 2 <i>lo'i</i> , 5 fish ponds and 1 <i>muliwai</i> elsewhere at Waikīkī.
228	Kalaiheana Kaleiheana	Helumoa	N Sheraton N Royal HH	Claims cocoonut grove at Helumoa with stream called Apukokohau adjacent, six with own houses living under claimant
822	Okuu	Helumoa	S end of Sheraton	House lot claim with an adobie fence and five houses; Kupanihi, Kini & Ku are house owners

LCA #	Claimant	Traditional Names	General Location	Comments
1281	Kuluwailehua	References to Kamoku, Kamokuakahi & Kamoku elua [Kamoku 1 & 2] – these appear to be variants of the more common “Keomuku”	Central Sheraton	Difficult to differentiate between 5 Waikīkī land claims
1379	Kapule II	Keaumoku [understood as a variant of “Keomuku”]	S Sheraton	House lot claim with a large house, a little house and a fence
1385	Kaelemakule	Keomuku	S Sheraton	House lot claim
1445	Kanemakua	Helumoa [sic. “Helumoa”]	Central Royal HH	House lot claim with 7 (variously 8) houses claimant owns 2 – seemingly other residents under the claimant are Kahanaumaikai, Kalaauli, Kaaia, Kahui & Ku
1463	Wahahe‘e	Helumoa		House lot claim with 1 house & a fence
1508	Kaho‘ouluulu	Pahupahuapua‘a	SW Sheraton	House lot claim partly fenced
1511	Kanae	Keonuku [understood as a variant of “Keomuku”]	S Sheraton	House lot claim
1782	Kahope	Helumoa	SW Royal HH	House lot claim is bounded: <i>Mauka</i> by the cocoanuts of Helumoa, <i>Kekaha</i> by the <i>pāhale</i> belonging to Kanemakua, <i>Makai</i> by the sea shore, Honolulu by the <i>pāhale</i> of Okuu
2126	Keaho (Keoho)	Kuweluwelu, Keomukukai	S Sheraton	2 <i>puepue</i> , a <i>kula</i> and <i>pāhale</i> in one piece
8023	Aua	Keomuku	Central Sheraton	House lot claim bounded <i>mauka</i> by <i>loko</i> of Helumoa of ‘Ī‘Ī and <i>mauka</i> by the <i>kula</i> nui of Helumoa.

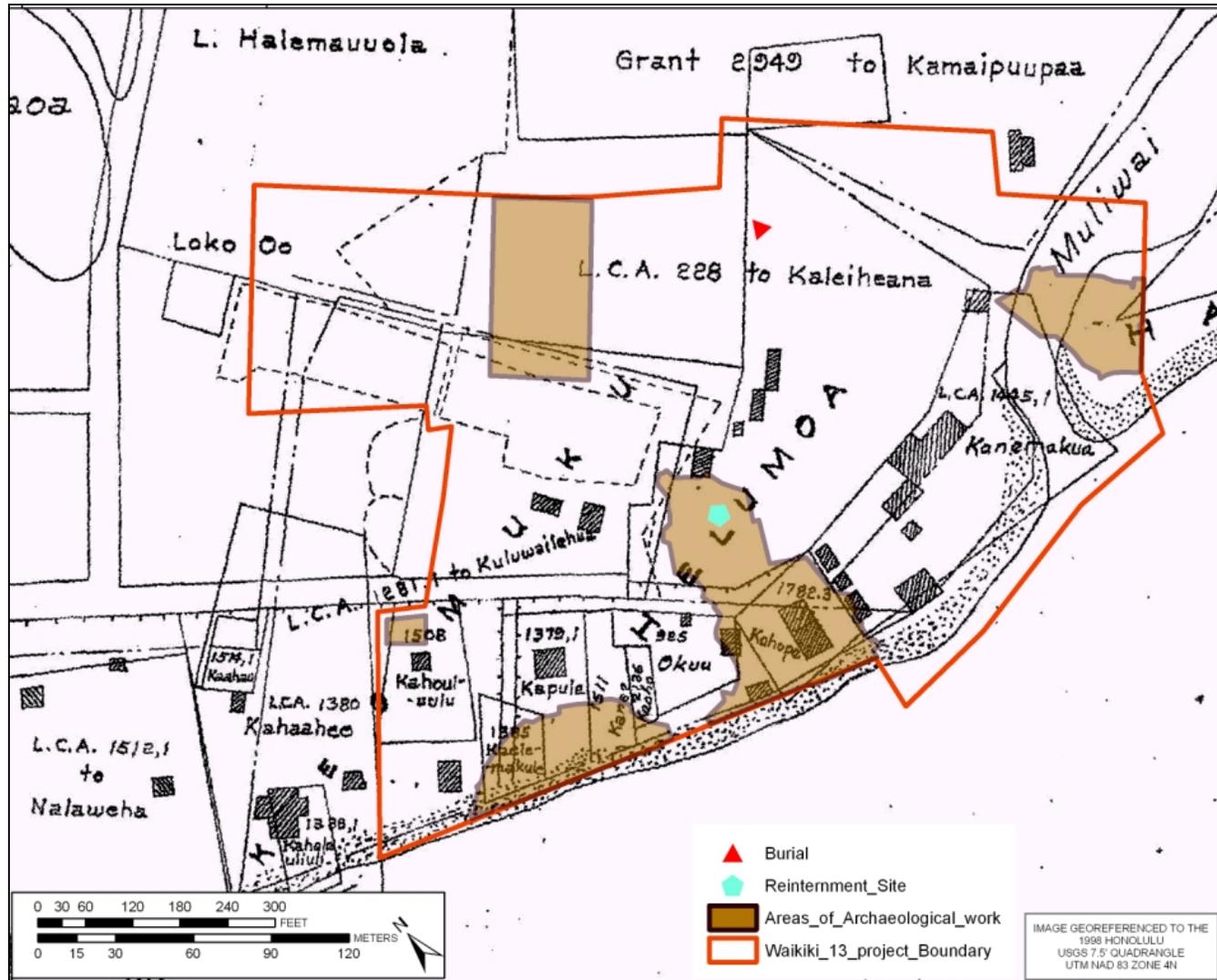


Figure 8. Portion of the 1881 Bishop Map with overlay of SW/RHH property and areas of work

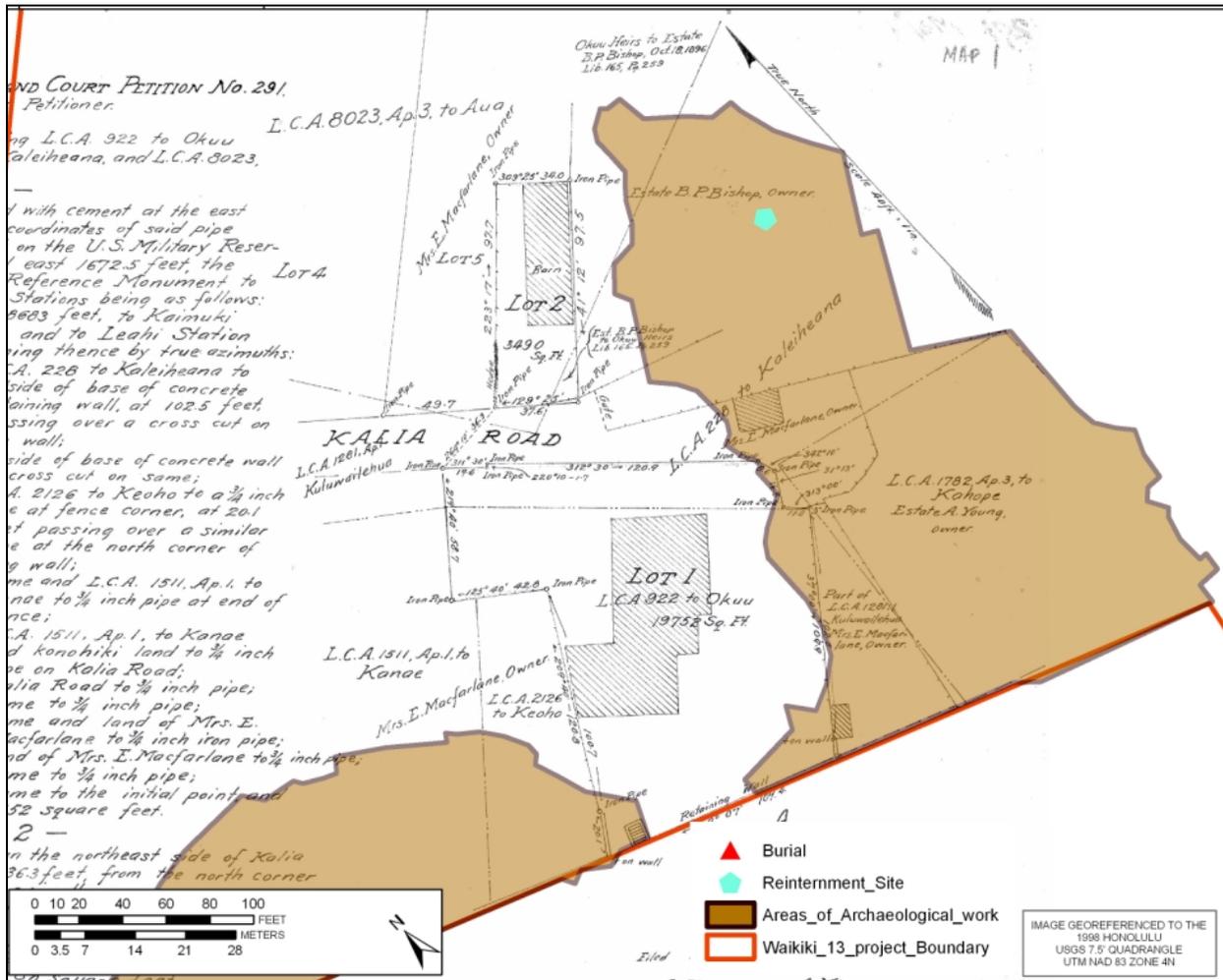


Figure 9. Portion of Land Court Application map 291 showing relationship of South Sheraton and Southwest Royal Hawaiian project areas to LCAs

2.3 Mid to Late 1800s

The most notable establishment in the present project area in the late 1800s was “King Kamehameha V’s grass thatched cottage [that] was located among the famous 10,000 cocoanut trees of Helumoa” (Grant, Hymer 2000). Helumoa (“Resting Place”) became the King’s Park and Grove (Figure 10):

The most notable grass hut in Hawaii Nei . . . is the structure erected at Waikiki by Kamehameha V, who used it as his seaside bungalow . . . often (assembling) his cabinet meetings there and transacting much of his official business beneath the thatched roof . . . [There] in the early 1820’s, Liholiho (Kamehameha II), son of the conqueror, waged his battles with the bottle; the substantial grass house with its outbuildings, surrounded by an extensive royal cocoanut grove served as a beach hideaway” (E. B. Scott, 1968).

Kamehameha V, better known as Prince Lot, died in 1872. Through a succession of inheritance after his death, the land on which he rested on the shores of Waikiki, were left to



Figure 10. Kamehameha V’s house on the beach of Waikiki (E. B. Scott, 1968)

Princess Ruth Ke'elikōlani, who passed away in March of 1883, and ultimately it was given to Princess Bernice Pauahi Bishop: “the last direct descendant of Kamehameha I and sole heir to the crown lands” (Kamehameha Schools 2001). An 1893 map by W.A. Wall indicates the landowner was then Charles R. Bishop, Princess Bernice Pauahi Bishops husband (Figure 11). The Bishops built a large seaside residence with a big veranda on the seaward side that appears to have been in the inland portion of the present Southwest Royal Hawaiian Hotel study area.

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. 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 (Figure 12).

A particularly well known gathering place, the Waikiki Villa also known as the Hawaiian Annex with four apartments for overnight guests was built circa 1890 at the present location of the Sheraton Waikiki and was one of the first Waikīkī enterprises to rent rooms (Figure 13).

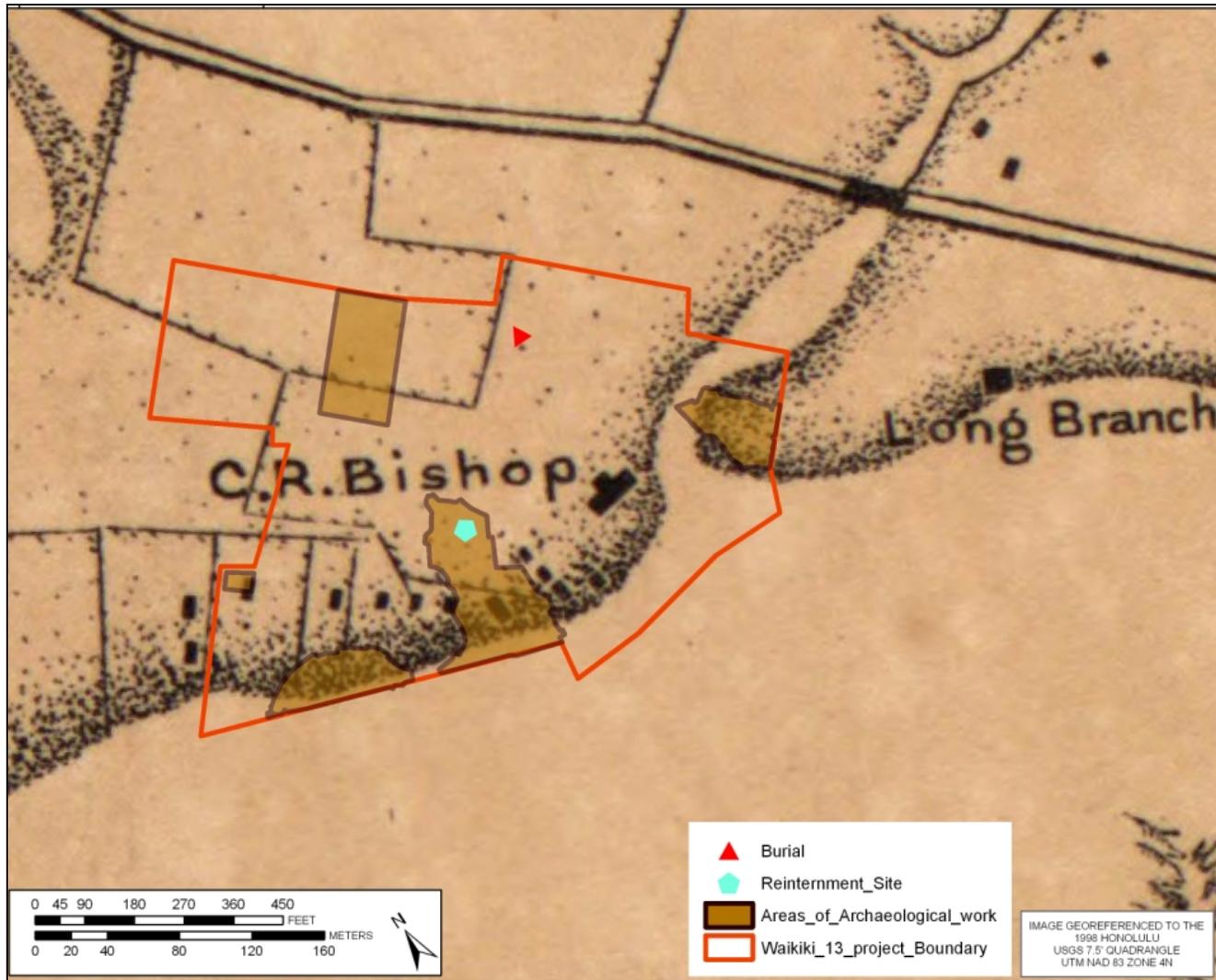


Figure 11. 1893 W.A. Wall map with overlay of SW/RHH property and areas of work



Figure 12. Aerial Photograph of Waikīkī Before the Completion of the Ala Wai Drainage Canal (Hawai'i State Archives)

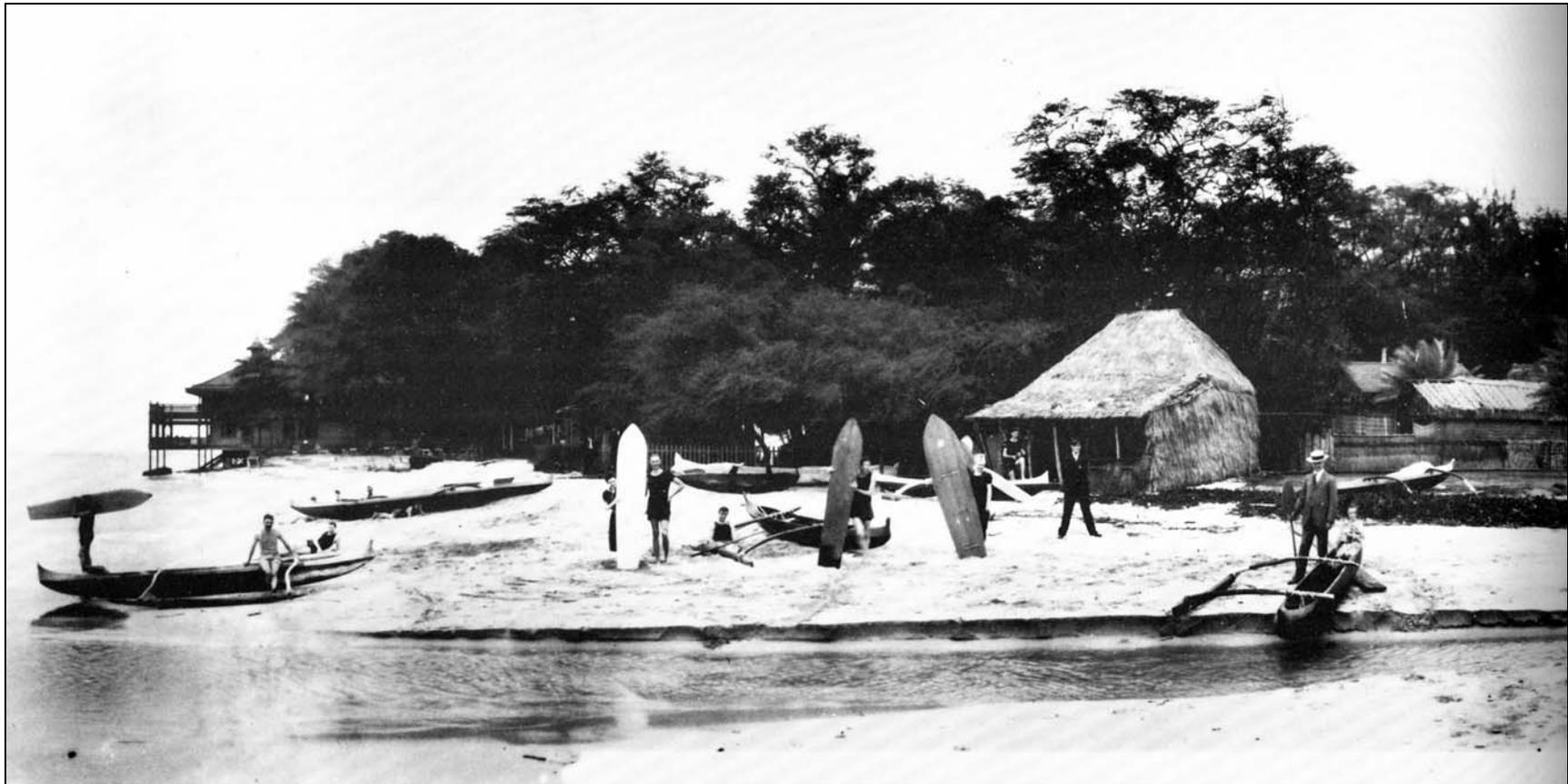


Figure 13. View of 'Āpuakēhau Stream *muliwai* or lagoonal backwater, circa 1909, the former Waikiki Villa or Hawaiian Annex (renamed the Honolulu Seaside in 1906) at extreme left, the “quaint” thatched houses of the Outrigger Canoe Club (former location) were not traditional habitations but had been imported from the defunct Kaimukī zoo (adapted from Hibbard and Franzen 1986:76)

2.4 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.

The Honolulu Seaside Hotel was opened in 1906 by George W. Macfarlane surrounded by ten acres of algarroba and cocoanut palms incorporating the former Hawaiian Annex bathhouse (Hibbard and Franzen 1986:62). In the mid 1920's the old Seaside Hotel, bathhouses and cottages were leveled to make way for the new Royal Hawaiian Hotel which opened on February 1, 1927 (see Figure 19).

A fire insurance map of 1914 (Figure 14) shows that there were five areas in Waikīkī where residential and commercial structures were concentrated in the early 20th century. 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.

The Outrigger Canoe club web site offers the following history:

In May, 1908, the Outrigger Canoe Club came into being on an acre and a half of choice beachfront land located between the Moana and Seaside Hotels (site of the present Royal Hawaiian Hotel) leased from the Estate of Queen Emma for \$10 per year. On the land was a lagoon formed by 'Āpuakehau Stream which carried the waters of Mānoa, Pālolo and Makiki Streams into the ocean where some of the best surfing locations in the Islands could be found.

The first Clubhouse consisted of two grass houses purchased from a defunct Kaimuki zoo and transported to the grounds by Club members on a borrowed truck. One was used for storage of outrigger canoes; the other for dressing rooms. The broad lānais of both structures were used for social activities. Not long after, a grass-roofed pavilion was built over the lagoon for dances and larger social

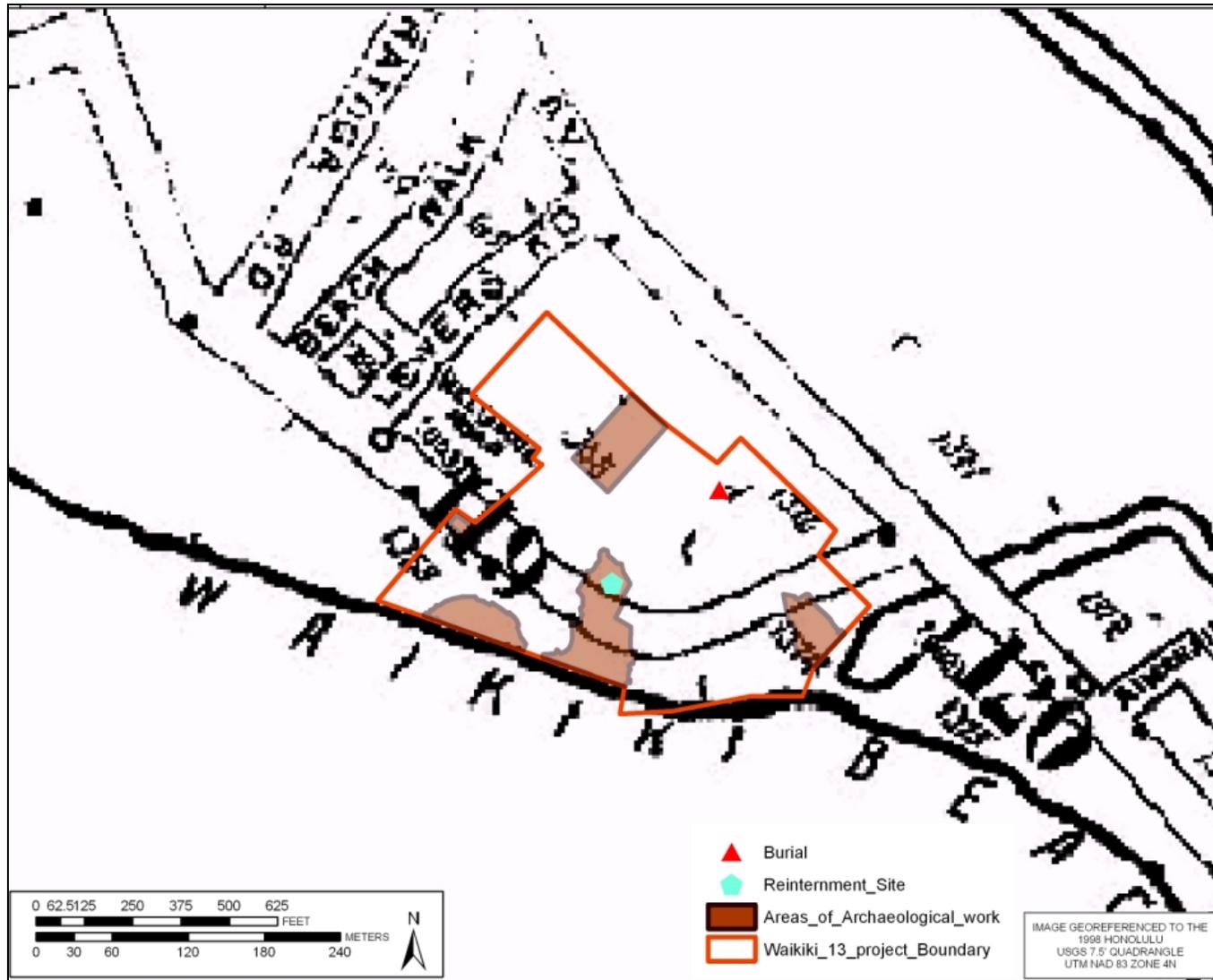


Figure 14. Portion of 1914 Sanborn Fire Insurance Map of Waikīkī

functions and a *hau* terrace became a family gathering place. After a fire in 1914 destroyed the roof of the pavilion, the Club was rebuilt and the Hau Terrace enlarged.

Over the years, the clubhouse fell into disrepair until finally the termite eaten and dilapidated buildings were condemned by the Board of Health. ... Eventually the money was raised, the old buildings demolished, and the third Outrigger Canoe Club, designed by Vladimir Ossipoff, was erected in 1941. ...

The Club's favorable lease with Queen Emma Estate, renewed many times over the years, expired in 1963. A portion of the Elks Club property at Diamond Head was leased and a state of the art building was constructed. Also designed by Ossipoff, it opened in time for the 1963 Christmas Open House.

2.5 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 Waikīkī. The *muliwai* or lagoonal backwater of 'Āpuakēhau Stream that reached the sea between the present Royal Hawaiian and Moana Hotels was filled in between 1919 and 1927 (Figures 15 to 17). The filling in of 'Āpuakēhau Stream and the excavating of the Ala Wai canal were elements 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]

The Royal Hawaiian Hotel (Figure 18) was formally opened on February 1 1927 and with a maximum height of 150 feet was the tallest privately owned building in the Territory at that time (Hibbard and Franzen 1986:99).

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:

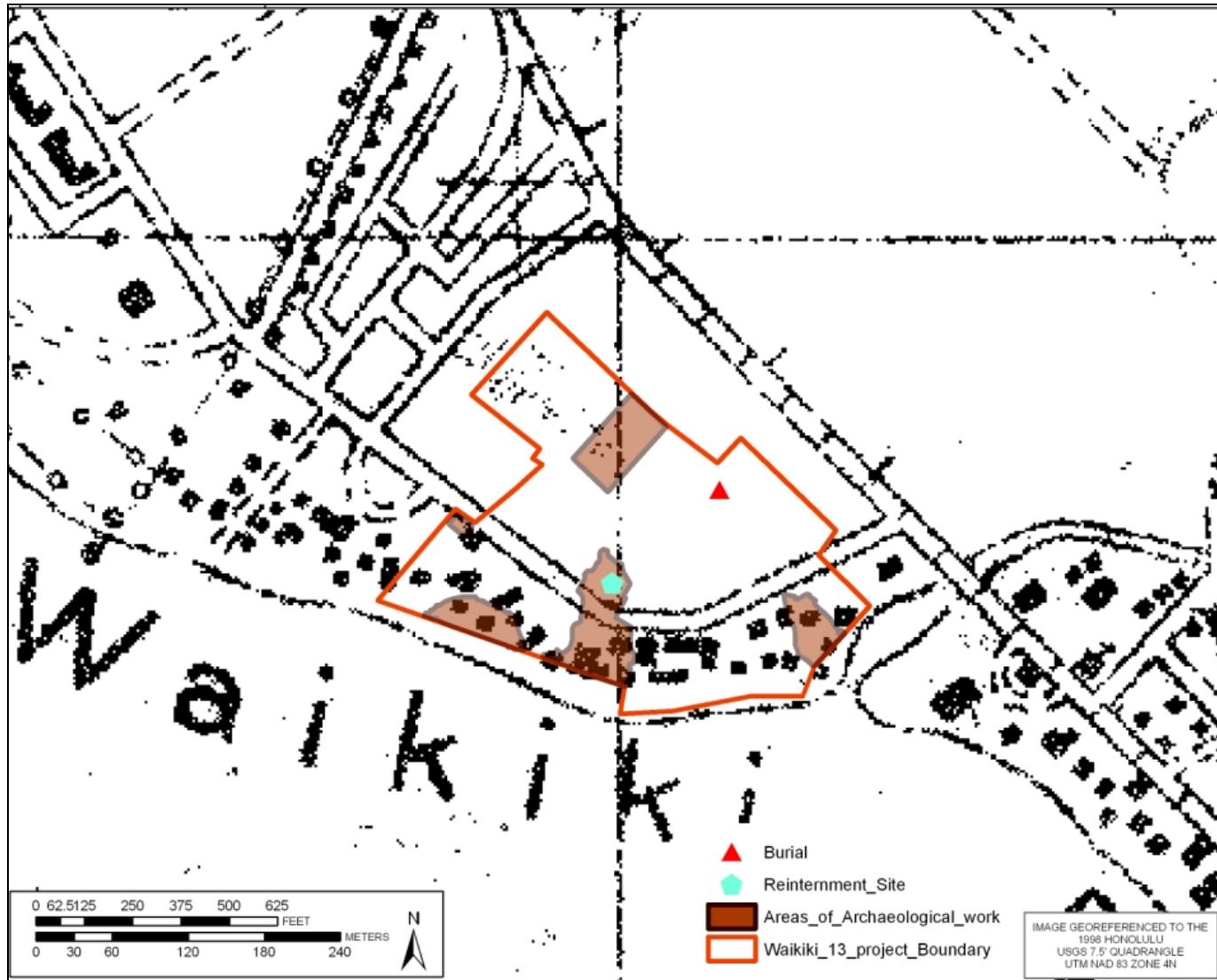


Figure 15. 1919 Fire control map with overlay of SW/RHH property and areas of work



Figure 16. View of the ‘Āpuakēhau *muliwai* or lagoonal backwater, Moana Hotel in background, view to northeast (adapted from Acson 1983:55)

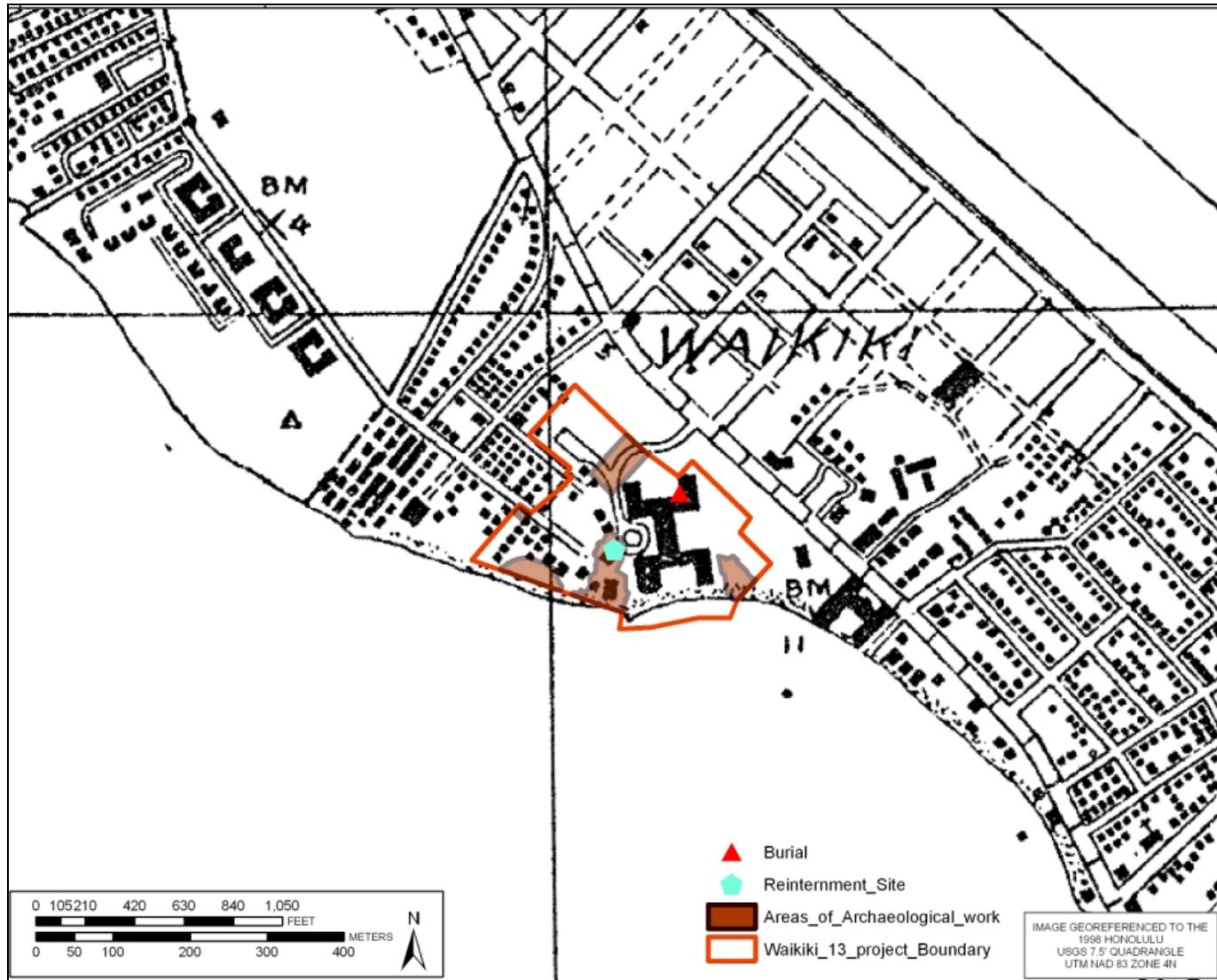


Figure 17. 1927 U.S. Geological Survey map with overlay of SW/RHH property and areas of work



Figure 18. 1929 aerial photo of Royal Hawaiian Hotel (E. B. Scott, 1968)

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.”

2.6 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]?”

2.7 Later Decades

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. A fire insurance map dating to 1951 indicates that, up to that time, no buildings were located between the Royal Hawaiian Hotel and Kalākaua Avenue. By the late 1950s, a row of retail shops had been constructed along Kalākaua Avenue. In the late 1970s, these shops were demolished and the present Royal Hawaiian Shopping Center was constructed on the present project area parcel.

The lands west of the Royal Hawaiian Hotel remained relatively undeveloped (Figure 19). The thirty-one story Sheraton Waikiki was completed in 1971 and with 1,904 rooms was the largest resort hotel in the world at that time (Hibbard and Franzen 1986:165).

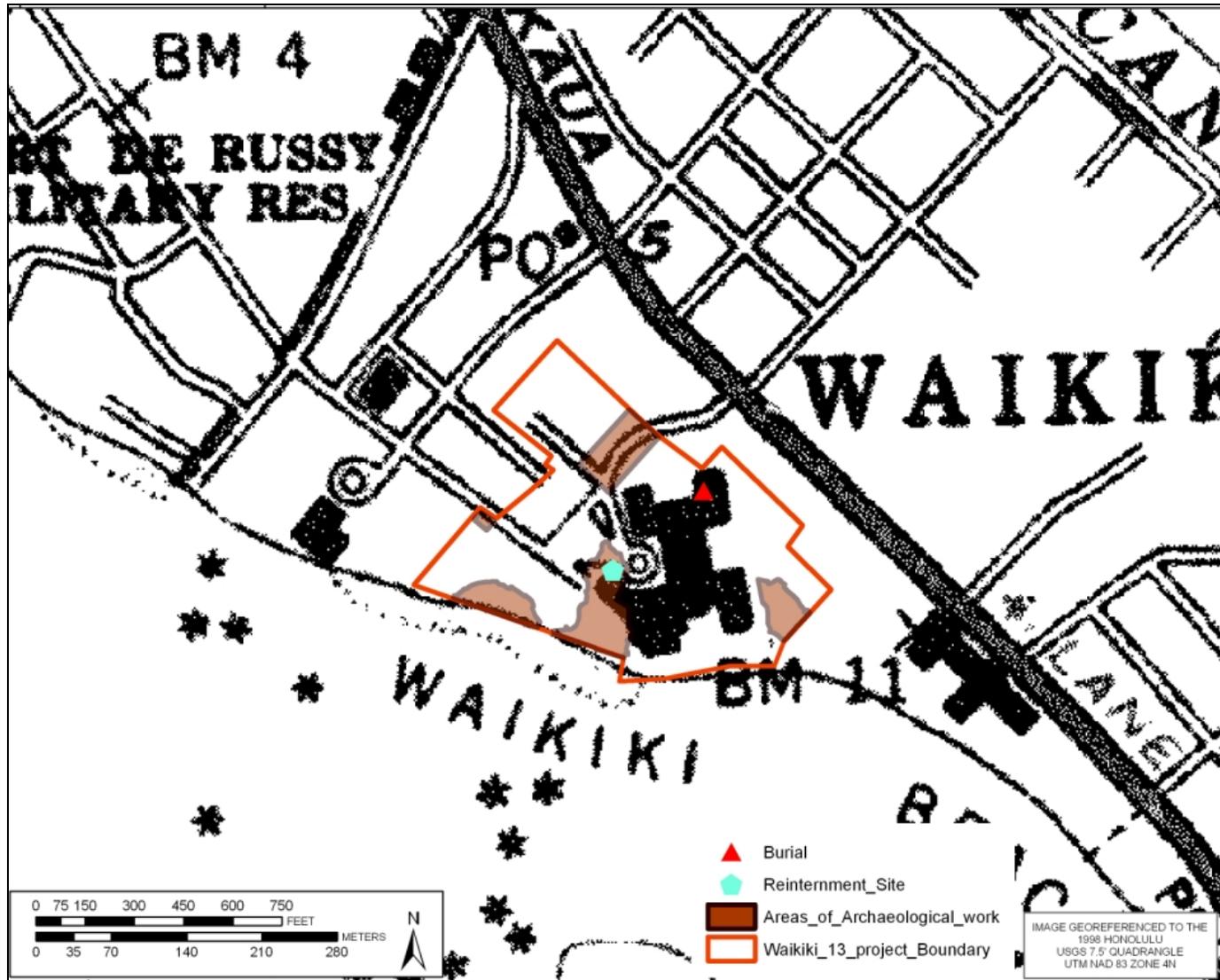


Figure 19. 1953 USGS map with overlay of SW/RHH property and areas of work

Section 3 Data Pertaining to Human Burials in Waikīkī from Traditional Sources

Death at Waikīkī is documented in a number of traditional accounts including accounts of human sacrifice, accounts of fighting in Waikīkī in the wars of Kahekili and Kamehameha and from mid-nineteenth century Land Commission Award records.

3.1 Accounts of Human Sacrifice at Waikīkī

Hawaiian authors in the nineteenth and twentieth centuries have emphasized that victims for sacrifice were “criminals”, “wrongdoers,” or “individuals who had broken tabu, or rendered themselves obnoxious to the chiefs” (Kanahale 1986:116). Another major category of human sacrifice victims were the “*kauwā*.” Pukui (Pukui and Elbert, 1971: 128) translates *kauwā* as “Untouchable, outcast, pariah: a cast which lived apart and was drawn on for sacrificial victims.”

Waikīkī was famous for the drowning of *kauwā* with the same formulaic phrase ‘*Moe mālie i ke kai o ko haku*’ (‘Lie still in the waters of your superior’) used for *kauwā* drowning at Kawailumaluma‘i, Kewalo and Kualoa. An account of sacrificial drowning of *kauwā* at Waikīkī appeared in the Hawaiian language Newspaper *Ka Loea Kālai ‘āina*:

A penei na‘e i kauwā loa [sic. “loa‘a”] ai. Aia a mana‘o ke Ali‘i Nui (Mō‘ī) e ‘au‘au kai i Waikīkī Eia ka nīnau a ke Ali‘i Nui i ke ali‘i ma lalo iho ona, “Pehea āu mau wahi lepo kanu o Pu‘u Ku‘ua? ‘A‘ole paha he mau wahi pōhuli?”

Eia ka pane a ke ali‘i ma lalo iho ona, “He Pōhuli nō. ‘O ke kauoha ia akula nō ia e ki‘i.

‘Oiai ko kāne me ka wahine e nanea ana me nā keiki, a hiki ‘ana ke ki‘i i mau keiki. ‘O ke kū a‘ela nō ia o ka makuakāne a lawe ‘ana i kāna mau keiki a hiki i Waikīkī.

Aia ho‘i a hiki i ka wā a ke Ali‘i e hele ai i ka ‘au‘au kai, a laila, hoouna ‘ia mai ke kahu e ki‘i mai i ua keiki a lawe aku ia ma kahi pāpa‘u o ke kai, ma kahi a ke Ali‘i nui e hele kū ‘ana, a laila kau nā lima o ka Mō‘ī i luna o kahi keiki a me kahi keiki, ma nā ‘ā‘ī o nā keiki a pa‘a ai.

‘O ka hua ‘ōlelo ma ka waha o ke Ali‘i nui e ‘ōlelo ai, “‘A‘ole pau ku‘u loa! ‘A‘ole pau ku‘u loa!” ‘Oiai ‘o ia e ‘au ana me ka pa‘a nō o nā lima i nā keiki a hiki i ka umauma ke kai o ke ali‘i.

Ua lana a‘ela nā keiki i luna o ka ‘ilikai, aia ke alo i lalo. Eia ho‘i ka ‘ōlelo a ka makuakāne ma kula aku nei, “Moe mālie i ke kai o ko Haku,” a pēlā aku.

‘O ke kai o Waikīkī ke kai i ‘ōlelo ‘ia he kai lumaluma‘i kanaka o ka lua, aia i Kualoa.

Translation:

When the ruling chief wished to go to Waikīkī for sea bathing he asked the chief just below him in rank, "How are my planting places at Pu'u Ku'ua, [a place in the Wai'anae Range famous as a kauwā residence and place of mixed caste] have they not produced young suckers?" The chief next to him answered, "There are some suckers," and sent someone for them. When the men, women and children least expected it, the messenger came to get some of the children. The father stood up and took his sons to Waikīkī.

Then, when the ruling chief went sea bathing, he sent an attendant to get the boys and take them to a shallow place where the ruling chief would come. Then the ruler placed a hand on each of the boys, holding them by the necks. The words he uttered were, "My height has not been reached! My height has not been reached!" He advanced and held onto the boys until the sea was up to his chest. The boys floated on the water face down. The father on shore called out, "Lie still in the sea of your Lord," and so on.

The Sea of Waikīkī is said to have been used to kill men in and the other place is Kualoa.

No specific location at Waikīkī is indicated as the sacrificial site.

Regrettably much uncertainty also remains regarding the exact location of the four Waikīkī *heiau* associated with human sacrifice. Papa'ena'ena, certainly the most famous, 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 'Ī'ī, Kamehameha placed at Papa'ena'ena the remains of an adulterer - "all prepared in the customary manner of that time" ('Ī'ī 1959:50-51). This would have been one of the last human sacrifices in the kingdom.

Regarding the death of the famous prophet Ka'ōpuluhulu by Kahahana, Thrum writes: "After a while the body of the priest was placed on a double canoe and brought to Waikīkī and placed high in the cocoanut trees at Kukaeunahi [sic, Kukaunahi?] the place of the temple, for several ten-day periods (*he mau anahulu*) without decomposition and falling off of the flesh to the sands of Waikīkī." [Note: Kahahana's place of residence at Waikīkī was Ulukou, the present site of the Moana Hotel which was built in 1901. The closest and most likely heiau would appear to be the Helumoa Heiau formerly located on or very near the grounds of the Royal Hawaiian Hotel.

Numerous accounts of human sacrifice (or near sacrifice) at Waikīkī have a mythopoeic quality for which the historical basis is uncertain.

The *heiau* associated with sacrifice are listed below in Table 2.

Table 2. Sites Associated With Human Sacrifice in Waikīkī

Place Name	Location	Grounds for believing associated with human sacrifice	Source
Papaenaena Heiau (Le'ahi)	Waikīkī in the vicinity of La Pietra and the Hawai'i School for Girls	" <i>Heiau po 'okanaka</i> "	Thrum 1906:44
Kapua Heiau	Waikīkī in the vicinity of the Natatorium	" <i>Heiau po 'okanaka</i> ", place of sacrifice of Kaolohaka	Thrum 1906:44
Helumoa Heiau	'Āpuakēhau Waikīkī at or near the Royal Hawaiian Hotel	<i>Heiau po 'okanaka</i> , the place of sacrifice of Kauhi Kama" the defeated <i>mō 'ī</i> of Maui in his raid on O'ahu about 1610, in the reign of Kaihikapu	Thrum 1906:44
Shallow sea of Waikīkī	Waikīkī location uncertain	Account of <i>kauwā</i> drowning	<i>Ka Loea Kalaiaina</i> , 7/8/1899
Kūpalaha Heiau	Waikīkī in the vicinity of the zoo entrance	Account of near sacrifice of Kapo'i there	Kamakau 1991:23

Of particular concern for the present project is Helumoa Heiau which is unfortunately not well documented in the literature. We know of no maps showing the location of Helumoa Heiau. Thomas Thrum (1906:44) relates that it was a "place of sacrifice" going back at least as far as A.D. 1610. The Maui chief Kauhiakama was said to have been sacrificed by the O'ahu chief Ka'ihikapu there (Hibbard and Franzen 1986:5). Later Thomas Thrum (1927:34) would note: "This temple was long ago demolished, not a stone being left to mark the site, which was doubtlessly near, if not *the* [italics in original] actual spot now graced by the new Royal Hawaiian Hotel." Additional data supporting this site as a major place of human sacrifice is provided in Pukui et al.'s (1974:44) comments regarding the origin and meaning of the place name "Helumoa". They write: "Old land division near the Royal Hawaiian Hotel at Helu-moa Street, Waikīkī, and site of a *heiau* where Ka-hahana was sacrificed. Lit. chicken scratch. (Chickens scratched to find maggots in the victim's body.)" We conclude the former location of the *heiau* was quite close to the Royal Hawaiian Hotel. The prominent point just on the Sheraton side of the Royal Hawaiian Hotel in the vicinity of the southeast corner of the Southwest Royal Hawaiian Hotel proposed work area appears likely for its commanding position and view planes.

3.2 Accounts of Battles at Waikīkī

3.2.1 Kahekili's Invasion of O'ahu Circa 1783

In 1867, Samuel M. Kamakau wrote the following account of the invasion of the island of O'ahu by the Maui ruling chief, Kahekili:

I ka pae 'ana o Kahekili a me nā 'au wa'a kaua o nā li'i o Maui, ma Waikīkī, e noho ana nō ka Mō'i Kahahana ma Kawānanakoa, ma Nu'uanu, ma uka o Honolulu. I ka lohe 'ana o Kahahana, ua hiki mai 'o Kahekili me nā 'au wa'a i lako i nā mea kaua. Ua piha ho'i mai Ka'alāwai a hiki i Kawehewehe ka pa'a i nā wa'a kaua o Kahekili mai Maui, Moloka'i a me Lāna'i mai, no laila, maka'u honua 'ēwale ihola nō 'o Kahahana, a ho'ākoakoa a'ela i kona po'e ali'i a me nā koa . . . 'ewalu ko lākou nui i hele i ke kaua. Ua komo loa kēia po'e 'ewalu i loko o 'Āpuakēhau, i laila kahi i kaua ai me ke koa launa 'ole, a ua ho'opuni 'ia mai lākou a puni e nā koa o Maui, a laila, wāhi a'ela k'ia po'e 'ewalu i loko o ka puoko o ke kaua, a nahā a'ela ka po'e i ho'opuni ai iā lākou nei. I ko lākou luli 'ana a'e na'e e ho'i mai, ua piha loa 'o mua i nā koa, 'a'ohe wahi ka'awale o Kawehewehe, e hiolo ana nā pololā e like me nā paka ua, akā, 'a'ohe na'e he wahi mea a pō'ino 'o kēia po'e 'ahi kananā, akā, 'o kēlā po'e koa o Maui ua pau i ka make. I ka hiki 'ana i kuāuna o Punalu'u, e iho mai ai i Luahinewai, e hiki mai ai i nā niu a Kuakuaaka . . . 'Ekolu ho'ouka kaua 'ana o nā 'ao'ao 'elua, a ua make like nō.

I ka malama o Ianuari 1, o ka A. D. 1783, ua 'ākoakoa nā ali'i a me nā pūkaua, nā pū'ali a me nā koa o Kahekili, a māhele 'ia ihola 'elua po'e kaua. Māhele 1. 'O Kahekili ka pūkaua. Māhele 2. 'O Hūeu ka pūkaua. 'O kā Hū'eu po'e kaua, ma uka o Kānelāau a me Kapapakōlea, ma uka o Pūowaina. 'O ka māhele mua, ma luna o Hekili a hiki i Kahēhuna a me 'Auwaiolimu. 'O Kaheiki ke kahua kaua. . . Lilo ihola ke aupuni o O'ahu a me Moloka'i . . . (Kū'oko'a, 3/30/1867)

Kahahana, [ruling chief of O'ahu] who was then living at Kawānanakoa in Nu'uanu, back of Honolulu, was filled with consternation when he heard that Kahekili had come with a fleet of war canoes that reached from Ka'alāwai to Kawehewehe, and he rallied his warriors about him [but] eight of the warriors . . . went to 'Āpuakēhau and fought against the whole host, and when they found themselves surrounded by the Maui warriors they broke through the front lines, only to find their way of retreat bristling with more warriors and no way to turn in all of Kawehewehe. Spears fell upon them like rain, but it was they who slew the warriors of Maui. At the border of Punalu'u, on the way down to Luahinewai and the cocconut grove of Kuakuaaka [there was fighting] . . . Three times both sides attacked, and three times both were defeated. In January 1783, a decisive battle was fought with Kaheiki as the battlefield. Kahekili's forces were divided into two companies, one under Hū'eu's leadership stationed at Kānelā'au and Kapapakōlea back of Pūowaina and the other under his own command stationed

from above Hekili to Kahēhuna and ‘Auwaiolimu.... . . . thus O‘ahu and Molokai were taken . . . (Kamakau 1961:135-137)

The account makes reference to fighting at “Kawehewehe.” Kawehewehe is understood as the name of the beach on the ‘Ewa side of the Royal Hawaiian Hotel (adjacent to Helumoa), just east of the Halekūlani Hotel, Waikīkī. The sick were bathed here as treatment. The patient might wear a seaweed (*limu kala*) lei and leave it in the water as a request that his sins be forgiven hence the origin of the name (Lit., the removal Pukui et al. 1974:99).

Fornander’s (1919 Volume VI, part 2; page 289) account of “The Story of Kahahana” provides the detail that the army of the Maui chief Kahekili was encamped at ‘Āpuakēhau, where they were organizing and preparing to march inland, and it was there the O‘ahu forces first attacked “the Maui troops collected at the *heiau*.” There “a fight commenced to which Hawaiian legends record no parallel”. (Fornander 1919 Volume VI, part 2; page 289) A reconstruction of Kamakau’s account of Kahekili’s attack (Figure 20) definitely suggests battle casualties in Waikīkī although most of these likely occurred just northwest of the present project area. Intense fighting and mortality are indicated in the immediate vicinity of the Royal Hawaiian and Sheraton Waikiki resorts.

3.2.2 Account of the Invasion of Kamehameha Circa 1795

In 1867, Samuel M. Kamakau wrote the following account of the invasion of the island of O‘ahu by the ruling chief, Kamehameha:

Holo akula ho‘i ka ‘au wa‘a kaula o Kamehameha a pae i Waikīkī, a ua pani ‘ia mai Wai‘alaie a Waikīkī e nā ‘au wa‘a kaula o Kamehameha.

‘O Kalanikūpule ho‘i a me kona mau ali‘i, e noho ana lākou ma Nu‘uanu, Kanoneakapueo, Kahapa‘akai, Luakaha, Kawānakoā, Kaukahōkū, Kapaeli, Kaumuohena a me Pū‘iwa nā kahua kaula. (Kū‘oko‘a, 6/8/1867)

Translation

Kamehameha’s war fleet sailed to Waikīkī where it landed and the beaches from Wai‘alaie to Waikīkī were covered with the war canoes of Kamehameha.

Kalanikūpule and his chiefs were stationed at Nu‘uanu, Kanoneakapueo, Kahapa‘akai, Luakaha, Kawānakoā, Kaukahōkū, Kapaeli, Kaumuohena a me Pū‘iwa, the battlefields (where the main fighting took place).

This account emphasizes that the main fighting started in the uplands but fighting at Waikīkī is probable.

Another historical account depicting the famous battle of Nu‘uanu in which Kamehameha I unifies the islands, is given in *He Buke ‘Oia‘I‘o Kū‘auhau Ali‘i*, page 131. The “Battle of Nu‘uanu” chant was examined in the hopes it would provide clues to where fighting occurred and possible burials as a result of the battle.

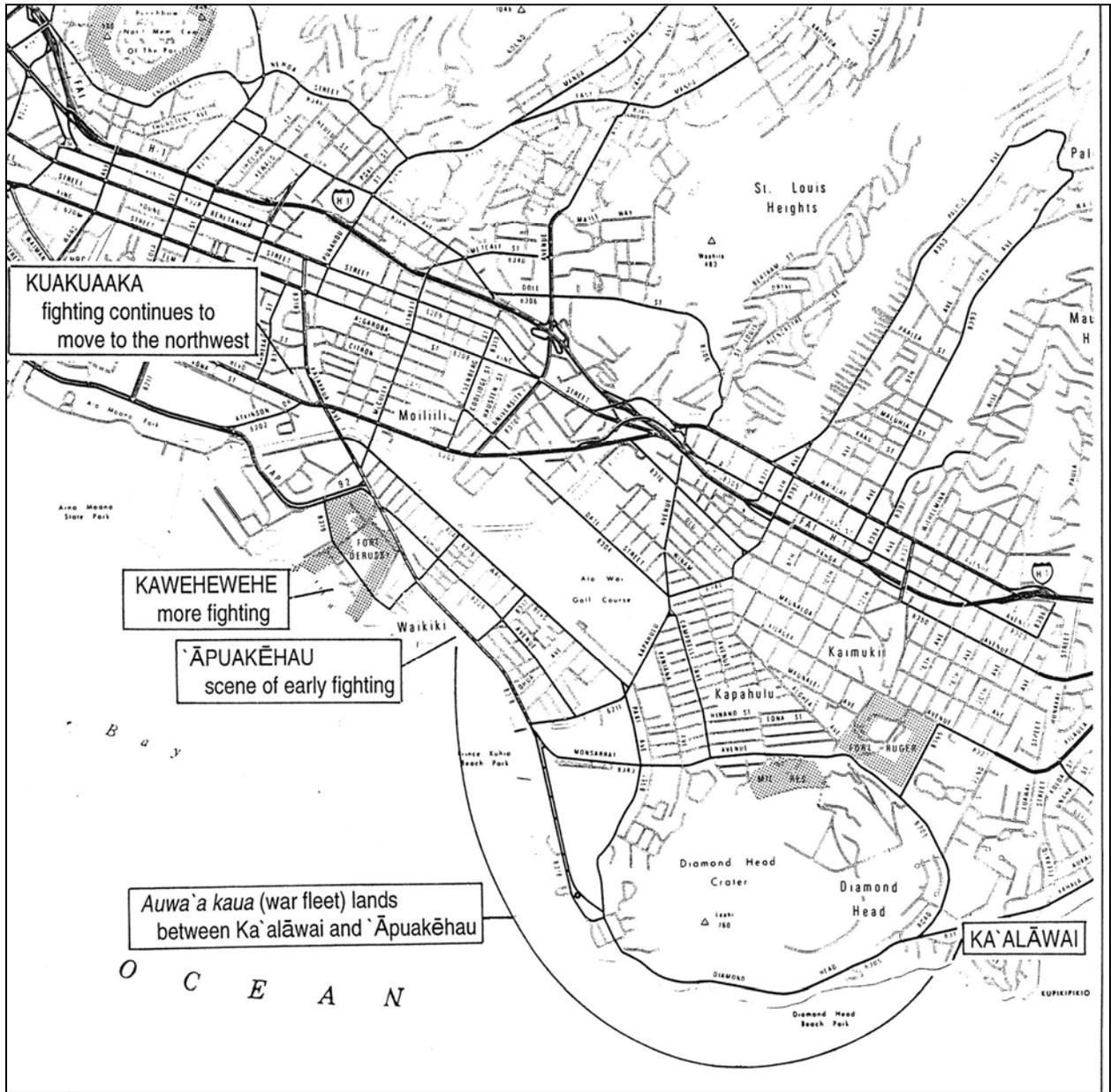


Figure 20. Reconstruction of Kahekili's Invasion of O'ahu Circa 1783

The chant is prefaced by the following explanation: [This is] “A chant of the battle of Nu‘uanu waged by Kamehameha the Great in the month of April, 1795. Composed by Kala‘ikūahulu and transcribed by G. M. Keola, Dec. 15, 1880.

Kala‘ikūahulu, was a skilled orator, genealogist and kahuna (priest) during the time of Kamehameha. He was also selected to be a member of Kamehameha’s advisory counsel (Kamakau 1992:173, 175). Samuel Kamakau (1992:394), noted historian, writes “Kala‘ikūahulu was the composer who glorified the names of the chiefs of Hawai‘i in chant.”

A very brief analysis of the chant is provided here. The chant is divided into two parts, Māhele 1 and Māhele 2. The chant basically sets up the sequence of the Nu‘uanu Battle and gives a vivid description of the intensity of the fighting that occurred. Part 2 of the chant basically chronicles the story from the time Kamehameha’s war fleet leaves the shores of Moloka‘i (after its conquest), crosses the Moloka‘i Channel and enters the *papa* (reef flats) off of O‘ahu. From the chant, we know that Lopakapū, Kamehameha’s cannon is on board one of the canoes, as well as his war god, Kūka‘ilimoku. Poetic references are made to Kamehameha, comparing him to the long, sharp spines of the wana, the *nohu* — a poisonous fish, the *palani* known for its sharp barb which snags and the *kōkala kū* — the porcupine fish whose body is covered with long spines that inflict pain. In the chant, Kamehameha is declared the victor even before he has landed on the sands of Kākuhihewa, at Hononunu (the site of the War Memorial) in Waikīkī.

From the locations of the place names listed in the chant, it seems that indeed, as Kamakau wrote (*Kū‘oko‘a*, 6/8/1867), the coastline was covered with Kamehameha’s war fleet from Wai‘alae Bay to Waikīkī and on to Kou (Honolulu Harbor). Very quickly, the battle moves out of Waikīkī toward Kou (downtown Honolulu) and up toward Pūowaina (Punchbowl). Kamehameha splits his troops into two divisions. One moving up toward Pūowaina and Nu‘uanu and the other going through Makiki and coming around the back side of Pūowaina. The chant creates a vivid picture of the intensity and fierceness of the fighting which occurred. A description is given of the general populace fleeing wildly through the taro fields in Makiki. The battle intensifies at Kānelā‘au on the east slopes of Punchbowl, where Kalanikūpule’s forces are trapped and surrounded. Kamehameha has the advantage of his canon, Lopaka, commanded by Hū‘eo (Isaac Davis). The O‘ahu battalions are forced to flee. Some, escape the heat of the battle and try to make their way back toward Waikīkī, probably in a last ditch effort to escape via canoe, while others flee toward ‘Ewa. However, the majority of the forces head toward Nu‘uanu and the *pali* with Kamehameha’s men in fast pursuit.

Line 94 of the chant is perplexing in that it makes mention of “numerous [people] being killed at Kuamo‘o” (*make lehulehu i Kuamo‘o*). It is not clear whether this is a reference to Kuamo‘o, O‘ahu, Kuamo‘o on Hawai‘i or possibly an obscure reference to a different Kuamo‘o location in close proximity to the place names mentioned in the chant. The locality of Kuamo‘o on O‘ahu is spoken of by Kamakau in relation to the 1794 battle of Kuki‘iahu, between Ka‘eokūlani of Maui and Kalanikūpule of O‘ahu. Mention is made of “The heights of Kuamo‘o, Kalauao, and Aiea” and that Ka‘eo’s men were “cut off . . . between Kalauao and Kuamo‘o (Kamakau 1992:169). This Kuamo‘o is clearly the one located in the ‘Ewa District, far outside the boundaries where the Nu‘uanu battle took place. The famous battle of Kuamo‘o at Kailua, Kona took place in 1819, after Kamehameha’s death, over the upheaval of the *‘ai kapu* (the

religious taboo system). It seems odd that a chant written to commemorate Kamehameha and the Nu‘uanu battle would make reference to a battle which occurred 24 years later and after the death of Kamehameha. It is even more odd to find a reference to either of the Kuamo‘o battles within the sequence of Waikīkī place names given. The chant is clearly recounting the various place names in their order along the coast of Waikīkī. Regardless, both known Kuamo‘o locations are nowhere near the vicinity of Waikīkī or the Punchbowl-Nu‘uanu areas. The present day Kuamo‘o Street in Waikīkī, situated between Kūhiō Avenue and Ala Wai Boulevard, is said to have been named for Mary Kuamo‘o Ka‘oana‘ena, the sister of Kekuaokalani who was killed at the Kuamo‘o battle of 1819 (PN:119).

Line 144 once again mentions the place name Kuamo‘o and is prefaced by the preceding line: “The people of O‘ahu ask, who is this facing us? Who is the warrior at Kuamo‘o?” The chant seems to be referring to a specific place name within the area of the battle zone but, this cannot be for certain. Research into place names and 19th century maps did not reveal any additional information regarding another “Kuamo‘o location” on O‘ahu .

In summary, the main reason for studying this Nu‘uanu Battle chant was to get an idea of where the fighting occurred and to determine areas of density for possible burials related to this particular war. From the chant, it is clear that the battle moved out of Waikīkī proper very quickly. Granted, there were skirmishes along the way, but the main fighting and loss of life occurred near the eastern slopes of Punchbowl and ended at Nu‘uanu Pali.

3.3 Land Commission Award Testimony

There are approximately 14,500 records associated with Land Commission Award (LCA) claims during the Māhele of 1847-1853. Of these records, 428 are for claims awarded and unawarded in Waikīkī. Among these 428 claims there is only one mention of a graveyard or burial place and it is in claim 613 (to Kuluwailehua) which is not awarded. This appears to be completely different than Kuluwailehua’s claim for LCA 1281 within the present project lands. The land is described in a deed transfer of November 21, 1841 from Kalua to Kuluwailehua. as “my house site” and it is “a separate place and is a burial ground.” In this same document (*Native Testimony* 384-385 volume 2; probably 1848 or 1849) the boundaries given as “Mainunu’s lot on the Waikiki side; Chapel St, *mauka*; Kauwaina’s lot, ‘Ewa; and Kaupena’s lot, *makai*.” In an earlier document (July 1, 1847) for claim 613 the boundaries are given as: “North, house lot of Kauwaina; east, Church Street and the lot of Mainunu; south, house lots of Mainunu and Hakau; west, house lot of Kaupena” (*Native Register*, 299-300 volume 2).

Kuluwailehua is awarded the land under No. 637, which does not mention the burial ground. Kuluwailehua holds many awarded claims in Waikīkī, as well as others on O‘ahu and other islands (Māhele database 1998, waihona.com). It is uncertain at this point where the reported burial ground is located. Possibly “Church Street” was adjacent to the church shown on nineteenth century maps northwest of the present Ka‘iulani Avenue, well away from the present project area.

3.4 Analysis

Our present evaluation of the Waikīkī burials is much more mundane than battle deaths or human sacrifices - namely that the vast majority of the deceased were the common people of Waikīkī. Withington (1953:16), probably referring to the *'oku'u* plague [circa 1804], says: "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" (Bowen 1961:38). While many of the Waikīkī burials likely accumulated slowly over centuries other burials probably relate to such early and repaid depopulation by introduced diseases.

Rank seems to have had profound influences on places available for disposal. 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 disposal seems to have decreased as rank decreased. Disposal 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).

Bowen (1961:21) notes that most Hawaiians in the pre-contact period belonged to the *maka'āinana* or commoner class and their bones were usually buried in no other area than their particular home *'ili* (land division within an *ahupua'a*); this particular practice is reflected in a Hawaiian term for one's natal locality - *kulāiwi* meaning "plain of one's bones" (Cleghorn 1987:41).

Burials are commonly reported from clean, consolidated sand deposits and beach burial was clearly a common method of interment practiced by Hawaiians (Cleghorn 1987:42). One of the earliest references to Hawaiian burial customs was made by Urey Lisiansky (1814:122), who visited Hawai'i in June, 1804. He notes: "The poor are buried anywhere along the beach . . ."

Commenting on the nature of burial areas and body positions used in burial, Ellis (1827:361-363) says: "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 them in a sitting posture" (Bowen 1961:142). Ellis picks up on an important point that has been noted by archaeologists that the probability of burials within or in very close proximity to Land Commission Award house lot claims is significantly greater than is typical away from such house lot claims. This indicates a heightened probability of burials in portions of the present study area particularly the South Sheraton and Southwest Royal Hawaiian proposed areas of work.

Regarding the Castle burials, at the east end of Waikīkī, Bowen goes on to say: "Concerning the circumstances of burial, Emerson says: 'From the absence of fractures and marks of violence in the bones I have examined, such as might have been caused in battle, I am inclined to think that the site where they were found was at one time a Hawaiian cemetery.'" (1961: 149) Indeed it

seems likely that the remains thus far documented including those within the present project area relate to common mortuary practices.

Section 4 Previous Archaeological Research

The *ahupua'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 the twentieth 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 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 list of projects conducted in the Waikīkī area is presented in Table 3. A supplementary listing of burial finds from Waikīkī that ended up in the osteological collections of the Bernice Pauahi Bishop Museum is presented in Table 4. A discussion of projects focusing on burials (Figure 21) 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,

Table 3. Previous Archaeological Investigations in Waikīkī Ahupua'a

Reference	Type of Investigation	General Location	Findings
Emerson 1902	Burial recovery account	Present Elks Club	At least four individuals, all presumed to be Hawaiian and associated burial goods
McAllister 1933	Island-wide survey	All of O'ahu	Waikīkī listed as Site 60.
1963 Bishop Museum (cited in Neller 1984)	Bishop Museum burial recovery	2431 Prince Edward Street	Two + individuals from a construction trench
<i>Honolulu Star-Bulletin</i> ; 1963; Yost 1971	Burial recovery account	Present Outrigger Canoe Club	27 Burials
1964 Bishop Museum Site Files	Burial recovery account	Fronting the Surfrider Hotel	4 burials?
1976 Bishop Museum Site Files	Burial recovery account	Hale Koa Hotel	Six burials
Nakamura 1979	History Graduate Thesis	Waikīkī	History of Waikīkī with focus on the radical changes in land use that occurred in the early 20th century.
Neller 1980	Monitoring Report	Kālia Burial Site: Hilton Hawaiian Village	Brief field inspection: partial recovery of 3 historic Hawaiian burials, trash pit from 1890's, no prehistoric Hawaiian sites.
Bishop Museum 1981	Testing, Excavations, & Monitoring	Halekulani Hotel	Intact cultural deposits found.
Neller 1981	Reconnaissance Survey	Halekulani Hotel	Limited background research on area
Acson 1983	Historical Research	'Ewa to Diamond Head	Nine walks through Waikīkī, photos, maps and historical info.
Davis 1984	Archaeological and Historical Investigation	Halekulani Hotel	48 historic and prehistoric features excavated with six human burials reported.
Neller 1984	Informal Narrative Report	Paoakalani Street	Recovery of seven human skeletons at construction site

Reference	Type of Investigation	General Location	Findings
Center for Oral History 1985	Oral Histories, Volumes I-IV	Waikīkī	Oral Histories of Waikīkī, 1900-1985, Volumes I-IV
1985 IARII(Beardsley and Kaschko 1997)	Archaeological monitoring and data recovery	Pacific Beach Hotel Office Annex	2 burials and cultural deposits
Griffin 1987	Burial Recovery Report	Along Kalākaua Ave. near corner of Kai'ulani St.	Bones removed and bagged by construction crew, burial found in makai wall of gas pipe excavation.
SHPD 1987	Burial, Recovery Report	Kalākaua Ave. and Ka'ulani Street	From excavation adjacent to Moana Hotel (site -9901).
Bath & Kawachi 1989	Burial, Recovery Report	Ala Wai golf Course	2 burials
Davis 1989	Reconnaissance Survey & Historical Research	Fort DeRussy	Fishponds and other features are buried in this area. Sites -4573 thru -4577 are fishponds, 4570 is a remnant cultural deposit.
Riford 1989	Background Literature Search	TMK: 2-6-014:039	List of literature pertaining to Waikīkī area.
Rosendahl 1989	Inventory Survey, Prelim. Report	Fort DeRussy	Historic artifacts, no human remains
Athens 1990	Letter	TMK: 2-6-023:025	Letter to SHPD listing human remains at IARII lab from Pacific Beach Hotel, and Barbers Point Generating Station.
Hurst 1990	Historical Literature Search	Waikikian Hotel	Background and planning document. No fieldwork was done.
Chigioji 1991	Assessment	2 parcels, TMK 2-6-24:65-68 and 80-83, TMK 2-6-24:34-40 & 42-45	Formerly a corner of the 'Āinahau estate; remainder of parcels, former 'auwai, kalo and rice fields; test excavations and specific sampling strategy recommended.
Davis 1991	Monitoring Report	Fort DeRussy	See also Davis 1989. Subsurface features and material remains date to early post-contact times (c. 1780s to 1790s) through the mid-19th century.

Reference	Type of Investigation	General Location	Findings
Kennedy 1991	Monitoring Report	TMK: 2-6-022:014 IMAX theatre location	Pollen and bulk-sediment ¹⁴ C samples from ponded sediments were recovered. The three ¹⁴ C dates and pollen sequence were inverted.
SHPD 1991	Public Inquiry	TMK: 2-6-024:036	Bones were determined to be non-human and part of the extensive fill material present
Simons et al. 1991	Interim Field Study, Monitoring & Data Recovery	Moana Hotel Area	8 burials, preliminary osteological analysis indicates pre-contact type; pre- and post artifactual material recovered.
Hurlbett 1992	Monitoring Report	TMK: 2-6-008:001	Site -2870 (3 burials) found by Neller in 1980. This report is on testing and monitoring in same area.
Pietrusewsky 1992a	PA Report	Moana Hotel	Right half of human mandible found by hotel guest.
Pietrusewsky 1992b	PA Report	Lili'uokalani Gardens Site, Hamohamo	Human Remains from the Lili'uokalani Gardens Site, Hamohamo, Waikīkī, O'ahu
Rosendahl 1992	Monitoring Report	Hilton Hawaiian Village	Identified 12 historic refuse pits, 3 historic to modern trenches.
Streck 1992	Memorandum for Record	Fort DeRussy	Human burial discovery (believed to be late prehistoric Hawaiian) during data recovery excavations, May, 20, 1992.
Cleghorn 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Remains of one human individual, mandible identified.
Dagher 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Human remains of at least one person identified, excavation recommended.
Dega & Kennedy 1993	Inadvertent Discovery of Remains	Waikīkī Aquarium	Discovery of unidentified bone fragments, all remains turned over to SHPD.

Reference	Type of Investigation	General Location	Findings
Hammatt & Chiogioji 1993	Archaeological Assessment	16-Acre Portion of the Ala Wai Golf Course	Not associated with any know surface archaeological site, however prehistoric and early historic occupation layers associated with <i>lo'i</i> system remain intact below modern fill. Specific sampling strategy and potential burial testing recommended.
Carlson et al. 1994	Report of Human Remains	Realignment of Kālia Road, Fort DeRussy	Approximately 40 human burials (the majority were recovered in a large communal burial feature& a cultural enriched layer that contained postholes.
Maly et al. 1994	Archaeological and Historical Assessment Study	Convention Center Project Area	Recommend subsurface testing to determine presence or absence of cultural deposits and features.
McMahon 1994	SHPD Burial Report	Intersection of Kalākaua and Kuamo'o Streets	Inadvertent Burial Discovery: misc. bones uncovered in back dirt pile during construction. Follow up by CSH.
Hammatt & Shideler 1995	Sub-surface Inventory Surface	Hawai'i Convention Center Site, 1777 Kalākaua Ave.	No further work recommended.
Jourdane 1995	Inadvertent Discovery of Human Remains	Paoakalani Avenue	Human skeletal remains discovered in planted strip between street and sidewalk fronting hotel.
Simons et al. 1995	Data Recovery Excavations	Fort DeRussy	Historic and prehistoric artifacts, and midden materials collected from 7 occupation layers. 6 prehistoric cultural features recorded: <i>'auwai</i> bunds and channels, fishpond walls and sediments, a possible <i>lo'i</i> , and hearths.
Cleghorn 1996	Inventory Survey	TMK: 2-6-016:23, 25, 26, 28, 61, 69	7 backhoe trenches excavated, no sites located.
Grant 1996	Historical Reference	Waikīkī	Historical information about Waikīkī prior to 1900.
Hammatt & Shideler 1996	Data Recovery	Hawai'i Convention Center Site	No clear evidence that Kuwili Pond sediments present in project area; no further work recommended.
McDermott et al. 1996	Inventory Survey	'Āinahau Estate	Buried remnants of <i>'auwai</i> and <i>lo'i</i> and human burial found. ¹⁴ C dates

Reference	Type of Investigation	General Location	Findings
Denham et al. 1997	Data Recovery Report	Fort DeRussy	Excavations conducted at fishponds, ¹⁴ C dates mid-17th C.
Denham & Pantaleo 1997	Monitoring and Excavations Report	Fort DeRussy	Final Report does not include SHPD recommendations. 10 subsurface features and 9 burial locations found. ¹⁴ C dates
Beardsley & Kaschko 1997	Monitoring and Data Recovery Report	Pacific Beach Hotel Office Annex	Traditional Hawaiian cultural deposits and 2 human burials. 3 ¹⁴ C dates
Hammatt & Chiogioji. 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 & 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., Ala Moana Blvd., & 'Ena 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.
Hammatt & Chiogioji 2000	Archaeological Assessment	Honolulu Zoo Parcel	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.
LeSuer et al. 2000	Inventory Survey	King Kalākaua Plaza Phase II	Site -5796 has been adversely affected by land alteration of the project area. Site -4970, has been adequately documented.
Perzinski et al. 2000	Burial Findings	Kalākaua Ave. between Kai'ulani & Monsarrat Avenues	44 sets of human remains; 37 disinterred, 7 left in place; believed to be Native Hawaiian, interred prior to 1820.

Reference	Type of Investigation	General Location	Findings
Cleghorn 2001 a & b	Mitigation	Burger King Construction Site	Concerning three incidents of uncovered human remains while locating a buried sewer-line for the ABC's store.
Corbin 2001	Inventory Survey	Hilton Waikikian Property	No arch. sites were found during excavations of the area
Elmore & Kennedy 2001	Burial Report	Royal Hawaiian Hotel	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.
McGuire & Hammatt 2001	Cultural Assessment for Waikīkī Beach Walk Project	Along Lewers St., Beach Walk, Kālia Rd. & Saratoga Rd.	Primary cultural concern identified as inadvertent burial discovery. Cultural monitoring recommended for all subsurface work within project area.
Perzinski & Hammatt 2001a	Monitoring Report	Kapi'olani Bandstand	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.
Perzinski & Hammatt 2001b	Monitoring Report	Kapi'olani Park	No cultural layer, artifacts, midden or human burials were encountered during the excavations.
Perzinski & Hammatt 2001c	Monitoring Report	Kalākaua Avenue from the Natatorium to Poni Mo'i Road	No cultural layer, artifacts, midden or human burials were encountered during the excavations.
Rosendahl 2001	Assessment Study	Outrigger Beach Walk	Assessment of previous archaeology and historical literature.
Winieski & Hammatt 2001	Monitoring Report	TMK: 1-2-6-025:000	There is a possibility that Hawaiian or Historic materials as well as human burials may still be present within the project area.
Borthwick et al. 2002	Inventory Survey	71,000 sq. ft. parcel, TMK: 2-6-016:002	No burials were found during testing; absence of dry jaucas sand deposits indicate that burial finds are unlikely in project area.
Bush et al. 2002	Monitoring Report	Kalākaua Avenue, between Ala Moana Blvd. and Kapahulu Ave.	Encountered 4 human burials, probably pre-contact Native Hawaiians; several historic trash pits; entire pig within an <i>imu</i> pit (estimated date, A.D. 1641-1671); gleyed muck associated with former ponds.

Reference	Type of Investigation	General Location	Findings
Calis 2002	Monitoring Report	Lemon Road	No historic deposits, major previous disturbance
Elmore & Kennedy 2002	Monitoring Report	Fort DeRussy	No findings.
Mann & Hammatt 2002	Monitoring Report	Lili'uokalani Avenue and Uluniu Avenue	5 burial finds of 6 individuals; two historic trash pits.
Putzi & Cleghorn 2002	Monitoring Report	Hilton Hawaiian Village	No findings during monitoring of trench excavations for sewer connections.
Winieski, Perzinski, Shideler et al. 2002	Monitoring Report	Kalākaua Ave. between Ka'iulani and Monsarrat Avenues.	44 human burials encountered, 37 disinterred; buried habitation layer identified, with traditional Hawaiian artifacts, midden, firepits, & charcoal; fragment of light gauge rail, remnant of Honolulu Transit trolley system, observed; low energy alluvial sediments associated with the now channelized muliwai Kukaunahi also observed.
Winieski, Perzinski, Souza et al. 2002	Monitoring Report	Kūhiō Beach	Skeletal remains of 10 individuals, six disinterred, only 2 in situ. 4 indigenous artifacts, none in situ. Discontinuous cultural layer, historic seawall.
Bush et al. 2003	Monitoring Report	International Marketplace	Historic trash found.
Tome & Dega 2003	Monitoring Report	Waikīkī Marriot	One isolated not in situ possible human bone fragment found. Recommends monitoring during future work.
Tulchin & Hammatt 2003	Archaeological & Cultural Impact Assessment	2284 Kalākaua Ave.	Notes possibility of burials in the project area; recommends an inventory survey with subsurface testing.
Chiogioji, et al. 2004	Archaeological Inventory Survey	Tusitala Vista Elderly Apartment	SIHP sites -6682, -6705, -6706, and -6707 including human remains, remnants of the Ainahau Estate and agricultural sites
Freeman et al. 2005	Archaeological Inventory Survey	Hobron Lane	Four sites identified during subsurface testing; 1 disturbed burial; 1 coffin burial with two individuals; 1 cultural deposit; and, 1 fishpond sediment

Reference	Type of Investigation	General Location	Findings
O'Hare, Shideler & Hammatt 2005	Archaeological Inventory Survey	Kaio'o Drive	Site 50-80-14-6848, a pre-contact firepit radiocarbon dated to AD 1470-1660, was recorded.
O'Leary, et al. 2005	Archaeological Inventory Survey	1-Acre Parcel, 2284 Kalākaua Avenue (former Waikiki 3 Theater)	1 burial encountered
O'Leary, et al. 2005	Archaeological Assessment	0.5-Acre Royal Kāhili Condo	No significant finds
Bell, and McDermott 2006	Archaeological Inventory Survey	Allure Waikīkī Development (former Wave Waikiki location),	2 human burials and a cultural deposit
Hammatt, and Shideler 2006a	Archaeological Assessment	Two Parcels at the Corner of Kūhiō and Kapahulu Avenues	No significant finds, study area abuts former Ku'ekaunahi Stream (now overlain by Kapahulu Avenue)
Hammatt, and Shideler 2006b	Archaeological Assessment	0.015-Acre Parcel at the Corner of Kūhiō and Kapahulu TMK: 2-6-027:052	No significant finds, study area abuts former Ku'ekaunahi Stream (now overlain by Kapahulu Avenue)

Table 4. References to Burial finds in Waikīkī from the Bishop Museum NAGPRA Inventory

Date	Account	Source
1913	...two individuals from Waikīkī...	FR* page 1; BPBM records indicate this was ID No OA0002 & 0003 from the Sacred Hearts Convent, Waikīkī
1916	...one individual from Waikīkī...	FR* page 2; BPBM records indicate this was ID No OA009 a “sand burial”
1917	“from unknown location in Waikiki”	BPBM records indicate this was ID No OA0012 (no details)
1923	...one individual from the ‘Āinahau district, Waikīkī...	FR* page 2; BPBM records indicate this was ID No OA0018 “found by Hawaiian Dredging Company by dredge Kewalo”
1923	...five individuals from Helumoa, Waikīkī, O‘ahu were collected by Kenneth P. Emory. Museum information indicates they were victims of the 1853 smallpox epidemic...	FR* page 2; BPBM records indicate this was ID Nos OA0019 – OA0023 logged in on October 1923
1926	...one individual from Waikīkī... found during house construction	FR* page 3; BPBM records indicate this was ID No OA0087 from a residence in Waikīkī
1927	...one individual from Waikīkī...	FR* page 3
1950	3207 Noela Drive “Found at rear of donor’s property during excavation	BPBM records indicate this was ID No OA0211 and OA0212
1955	...two individuals from Waikīkī...	FR* page 7; BPBM records indicate this was ID No OA 0315 discovered at the Reef Hotel Waikiki
1957	...nine individuals from Waikīkī...	FR* page 8; BPBM records indicate this was ID Nos OA0391 to OA0402 from Dad Center located along Kalākaua Avenue
1961	...one individual from Waikīkī...	FR* page 8; BPBM records indicate this was ID No OA0419 from 331 Saratoga Avenue
1962	...one individual from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0421 “from sand burial near Reef Hotel”
1963	...five individuals from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0424 “found on Edgewater Drive near Reef Hotel” [it would be atypical for the BPBM to assign one ID No. to 5 burials]

Date	Account	Source
1963	...96 individuals from Waikīkī...[donated by Bowen]	FR* page 9; BPBM records indicate this was ID Nos OA0425 to OA0455 "from Old Outrigger Canoe Club Premises" Note: Bishop Museum records from 1963 specify the finds donated by Robert N. Bowen on January 22, 1963 were from "the <u>Old</u> Outrigger Canoe Club Premises" However the 1/24/63 <i>Honolulu Advertiser</i> article concerns burial finds at the present club location by the Elk's Club.
1964	...four individuals from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0464 "from site on beach in front of old Outrigger Canoe Club" [it would be atypical for the BPBM to assign one ID No. to 4 burials]
1965	"Human remains collected from San Souci Beach, Waikiki"	BPBM records indicate this was ID No OA0633
1966	Two accessions from 2431 Prince Edward Street	BPBM records indicate this was ID No OA0462 & OA0467 from 'ewa side of lot <i>makai</i> of Prince Edward Street
1967	...one individual from Waikīkī...	FR* page 11; BPBM records indicate this was ID No OA0516 from the "Tahiti by Six" at the International Market Place
1970	...eight individuals from Waikīkī...[donated] by the Sheraton Hawai'i Corp....recovered during excavations for tank construction...	FR* page 11; BPBM records indicate this was ID No OA0522 on Sheraton Hawai'i Corp Property logged in on 3/6/1970
1981	...eight individuals from Waikīkī...[donated] by Bertell Davis	FR* page 12; BPBM records indicate this was ID Nos OA0565 to OA0571 "from unknown location in Waikiki; also OA0572 "recovered through archaeological excavation at the Halekulani hotel, Waikiki
1996	...one individual from Waikīkī...acquired during the early 1900s	FR* page 14

FR* = Federal Register January 28, 1998 (Volume 63, Number 18)

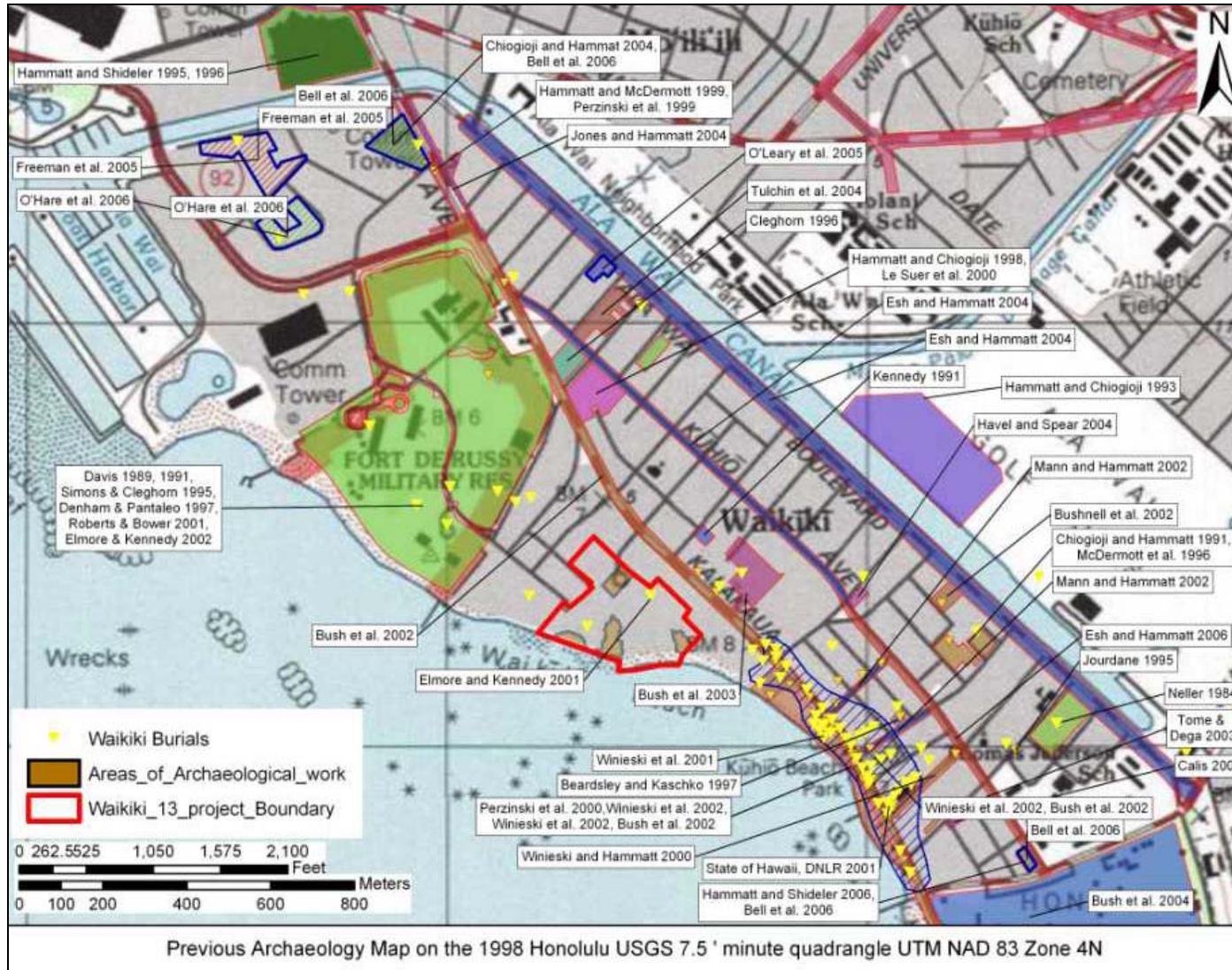


Figure 21. Previous Archaeological Work in Waikīkī, focusing on locations of burials

according to John Papa 'Ī'ī, Kamehameha placed at Papa'ena'ena the remains of an adulterer - "all prepared in the customary manner of that time" ('Ī'ī 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 hoolewa 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 according to Yost (1971: 28). Apparently, no formal archaeological report on the burials was produced.

BPBM records show thirtyone accessions of human remains (ID Nos OA0425 to OA0455) donated by Robert N. Bowen on January 22, 1963 stating that they were all from "the Old Outrigger Canoe Club Premises" which suggests the former location by the Royal Hawaiian Hotel. However the 1/24/63 *Honolulu Advertiser* article concerns burial finds at the present club location by the Elk's Club. The *Federal Register* of January 28, 1998 (Volume 63, Number 18 page 4281) asserts that: "In 1963, human remains representing 96 individuals from Waikiki O'ahu were collected and donated to the Bishop Museum by Robert N. Bowen. There is a mystery here. The *Honolulu Star-Bulletin* and Yost accounts speak only of mass burials at the present Outrigger Canoe Club Premises (by the Elks Club) while the Bishop Museum records speak only of mass burials at the old Outrigger Canoe Club Premises (by the Royal Hawaiian) and the Federal Register provides no location data within Waikiki but gives a significantly greater number of individuals (96) than suggested in the Yost history of the Outrigger (which specifies 27 burials). Given the close relationships of the dates of the report of Bowen's work on multiple burials at the present Outrigger Canoe Club (Jan. 24, 1963) and the date of accession of remains at Bishop Museum (Jan. 22, 1963), and noting that there is no account in the Bishop museum records of remains from the "new: Outrigger Canoe Club location. it appears most

likely to us that all of the burials reported were actually from the present “new” Outrigger Canoe Club location. This remains uncertain.

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 that 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:i). 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 beachfront 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, Hurlbett 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 postholes.

In 1993, during construction activities at the Waikīkī Aquarium, directly adjacent to the present project area, 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 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 'Ōhua 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). These discoveries were the closest to the current project area on the *makai* side of Kalakaua 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 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 Ka'iulani and 'Ōhua Avenues (Winieski 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 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.

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 '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 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 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 State Site number(s) be assigned to these three previously disturbed burials. The only primary in situ burial encountered on Uluniu Avenue was assigned State Site #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 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 Lipe'epe'e Street. Four historic properties were documented in the survey including human remains a cultural layer and a fishpond remnant.

In 2005 Cultural Surveys Hawai'i conducted an archaeological inventory survey of a 72,135 square foot (1.67 acre) project area on Kaio'o Drive (TMK: [1] 2-6-012: 37, 38, 39, 40, 41, 42, 43, 44, 55, 56, 57) (O'Hare et al. 2005). One. Site 50-80-14-6848, a pre-contact firepit radiocarbon dated to AD 1470-1660, was recorded.

In summary, past archaeological research, from the beginning of the twentieth century to the present has produced evidence that traditional Hawaiian cultural deposits, historic trash deposits, and, most notably, human burials, do exist throughout the breadth of the Waikīkī area.

Burials reported from outside the present project area but in the immediate vicinity include: 4 individuals "from site on beach in front of old Outrigger Canoe Club" *Federal Register* January 28, 1998 Volume 63, Number 18 page 9; BPBM records indicate this was ID No OA0464), 8 sets of human remains from Moana Hotel renovations (Simons et al. 1991), human remains from near the International Market Place (Bishop Museum records for 1967, Bush et al. 2003), and human remains at the former Waikiki 3 Theater location (O'Leary, et al. 2005).

Three areas of very high densities of burials have been previously reported from Waikīkī: in 1963 from the present Outrigger Canoe Club (apparently 96 burials – but see discussions above), in 1993 in a large communal burial feature uncovered during the realignment of Kālia Road at Fort DeRussy (approximately 40 human burials, Carlson et. al. 1994) and during a Kalākaua Avenue water line project near the intersection with Kealohilani Avenue (18 burials; Perzinski et

al. 2000). It seems probable that additional areas with a high density of burials will be encountered in the future.

4.1 The Present Project Area

4.1.1 Finds During the Construction of the Royal Hawaiian Hotel 1923

It is widely assumed that at the time of the construction of the Royal Hawaiian Hotel that many human burials and other archaeological finds were encountered. Kanahale (1995:99) writes of an “*ulu maika* course was part of the royal sports complex of Kahuamokomoko in Helumoa” and states that: “When excavations for the Royal Hawaiian Hotel were made in the early 1920s many *ulu maika* discs were found.”

It seems highly probable that the “five individuals from Helumoa, Waikīkī, O‘ahu” that were collected by Kenneth P. Emory of the Bishop Museum in October of 1923 and reported as “victims of the 1853 smallpox epidemic” came from construction related to the Royal Hawaiian Hotel. (*Federal Register* January 28, 1998 Volume 63, Number 18 page 2; BPBM records indicate this was ID Nos OA0019 – OA0023)

4.1.2 Finds During the Construction of the Sheraton 1970

It seems highly probable that “...eight individuals from Waikīkī...[donated] by the Sheraton Hawai‘i Corp.... recovered during excavations for tank construction... in March 1970 were indeed associated with the initial construction of the hotel (*Federal Register* January 28, 1998 Volume 63, Number 18 page 11; BPBM records indicate this was ID No OA0522 found on Sheraton Hawai‘i Corp Property logged in on 3/6/1970)

4.1.3 Discovery of Human Remains at the Sheraton Waikiki Basement (Accounting Department) C. 1993

Consultation with various parties confirms a previous discovery of human remains in the southeast corner of the Sheraton Waikiki building, c. 1993, during work on a sewer line in the basement of the accounting department. The discovery of human remains is understood as involving only one human female forearm. It appears that the bone was found within approximately 6” of the sewer pipe and had been disturbed during initial construction of the Sheraton. We understand the bone was re-interred on the east side of the Sheraton Waikiki building near the Grand Staircase and that a prominent reddish colored basalt boulder marker observed present there denotes the re-interment location. The remains will be protected from any disturbance during the inventory survey.

4.1.4 Elmore and Kennedy 2001 Burial

In April 2001 human remains were inadvertently disturbed during excavations associated with the construction of a spa at the Royal Hawaiian Hotel (Elmore and Kennedy 2001; Figures 22 & 23). 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 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 artefacts associated with it. The associated artefacts included one shell button found in-situ and three more shell buttons found in the disturbed material. A single drilled dogtooth was also found during excavation but could not be positively associated with the burial site.

The Elmore and Kennedy (2001:9) study relates:

One of the landscaping employees reported having encountered human remains in a nearby location twenty years ago while digging a hole to plant a tree. He indicated that upon encountering the remains, he dug the hole much deeper, and placed the remains at the base of the pit before planting the tree. The tree is no longer extant, though its roots could be seen at the time of the current [2001] investigation.

No further information has been identified regarding these additional remains “in a nearby location”. As a generalization, there is a higher likelihood of additional burials in the vicinity of post-contact burials (as in the case of Site 50-80-14-5937) than in the vicinity of pre-contact burials.

4.1.5 Recent Royal Hawaiian Hotel Vicinity Finds

A recent OHA letter (Nāmu‘o September 15, 2004) has noted that subsequent to that discovery a human skull was turned in to the Burial Sites Program of the State Historic Preservation Division by an anonymous donor. The OHA letter (Nāmu‘o September 15, 2004) recommended that the question of the provenience of these *iwi* should be pursued. To address this directive, Cultural Surveys Hawai'i researched the prior holdings of human remains in Bishop Museum osteological catalogs and met (on 2/17/05) with Ms. Lurline Salvadore formerly of the Kamehameha Schools' staff and a former representative to the O'ahu Island Burial Council. Ms. Salvadore did confirm that it was also her understanding that several sets of remains discovered during the prior re-development of the Royal Hawaiian Shopping Center (perhaps c. 1979) were indeed re-interred in the Hali‘a Aloha Kūpuna re-interment facility constructed near the entrance to the Honolulu Zoo. Study of Bishop Museum records, however, did not reveal any accession numbers relating to this location and time frame. Thus the history of previous discoveries of human remains within the area remains something of a mystery.

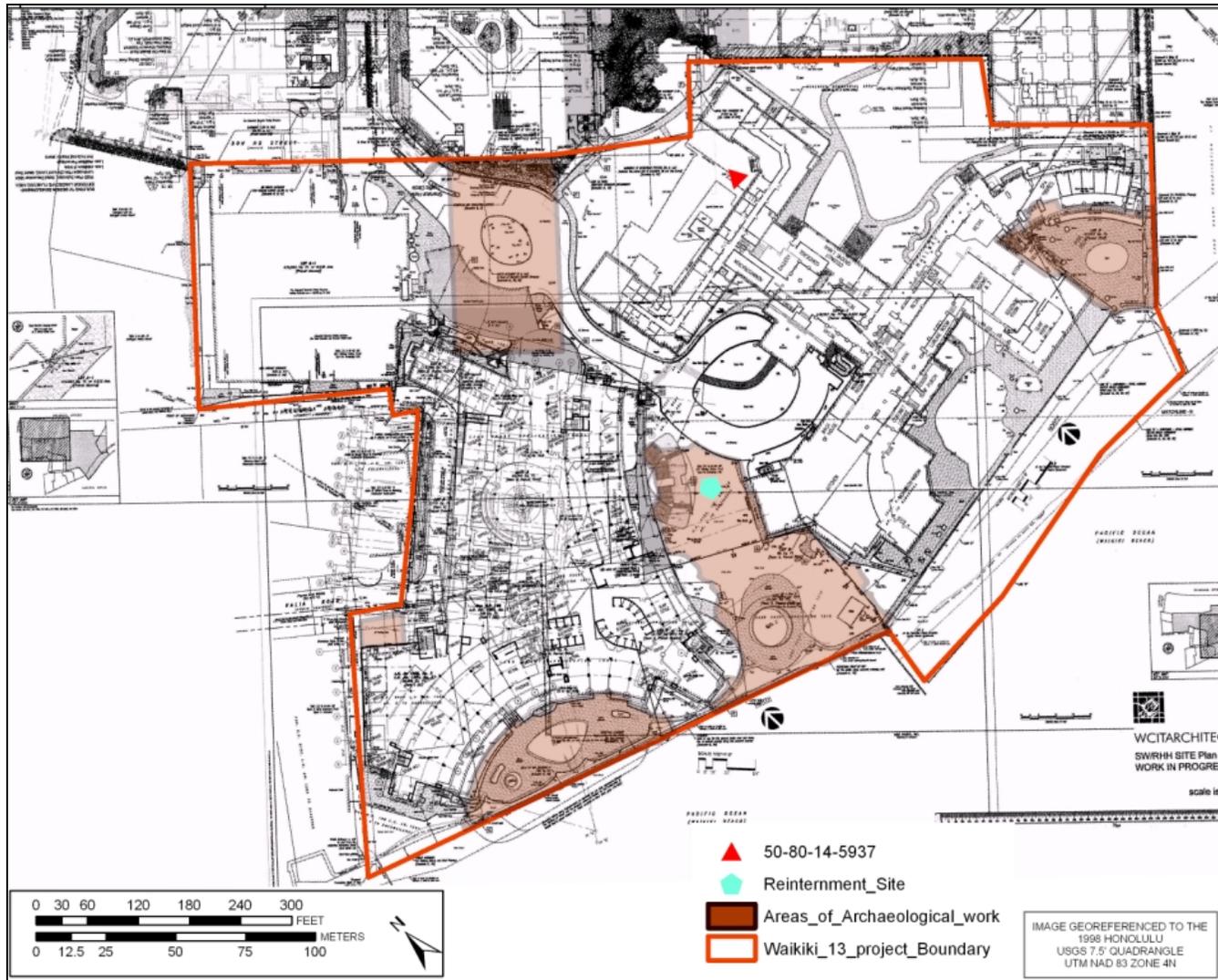


Figure 22. Site plan showing the approximate location of SIHP # 50-80-14-5937 (human remains) within the SW/RHH property

Section 5 Community Consultation Process

Consultation has already taken place with the Office of Hawaiian Affairs (OHA), the State Historic Preservation Division, and Kamehameha Schools. In the OHA letter 2006 there were two specific requests:

- 1) That an archaeological inventory survey plan be prepared (present study), and
- 2) That in the event *iwi kūpuna* or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Continuing consultation shall occur in the course of the Archaeological Inventory Survey and the consultation process will be summarized within the Archaeological Inventory Survey report as per HAR 13-276-5 (g).

At the time of submitting this plan preliminary consultation with OHA, the State Historic Preservation Division, and Kamehameha Schools has not indicated a need for further consultation in advance of any discoveries or the completion of a draft Archaeological Inventory Survey study. However, the owners recognize the sensitive nature of any undertaking in Waikīkī and will continue consultation with OHA, the State Historic Preservation Division, Kamehameha Schools and Native Hawaiian families and individuals throughout the planning for this project and the actual renovation work. Consultation with the O'ahu Island Burial Council is anticipated.

Section 6 Background Summary and Predictive Model

This study has served to highlight a dozen or more concerns for possible cultural resources within the five areas in which renovation work may potentially adversely impact cultural resources. Indications of possible cultural resources identified in the historic record include the following:

- The common place name for this area “Helumoa” is translated as “chicken scratch” with the provided explanation that “Chickens scratched to find maggots in the victim’s body” in reference to the remains of human sacrifices at the Helumoa Heiau (Pukui et al. 1974:44). We know of no maps showing the precise location of Helumoa Heiau. Thomas Thrum (1906:44) relates that it was a “place of sacrifice” going back at least as far as A.D. 1610. Later Thomas Thrum (1927:34) would note: “This temple was long ago demolished, not a stone being left to mark the site, which was doubtlessly near, if not *the* [italics in original] actual spot now graced by the new Royal Hawaiian Hotel.” It seems most likely to us that the Helumoa Heiau was located on the prominent point between the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work. This suggests a heightened probability of human remains in all the proposed areas of work but in particular in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of renovation work.
- Assertions that the royal residence of the ruling chiefs Kahekili and Kahahana before him, and perhaps previous O‘ahu ruling chiefs were located between the Royal Hawaiian Shopping Center and the Royal Hawaiian Hotel. (‘I‘i 1959:17; Kanahele 1995:134). This area includes the North Sheraton proposed area of renovation work.
- Fornander’s (1919 Volume VI, part 2; page 289) account of “The Story of Kahahana” provides the detail that (circa 1785) the massive invasion force of the Maui chief Kahekili was encamped at ‘Āpuakēhau, where they were organizing and preparing to march inland. Furthermore, it was there at ‘Āpuakēhau that the O‘ahu forces first attacked “the Maui troops collected at the *heiau*.” There “a fight commenced to which Hawaiian legends record no parallel”. (Fornander 1919 Volume VI, part 2; page 289). It appears clear that the fighting referred to began in close proximity to Helumoa Heiau. It seems most likely to us that the Helumoa Heiau was located on the prominent point between the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work. This suggests a heightened probability of human remains in all the proposed areas of work but in particular in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work
- ‘I‘i provides more specific data in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 declaring that “Kamehameha himself lived on this land.” [between the Royal Hawaiian Shopping Center and the Royal Hawaiian Hotel] (Appendix A-2). This LCA 228 area includes the North Sheraton proposed area of work.
- ‘I‘i comments in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 that relatively high status attendants of Kamehameha 1 (“Their work was taking care of the house and preparing the food. These people were in constant contact with

the chiefs and were close to each and every chief”) continued to live on the property when Kamehameha I died. (‘Ī‘Ī, Appendix A-2)

- Kanahale (1995:99) writes of an “*‘ulu maika* course that was part of the royal sports complex of Kahuamokomoko in Helumoa” and states that: “When excavations for the Royal Hawaiian Hotel were made in the early 1920s many *‘ulu maika* discs were found.” indicating the prospect for further finds in the general vicinity.
- Land Commission Awards (summarized in Table 1) indicate a pattern of relatively dense, relatively high status habitation within the project area lands particularly in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work but also in the West Sheraton (grease interceptor) and North Sheraton proposed areas of work
- Reference in the October 1923 records of the Bernice Pauahi Bishop Museum that “...five individuals from Helumoa, Waikīkī, O‘ahu were collected by Kenneth P. Emory. Museum information indicates they were victims of the 1853 smallpox epidemic...” (*Federal Register* January 28, 1998 Volume 63, Number 18). Given that the Royal Hawaiian was not opened until February 1 1927 it is not clear to us that these remains were from construction of the Royal Hawaiian. Regardless the Helumoa remains could not have been recovered from very far away. The rationale for Emory’s association of the remains with the smallpox epidemic are not known to us at this time. Because of the nature of the disease small pox burial grounds could include many sets of remains indicating the prospect for further finds in the general vicinity.
- Reference in the 1970 records of the Bernice Pauahi Bishop Museum that: “...eight individuals from Waikīkī...[donated] by the Sheraton Hawai‘i Corp....recovered during excavations for tank construction...”. This would appear to relate to the original work at the Sheraton Waikiki that was completed in 1971. This suggests a heightened concern for the North Sheraton and South Sheraton proposed areas of work but also indicates the prospect for further finds in the general vicinity.
- The understanding that several sets of remains were discovered during the prior re-development of the Royal Hawaiian Shopping Center (perhaps c. 1979) (personal communication from Ms. Lurline Salvadore formerly of the Kamehameha Schools’ staff).
- The apparent discovery of human remains c. 1993 (personal communication from Mr. David Lee) during work on a sewer line in the basement of the accounting department of the Sheraton Waikiki just northwest of the South Sheraton area of proposed work indicating a heightened probability of finds in this area. We believe these remains were relocated to the Southwest Royal Hawaiian area of proposed work.
- This discovery of human remains (that still remain in place in the North Royal Hawaiian Hotel proposed area of work (SIHP # 50-80-14-5937) in April 2001 during excavations associated with the construction of the Abhasa Spa at the Royal Hawaiian Hotel (Elmore and Kennedy 2001). The Elmore and Kennedy (2001:9) study relates an anecdotal account of additional remains “in a nearby location”. As a generalization,

there is a higher likelihood of additional burials in the vicinity of post-contact burials (as in the case of Site 50-80-14-5937) than in the vicinity of pre-contact burials.

- The substantial history of archaeological work in Waikīkī has indicated a relatively high density of burials within Beach sand and Jaucas sand deposits such as constitute the soils in the entire project area. Much of Waikīkī was formerly quite low-lying, at or close to the water table. Lands that were slightly higher, such as the present project area were preferentially chosen for interment of the dead.

In view of the twelve points enumerated above it seems that close co-ordination with the State Historic Preservation Division and other concerned parties is appropriate. The present study amounts to a good faith effort to compile evidence of the likelihood of historic properties underlying the areas of potential ground disturbance and matters for concern are indicated.

The presence of possible historic properties does not however mean that the project related ground disturbance will encounter any. The probability of encountering historic properties is, as a sweeping generalization, directly related to the extent of disturbance of intact cultural deposits.

Section 7 Research Design

7.1 Personnel

Fieldwork for the Archaeological Inventory Survey will be carried out under the supervision of principal investigator Hallett H. Hammatt, Ph.D. It is anticipated that a field crew of four archaeologists will be utilized over eight days. Although the exact composition of the field crew is uncertain at this time, likely field crew members include: David W. Shideler, M.A., Todd Tulchin, B.S., and Connie O'Hare B.A..

7.2 General Approach

The potential for human remains and/or other significant cultural finds within natural, relatively undisturbed soil deposits of the project area seems clear (see Background Summary and Predictive Model Section 6). However, what remains unclear is the extent to which the proposed project will impact natural, relatively undisturbed soil deposits. Thick fill deposits, in excess of 2 meters thick, are believed to be extant in some portions of proposed work areas. Extensive importation of fill will also be part of the proposed work. Most (possibly all) of the proposed improvements will occur entirely within fill deposits. Appendix B of this study presents pre-renovation and anticipated post-renovation elevations supplied by the project architects for three areas: 1) the proposed new porte cochere (north Royal Hawaiian), 2) the proposed new fantasy pool (southwest Royal Hawaiian) and 3) the proposed infinity pool (south Sheraton) areas. These plans indicate little if any impact into undisturbed native soil deposits. Cross-section analysis at the new fantasy pool (southwest Royal Hawaiian) indicates a maximum excavation depth below existing grade of approximately 70”.

Given this scenario of minimal construction impact into natural, relatively undisturbed soil deposits we are recommending a conservative approach to the archaeological inventory survey with the fieldwork limited to those areas (both geographically and vertically) in which impact on cultural resources may occur. No one wants to disturb burials and/or other cultural resources unnecessarily if they will not be impacted by the proposed renovation work. To the extent that we can define the exact area of construction-related ground disturbance (both in terms of area and depth) through detailed plans and co-ordination with project architects and engineers we will confine the inventory survey testing to those areas. We see no reason to venture into areas that will not be disturbed in the renovation work.

Unfortunately at this time the extent of project-related impacts into natural, relatively undisturbed soil deposits, if any, is less than totally clear. The section of the inventory survey plan that deals with field methods and sampling will detail specific areas and the number of auger test holes and square meter excavations and specific depths to be investigated. However this needs to be qualified as follows. It could be that all of the subsurface renovation work will be entirely within fill deposits. If the initial testing in each of the proposed testing areas determines that all ground disturbance for construction will take place in fill then there will be no necessity for further testing in those areas.

7.3 Preliminary Consultation with the SHPD Regarding Sampling Strategy

On April 9 2007 preliminary face-to-face consultation was held between project proponents and Ms. Melanie Chinen, State Historic Preservation Division administrator and Mr. Adam Johnson, SHPD O'ahu archaeologist regarding the nature of the proposed renovation work and the proposed sampling strategy. No commitments were expected or were received from the SHPD regarding the proposed sampling strategy. Mr. Johnson stated that the number of auger holes might need to be increased. As a result of this consultation the number of proposed auger holes has been doubled in the area of the proposed free-form water feature ("fantasy pool") with an increase in the total number of proposed auger test holes from nine to fourteen. As a follow-up to that meeting the renovation team will be submitting to the SHPD additional, supplementary information indicating areas to be filled and the depth of the fill to serve as a guide for the determination of appropriate action.

7.4 Proposed Sampling Strategy

There are five specific areas proposed for renovation that may involve subsurface impacts. Two of these areas (South Sheraton and East Royal Hawaiian Hotel) are not suggested for testing during the archaeological inventory survey. In the case of the East Royal Hawaiian Hotel area, this is believed to have been very close to the mouth of the 'Āpuakēhau Stream *muliwai* or lagoon backwater and is thought to be the least sensitive of the five proposed renovation areas. This area is thought to have been open water or a shifting sand bar into the 20th century. Both the South Sheraton and East Royal Hawaiian Hotel renovation areas are quite developed with actively used swimming pools, paved decks and amenities (Figures 24 & 25). Any attempt at excavation in these areas under present conditions would be problematic both in terms of impact to on-going hotel operations and because of physical impediments to the excavation work. Below is a discussion of the proposed field methods and sampling approach for the three specific areas for Archaeological Inventory Survey testing.

7.5 Field Methods

A 100 percent pedestrian inspection of the project area has already been undertaken to confirm that there are no surface historic properties (other than the Royal Hawaiian Hotel itself). Accordingly, the archaeological inventory survey will focus on a program of subsurface testing to locate any buried cultural deposits, which based on the results of background research, CSH expects to find beneath a layer of modern fill. Work will begin with a posthole-digging program followed up with hand excavation of 1-square-meter units (discussed in Section 7.5.3 below).

7.5.1 Posthole-Digging Methodology

We have good reason to believe that thick fill deposits overlie certain portions of the areas for proposed renovation work. A primary purpose of the posthole-digging program will be to document the nature and thickness of fill deposits as well as to prospect for likely areas of cultural deposits. The use of a common posthole digger is actually suggested to be more likely



Figure 24. Photograph of South Sheraton area of work, showing intensively used swimming pool and paved deck in area of proposed renovation, view to east



Figure 25. Photograph of East Royal Hawaiian Hotel area of work, showing intensively used swimming pool and paved deck in area of proposed renovation, view to east/southeast

to yield meaningful results than smaller diameter augers and also minimizes compaction within the sample.

The proposed approach is to use a post-hole digger to excavate 14 placed holes to a proposed maximum depth of 1.8 m (5.9 feet). Three of these post-hole excavations would be spaced at the North Sheraton project area within the existing landscaped round-about. Ten of the post-hole excavations would be spaced at the Southwest Royal Hawaiian hotel project area within the area proposed for a free-form pool water feature. One auger test would be conducted at the proposed grease trap location. The proposed maximum depth is based on the understanding that proposed reconstruction work would not exceed this depth below the present ground surface (except in the case of the grease trap).

The stratigraphy will be documented within these post-hole excavations with particular focus on documenting the depth of fill. If the fill is terrigenous sediment overlying in-situ marine sand soils the determination of the thickness of the fill should be straight-forward. The results of the auger testing will inform and guide the determination of locations for subsequent hand excavated 1-m² excavations.

7.5.2 Consideration of Results of Geotechnical Testing

Present plans call for geotechnical testing work consisting of 5 bore hole scattered over the grounds of the Royal Hawaiian and Sheraton Waikiki hotels (Figure 26). Present plans are for this geotechnical testing work to be subject to an archaeological monitoring program. If the geotechnical testing is completed prior to the archaeological inventory survey fieldwork then the results will be taken into consideration in the specific locating of archaeological inventory survey test excavations. The results of geotechnical borings may prompt re-evaluation of the posthole-digging approach. Any deviation from the terms of this plan will only follow discussion with the SHPD.

7.5.3 1 m² Excavation Methodology

One-meter square units will be excavated in those areas in which the results of posthole excavations indicate undisturbed sediments within 50 cm (20 inches) of the proposed base of renovation excavations. These hand excavations may utilize shovels within fill layers and will be carried out by trowel and standard archaeological methodology within in-situ soils. At this point it is unclear whether this will be thirteen 1-m² excavations or significantly less. The proposed 1-m² hand-excavation units may need to be larger, pending the results of these excavations, in consultation with the SHPD.

The stratigraphy in each excavation unit will be drawn and photographed. The sediments will be described for each of the excavation units using standard 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. Where pits or other cultural features may be exposed, these will be carefully represented on the excavation unit profile. Feature documentation will include profiles and/or plan views, collected samples, stratigraphic descriptions, and photographs. When exposed in plan view within excavation units, pit features will be drawn and sampled.

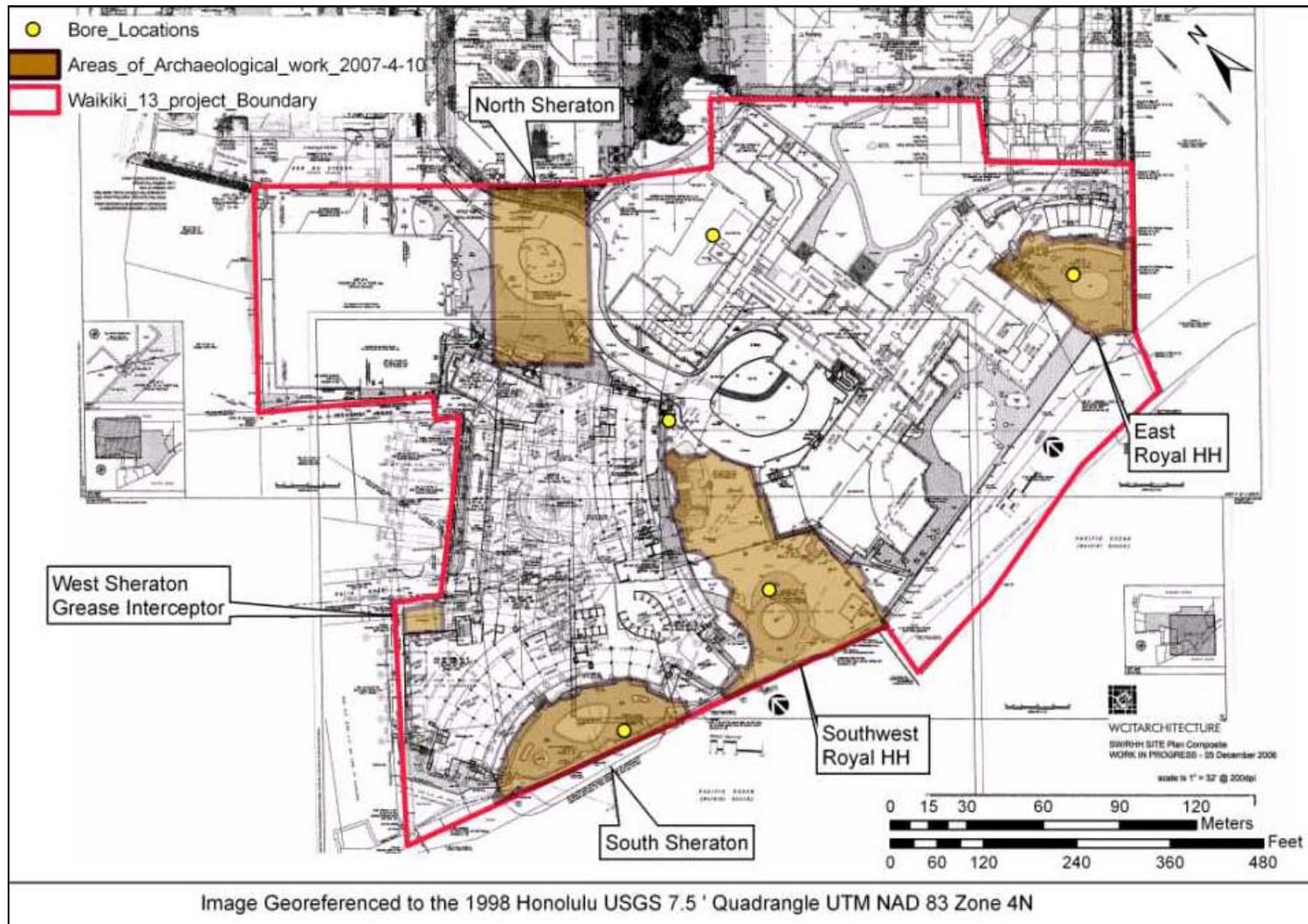


Figure 26. Site Plan showing SW/RHH property, areas of proposed work and overlay of proposed geotechnical testing locations

If any significant archaeological or historical finds are discovered, SHPD will be informed immediately. If any significant historic properties are found they will be treated in accordance with a program approved by the SHPD.

Unavoidably, excavation through sand, even by hand, may result in the partial disturbance of human remains. If human burials are discovered, the SHPD archaeology branch and burials program will be notified immediately. In the event that human remains are encountered, they shall be treated as previously identified under Hawai'i Administrative Rule (HAR) 13-300-31(b). Relocation or preservation in place will be determined by the State Historic Preservation Division in consideration of the recommendations of the O'ahu Island Burial Council. If human remains are identified, they shall not be disturbed further, no further work will take place, including no screening of back dirt, no cleaning and/or excavation of the burial area, and no exploratory work of any kind unless specifically requested by the SHPD.

Skeletal element inventory forms, plan view and profile drawings, and written descriptions will be prepared to document any burials if so directed by the SHPD. Burial and any other significant feature locations will be recorded with GPS (sub-meter horizontal accuracy). This Archaeological Inventory Survey Plan does not propose any additional treatment of human remains, other than documentation of archaeological context. A Burial Treatment Plan will be prepared as appropriate.

In consultation with the SHPD, in order to delineate any burial areas, additional excavation units may be excavated on four sides of the initial discovery to search for additional burials in the vicinity. This may include conducting a square "block excavation" of at least 9 m² (i.e., a square with sides measuring 3 meters) centered on any burial find, in consultation with the SHPD, and pending prior written consent. As appropriate, plan views will be prepared to record horizontal provenience of finds, such as burials or pit features associated with a cultural layer.

Activities of the undertaking in the vicinity of the discovery of human remains may move forward if an accepted Burial Treatment Plan has been approved or in the event that SHPD has agreed to permit the undertaking to proceed with appropriate interim protective measures.

The sampling of subsurface cultural layers and/or A horizons will be carried out to characterize the cultural content of these layers. Sampling may also help establish the general time frame of their deposition (prehistoric/traditional Hawaiian, and/or historic, and/or modern). The sampling will be undertaken on both pit features associated with the stratigraphic layer, and "sample areas" taken from the portion of the stratigraphic layer that was not part of a particular cultural feature. The distinction between samples from pit features and sample areas is hoped to reflect the difference in cultural material content between sediment from specific events, such as the excavation and use of a pit, and the more general accumulation of sediment as part of a culturally enriched stratigraphic layer.

Pit features will be identified and labeled as distinct protuberances of the culturally enriched layer down into the underlying culturally sterile layer. These pit features will be given Roman letter designations within each excavation unit area. Pit features will be distinguished in excavation unit profiles and plan views by their shape, content, distinctness and degree of protrusion below the lower boundary of the overall cultural layer.

Samples from pit features and sample areas will be excavated out of the sidewall, or from the base of the excavation if exposed in profile, into five gallon (c. 20 liter) buckets. The sediment will then be screened through 1/8-inch (3.2 mm) mesh and all cultural materials collected, bagged by provenience, and returned to the laboratory. During the collection of cultural material from the screen, careful attention will be made to distinguish between water-rounded, bleached sedimentary shell, and the unbleached, unrounded, often relatively freshly broken shell derived from human activity. The volume of each screened sample, usually between two and ten gallons (7.5 to 38.0 liters) will be recorded so that comparisons can be made between samples.

The location of each of the excavation units will be recorded using a Trimble Pro XR mapping grade GPS unit with a TSCI Datalogger and real-time differential correction. This unit provides sub-meter horizontal accuracy in the field. GPS field data will be post-processed, yielding horizontal accuracy between 0.5 and 0.3 m. GPS location information will be converted into GIS shape files using Trimble's Pathfinder Office software, version 2.80, and graphically displayed using ESRI's ArcGIS 9.1.

7.5.4 Proposed Base of Excavation

The proposed base of excavation for the 1-m² excavations is 50 cm below the understood impact of renovation related ground disturbance. There are three reasons for this departure from normal Archaeological Inventory Survey procedures: 1) Most, possibly all renovation ground disturbance will be entirely within present fill deposits or fill to be imported as part of the renovation work. 2) There is a desire not to adversely impact cultural resources that will not be impacted by the proposed renovation project work, and 3) In some cases (specifically at the Southwest Royal Hawaiian Hotel area) fill deposits in the vicinity of two meters thick may be encountered creating difficulties for safe excavation at depth without significantly expanding the area of ground disturbance.

7.5.5 Proposed Testing Southwest Royal Hawaiian Hotel Area

The Southwest Royal Hawaiian Hotel area of work consists of a swimming pool and paved deck on the seaward end and an adjacent, large lawn extending inland (Figures 27 & 28). This is understood as the locus of Land Commission Awards (LCA) 1782 to Kahope and LCA 228 to Kaleiheana with many houses located in the immediate vicinity circa 1846 and probably for some time before that. The Helumoa Heiau may have been located close by.

Subsurface testing in this area would be within the seaward portion of the lawn, where fill deposits may be thinner and the proposed water feature pool may possibly impact natural, relatively undisturbed soil deposits (Figure 29). The test locations would be spaced out but would be outside of the heavily utilized existing round pool and deck. Ten auger holes are proposed for this area during the archaeological inventory survey testing. One geotechnical test excavation (location 4 on Figure 26) is to take place in this area. If the geotechnical testing has already been completed, the locating of the five auger holes will take the results into account.

The determination on whether to follow-up with the excavating of up to five 1-m² excavation units in the Southwest Royal Hawaiian Hotel area of work will depend on the determination of the thickness of fill and further clarification on the depth of disturbance below the present ground surface of renovation project work. If the fill is in excess of a meter deep then mechanical



Figure 27. Photograph of Southwest Royal Hawaiian Hotel area of work, showing swimming pool (reddish boulder noted in text was to the left of the banyan tree), view to north,



Figure 28. Photograph of Southwest Royal Hawaiian Hotel area of work, showing manicured lawn, view to south/southwest

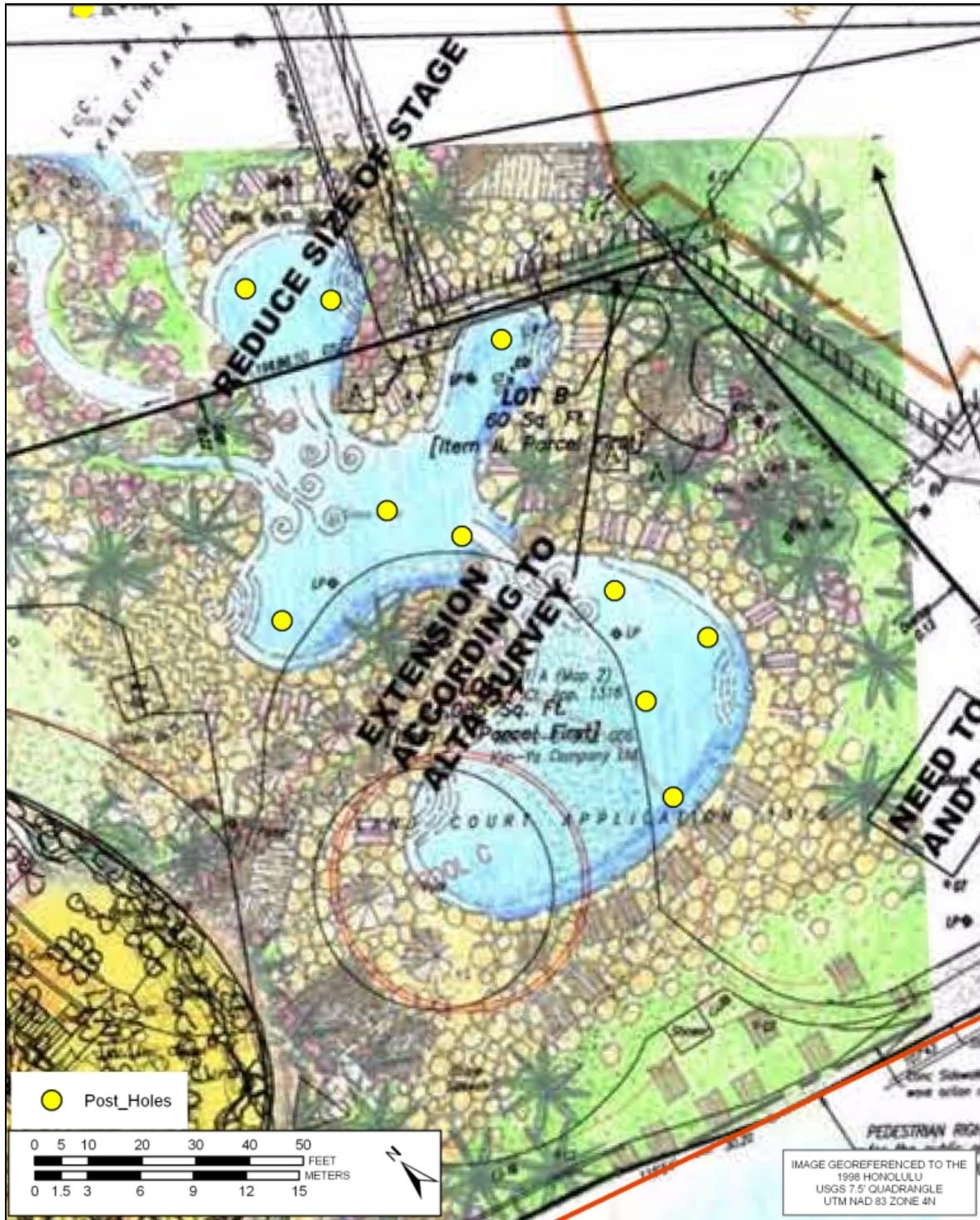


Figure 29. Portion of Renovation plans for the Southwest Royal Hawaiian Hotel area. Archaeological inventory survey testing is proposed for the area of the free-form pool outside the existing round pool and deck

removal may be indicated. This proposed archaeological inventory survey testing should cause minimal disturbance to on-going hotel operations in the immediate area.

7.5.6 Proposed Testing North Sheraton Area

The North Sheraton area of work consists primarily of asphalt-paved roads, a portion of the Sheraton Waikiki reception area, and a small circular landscaped median (Figures 30 & 31). This area is understood to have been part of Land Commission Award 228 to Kalaiheana (Kaleiheana), that has been suggested to have included certain royal residences.

The small circular landscaped median is the only location where potential subsurface testing would cause minimal disturbance to the existing architecture surrounding the immediate area.

The determination on whether to follow-up with the excavating of up to three 1-m² excavation units in the North Sheraton area of work will depend on the determination of the thickness of fill and further clarification on the depth of disturbance below the present ground surface in the renovation project work. This archaeological inventory survey testing should cause minimal disturbance to on-going hotel operations in the immediate area.

7.5.7 Proposed Testing Grease Trap/Interceptor

The proposed new grease trap installation is understood to involve excavation of a hole approximately 10 feet by 20 feet by 9 feet deep. The proposed approach here is to saw cut through the asphalt and carry out auger testing (Figure 33). If undisturbed sandy sediments are indicated then a 1-m² excavation will be carried out. Because of the somewhat out of the way location on the west side of the Sheraton Waikiki this archaeological inventory survey testing should cause minimal disturbance to on-going hotel operations.

7.6 Laboratory Methods

Following the completion of fieldwork, all collected materials will be analyzed using current standard archaeological laboratory techniques. Historic materials collected in the field will be returned to the CSH laboratory, washed, examined, and, as appropriate, photographed. Historic artifacts will be identified using standard reference materials and the resources available over the internet (Elliot and Gould 1988; IMACS 1992; Lebo and Wall 1997; Leidemann 1988; Bureau of Land Management 2004).

Traditional Hawaiian materials collected from the identified subsurface cultural layers will be sorted, identified, measured, and quantified. Marine shell will be identified using standard comparative reference works (Kay 1979; Morris 1966). CSH personnel will identify vertebrate material.

In general, artifact analysis will focus on establishing, to the greatest extent possible, material type, formal/function type, cultural affiliation and/or age of manufacture. A comprehensive catalogue of all collected cultural material will be prepared and included with the report as Appendix A.



Figure 30. Photograph of North Sheraton area of work, showing paved roads and existing portecochere, view to west/southwest



Figure 31. Photograph of North Sheraton area of work, showing landscaped traffic island, view to northwest

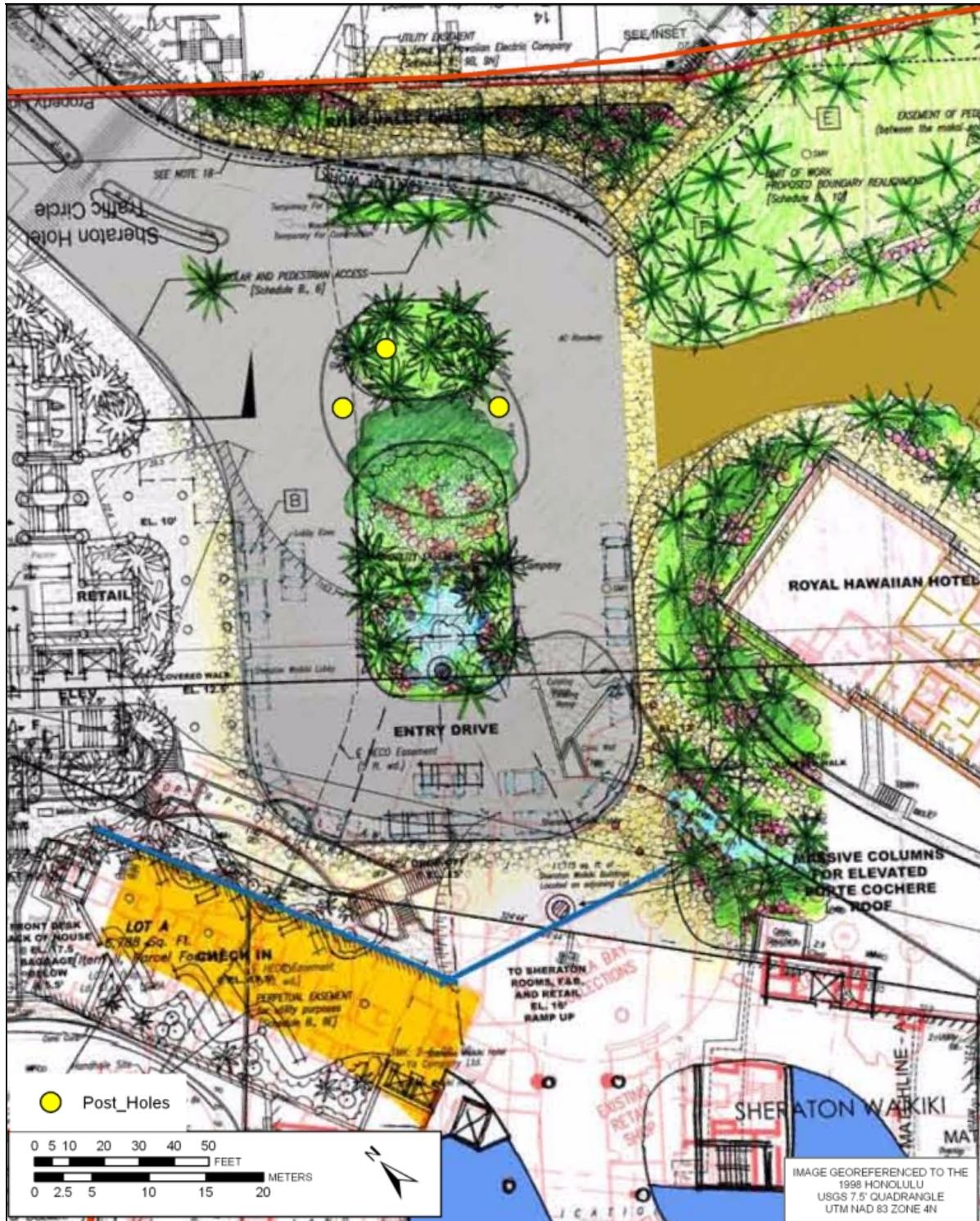


Figure 32. Portion of Renovation plans for the North Royal Hawaiian Hotel area of work. Archaeological inventory survey testing is proposed for the north area of the existing traffic island that will become asphalt driveway

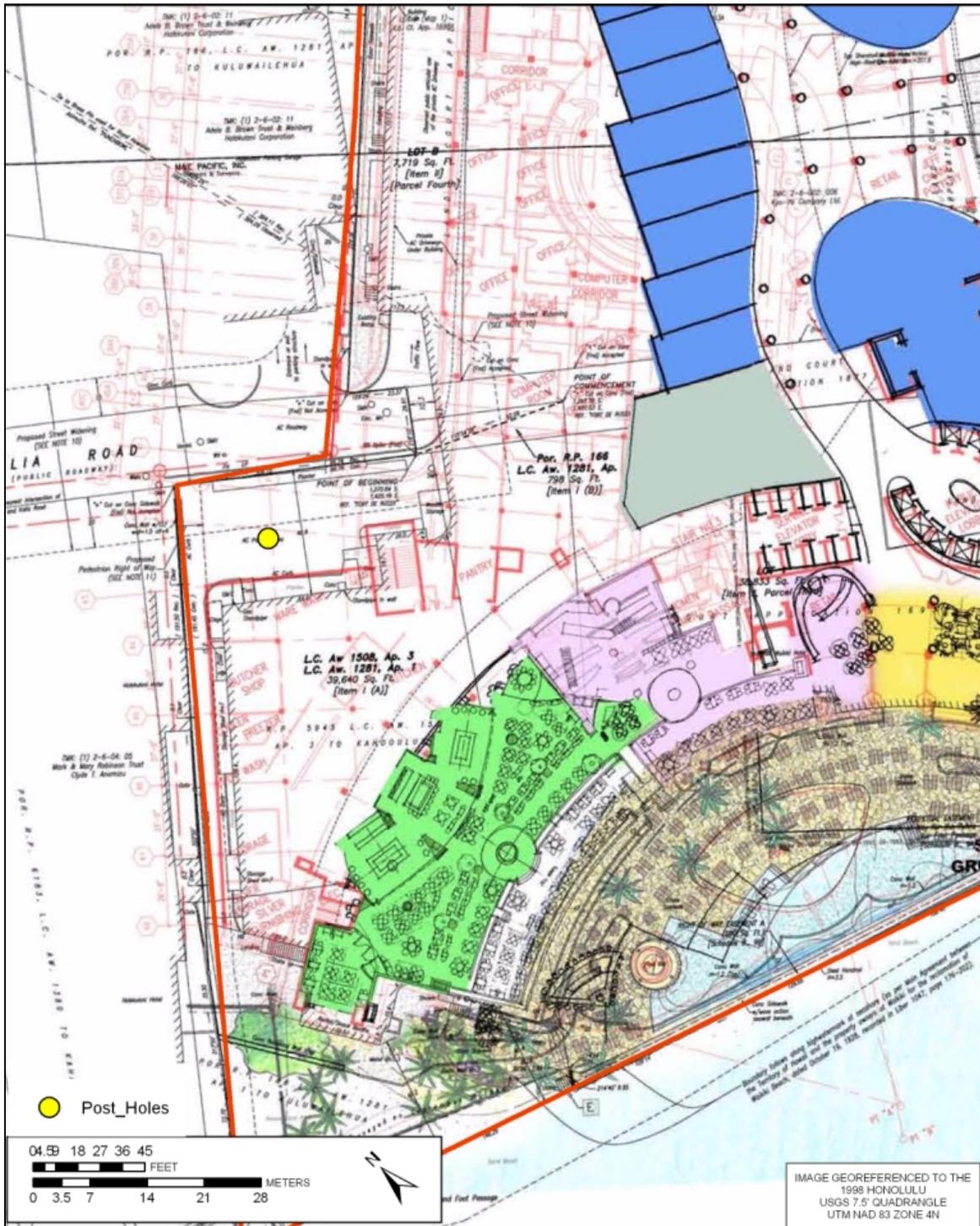


Figure 33. Portion of Renovation plans for the West Sheraton Hotel area of work. Archaeological inventory survey testing is proposed for the grease interceptor

7.7 Historic Property Evaluation for Hawai'i Register Eligibility

Under state of Hawai'i historic preservation legislation, historic property significance is evaluated and expressed as eligibility for listing on the Hawai'i Register of Historic Places (Hawai'i Register). To be considered eligible for listing on the Hawai'i Register, a historic property must possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following broad cultural/historic significance criteria: "A" reflects major trends or events in the history of the state or nation; "B" is associated with the lives of persons significant in our past; "C" is an excellent example of a site type/work of a master; "D" has yielded or may be likely to yield information important in prehistory or history; and, "E" has traditional cultural significance to an ethnic group, includes religious structures and/or burials. For this report, historic property integrity and significance were assessed based on the guidance provided in National Register Bulletin # 15, "How to Apply the National Register Criteria for Evaluation."

7.8 Report Preparation

An Archaeological Inventory Survey report will be prepared in conformance with HAR 13-276-5. A draft technical report shall be prepared in conformance with 13-276-5. A draft technical report shall be prepared and submitted in a timely manner, within three months following the end of fieldwork. The revised and corrected report shall be submitted within one month following the receipt of review comments on the draft report.

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The Land Interests held for the Royal Hawaiian and Sheraton Waikiki hotel parcels are as follows:

Land Interests for TMK [1] 2-6-002: 005 (10.3 Acres)

Kyo-ya Hotels & Resorts LP
BP Bishop Trust Estate

Land Interests for TMK [1] 2-6-002: 006 (3.5 Acres)

Kyo-ya Hotels & Resorts LP

Land Interests for TMK [1] 2-6-002: 026 (0.9 Acres)

WENDY BRANDT JOHNSON,
Trustee of that certain unrecorded Wendy Brandt Johnson Declaration of Trust dated December 16, 1987, a Short Form of which is recorded in Liber 21484 at Page 769, with powers to sell, mortgage, lease, etc., as to an undivided 0.009039215 interest,

SUSAN BRANDT, Trustee of that certain unrecorded Susan Brandt Declaration of Trust dated December 16, 1987, a Short Form of which is recorded in Liber 21484 at Page 741, with powers to sell, mortgage, lease, etc., as to an undivided 0.009039215 interest,

REX BRANDT, Trustee of that certain unrecorded Rex Brandt Declaration of Trust dated December 16, 1987, a Short Form of which is recorded in Liber 21484 at Page 756, with powers to sell, mortgage, lease, etc., as to an undivided 0.009039215 interest,

EDITH BETSY LEE, Trustee under Declaration of Trust dated October 1, 1991, with powers to sell, mortgage, lease, etc., as to an undivided 0.028238235 interest,

HARVEY PARTICK LEE, Trustee under Declaration of Trust dated October 1, 1991, with powers to sell, mortgage, lease, etc., as to an undivided 0.028238235 interest,

DIANA WORTHINGTON KRIEG and JAN KRIEG, Trustees of the Diana and Jan Krieg 1993 Trust dated May 7, 1993, with powers to sell, mortgage, lease, etc., as to an undivided 0.0159289567 interest,

CYNTHIA BANNING WORTHINGTON, wife of James Gilbert Cliff, as to an undivided 0.0159289567 interest,

WILLIAM JOHN WORTHINGTON and DE NIECE WALLACE WORTHINGTON, Trustees of the William John Wallace Worthington Revocable Trust with powers to sell, mortgage, lease, etc., as to an undivided 0.0159289566 interest,

MARY ELIZABETH SMART REYNOLDS, wife of Arthur McKinley Reynolds, III, as to an undivided 0.013155795 interest,

LIVING DESERT RESERVE, a California non-profit corporation, as to an undivided 0.013155795 interest,

THE HEIRS AND DEVISEES OF PAMELA GARWOOD, as to an undivided 0.026311600 interest,

SAMUEL A. KUHN and EDWIN R. KUHN, Successor Trustees of The Paloma J. Kuhn Hawaiian Trust dated February 22, 1990, executed by Paloma Jaeger Kuhn, as Trustor, with powers to sell, mortgage, lease, etc., as to an undivided 0.005423525 interest,

CYNTHIA N. ANAMIZU, Trustee of the Cynthia N. Anamizu Revocable Trust dated September 21, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.00436405335 interest,

CAROLE ANAMIZU, Trustee of the Carole Anamizu Revocable Trust dated September 21, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.00436405335 interest,

LOUISE S. HO, Trustee of the Louise S. Ho-McWayne Revocable Living Trust dated November 9, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.0174562133 interest,

JAYNE H. ABE, Trustee of the Jayne H. Abe Revocable Trust dated November 6, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.00218202668 interest,

CALVIN K. ABE, Trustee of The Calvin K. Abe Revocable Trust dated November 6, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.00218202667 interest,

CLYDE T. ANAMIZU, Trustee under that certain unrecorded Living Trust dated May 23, 2001, with powers to sell, mortgage, lease, etc., as to an undivided 0.00436405335 interest,

REVONDALEI YUKA BORGERDING, wife of Jeffry John Borgerding, as to an undivided 0.00872810665 interest,

JOHN ANTHONY FUJITO SAKURAI, husband of Laurene Mamokuipoaloha Sakurai, as to an undivided 0.00872810665 interest,

LUCILLE ELAINE ROBINSON, as to an undivided 0.002150000 interest,

DAVID N. ROBINSON, Trustee of the David N. Robinson Trust U.T.A. restated January 12, 2005, with powers to sell, mortgage, lease, etc., as to an undivided 0.007964478 interest,

JANET L. ROBINSON, Trustee of the Nancy A. Robinson Living Trust dated May 30, 1997, with powers to sell, mortgage, lease, etc., as to an undivided 0.007964478 interest,

MICHAEL A. ROBINSON, Trustee of the Michael A. Robinson Living Trust dated April 7, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.007964479 interest,

J.L.P. ROBINSON LIMITED PARTNERSHIP, a registered Hawaii limited partnership, as to an undivided 0.192962490 interest,

WILLIAM RHETT TABER, ALLAN ZAWTOCKI, and WILLIAM W. PATY, Trustees under the Will and of the Estate of Mark Alexander Robinson, deceased in Trust, with powers to sell, mortgage, lease, etc., as to an undivided 0.390361675 interest,

WILLIAM RHETT TABER, ALLAN ZAWTOCKI, and WILLIAM W. PATY, Trustees under that certain Deed of Trust executed by Mark Alexander Robinson and Mary Kapuahaulani Hart Robinson, husband and wife, as Settlers, dated July 30, 1953, filed as Land Court Document No. 151326, recorded in Liber 2720 at Page 352, with powers to sell, mortgage, lease, etc., as to an undivided 0.14883606 interest, as Fee Owner

Appendix A Land Commission Awards

A-1 LCA 104 F.L., Kekuaanoa

Kekuaanoa, Haliimaile, 3 December 1851 N.R. 765-766v3

The Honorable William L. Lee, Greetings: I hereby present my claim in some 'Ilis in Honolulu and in Waikiki in the lands of the Fort which I am caring for. Here are the names:

[Following discussion of Honolulu 'Ili lands omitted]

Here are my claims at Waikiki:

2 lo`i at Kalia, `Ili in Waikiki.

5 fish ponds at Kalia in Waikiki.

1 muliwai of Piinaio, in Waikiki.

Those are my claims which I have thought of. There is one cocoanut grove. Makalii, also at Kalia. That is what I state to you. Farewell to you. M. KEKUANAEOA

N.T. 390v10 No. 104 F.L. M. Kekuaanoa (from page 320) for 17 August 1854, Victoria Kamamalu L. Kukoa, sworn, I have seen his house site in Kapuni, Waikiki, Kona, Oahu.

Mauka, Road

Waialae, Hamohamo boundary

Makai, beach

Honolulu, a meeting house.

This place was received from Kinau in 1839. She had received it from her mother.

Mahuka, sworn, the statements above are correct and I have seen his other claims. 2 ponds named Paweo, also Kaipuni, Pau, Kaihikapu, Manolepa and Kaohai in Waikiki, Kona, Oahu.

He had received the land from Kinau in 1839. She had received it from Kaahumanu in 1832. No objections.

[Award 104 F.L.; R.P. 4492 (Kaihikapu Puuiki)& 4493; Kalia Waikiki Kona; 1 ap.; 1.49 Acs; Kuhimana Honolulu Kona; 1 ap.; 2 Acs; no R.P. ; Kamanolepa Waikiki Kona; 1 ap.; 2.06 Acs; R.P. 4492; Kapuni Waikiki Kona; 1 ap.; 31 Acs; R.P. 4492; Uluniu Waikiki Kona; 1 ap.; 31 Acs; R.P. 4493; Uluniu Waikiki Kona; 1 ap.; 71.7 Acs]

A-2 LCA 228 , Kalaiheana

[Kalaiheana], Ii, claimant F.R. 150v1

No. 228 1 document in Native Register, page 1, volume 2

N.R. 1-3v2 No. 228, [Kalaiheana], John Ii for Kalaiheana

Greetings to the Commissioners whom the Moi has appointed to quiet land titles: I, the undersigned hereby state that Kalaiheana's land, called Kanewai, is at Waikiki. It has some leles in Manoa - Keapuapu, Holoawalu /Kaloalu in N.T./, Pakui, and the lele of Pahoa at Waikiki; and the sea of Kahala. That was the land of Keeaumoku at Waikiki, adjoining the north side of Kalaepohaku. This land became his upon the victory of Kamehameha I at the Battle of Nuuanu, also Waialua, as was the custom of granting land to chiefs at that time. When the peleleu /fleet of large canoes/ came, the land passed from Keeaumoku to Papa and Kalaiheana, and all the leles were also conveyed. From thence came this acquisition and there was no deterrent until the year 1841. For the first time, an edge of Kahala as taken for Waialae. And in the year 1846 another portion was taken for Kalaepohaku, in the month of May, or perhaps June. The witnesses are Keheana and Eleele. This is ended.

Also, there is the cocoanut grove of Heleumoa at Waikiki. It is said that perhaps two years after /the Battle of/ Nuuanu, it went to some of us, to Kalaiheana, from Kamehameha I. No one objected until the year 1846, in the month of May or June, when it as taken for the first time. The witnesses are Kapuakaona and Ku.

Since Kalaiheana has chosen me as his representative, therefore I am making this request to you, the Land Commissioners.

I am, your servant,

John Ii

To: W. R., J. R., Y. K., K, Royal School, August 14, 1846

F.T. 162-163v1

Claim No. 228, John Ii, attorney, Kalaiheana, claimant, August 30 [1847]

Ku testified on oath, He knows the land in this case. It is at Waititi, its name is Helumoa. It is cocoanut land. Witness knows the boundaries.

Kalaukau is the name of the land, east

Keamoku that on the North

On the West is the old road leading from Honolulu

On the South is a stream called Apukokohau.

Claimant holds the land from Kamehameha I who gave it to Kaileo, he gave it to Papa, he willed it when he died to Keawikalohi, and he gave it to the claimant.

No person has claimed the land from the first-named person down until 1846. It came into claimant's hands in tie time of Rihoriho. Kuluwilehua is the counter claimant.

John Ii, testified on oath, that he knows the place, and that the persons already named were those who were living under Kamehameha, who had particular care of his household property and were known by the chiefs as such. Kamehameha himself lived on this land; & when he died, he left them in possession.

The chiefs went with Kamehameha to Hawaii & were there when he died, but their families remained. When Rihoriho came to the government he allowed them to remain.

After Kamehameha's death, the chiefs returned. Rihoriho fixed his residence on the same spot. So it has been through the reign of Kamehameha II & Kaahumanu, and has been left all along in possession of this class of people. Those living on the land are under claimant; six in number with own houses.

Kuluwailehua, stated that he founds his claim on his mother, a regular claim from Kamehameha, Rihoriho, Kaahumanu &c, through his mother's ancestors to himself. In 1842 he was living under Kekuanaoa, then the land became Kekuanaoa's and witness lived on it. It became Kekuanaoa's from Kekauluohi who had it from the King. In 1842 and 1843 this land was returned to witness and he lived under the King on it.

Witness relies on 7 Sec. 3 Chapter of laws of 1839, page 27. There are two divisions of this land; one of cocoanut trees & the other of kalo. The former piece has been taken off and constitutes the claim of Kalaiheana, and ought to be returned, according to the law cited. It was one land formerly, but Kamehameha 1 divided it, and gave it to Kalaiheana's ancestors.

Note. In another clause of those laws cited, the one referred to is restricted in its operation to the space of 6 months from the time of enactment.

The Board voted unanimously a freehold less than allodial to Kalaiheana for the part claimed and occupied by him and rejected the counter claim of Kuluwailehua.

Resumed page 164

F.T. 164-165v1

Claim No. 228, John Ii for Kalaiheana from page 162. September 1847

Claim No. 2 under 228. Eleele testified on oath that he knows the place which is at Waikiki. Kanawai is its name. It borders on the sea, which enters part of it.

On South & East is land of Kalaipohaku

On Northeast & North is land of Waihi

From Northwest & West round is Piliamo

On West Keokapu has land.

This land belonged to Keaumoku, father of Kaahumanu. The land was taken in possession by him under Kamehameha I when the last battle was fought in Nuuanu. Another land at Waialua was also given him at the same time. When Kaumoku obtained it was in 1804. Claimant is his descendant. At that time it extended farther in the sea than now. The family has been in constant possession ever since & have never lived away from it since 1804. Witness is not related to the family.

Kaeana, testified on oath, that he knows the land & confirmed the general deposition of the former witness. He stated that Keapuapu, Pakui, Koloahu, Kaiokahala, Komolipo, Papaa were all living on the land or outside of it, and are members of the family, and live under claimant.

A freehold title less than allodial was voted by the Board to Kalaiheana.

N.T. 268v2 No. 228, John li [for Kalaiheana], Honolulu, August 30, 1847

Ku, sworn by the Word of God and stated. I have seen the property of Kalaiheana named Helumoa, it is a cocoanut grove and the boundaries are Keonuku on the right, Kaluaohau on the east, the river Apuakohau on the south and the old road to Honolulu here is on the west side. Kailio had received his interest from Kamehameha I; from Kailio to Papa; Papa to Keawekalohe and from Keawekalohe to Kalaiheana. Kalaiheana has lived there from the long ago to the year 1846 when Kuluwailehua had objected to him.

John Ii, sworn by the Word of God and stated, I have seen this land and these names which are written in this claim document are the attendants of Kamehameha 1. Their work was taking care of the house and preparing the food. These people were in constant contact with the chiefs and were close to each and every chief. When Kamehameha I died, they continued to live on the property and when the chief returned from Hawaii Kalaiheana went to live there. These people have lived there since Kamehameha II to Kaahumanu's reign, and to the year 1846 when Kuluwailehua had raised objections.

See page 271

Kuluwailehua's statement of objection to Kalaiheana. The interest to this land is for my parents who had lived (there) from Kamehameha I to Kaahumanu's reign. When my parents died in the year 1842, the land was taken by M. Kekuanaoa and I lived under him. Kekuanaoa had received his interest from Kekauluohi and Kekauluohi had received her interest from the king. In the year 1843 the land had become mine thro' the king and when I had looked (read) the Kuluwailehua's statement concerning borders, I realized that a border of my land had become Kalaiheana's property so I took that cocoanut grove because that is a border for Pahoa.

N.T. 271v2

No. 228, John Ii, [for Kalaiheana], From page 267

Eleele, sworn by the Word of God and stated, I have seen this land Kanewai by name in Waikiki, also the taro and the sea of Kahala. The boundaries are Waihi from the north to the east, Kalaepohaku on the east and the south sides and Palimoo and Kiokapu on the west side. That land is for Keeumoku I. He is the father of Kaahumanu and Keeumoku had received that land at the time of the battle of Nuuanu. Waihi at Waialua is another land. During the expansion, this land was given to Kalaiheana in the year 1804 and he has lived there since that time to this, no one has objected.

Kaheana, sworn by the Word of God and stated, I have seen this land, as has been mentioned by Eleele; however, there are other lands which I have seen (1) Keapuapu, (2) Kaloalu, (3) Kamoolepo of "Pakui." Kahala is the sea of these lands and the sea [name]. These are leles' for Kanewai and living there is through Keeumoku.

Pahoa, Kahala and Panewai are outside of the boundaries of Pahoa Ie. The land Pahoa is on the east, Nanaikola and Kamoku are on the west side. During the expansion these lands were taken by Kalaiheana but Pahoa was acquired by Keopulani through Kamehameha and in the year 1835, that land was returned again to Kalaiheana.

[Award 228; R.P. 7722; Pahoa Waikiki; 1 ap.; 1.11 Acs; no R.P.; Kanewai Manoa Kona; 1 ap.; 66.59 Acs; R.P. 8823; Helumoa Waikiki Kona; 3 ap.; 4.93 Acs; R.P. 7720; Kanewai Manoa Kona, 27 Acs 115 Anana 19 Kapuai; R.P. 7721; Kanewai Kahala Kona; 1 ap.; 173 Acs 54 lq[?] fathoms]

A-3 LCA 822, Okuu

No. 922, Okuu, Helumoa, Waikiki, Honolulu, Oahu, October 1847
N.R. 536v2

To the President of the Land Commissioners, William L. Lee, and J. H. Smith, Z. Kaauwai, John Ii. N. Namauu, being the commissioners to weigh the truth of the claims, in accordance with your directions, therefore, I hereby petition for the house lot claim at Helumoa in Waikiki. It was agreed by us that I would petition to you, the com-missioners who strip off the claims which are invalid and select the right claims when you know the truth, as in my claim of which I am telling you correctly. The circumference outside of this house is 104 fathoms 4 feet 9 inches. There are witnesses there who will testify truthfully as to my claim to you, the ones who act justly and correctly.

I am, with thanks, your obedient servant.

OKUU

F.T. 262v2

Claim 922, Okuu, April 3 [1848]

Kupanihi, sworn, I know this place. It is a house lot in Waititi, bounded:

Ewa by Kukiiuhi's

Mauka by John Ii's

Waititi by Nuu's and Hope's

Makai by the sea.

It has an adobie fence and five houses, one belonging to Ku, one to myself, 1 to Kini and two to claimant, who got the place from Kamaukoli, who had it from Kaahumanu in whose time Okuu came by it (about 1822). I know of no other person claimant it but him.

Kini, sworn, and confirmed all the previous particulars.

N.T. 602,604v2

No. 922, Okuu, wahine, 922 [note: no page 603]

Kupanihi, sworn and stated, "I have seen house lot which is at Waikiki. Thus, the boundaries are:

Kalaiheana's land, towa-rd the mountain

Nu's land and Kahope's lot, Waikiki and

the beach is toward the sea.

This place has a mud enclosure and there are five houses in there. Three of us are house owners. One house is mine, another is for Kini and the other is for Ku. Okuu had received this from Kamaukoli who had his interest from Kaahumanu, but Kamaukoli is the interest for life there. This land had been for Okuu's older brother and upon his death, Okuu had inherited it. I have not known that anyone has objected."

Kini, sworn and stated, "I have seen this place. Everything about it is just as Kupanihi has related here."

[Award 922; R.P. 4463; Helumoa Waikiki Kona; 1 ap.; .32 Ac.]

A-4 LCA 1281, Kuluwailehua

Kuluwailehua, Honolulu, 6 December 1847

N.R. 54v3

To the Land Commissioners, Greetings: I hereby tell you of my claims at Waikiki in the `ili of Kamoku, which was from the Mo`i; I live there under his protection, and the ko`eles and po`alimas, and the genuine land* and the cocoanut grove and the fishery and the benefits of the land are mine under the Mo`i.

My own claims are a house lot and three lo`i which are my very own, from my makuahine.

I also tell you of Kamoku Two, the `ili of William Lunalilo which I have. The po`ailimas and the ko`eles are for William Lunalilo. I hold it as was the custom of the makuas.

Here is my own claim, for a house lot and five lo`i which is held by my kaikuahine who is over me, but I have the administration of it, this was the own property of our makuakane; three are her own and two are mine, a total of five lo`i.

There is also a claim for a small single lo`i in Kuilei; this single claim is held by me.

These are my claims which I tell you of.

Farewell to you all, L. KULUWAILEHUA

/*Translator's note: refers to land long developed and held under a konohiki./

F.T. 458v2

Cl. 1281, Kuluwailehua, September 4, 1848

[margin note: See Native Register page 242, volume III] [should say Native Testimony]

Kahiaweawa, sworn, I know these lands. They are an ili in Waititi called Kamokuakahi, Oahu. Claimant presented a paper from the Minister of Finance showing the land Kamoku was set aside to claimant in the division of lands, stating there were 8 natives & Hoaina) living on the land as his tenants, whose names are: 1. Kahiawaawa; 2. Anee; 3. Malo; 4. Keaka; 5. Haole; 6. Kaeina; 7. Kalione; 8. Kahiamoe; 9. Kawelohoalii, 10, Kaua.

These men are not counter claimants and claimant says he dos not wish to disturb the rights of these tenants.

2. Claimant has 5 kalo patches and a house lot in Kamoku elua which is Kanaina's or William Lunalilo's land (Postponed till 6th Instant)

3. I know the kalo patch claimant has in "Kuilai. It is bounded:

By Hao's land Mauka

Waimanalo by Namekanu's

Makai by a small road

Waititi by an auwai and the land of Kaaha.

Claimant had this land from Maka in 1847. Maka received it from Kealoaloa in 1831 and held it in peace until he gave it to Kuluwailehua, who now owns and cultivates it.

Ana, sworn, Knew these lands and confirmed the previous testimony.

N.T. 242-234v3

No. 1281, Kuluwailehua, September 4, 1848

Kahiaweawe, sworn and stated, "I have seen this land named Kamoku. It is an ili land in Waikiki and there are five patches and a house on Kamoku II.

Here is the number of people who are all living there, for they do have interest: 1) myself, 2) Anee, 3) Malo, 4) Keaka, 5) Haole, 6) Kaina, 7) Kalaeone, 8) Kahiamoe, 9) Kawelohelii, 10) Kaua. This is a division of Kuluwailehua from the King. To page 738

Kamaku is for Samuel Kuluwailehua. It is an ili at Waikiki in Kona, Oahu. This distribution is good and I am approving it. The land which is mentioned in writing above is for S. Kuluwailehua. It has been approved and may be taken to the land officers who quiet titles. (Signed) Kamehameha 3 Royal Residence January 31, 1848

I am announcing that this is a certified copy from the Book of Land Distribution. Office of the Minister of Interior, G. M. Robertson, Secretary

September 4, 1848

2. Parcel - This claim has been postponed to Wednesday. These are the patches and house lot at Kamoku II.

3. One patch is at Kuilei in Waikiki.

Hao's land is mauka

Nameakami's land, Waimanalo

a small street, makai

Kaaha's land, Honolulu.

Kuluwailehua's land is from Maka given in the year 1847. Maka had received this land in 1831 from Keolaloa. It had been acquired without cost because Kuluwailehua is Maka's nephew.

Anee, sworn and stated, "I have seen this land just as Kahiaweawe had seen it; no one had objected to Kuluwailehua."

N.T. 738v3

No. 1281, Samuel Kuluwailehua, from page 242

Land Division from the king of the ahupuaa land, county and island, Kamoku ili in Waikiki, Kona, Oahu.

This is to certify this grant; it is good. The land written above is for S. Kuluwailehua. It has been approved and it may be presented before the land commissioners.

Signed, Kamehameha

Royal Palace, January 31, 1848

This is a certified copy from the Award Book, W. Goodale

N.T. 738-739v3

No. 1281, S. Kuluwailehua

February 23, 1851, from page 242, No. 1281, S. Kuluwailehua

Kahiaweawe, sworn, I have see Kuluwailehua's parcels of land at Kamoku I in Waikiki - 5 parcels of land, Keomuku and Pau.

1 cocoanut grove and Keomuku sea; the boundaries are:

Mauka, land of Kekuanaoa

Waikiki, land of Keohokalole named Hamohamo

Makai, the surf's breaking point

Ewa, land of Kekuanaoa.

3 patches; the boundaries are:

Mauka, land of Haumea

Waialae, land of John Young, called Pahoa

Makai, land of M. Kekuanaoa

Ewa, land of C. Kanaina.

6 patches and a pasture, and the boudnaries are:

Mauka, land of Uma

Waialae, land of M. Kekuanaoa, Pahupahuapuaa

Makai, land of Kekuanaoa Kalia

Ewa, land.

House lot and 13 taro patches:

Mauka, Kalia stream

Waialae, land of Kekuanaoa named Waiaka

Makai, land of Kekuanaoa Ewa, land of C. Kanaina.

1 taro patch at Pa`u:

Mauka, land of M. Kekuanaoa

Waikiki and Makai, land of C. Kanaina

Ewa, land of Kekuanaoa by the stream.

Kanekoa, Kuluwailehu's mother, had given him these sections of land in 1840 and she had received this land from Keopulani during the time of Kamehameha I where she has lived to

1848, at which time King Kamehameha III gave her a grant by the Mahele. No one had objected. The natives have retained their interests.

[Award 1281; R.P. 166; Kamoku Waikiki (Ap. 1); 1 ap.; 6.35 Acs; R.P. 7428; Waikiki Kona; (Ap. 2); 1 ap.; .92 Ac.; R.P. 403; Kamoku 2 Waikiki Kona; 2 ap.; 15.89 Acs; Land Patent 8102; Waikiki Kona; (Ap. 3); 1 ap.; 4.55 Acs]

A-5 LCA 1379 Kapule II

N.R. 93v3

To the Land Commissioners, Greetings: s: I, the undersigned, hereby tell of my claim for two lo'i at Auaukai, two rows /of taro/* at Hohe, one irrigation ditch, the pond named Kalokomoo, also a house lot at Keomuku in Waikiki, Island of Oahu.

KAPULE X

Residence: Keomuku

/*A communal taro patch at Waikiki./

F.T. 507v2

No. 1379, Kapule II, September 29, 1848

Wailehua, sworn, This land is in the ili of Auaukai, Waititi, claimant has a house lot in the next ili of Keaumoku, of several pieces.

1. House lot:

Mauka is Auwa's land

Waialae, Oku's

Makai, Kaelemakule's

Honolulu, Government land (nahelehele).

It is fenced and claimant has 1 large and 1 small house on it.

2. Two kalo patches.

Mauka is Keohokalele's, Waialae and Makai also

Honoluu, Peleuli's.

3. Part of a kalo patch:

Mauka is a large kalo patch of many owners

Waialae, Paku's

Makai, Keohokalole's

Honolulu, Kaluahinenui's.

Claimant had this land from Kamaukole, lord of it in Kaahumanu 1 time, and has ever since held it without dispute. He does poalima work. Kamaukole is his konohiki.

N.T. 315v3

No. 1379, Kapule II, September 29, 1848

Wailehua, sworn, I have seen his place in the ili of Auaukai in Waikiki. The house lot is at Keomuku

1. 1 house lot:

Mauka is Ana's land

Waialae, Okuu's place

Makai, Kaelemakule's place

Honolulu, a government land.

There is a large house, one little house, there is a fence.

2. 2 taro patches:

Mauka, Waialae and Makai is Keohokalole's land

Honolulu, Peleuli's land.

3. 2 rows of taro:

Mauka for people

Waialae, Paka's land

Makai, Keohoka lolo's place

Honolulu here, Kaluahunenui's place.

Kapule II had received his land from Kamaukoli at the time of Kaahumanu I and he has lived peacefully to the present time; no one has objected. He had gone to do Friday detail regularly. Kamaukoli was his konohiki.

[Award 1379; R.P. 2824; Auaukai Waikiki Kona; 2 ap.; .25 Ac.]

A-6 LCA 1385, Kaelemakule

N.R. 94-95v3

To the Land Commissioners, Greetings and the peace of God: I, the undersigned, hereby tell of my claim for one *lo'i* at Auaukai, one row at Hohe /of taro/, also a house lot at Keomuku in Waikiki, Island of Oahu
 KAELEMAKULE
 Residence: Keomuku

F.T. 8v3-4

Cl. 1385, Kaelemakule, October 9, 1848

Kokomo, sworn, This place is in Auaukai, Waititi. It is kalo land, consisting of

1. House lot, fenced and claimant owns one house on it, bounded:
 Mauka by Kapule's land, Waialae also
 Makai by sea
 Honolulu by Kuapaiea's.

2. One kalo patch:
 Mauka is Kapule's
 Waialae is Nuuanu's
 Makai is Nui
 Honolulu is Opupahoa's.

One row of kalo in a large patch, which is bounded as a whole: Mauka by Palupalu
 Waialae by Paku's (teacher)
 Makai by Kukealiiieau's
 Honolulu by Kanai's (land).

Claimant had these lots from Kamaukule [Kamaukoli?] in time of Kaahumanu I. Kamaukule was and is konohiki under Kekuanaoa, who owns the land and has been held undisputed to the present time.

N.T. 327-328v3

No. 1385, Kaelemakule, From pg. 142, Vol. X, October 9, 1848

Kokomo, sworn, I have seen his place at Auaukai in Waikiki of 1 taro patch and 1 row of taro.

1. 1 house lot:
 Mauka is Kapule's place, also Waialae

Makai, the sea;
Honolulu, Kuapaia's place.

2. 1 taro patch:
Mauka is Kapule's place
Waialae, Nuuanu's place
Makai, Nu's place
Honolulu, Opupahoa's place.

1 row of taro in the big patch:
Mauka is Palupalu's place
Waialae, Paku's place
Makai, Kultiaiau's place
Honolulu, Kanae's pasture.

Kamaukoli had given him his land at the time of Kaahumanu I. Kamaukoli is the konohiki under Kekuanaoa and he has always lived there to this time; no one has objected. Postponed until Kamaukoli shall come also.

N.T. 142v10

No. 1385, Kaelemakule (from page 327, volume 3), Claim Settlement Building, 16 April 1852

Objection by konohiki, Kamehameha III

Kelemakule, sworn, I have been in error in the filing of my single row claim in the koele patch of the konohiki called "Hohe" in Waikiki, Oahu. I hereby reject my interest in that patch. It shall be fore the konohiki forever without opposition and I shall live under the konohiki similarly to the old ways of this land.

[Award 1385; R.P. 2829; Auaukai Waikiki Kona; 1 ap.; .17 Ac.]

A-7 LCA 1445 , Kanemakua

Kanemakua, Waikiki, Oahu, December 9, 1847N.R. 114v3

Greetings to the Land Commissioners: I hereby tell of my land claim for my five lo'i in Mooiki in Waikiki. I got these places in the time of Kamehameha and have held them under the konohiki with no objections from anyone.

I have also two other lo'i at Mookahi in Waikiki which I got in the time of Kaahumanu I and which I have held peacefully with no objections.

I also have a house lot at Waikiki which I got in the time of Kameham-eha II and have held peacefully with no objections. There are seven houses there which are mine alone. Also, I have three irrigation ditches.

KANEMAKUA X

F.T. 39-40v3

Cl. 1445, Kanemakua, December 11, 1848

No. 1, Ku, sworn, I know this place. It is in Waititi in the ili of Mooiki, consisting of kalo land having 4 patches and 1 house of claimants.

It is bounded:

Mauka by Kamakahonu's

Waiialae by Kauhao's land (konohiki)

Makai by Kahanaumaikai's

Honolulu lby Paki's.

Claimant had this lot from Kamakahonu in time of Boki as a gift from his chief, and he has lived there and cultivated the land ever since without any dispute, there has never been any counter claimant to this time.

No. 2. Second land is in Mookai, consisting of 2 patches standing apart.

1st is bounded by Kaniho's land Mauka

Waiialae by Paki's

Makai by Laimakahi's

Honolulu by Aumea's.

2d patch, Kaniho's is mauka

Paki's is Waiialae

Keaweileikini's is makai

Aumoe is Honolulu.

Claimant has these two patches from Kailiuli in time of Kaahumanu. He was konohiki, now dead, and has held them like the others to the present time undisputed, and cultivated them.

No. 3. House lot, situated in Helamoa, Waititi and bounded:

Mauka by Kekuaanoa's land

Waialae by an arm of the sea

Makai, the sea

Honolulu by Kaluahinenui's.

There are 8 houses on it. Claimant owns two; Kahanaumaikai, one; Kalaauli, one; Kaaia, one; Kahui, two; and I own two. These all live under claimant and he under Kalaiheana. They came under permission of claimant who lives on it.

Claimant had this land from Kalaiheana in time of Boki and has lived there in peace to the present time. The land is fenced. Three streams are included in the preceding bounds given, which are separately mentioned in the claim.

Kaanana, sworn, stated he knew the above testimony to be true.

Kalanikua, said this land had been surveyed by John Richardson and after by himself as part of Kalaiheana's claim.

Kalaiheana's testimony wanting. See page 427.

F.T. 427v3

No. 1445, Kanemakua, February 23, 1853, from page 39

Counter Susan (Naki)

Kalaiheana, sworn, says he knows the house lot of claimant in "Helamoa," Waikiki. It belonged to witness from the time of Kamehameha I until he gave it to claimant about the year 1825. I never gave any part of that place to Kahue. Kanemakua has held the land in question ever since.

N.T. 362-363v3

No. 1445, Kanemakua, October 11, 1848

Ku, sworn, I have seen his place at Mooiki ili land in Waikiki. There are four patches and Ku's own house which has not been enclosed.

1. 4 taro patches:

Mauka is Kamakahonu

Waialae, Kauhao's place

Makai, Kahanaumaikai

Honolulu, Paki's land.

Kaiakoili had given Ku this interest at the time of Poki, while he /Ku/ was living as a servant and he has continued to live there to the present time with no objections from anyone.

2. 1 taro patch is at Mookahi in Waikiki in two sections.

Mauka is Kaniho's land

Waialae, Paki's land

Makai, Kalimakuhi's land

Honolulu, Haumea's place.

3. 1 taro patch:

Mauka is Kaniho's land

Waialae, Paki's land

Makai, Keaweleikini's place

Honolulu, Haumea's place.

Ku had received this interest from Kailiuli during the time of Kaahumanu. Kailiuli had been a konohiki and is now dead. Ku has lived there to the present; no one has objected.

4. 1 house lot at Helumoa in Waikiki where:

Mauka is Kekuanaoa's place

Waialae, a river

Makai, the sea

Honolulu, Kaluahinenui's place.

Kaluahinenui has 2 houses, Kahanaumaikai 1, Kailiuli 1, Kaia 1, Kahue 2, and Ku, 2 houses and all of these People live under Kanemakua because this is his place received from Kalaiheana during the time of Poki and he has lived there to the present; no one has objected. This place has been completely enclosed around the property.

Kaanaana, sworn, Our testimonies are similar.

Postponed until Kalaiheana can be heard.

[Award 1445; R.P. 2560; Helumoa Waikiki Kona; 1 ap.; 1.6 Acs; Kamooiki Waikiki Kona; 1 ap.; .75 Ac.; Kamookahi Waikiki Kona; 2 ap.; .43 Ac.]

A-8 LCA 1463, Wahahee

No. 1463, Wahahee, Waikiki, Oahu, December 9, 1847

N.R. 121v3

Greetings to the Land Commissioners: I hereby tell of my land claim at Kaluakau in Waikiki. I have two lo'i there. I also have a house claim at Waikiki with one house there. –

I got this place in the time of Kamehameha I and hare held it peace-fully with no objections. I have three other lo'is at Nukuaua in Waikiki which were given me by Nalaweha in the year 1846 which I have held in peace with no objections.

WAHAHEE X

F.T. 54-55v3

Cl. 1463, Wahahee, December 18, 1848

Opio, sworn, I know this land. It is in Waititi, district of Kaluakau and Kanukuaua, consisting of kalo land kula, and a house lot in Helumoa.

House lot, claimant has one household. It is fenced.

Mauka is Kekuanaoa's,

Waialae also

Makai, Kuluwailehua's

Honolulu, Kekuanaoa.

2. Kaluakau two kalo patches:

Mauka is Male's

Waialae, Palupalu's

Makai, Kekuhuna's

Honolulu is Kanapuni's.

3. Kanukuaua, One kalo patch and auwai:

Mauka is Kuahuia's

Waialae, Kawai's

Makai is Nahoo's

Honolulu, Haaeo's.

4. One kalo patch.

Mauka is Haaeo's

Waialae, Kaaipua's

Makai is Government kalo patch

Honolulu is Naoho's.

Claimant had the house lot No. 1 from Kulaiheana in time of Kaahumanu I and has ever since lived in it without any dispute. He had No. 2 kalo patch from Pakanaka same time as No. 1, and has held it in peace also.

He had No. 3 and 4 from Nalaweha, konohiki, about 1845 and has never been disturbed in the right.

Kahiuka, sworn, and confirmed the above testimony.

Nalaweha wanted.

N.T. 377-378v3

No. 1463, Wahahee, December 18, 1848

Opio, sworn, I have seen his place at Kaluaokau with 2 patches; Kanukuaua in Waikiki, 2 patches and 1 ditch; Helumoa, 1 house lot and these places are all in Waikiki.

1. 1 house-lot with one house and there is a fence.

Mauka and Waialae is Kekuanaoa

Makai, Kuluwailehua

Honolulu, Kekuanaoa.

2. 2 patches at Kaluaokau where:

Mauka is Male

Waialae, Palupalu

Makai, Kekahuna

Honolulu, Kanapuni.

3. 1 patch, 1 ditch at Kanukuaua:

Mauka is Kuahina

Waialae, Kawai

Makai, Naohi

Honolulu, Haaheo.

4. 1 patch at Kanukuaua:

Mauka is Haaheo

Waialae, Kaaipuaa

Makai, a government patch

Honolulu, Naoho.

Kalaiheana had given Wahahee the house lot during the time of Kaahumanu I, which is Section I and he has lived there since that time to the present; no one has objected.

Pakanaka had given section II at the time of Kaahumanu I and he /Wahahee/ has always lived there without any objections.

Sections III and IV are from Nalaweha at the time M. Kekuanaoa was touring on Oahu here probably in the year 1846 and life has always been the same to the present time without any objections. Kahiuka, sworn, Our testimonies are similar /the hearing for/ sections 3 and 4 have been postponed till Nalaweha is available.

[Award 1463; R.P. 715; Helumoa Waikiki Kona; 1 ap.; .14 Ac.; R.P. 4247; Kanukuaula Waikiki Kona; 2 ap.; .97 Ac.]

A-9 LCA 1508 Kahoouluulu

No. 1508, Kahoouluulu

N.R. 139v3

To the Land Commissioners, Greetings: I hereby tell you of my land claim for one lo`i, one kula, one section of irrigation ditch and one house lot, in the `ili of Pahupahuapuaa in Waikiki, Island of Oahu. That is that I am telling you.

KAHOOUULUULU X

Keawamuku at Waikiki, December 4, 1847

F.T. 68v3

Cl. 1508, Kahoouhuluhulu, December 27, 1848

Wailehua, This land is in Pahupahuapuaa in Waititi, consisting of kalo & kula and a house lot in Waititi kai.

1. House lot in Waititi kai:

Mauka, Popoki

Waialae, Kapule

Makai Kaina

Honolulu, Kauhau.

Claimant has 1 house, partly fenced.

2. Kalo, 2 patches:

Mauka, Kaleiwakalei

Waialae, my land

Makai, Kamaukole

Honolulu, Kukuapoi.

3. Kula and a kalo stream, in part.

Mauka is Kukui

Waialae, Keohokalole

Makai, Kaleimakalii

Honolulu, Kekuanaoa.

Kaahumanu I gave all this [these] lots to Claimant, who now holds them under me as agent for Victoria.

N.T. 394v3

No. 1508, Kahoouluulu

Wailehua, sworn, I have seen Kahoouluulu's land at Pahupahuapua in Waikiki

1. House lot:

Mauka is Opoki's lot

Waialae, Kapule's lot

Makai, Kaena's lot

Honolulu, Kaauhau.

There is a house and a fence.

2. Two patches at Pahupahuapuaa:

Mauka is Kaleimakalii's lot

Waialae, my land

Makai, Kamaukoli's land

Honolulu, Kekuapoi's place.

3. Pasture and a ditch:

Mauka is Kukue's land

Waialae, Keohokalole's place

Makai, Kaleimakalii's lot

Honolulu, Kekuanaoa's place.

I had given Kahoouluulu land at the time of Kaahumanu, now it is under Kamamalu.

[Award 1508; R.P. 5945; Pahupahuapuaa Waikiki Kona; 3 ap.; 1.13 Acs]

A-10 LCA No. 1511, Kanae

N.R. 140v3

To the Land Commissioners, Greetings: I, the undersigned, hereby tell of my land claim for one row of /taro/ hllls, in the lo`i of Hohe in Waikiki, one irrigation ditch in the `ili of Kanukuaua, one small kula, one house lot, one pond; that is what I have to tell you.

KANAE X

Keawamuku at Waikiki, December 4, 1847

F.T. 69v3

Cl. 1511, Kanae, December 27, 1848

Kamanonui, sworn, I know these lands, all in Waititi, consisting of:

1 House lot near the sea, 1 house and fenced:

Mauka is Auwa's

Waialae, Keoho

Makai, sea

Honolulu, Kapule.

2. Hog pond, unknown.

3. Kula land in Hohe:

Mauka is Panelua

Waialae, Paku

Makai, Kauiki

Honolulu, Kaluahinenui.

5. One line of kalo in a general kalo patch, is included in No. 3.

Kaahumanu gave these lots to claimant and he has held them undisputed to the present time.

Kekuanaoa is konohiki.

Kauiki, sworn, confirmed the testimony as above.

N.T. 395-396v3

No. 1511, Kanae, From page 142, Vol. 10

Kamanonui, sworn, I have seen Kanae's land at Hohe, the stream in Waikiki and the house lot at Keonuku.

One house has been enclosed.

Mauka is Ana's place

Waialae, Keoho's place

Makai, the sea

Honolulu, Kapule's place.

Witnesses for the ponds have failed to be present.

There is also a pasture at Hohe.

Mauka is Paelua's place

Waialae, Pehu's place

Makai, Kauiki's place

Honolulu, Kiluahinenui's place.

This is from Kaahumanu to Kekuanaoa and to Kamamalu at this time.

Kauiki, sworn, I have seen Kanae's land just as Kamananui has stated here.

N.T. 142v10

No. 1511, Kanae (from page 395, Volume 3) Claims Building, 16 April 1852

Objections by konohiki, Kamehameha III.

Kanae, sworn, I have been in error in the filing of my single row claim in the koele patch of the konohiki called "Hohe" in Waikiki. Oahu. I hereby reject my interest in that patch. It shall be fore the konohiki forever without opposition and I shall live under the konohiki similarly to the old ways of this land.

[Award 1511; R.P. 2821; Kanukuaula Waikiki Kona; 2 ap.; 1.59 Acs]

A-11 LCA 1782 Kahope

No. 1782, Kahope
N.R. 252v3

To the Land Commissioners, Greetings: I hereby state my claim for one small lo'i and one section of irrigation ditch, at the 'ili of Niukukahi in Waikiki. This is my claim to you.

I am, with thanks.

KAHOPE X, his mark

Waikiki, Oahu, 16 December 1847

F.T. 491v14

No. 1782, Kahope, claimant

Kanemakua, sworn say, the portion of the claim of Kahope is Apana hale in Helumoa, Waikiki, Oahu.

It is bounded:

Mauka by the cocoanuts of Helumoa

Kekaha by the pahale belonging to me

Makai by the sea shore

Honolulu by the pahale of Okuu.

Claimant received the house lot from Kaahumanu in the time of Kaumualii and has held the same in undisputed possession ever since.

Kaia, sworn says, the above testimony is true & is also his own.

N.T. 512v3

No. 1782, Kahope, October 30, 1849

Kauhao, sworn, I have seen his place at Niukukahi in Waikiki - 1 section.

1 taro patch

Mauka, Kahehi

Waiialae, Kaiahopuwale

Makai, Koa

Honolulu, Kaia.

I had given him his land in the year 1843 and he has lived comfortably to the present time; no one has objected.

[Award 1782; R.P. 4249; Helumoa Waikiki Kona; 1 ap.; .31 Ac.; Kanuikukahi Waikiki Kona; 1 ap.; .2 Ac.]

A-12 LCA 2126 Keoho (Keaho)

No. 2126, Keoho, Waikiki, Oahu, December 23, 1847
N.R. 365v3

Greetings to the Land Commissioners: I hereby state my claim for land consisting of a house lot, a pond, two rows of taro, a section of irri-gation ditch and some hills of taro /or sweet potato/, which are on the stream /side/ of Kalia. I got this place in the time of Kaahumanu I and have held them in peace, with no objections. There is also a kula at Kawelulua.

KEOHO X

F.T. 483v14

No. 2126, Keaho, claimant

Makapo, sworn say, the land of claimants contains 2 puepue, a kula & pahale in one piece in the ili of Kuwelulua, Waikiki & is bounded:

Mauka by land of Kalawaia
Kekaha by the ili of Hamohamo
Makai by land of Nahuna
Honolulu by a loi Kahuelua.

Claimant received the land from Kaahumanu & has held the same in quiet until the present time.

Aua, sworn says the above testimony is true & is also his own.

[Award 2126; R.P. 2577; Keomukukai Waikiki Kona; 1 ap.; .71 Ac.]

A-13 LCA 8023 Aua

No. 8023, Aua, Waikiki, 12 February 1848

N.R. 478v5

The Esteemed Land Commissioners, Hale Kauila, Honolulu, Oahu. Greetings to you all: I, the one whose name is below, hereby state my claim for land, in the `Ili of Auaukai in the Ahupua`a of Waikiki. One lo`i is in Kalia `Ili, One pauku of taro is in the stream water course and there is another pauku of stream. There is one row of taro in Hohe, and another pauku also in Hohe. There is one house lot, one kula planted in sweet potatoes and gourd.

These claims which have been explained above were from Kamaukoli, given in the time when Kaahumanu I was living, when Kaahumanu and Kamehameha III returned from the circuit of Hawaii. I am, respectfully,

AUA

F.T. 475v14

No. 8023, Aua, claimant

Kuine, sworn say, he knows the land of Aua. It consists of 3 pieces.

Apana 1. A loi in Auaukai, Waikiki, Oahu is bounded:

Mauka by the land of Ohuu

Kekaha by the land of Maukoli

Makai by the land of Manamana

Honolulu by the land of Oahu.

Apana 2. A kahawai & kula in Kalia, Waikiki. It is bounded:

Mauka by the land of Kalamanamana

Kekaha by the land of Kualulua a kahawai

Makai by the land of Hamohamo no konohiki

Honolulu by the land of Kaia in Kalia.

Apana 3. A house lot yard in Keomuku, Waikiki, bounded:

Mauka by the loko of Helumoa of Ii

Kekaha by the kula nui of Helumoa

Makai by the house lot of Kapule

Honolulu by the house lot of Puepue.

Claimant received the land from his father-in-law, Kamaukoli in the time of Kaahumanu & has held the same in quiet ever since.

Kahonu, sworn, confirms the above as true, his [and] also his own.

[Award 8023; R.P. 5943; Auaukai Waikiki Kona; 1 ap.; .05 Ac.; Kalia Waikiki Kona; 2 ap.; .64 Ac.; Keomuku Waikiki Kona; 1 ap.; 1 Ac. 1.18 chains]

Appendix B SHPD Requested Evidence from Client Regarding Depth of Planned Construction Work



Figure 34. Present elevations in the vicinity of the new porte cochere



Figure 35. Anticipated elevations in the vicinity of the new porte cochere

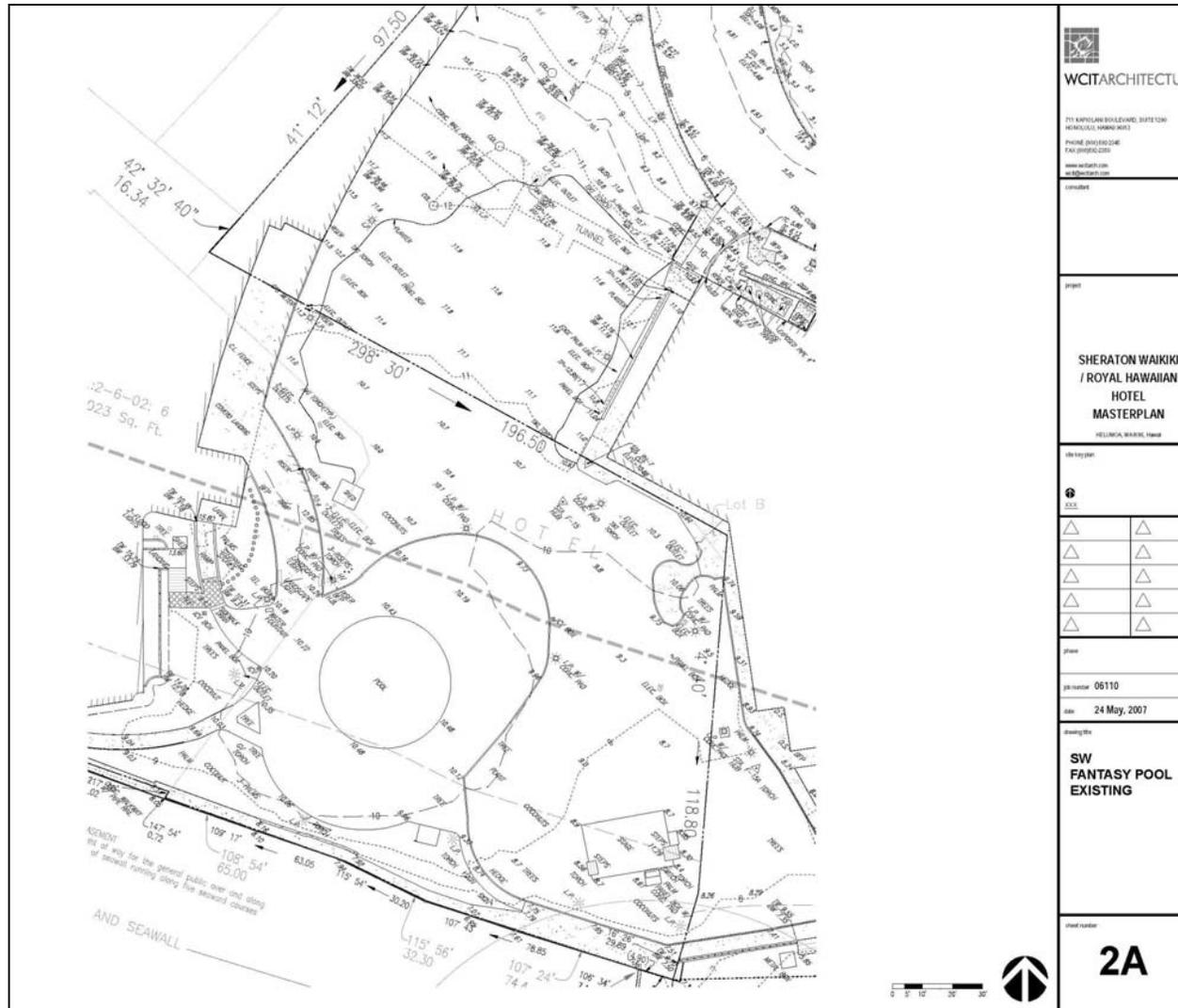


Figure 36. Present elevations in the vicinity of the new fantasy pool in the southwest Royal Hawaiian Hotel area

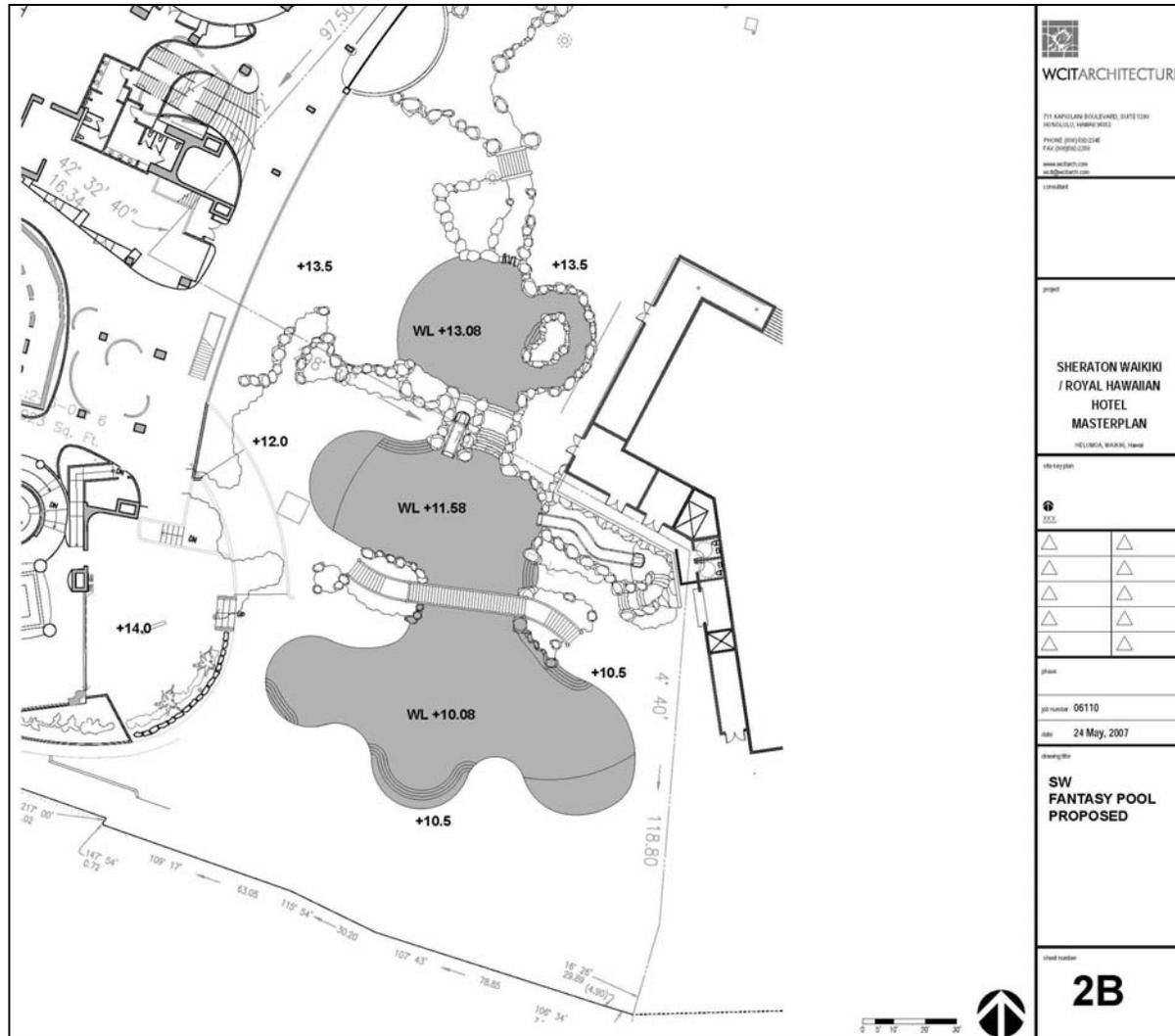


Figure 37. Anticipated elevations in the vicinity of the new fantasy pool in the southwest Royal Hawaiian Hotel area

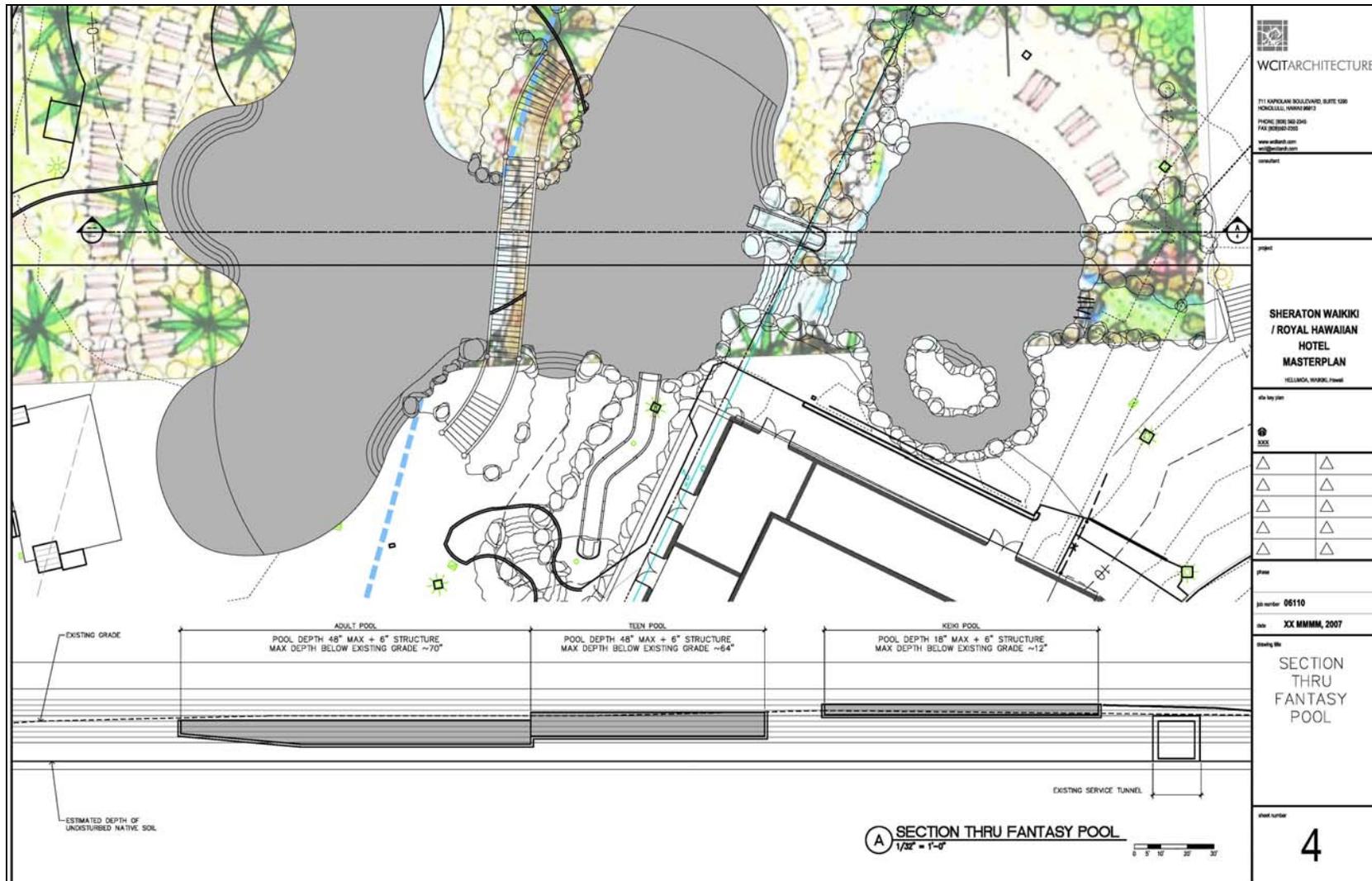


Figure 38. View of proposed new fantasy pool in the southwest Royal Hawaiian Hotel area showing cross-section with anticipated maximum depths below existing grade

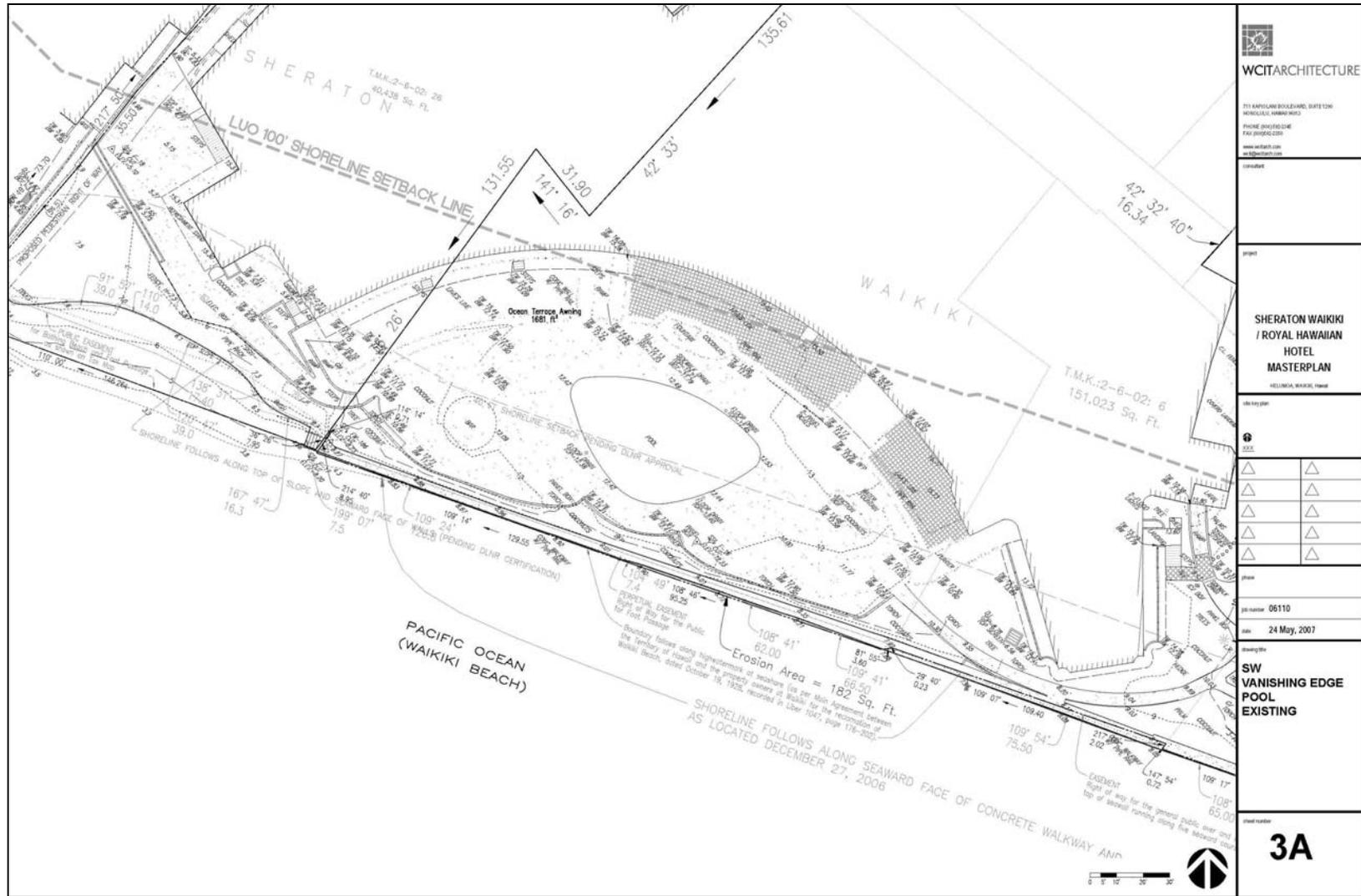


Figure 39. Present elevations in the vicinity of the new infinity pool



Figure 40. Anticipated elevations in the vicinity of the new infinity pool

**Archaeological Assessment Report for Improvements to
the Royal Hawaiian and Sheraton Hotels**

Waikīkī, Kona District, O‘ahu

TMK: [1] 2-6-002:005 & 006

**Prepared for
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and
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December 2007

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Management Summary

Reference	Archaeological Assessment Report for Improvements to the Royal Hawaiian and Sheraton Hotels Waikīkī, Kona District, O'ahu TMK: [1] 2-6-002: 005 & 006, (Runyon, O'Hare, Shideler and Hammatt 2007)
Date	December 2007
Project Number (s)	Cultural Surveys Hawai'i Inc. (CSH) Project Code: WAIKIKI 14
Investigation Permit Number	CSH performed the archaeological survey fieldwork under state archaeological permit number 07-19, issued by State of Hawai'i Department of Land and Natural Resources / State Historic Preservation Division (DLNR / SHPD)
Project Location	This study focuses on the lands of the Royal Hawaiian Hotel and Sheraton Waikiki Hotel in central Waikīkī on the south shore of O'ahu
Tax Map Keys and Recorded Fee Owner	Land Interests for TMK [1] 2-6-002: 005 (10.3 Acres) Kyo-ya Hotels & Resorts LP BP Bishop Trust Estate Land Interests for TMK [1] 2-6-002: 006 (3.5 Acres) Kyo-ya Hotels & Resorts LP
Agencies	The State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR) and the City & County of Honolulu
Project Description	The proposed resort renovation may potentially adversely impact cultural resources. This archaeological survey includes testing results in two areas that were found to be of high potential for cultural resources and/or human skeletal remains. Archaeological survey fieldwork was divided into two phases. Phase I included post-hole excavation. Phase II consisted of the excavation of two 2-meter square test units.
Project Acreage	The area of the Royal Hawaiian Hotel and Sheraton Waikiki resorts is understood as approximately 601,205 square feet (13.8 acres or 55,853 m ²).
Area of Potential Effect (APE) and Survey Acreage	The Area of Potential Effect is understood as any portions of the hotel grounds in which subsurface renovation work may impact natural sediments, previously disturbed or un-disturbed, potentially including cultural resources and/or human skeletal remains.

Historic Preservation Regulatory Context	In consultation with SHPD an archaeological inventory survey plan (Shideler and Hammatt 2007) was submitted and approved by SHPD (6E-42 Historic Preservation Division review letter dated July 31, 2007; Log No. 2007.2122 Doc No. 0707ED30; present Appendix A). The inventory survey plan described the proposed activities, the cultural setting, and the data pertaining to potential pre-contact and early historic archaeological deposits and/or burials that could be encountered. Project-related fieldwork was carried out per the provisions of the project's inventory survey plan. The present archaeological assessment report was prepared per the requirements of Hawai'i Administrative Rules HAR 13-276-5 and is intended for review and approval by the SHPD and possible consideration by agencies of the City & County of Honolulu. Because no new sites were identified or designated this study is termed an Archaeological Assessment as per HAR 13-275-5 (b) 5 (A)
Fieldwork Effort	Archaeological survey work was intermittently conducted from October 1, 2007 to November 16, 2007 by several CSH archaeologists, Rosanna Runyon, B.A., David Shideler, M.A., Connie O'Hare, B.A., Kathryn Whitman, M.A., Douglas Thurman, B.A., Jeff Fong, B.A., Lleiana Loynaz, B.A., Amy Hammermeister, B.A., Nifae Hunkin, B.A., Alexander Hazlett, Ph.D., and Randy Groza M.A.. Fieldwork required approximately 400 hours of field effort to complete. All fieldwork was done under the general supervision of Hallett H. Hammatt, Ph.D. (principal investigator). Artifact analysis required approximately 136 hours of lab time to complete.
Number of Historic Properties Identified	The Royal Hawaiian Hotel and Sheraton Waikiki hotels are not listed on the State or National Registers of Historic Places. The only formal site in the vicinity is Site #50-80-14-5937 a human burial on the grounds of the Royal Hawaiian Hotel (designated in Elmore and Kennedy 2001). No sites were designated in the present study (hence this study is termed an "Assessment".)
Archaeological Survey Results	The project area covered by the archaeological survey, including the SW Royal Hawaiian Hotel Pool Area and the North Royal Hawaiian Hotel Traffic Island, contained thick imported fill deposits and was highly disturbed by utilities and prior building construction activities. Jaucas sand was only observed in the SW Royal Hawaiian Hotel Pool Area from approximately 170-220 centimeters below the ground surface. This undisturbed jaucas sand sediment could be impacted by the proposed two-tier resort pool development. Further testing of this area included two 2 ^m square test unit excavations through disturbed sand and jaucas sand sediments. Two human bones were discovered and were reinterred near the vicinity of Site # 50-80-14-5937, on the grounds of the Royal Hawaiian Hotel. Pre-contact and mid- to late-1800s cultural materials were found within on-site disturbed sand, and several small possible features were identified in jaucas sand sediment.

Effect Recommendation	The proposed renovation work has the potential to adversely impact pre-contact and early historic archaeological deposits and/or burials.
Mitigation Recommendation	On-site archaeological monitoring is recommended for all ground disturbance activities through the disturbed sand and jaucas sand sediments. A qualified archaeologist will monitor all ground disturbance through these strata associated with the project construction.

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Section 1 Introduction

1.1 Project Background

Cultural Surveys Hawai'i, Inc. (CSH) was contacted regarding providing archaeological services in support of proposed renovations at the Sheraton Waikiki and Royal Hawaiian Hotel resorts in central coastal Waikīkī, O'ahu, Hawai'i (Figures 1-4). Potential ground disturbance is anticipated to occur in a number of areas during the course of major renovation work at the Sheraton Waikiki and Royal Hawaiian Hotel. This archaeological survey report includes the results of archaeological testing in two areas which were found to be of high potential for cultural resources and/or human skeletal remains (Figure 1 to Figure 4). Interests in these lands are held as follows: Land Interests for TMK [1] 2-6-002: 005 (10.3 Acres) Kyo-ya Hotels & Resorts LP & BP Bishop Trust Estate and TMK [1] 2-6-2: 6 (3.5 Acres) Kyo-ya Hotels & Resorts LP.

In consultation with the SHPD an archaeological inventory survey plan (Shideler and Hammatt 2007) was submitted and approved by the SHPD July 31, 2007 (Log No. 2007.2122 Doc No. 0707ED30) (present Appendix A). The inventory survey plan identified the project area and owner(s), described the environment, existing conditions, proposed renovation activities, provided relevant historical background and prior archaeological data, and advised that potential pre-contact and early historic archaeological deposits and/or burials could be encountered. Specific methodology was given in that plan that guided the present study. Project-related fieldwork was carried out per the provisions of the project's inventory survey plan. This archaeological assessment report was prepared per the requirements of Hawai'i Administrative Rules HAR 13-276-5 and is intended for review and approval by SHPD. Because no finds appropriate for designation as archaeological sites were encountered this study is entitled an "Assessment" as per HAR 13-275-5 (b) 5 (A).

1.2 Environmental Setting

1.2.1 Natural Environment

The project area is flat and averages 2 to 3 meters above mean sea level. The average rainfall in this coastal area of Waikīkī is between 20-30 inches per year, with temperatures ranging from 60 to 85 degrees Fahrenheit (Armstrong 1973:56). Northeasterly trade winds prevail throughout the year, although their frequency varies from more than 90% during the summer months to 50% in January; the average annual wind velocity is approximately 10 miles per hour (Okamoto 1998:2-1).

Although the area has been graded, and a great deal of earth fill has been previously imported, the natural soil deposit is Jaucus sand (JaC), and Beaches (BS) (Figure 5), which are calcareous soils developed in wind and water deposited sand from coral and seashells (Foote et al. 1972).

A major feature of the immediate project area until it was filled in c. 1922 was the outlet of 'Āpuakēhau Stream (shown in several figures throughout this report) located just east of the present study areas. This stream formed a lagoonal backwater (*muliwai*) just back from the coast.

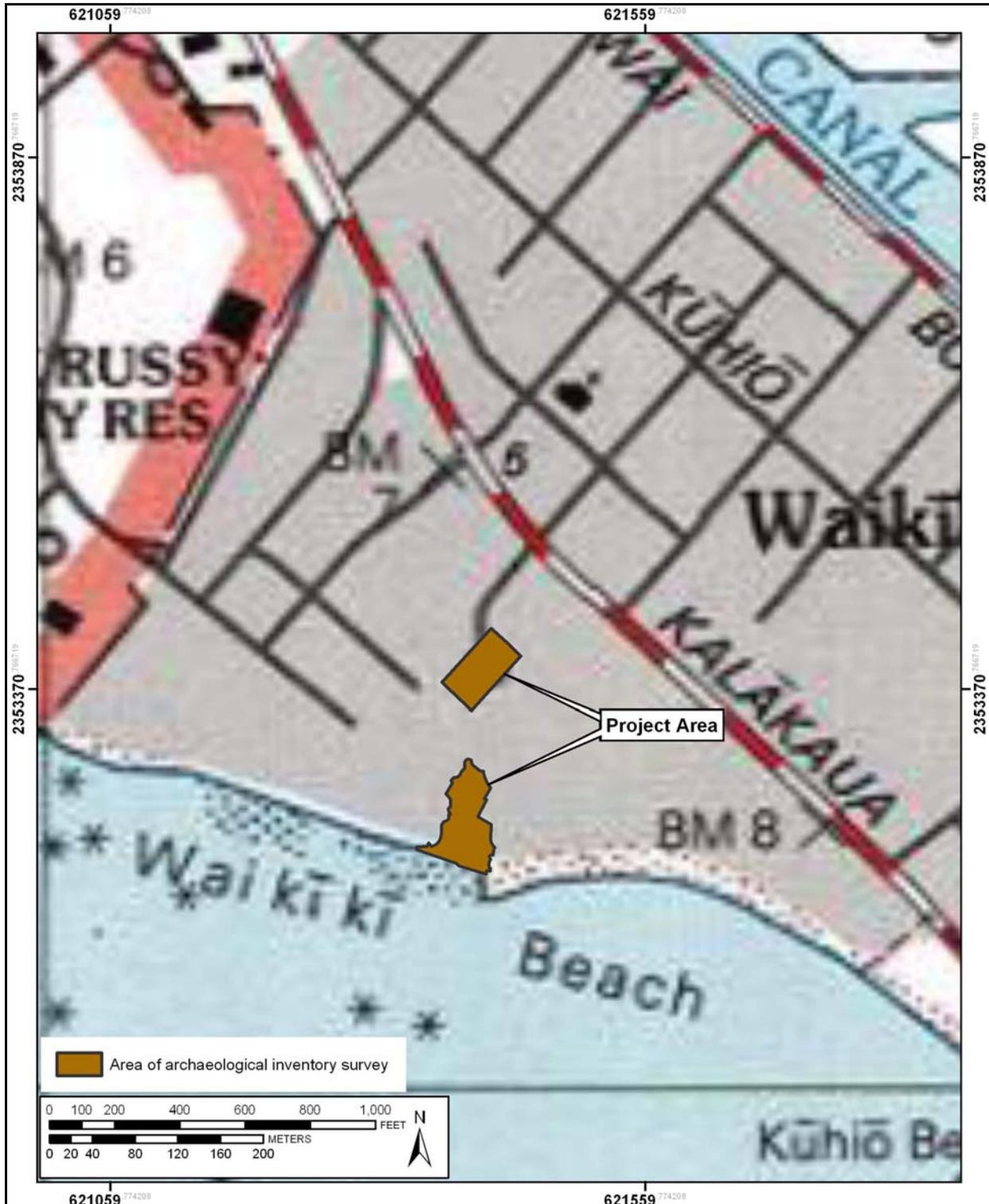


Figure 1. Portion of 1998 Honolulu USGS 7.5 Topographic Quadrangle Map, with overlay of SW/RHH property and the two areas of inventory survey fieldwork

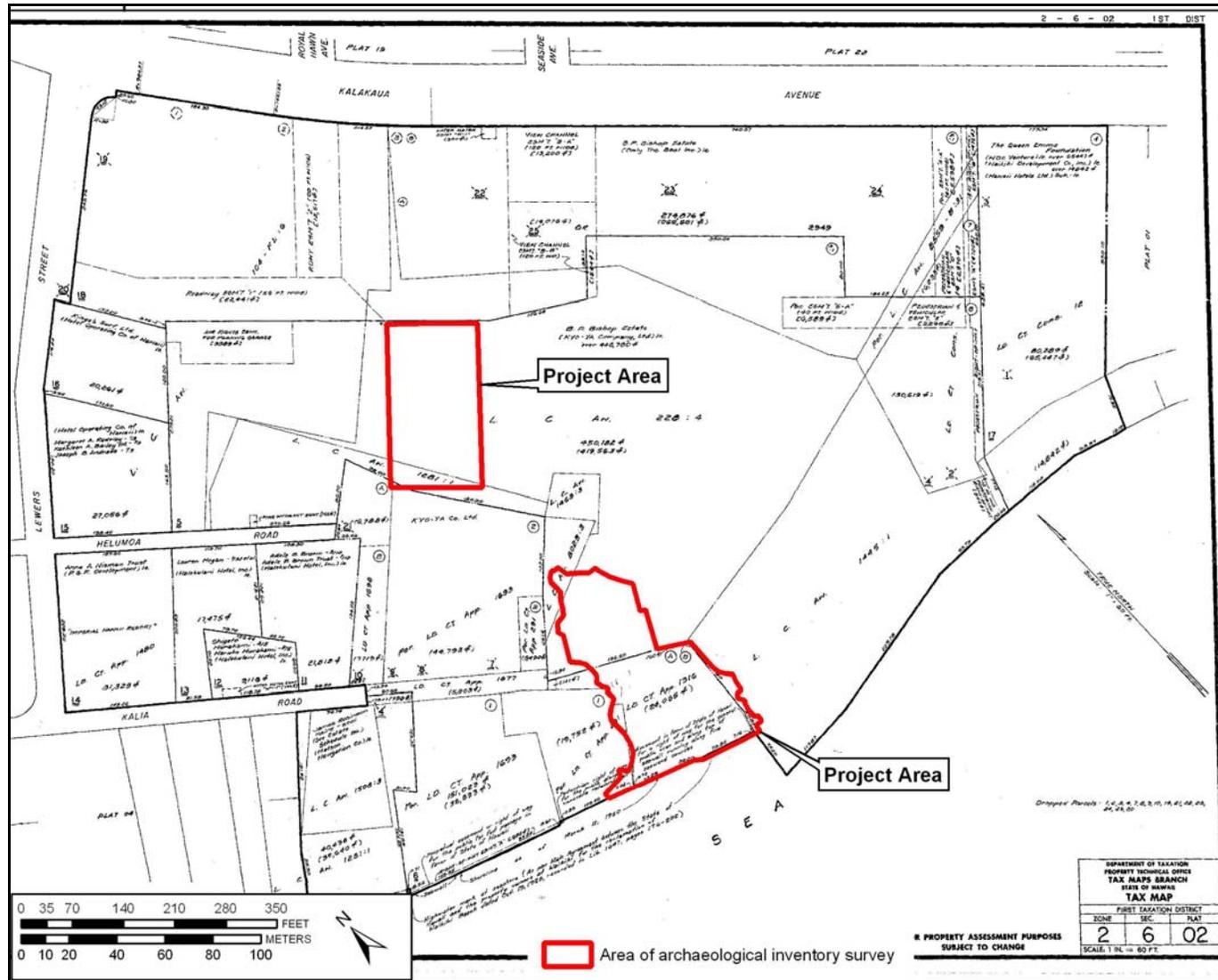


Figure 2. Tax Map [1] 2-6-002 with overlay of SW/RHH property and the two areas of inventory survey fieldwork



Figure 3. Portion of a 2005 USGS orthophoto quadrangle, aerial photo with an overlay of the SW/RHH property and the two areas of inventory survey fieldwork

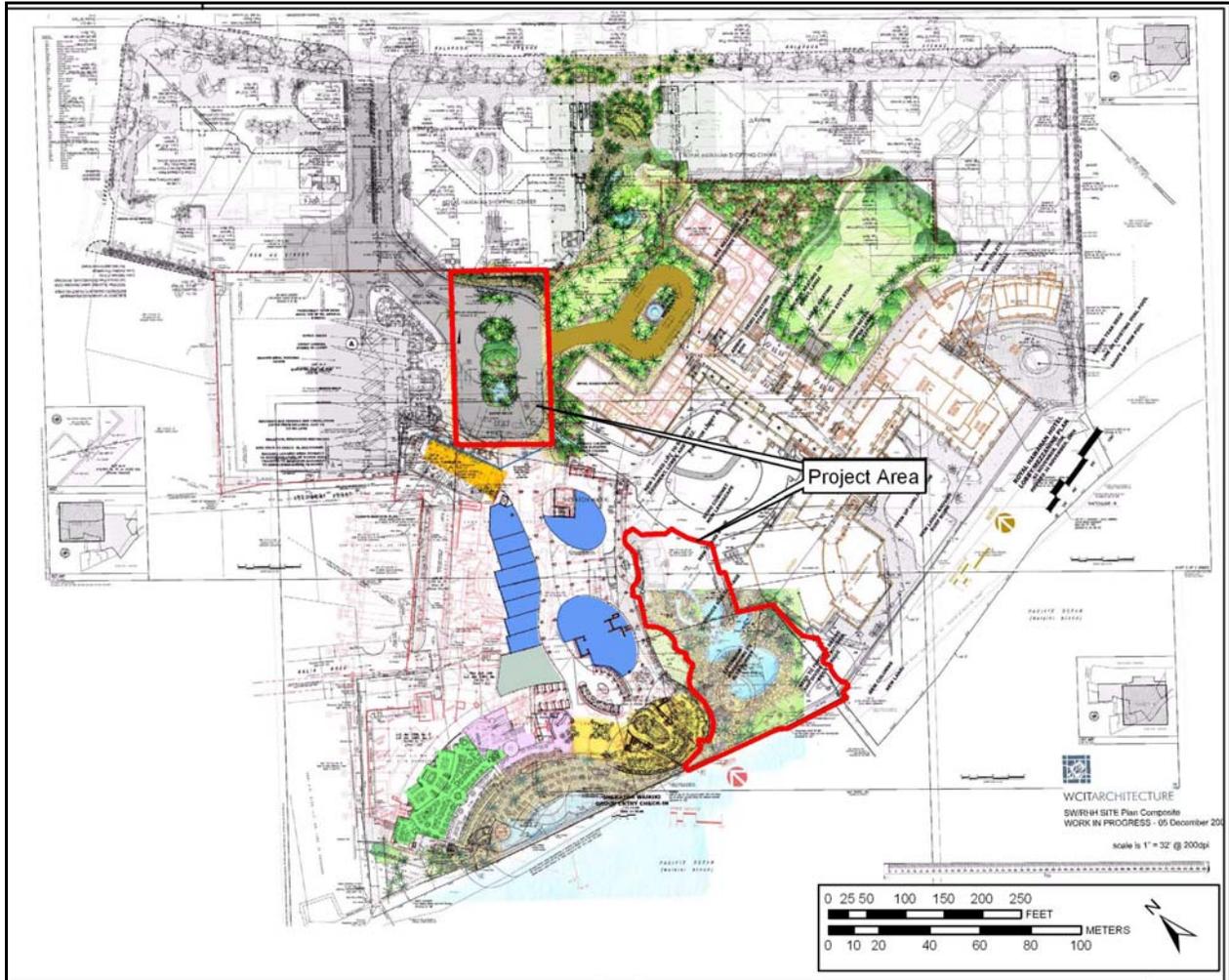


Figure 4. Site Plan showing SW/RHH property and the two areas of inventory survey fieldwork and showing geographic references used in this study

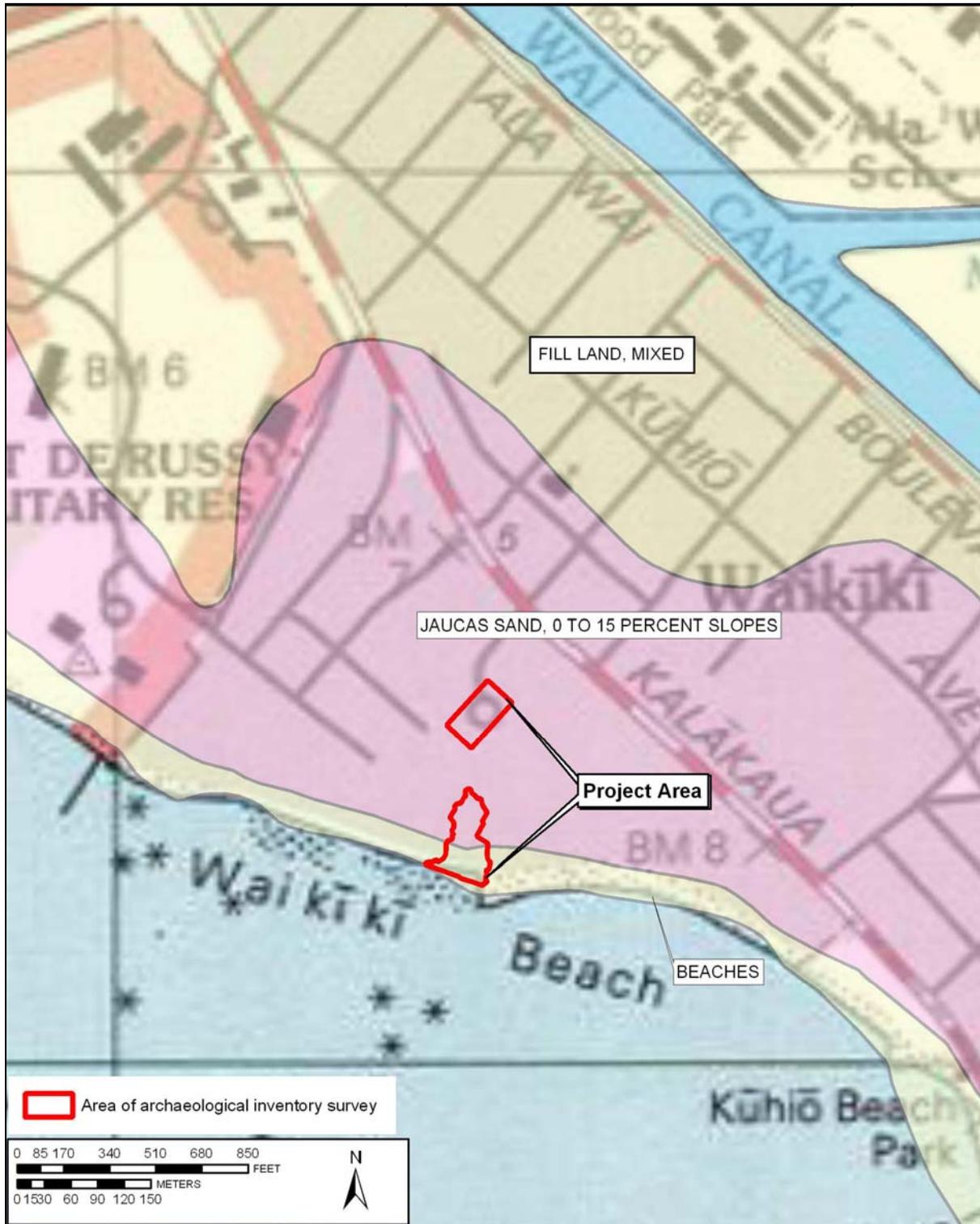


Figure 5. Portion of 1998 Honolulu USGS 7.5 Topographic Quadrangle Map, showing the project area soils

It appears that the configuration of the stream mouth changed significantly shortly before it was filled in. It is understood that the *muliwai* entered the sea where the east side of the Royal Hawaiian Hotel is today but by 1919 the stream appears to have been straightened and shortened to enter the sea further to the east, between the present Moana and Royal Hawaiian Hotels.

The project lands were famous as the location of the Helumoa coconut grove (see Figure 6 and Figure 7) said to have been planted by the ruling chief Kākuhihewa in the mid-seventeenth century and to have included nearly 10,000 palm trees (Hibbard and Franzen 1986:4 & 5). It is popularly understood that a portion of the Helumoa grove “still stands on the Royal Hawaiian Hotel grounds today” (Hibbard and Franzen 1986:7). Generally, vegetation in the Waikīkī area today is landscaping that includes mainly introduced exotics, such as Banyan, MacArthur Palm, Brassia, Coconut, Plumeria, Money, Alexander Palm, Manila Palm, Date Palm, Fern, Monkey Pod, Tulip Wood, and Opiuma trees and a variety of grasses.

1.2.2 Built Environment

The Royal Hawaiian Hotel was formally opened on February 1 1927. With a maximum height of 150 feet, it was the tallest privately owned building in the Territory at that time (Hibbard and Franzen 1986:99). The thirty-one story Sheraton Waikiki was completed in 1971. With 1,904 rooms, it was the largest resort hotel in the world at that time (Hibbard and Franzen 1986:165).

Section 2 Methods

2.1 Field Methods

The archaeological survey fieldwork was divided into two phases. Phase I included hand post-hole excavation. Phase II included hand excavation of two 2-m (meter) x 2-m (each 4 m²) test excavations.

2.1.1 Phase I

Archaeological survey Phase I work was intermittingly conducted from October 1, 2007 to October 16, 2007 by several CSH archaeologists, Rosanna Runyon, B.A., Douglas Thurman, B.A., David Shideler, M.A., Kathryn Whitman, M.A., Nifae Hunkin, B.A., Alexander Hazlett, M.A., and Jeff Fong, B.A. Phase I fieldwork required approximately 400 hours of field effort to complete. All fieldwork was done under the general supervision of Hallett H. Hammatt, Ph.D. (principal investigator).

Fieldwork was limited to areas inside the footprint of specific construction designs where project construction could potentially impact cultural resources. Twelve post-holes were excavated by hand in two different locations in the project area. Eleven post-holes were excavated in the SW Royal HH Pool Area and one post-hole was excavated in the North Sheraton Traffic Island. Electronic toning was used to prevent hitting subsurface utilities. Each post-hole was excavated to a minimum of 180 cmbs (centimeters below surface), unless impeded by subsurface building features. All sediment was examined as it was removed and placed into a pile on a tarp. Disturbed sand (Stratum II) and natural jaucas sand (Stratum III) sediments were screened through a 1/8 inch screen. All cultural materials found in the disturbed sand (Stratum II) and/or natural jaucas sand (Stratum III) sediments were collected.

The general area of each post-hole was mapped and photographed. Stratigraphy was drawn for all successful excavations, and the sediments were described. Sediment descriptions included Munsell color, texture, consistency, structure, plasticity, cementation, origin of sediments, descriptions of any inclusions such as cultural materials, lower boundary distinctiveness and topography, and other general observations.

2.1.2 Phase II

Fieldwork for Phase II of the inventory survey was conducted from November 12 to November 16, 2007 by several CSH archaeologist including Rosanna Runyon, B.A., David Shideler, M.A., Connie O'Hare, B.A., Kathryn Whitman, M.A., Douglas Thurman, B.A., Jeff Fong, B.A., Lleniana Lloynez, B.A., Amy Hammermeister B.A., Randy Groza, M.A., and Whitney Peatree, B.A.

Two 2 m x 2 m square units (each 4 m²) were excavated in those areas in which the results of post-hole excavations indicated undisturbed sediments within 50 cm (20 inches) of the proposed base of renovation excavations. The two excavations utilized a backhoe to remove upper fill sediments, approximately 1 m, or 3.5 ft (feet) thick, exposing the disturbed sand stratum (Stratum II). Flat-blade shovels were used through the disturbed sand, and trowels were used in

undisturbed sediment. Stratum III appeared to be sterile sand, which was excavated to a depth well below proposed renovation plans for excavation in this area, approximately 2.30 m (7.5 ft). All sediment was examined as it was removed and was screened using a 1/8-inch screen. All artifacts from the disturbed sand strata and clean jaucas sand stratum were collected. Artifact bags were labeled with the meter square of the test unit in which the artifacts were found and/or feature number, stratum, and date. Standard archaeological methodology was used. Stratigraphy was drawn and the sediments were described. The general area of each test excavation was mapped and photographed.

2.2 Laboratory Methods

All collected materials were analyzed using current standard archaeological laboratory techniques. Artifacts were washed, sorted, examined, catalogued, and individually bagged. Historic artifacts were identified using standard reference materials and resources available on the internet. Marine shell was identified using standard comparative reference works. The information was tabulated into chart form. A complete inventory of Phase I and Phase II artifacts is given in Appendix C.

All material was catalogued quantitatively to provide a complete descriptive inventory of what was found. In general, ceramics were sorted into undecorated or decorated whiteware, porcelain, stoneware, or redware. Maker's marks on pottery were looked up for dates, country of origin, and pattern types. Glass was sorted into colorless, aqua, dark olive, green, or amber bottle glass, window glass, and possible lamp chimney glass. All bottle maker's marks and diagnostic features were researched for dates, origin, and manufacturer information. Metal was sorted into ferrous or nonferrous metal, wire nails, square or cut nails, screws, wire, or can parts. Faunal bone was sorted into fish bone, small to medium mammal bone, medium to large mammal bone, faunal teeth, burnt bone, and cut bone unless the faunal bone was easily further identifiable. Marine shell was sorted into genus and when possible into species. It was noted whether the marine shell was whole, fragmented, or if the type contained both whole and fragmented pieces.

2.3 Document Review

Background research was conducted as part of the inventory survey plan prepared for SHPD. The background research was augmented for this report. The 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 (DNLR). Archaeological reports, historic maps and photographs contained within the CSH library were also consulted. In addition, Māhele records were examined from the Waihona' Aina (<http://www.waihona.com>) database.

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 types and locations of historic properties in the project area.

2.4 Consultation

Consultation was conducted and will continue to be conducted with the Office of Hawaiian Affairs (OHA), the State Historic Preservation Division (SHPD), Kamehameha Schools and

Native Hawaiian families and individuals throughout the planning for this project and the actual renovation work. Consultation with the O'ahu Island Burial Council (OIBC) was initiated formally at the October OIBC meeting. All consultation is summarized in this report per requirements HAR 13-276-5 (g).

In the OHA letter 2006 there were two specific requests:

- 1) That an archaeological inventory survey plan be prepared (Hammatt and Shideler 2007), and
- 2) That in the event *iwi kūpuna* or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

On April 9, 2007 preliminary face-to-face consultation was held between project proponents and Ms. Melanie Chinen, State Historic Preservation Division administrator and Mr. Adam Johnson, SHPD O'ahu archaeologist regarding the nature of the proposed renovation work and the proposed sampling strategy. No commitments were expected or were received from the SHPD regarding the proposed sampling strategy. Mr. Johnson stated that the number of post-holes might need to be increased. As a result of this consultation the archaeological inventory survey plan was revised and the number of proposed post-holes was doubled in the area of the proposed free-form two-tier resort water feature. With the increase, the total number of proposed post-holes is fourteen (eleven in the SW Royal Hawaiian Hotel Pool Area and three in the North Royal Hawaiian Hotel Traffic Island). As a follow-up to that meeting the renovation team were submitted to the SHPD additional, supplementary information indicating areas to be filled and the depth of the fill to serve as a guide for the determination of appropriate action within the revised archaeological inventory survey plan. The archaeological inventory survey plan (Shideler and Hammatt 2007) was submitted and approved by the SHPD July 31, 2007 (Log No. 2007.2122 Doc No. 0707ED30) (present Appendix A).

Section 3 Background Research

3.1 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. Kanahele (1995:134) notes the continuity in the royal residences and provides the following account:

The royal residences were generally located in the same areas that all of Waikīkī's ancient chiefs had located their residences for hundreds of years. Kamehameha V's residence, for example, was at Helumoa where Kamehameha I's *kauhale*, or residence, was, as was Kahekili's and Kahahana's before him. His cottage stood on the site now occupied by the Royal Hawaiian Hotel; some identify the exact site as the hotel's present *lū'au* grounds (between the rear or *mauka* side of the hotel and the *makai* side of the Royal Hawaiian Shopping Center.

Kanahele (1995:134-1345) goes on to explain that: "Three features were common to royal locations in Waikīkī. They were situated 1) near the beach, 2) next to a stream or 'Auwai (canal) and 3) among a grove of cocoanut or *kou* trees." This account fits Helumoa particularly well with its famous cocoanut grove (see Figure 6 and Figure 7). It may well be that the immediate vicinity of the present Royal Hawaiian Hotel was a center of the royal court of O'ahu for centuries - as Kanahele indicates.

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 wresting control of O'ahu by defeating the island's chief, Kalanikūpule. Following his conquest of O'ahu in 1795 it is understood that Kamehameha I set up court at Pua'ali'ili'i "an area in Waikīkī that included all of Helumoa and 'Āpuakēhau" (Hibbard and Franzen 1986:2). This is understood as the lands of the present Royal Hawaiian Hotel extending to the east as far as the present Moana Hotel (Hibbard and Franzen 1986:3). The 19th-century Hawaiian historian John Papa 'Ī'i (1959:17), himself a member of the *ali'i* (chiefly class), described the king's Waikīkī residence:

Kamehameha's houses were at Puaaliilii, *makai* of the old road, and extended as far as the west side of the sands of 'Āpuakehau. Within it was Helumoa where Ka'ahumanu mā went to while away the time. The king built a stone house there, enclosed by a fence . . . ['Ī'i 1959:17].

'Ī'i 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" ('Ī'i 1959:17). 'Ī'i provides more specific data in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 declaring that "Kamehameha himself lived on this land" (Appendix B, page B-4). The land referred to is basically a strip running just *mauka* of the Royal Hawaiian Hotel and just *makai* of the Royal Hawaiian Shopping Center – as Kanahele asserts above.



Figure 6. View of Helumoia Coconut grove c. 1870s (Royal Hawaiian Hotel location), view to east (adapted from Hibbard and Franzen 1986:4)



Figure 7. View of the 'Āpuakēhau Stream *muliwai* or lagoonal backwater c. 1880s, Helumoia grove in background, view to west, believed to be a view *mauka* of the present Kalākaua Avenue (adapted from Hibbard and Franzen 1986:4)

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 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 “Whyteete” 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 luxuriancy of its productions. Here and there we met with ponds of considerable size, and besides being well stocked with fish, they swarmed with waterfowl 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 Hawaiians.

3.2 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-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* (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 dry land agricultural plots, though on a greatly reduced scale than had been previously possible with adequate manpower.

The Sheraton Waikiki/Royal Hawaiian Hotel project area was a patchwork of thirteen Land Commission Awards circa 1850. The Land Commission Award (LCA) documentation is provided in detail in Appendix B of this study and is summarized in Table 1. The location of many of these LCA lots are shown on the 1881 Bishop map (Figure 8) and subsequent Land Court Application documents (Figure 9 and Figure 10).

It appears that many of the LCA lots were primarily residential and were awarded to loyal retainers of the Kamehameha dynasty. In 1847, John 'Ī'ī stated in testimony regarding LCA 228 granted to Kaleiheana:

. . . I have seen this land and these names which are written in this claim document are the attendants of Kameameha I. Their work was taking care of the house and preparing the food. These people were in constant contact with the chiefs and were close to each and every chief. When Kamehameha I died, they continued to live on the property and when the chief returned from Hawaii Kalaiheana went to live there. These people have lived there since Kamehameha II to Kaahumanu's reign, and to the year 1846 when Kuluwailehua had raised objections [John 'Ī'ī's testimony regarding LCA 228 granted to Kaleiheana; see Appendix page B-5].

It is further stated that Kamehameha I lived on this land until his death and subsequently the land has been the resting place for the chiefs down to Kamehameha V. Many of the recipients of the LCA lots indicated they were either "under" some adjacent party or had other parties "under" them on their land, suggesting a continuity of high status parties in the mid-1800s.

Table 1. Land Commission Awards in Project Lands

LCA #	Claimant	Traditional Names	General Location	Comments
104 FL	Kekuanaoa	Kapuni	NW Sheraton	House site, also claimed 2 <i>lo'i</i> (irrigated patches), 5 fish ponds and 1 <i>muliwai</i> elsewhere at Waikīkī.
228	Kalaiheana Kaleiheana	Helumoa	N Sheraton N Royal Hawaiian Hotel	Claims cocoanut grove at Helumoa with stream called Apukokohau adjacent, six with own houses living under claimant
822	Okuu	Helumoa	S end of Sheraton	House lot claim with an adobe fence and five houses; Kupanihi, Kini and Ku are house owners
1281	Kuluwailehua	References to Kamoku, Kamokuakahi & Kamoku	Central Sheraton	Difficult to differentiate between 5 Waikīkī land claims

LCA #	Claimant	Traditional Names	General Location	Comments
		elua [Kamoku 1 & 2] – these appear to be variants of the more common “Keomuku”		
1379	Kapule II	Keaumoku [understood as a variant of “Keomuku”]	S Sheraton	House lot claim with a large house, a little house and a fence
1385	Kaelemakule	Keomuku	S Sheraton	House lot claim
1445	Kanemakua	Helumoa [<i>sic</i> “Helumoa”]	Central Royal Hawaiian Hotel	House lot claim with 7 (variously 8) houses claimant owns 2 – seemingly other residents under the claimant are Kahanaumaikai, Kalaauli, Kaaia, Kahui & Ku
1463	Wahahe‘e	Helumoa		House lot claim with 1 house & a fence
1508	Kaho‘oululu	Pahupahuapua‘a	SW Sheraton	House lot claim partly fenced
1511	Kanae	Keonuku [understood as a variant of “Keomuku”]	S Sheraton	House lot claim
1782	Kahope	Helumoa	SW Royal Hawaiian Hotel	House lot claim is bounded: <i>Mauka</i> by the cocoanuts of Helumoa, <i>Kekaha</i> by the <i>pāhale</i> [house] belonging to Kanemakua, <i>Makai</i> by the sea shore, Honolulu by the <i>pāhale</i> of Okuu
2126	Keaho (Keoho)	Kuweluwelu, Keomukukai	S Sheraton	2 <i>puepue</i> [hill, dune], a <i>kula</i> [pasture or dryland agricultural patch] and <i>pāhale</i> in one piece
8023	Aua	Keomuku	Central Sheraton	House lot claim bounded <i>mauka</i> by <i>loko</i> [pond] of Helumoa of ‘Ī‘Ī and <i>mauka</i> by the <i>kula nui</i> of Helumoa.

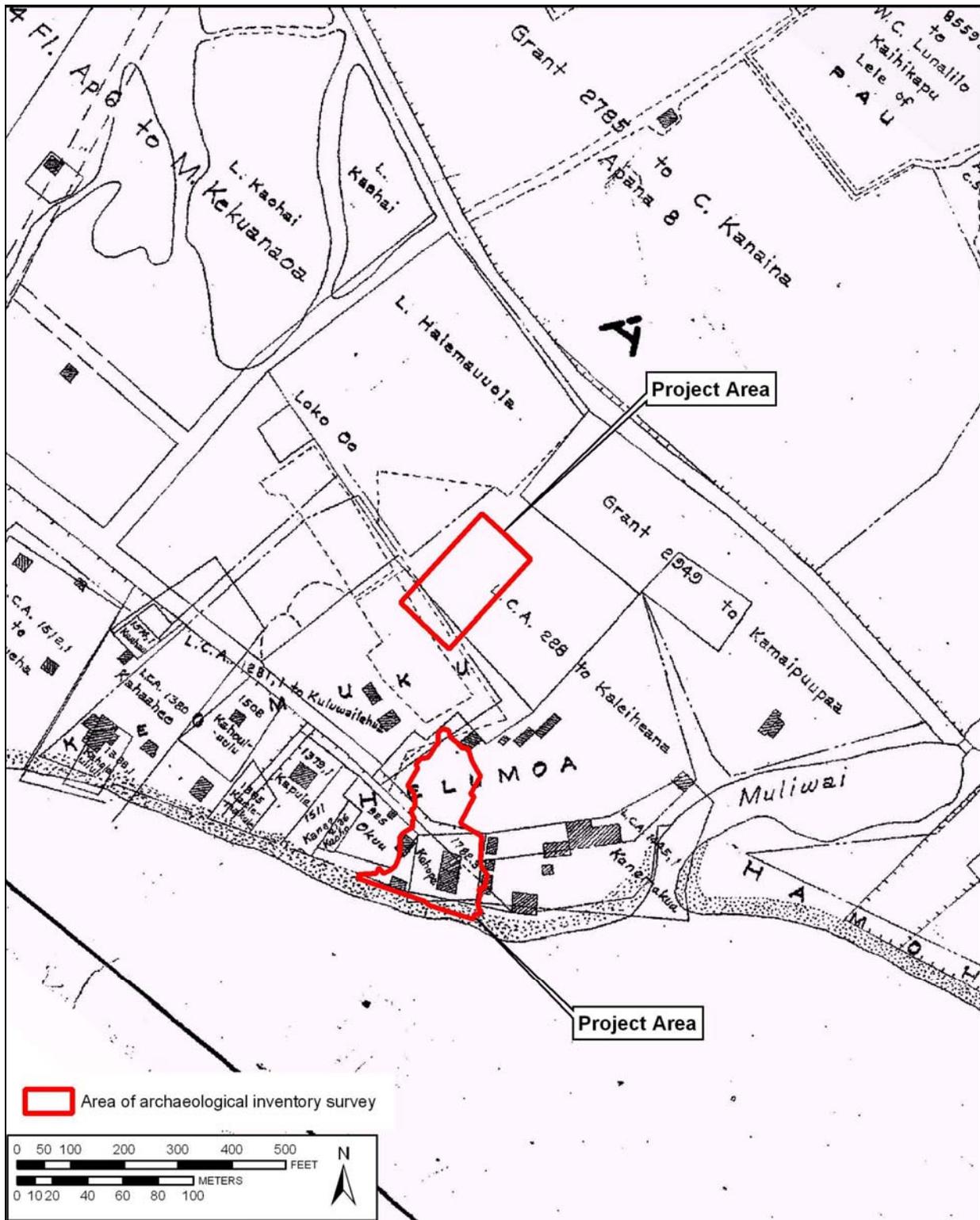


Figure 8. Portion of the 1881 Bishop Map with overlay of areas of work

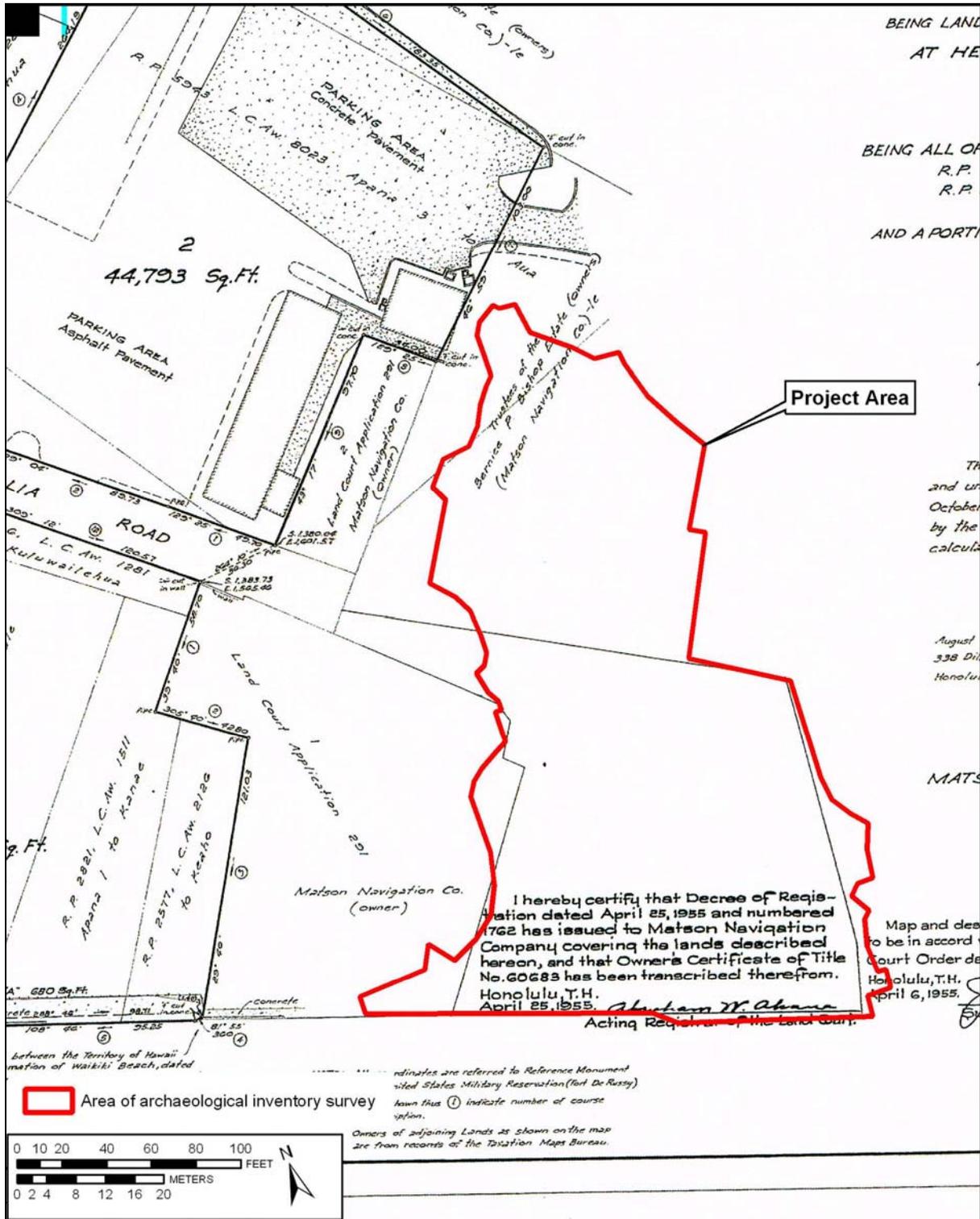


Figure 9. Portion of Land Court Application map 1693 showing relationship of South Sheraton and Southwest Royal Hawaiian project areas to LCA lots

A portion of LCA 1281 is located in the south-west portion of the SW Royal Hawaiian Hotel project area. This area of land was owned by Mrs. Macfarlane, as shown in a portion of the Land Court Petition No. 291 (see Figure 10).

3.3 Mid to Late 1800s

The most notable establishment in the present project area in the late 1800s was “King Kamehameha V’s grass thatched cottage [that] was located among the famous 10,000 cocoanut trees of Helumoa” (Grant, Hymer 2000). Helumoa (“Resting Place”) became the King’s Park and Grove (Figure 11):

The most notable grass hut in Hawaii Nei . . . is the structure erected at Waikiki by Kamehameha V, who used it as his seaside bungalow . . . often (assembling) his cabinet meetings there and transacting much of his official business beneath the thatched roof . . . [There] in the early 1820’s, Liholiho (Kamehameha II), son of the conqueror, waged his battles with the bottle; the substantial grass house with its outbuildings, surrounded by an extensive royal cocoanut grove served as a beach hideaway” [E. B. Scott, 1968].

Kamehameha V, better known as Prince Lot, died in 1872. Through a succession of inheritance after his death, the lands on which he rested on the shores of Waikiki, were left to



Figure 11. Mid-1860s photograph of Kamehameha V’s house on the beach of Waikiki (photo from Scott 1968:601)

Princess Ruth Ke'elikōlani, who passed away in March of 1883, and ultimately it was given to Princess Bernice Pauahi Bishop: “the last direct descendant of Kamehameha I and sole heir to the crown lands” (Kamehameha Schools 2001). An 1893 map by W.A. Wall indicates the landowner was then Charles R. Bishop, Princess Bernice Pauahi Bishop’s husband (Figure 12). The Bishops built a large seaside residence with a big veranda on the seaward side that appears to have been in the inland portion of the present Southwest Royal Hawaiian Hotel study area.

As the nineteenth 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 nineteenth century prelude of changes that would dramatically alter the landscape of Waikīkī during the twentieth century – include the improvement of the road connecting Waikīkī to Honolulu (the route of the present Kalākaua Avenue), 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, 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 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. 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 (Figure 13).

Hotels, bathhouses, and gathering places became established in the vicinity of the project area in the late nineteenth century. A particularly well known gathering place, the Waikiki Villa also known as the Hawaiian Annex with four apartments for overnight guests was built circa 1890 at the present location of the Sheraton Waikiki and was one of the first Waikīkī enterprises to rent rooms (Hibbard and Franzen 1986) (Figure 14).

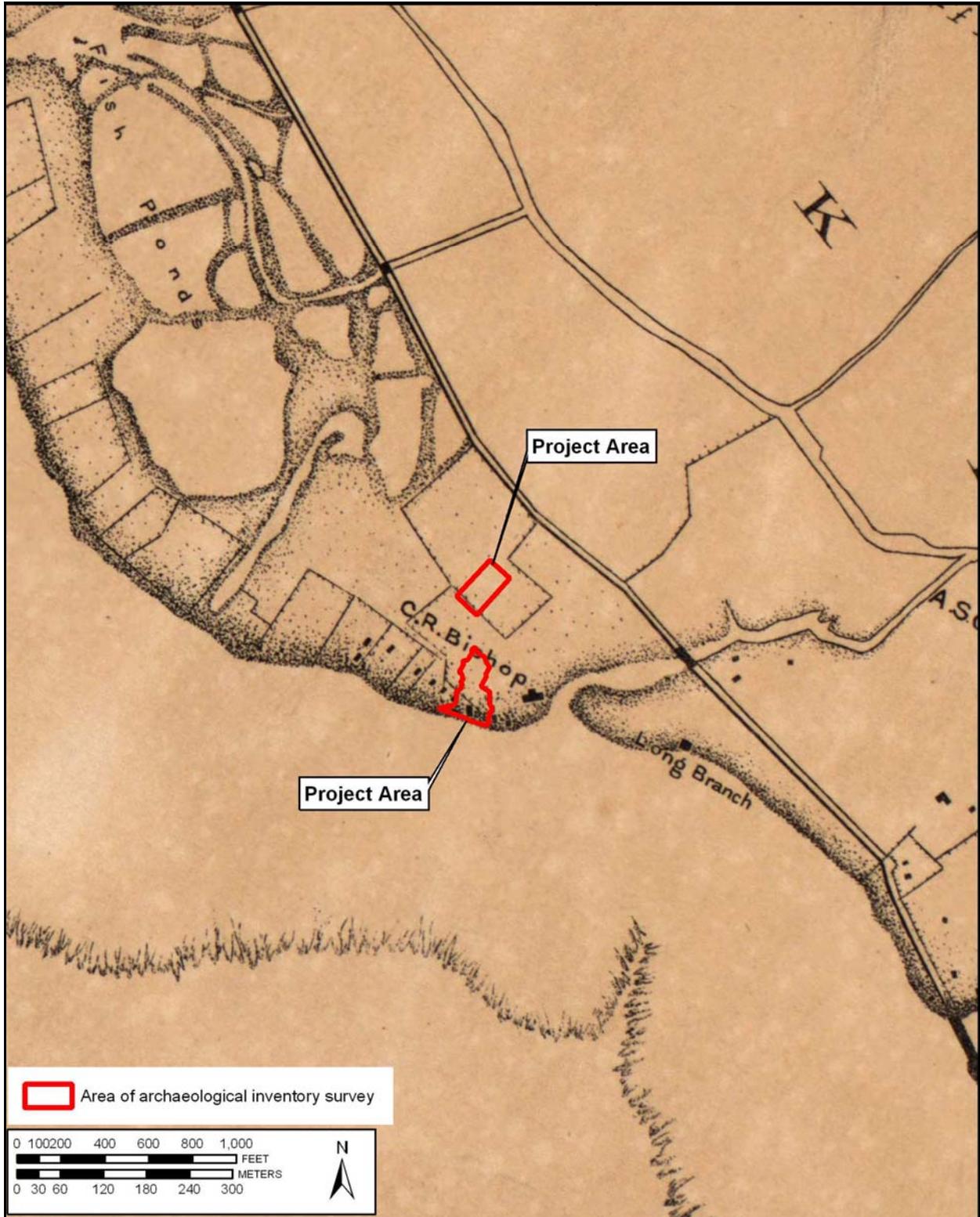


Figure 12. 1893 W.A. Wall map with overlay of areas of work, (note the outlet of ‘Āpuakēhau Stream)

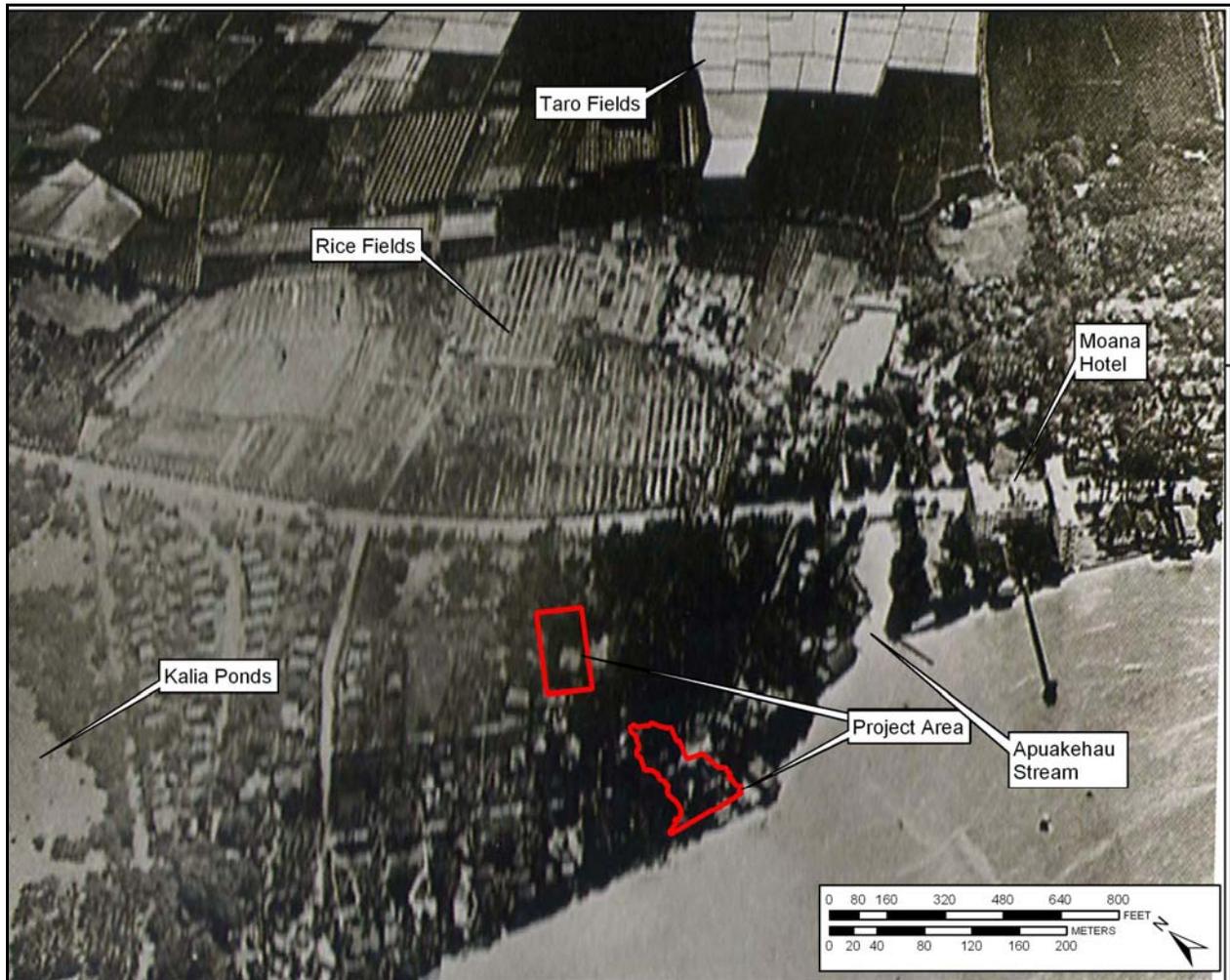


Figure 13. Aerial Photograph of Waikīkī Before the Completion of the Ala Wai Drainage Canal (Hawai'i State Archives)



Figure 14. View of 'Āpuakēhau Stream *muliwai* or lagoonal backwater, circa 1909, the former Waikiki Villa or Hawaiian Annex (renamed the Honolulu Seaside in 1906) at extreme left, the “quaint” thatched houses of the Outrigger Canoe Club (former location) were not traditional habitations but had been imported from the defunct Kaimukī zoo (adapted from Hibbard and Franzen 1986:76)

3.4 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.

Bathhouses and hostelrys began to be constructed along Waikīkī Beach during the late nineteenth and early twentieth centuries. Some of these establishments were located within the project area. The Waikīkī Villa was established in 1889 by Hamilton Johnson "to serve as a beach annex for his downtown hotel, the Hamilton House" (Hibbard and Franzen 1986: 54) (Figure 15). The Waikīkī Villa soon became known as the Hawaiian Annex and an oceanfront pavilion addition was built, where "Saturday night dancing reputedly was introduced to Honolulu" (Hibbard and Franzen 1986: 55).

The Honolulu Seaside Hotel was opened in 1906 by George W. MacFarlane surrounded by ten acres of algarroba and cocoanut palms incorporating the former Hawaiian Annex bathhouse (Hibbard and Franzen 1986:62).

The hotel was comprised of a number of cottages and tent houses which were scattered over the approximately ten-acre beach front site [Figure 16]. The magnificent Hawaiian Annex bathhouse remained on the premises and was a favorite haunt of the hotel's guests. The Seaside advertised its beach as 'the finest part of the most delightful bathing beach in the world' and the management further proclaimed that it was 'strictly a high-class hotel in every respect' [Hibbard and Franzen 1986:62].

In the mid 1920s the old Seaside Hotel, bathhouses and cottages were leveled to make way for the new Royal Hawaiian Hotel, which opened on February 1, 1927. Figure 17 shows the 1914 Sanborn Fire Insurance Map of Waikīkī with the location of the Honolulu Seaside building structures in relation to the project area and survey test units. The test units are located in the footprint of a residential dwelling (as indicated by a "D"). The general area is shown in Figure 18.



Figure 15. Photo of the Waikiki Villa, or Hawaiian Annex ca. 1895, approx. location of the existing Sheraton Waikiki Hotel (photograph from Scott 1968:611)



Figure 16. Seaside Hotel on the left and the Moana Hotel on the right, photo taken from the Hawaiian Annex C. 1903 (the first structure on the left is mentioned as the original location of Kamehameha's grass house) (photo from Scott 1968:612)

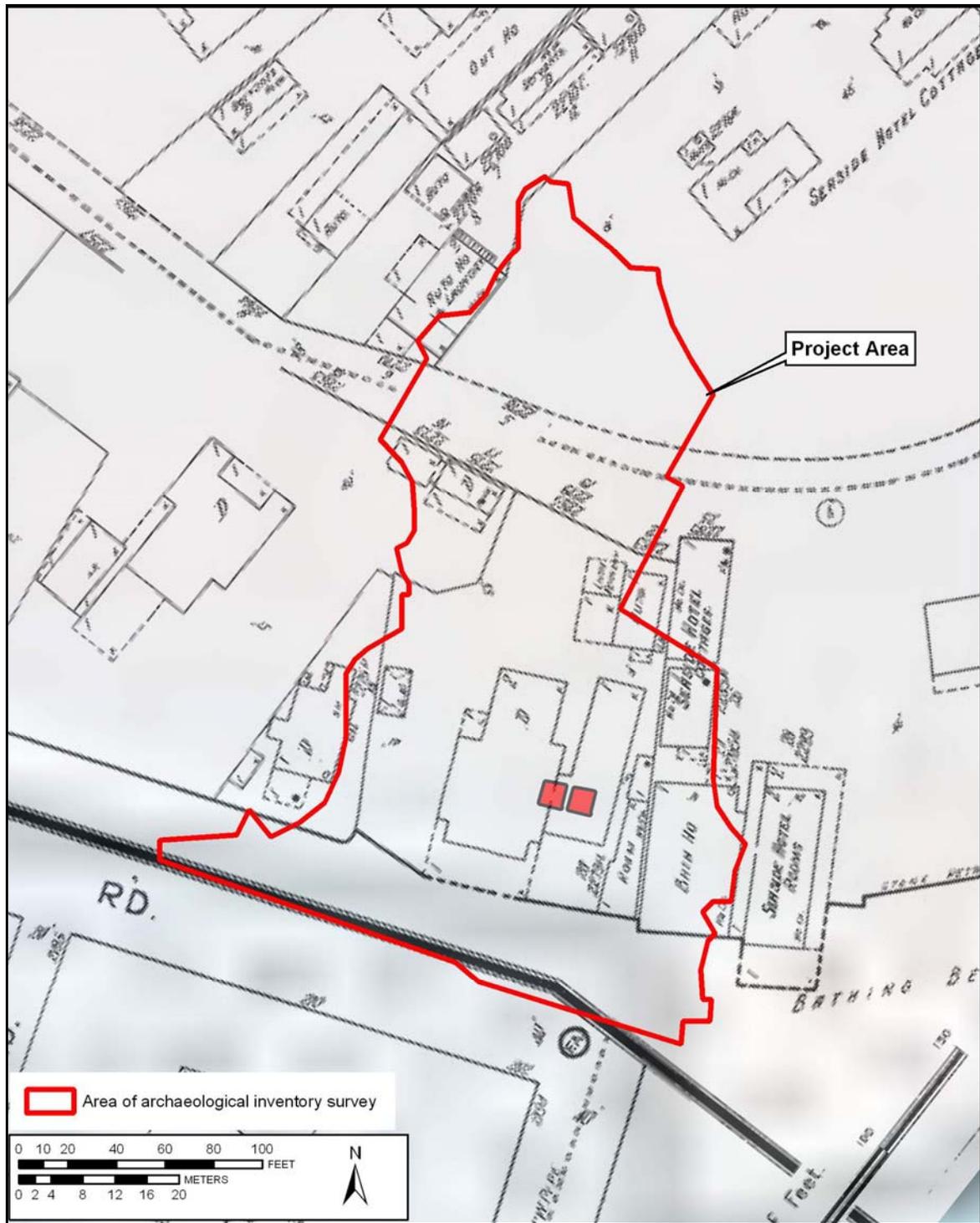


Figure 17. Portion of 1914 Sanborn Fire Insurance Map of Waikiki, with the project area overlaid in red, notice the Seaside Hotel building structures in the project area; Test Units 12 and 13 (red blocks) are within the former “Bertha Young” home, marked by a “D” for “Family Dwelling”

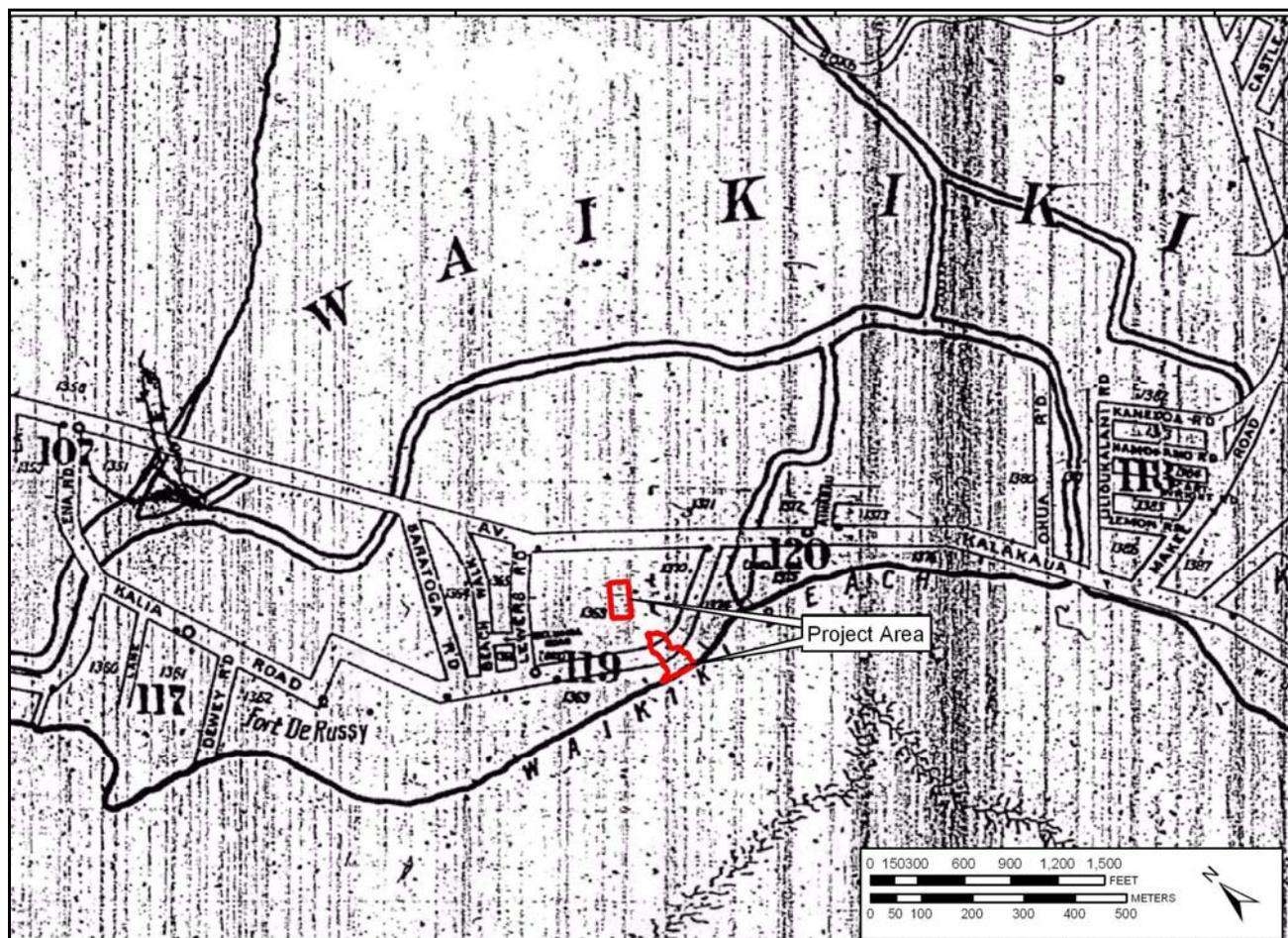


Figure 18. Portion of 1914 Sanborn Fire Insurance Index map, showing the general location of the project area

3.5 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 Waikīkī. The *muliwai* or lagoonal backwater of 'Āpuakēhau Stream that reached the sea between the present Royal Hawaiian and Moana Hotels was filled in between 1919 and 1927. The filling in of 'Āpuakēhau Stream and the excavating of the Ala Wai canal were elements 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].

The Royal Hawaiian Hotel (Figure 19) was formally opened on February 1, 1927 and with a maximum height of 150 feet was the tallest privately owned building in the Territory at that time (Hibbard and Franzen 1986:99).



Figure 19. 1929 aerial photo of Royal Hawaiian Hotel (photo from E. B. Scott 1968:645); note Bertha Young house at left side of photo

A 1919 Fire Control map (Figure 20) shows the general project area before the construction of the Royal Hawaiian Hotel and a 1927 USGS map (Figure 21) shows the area after the hotel's construction.

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

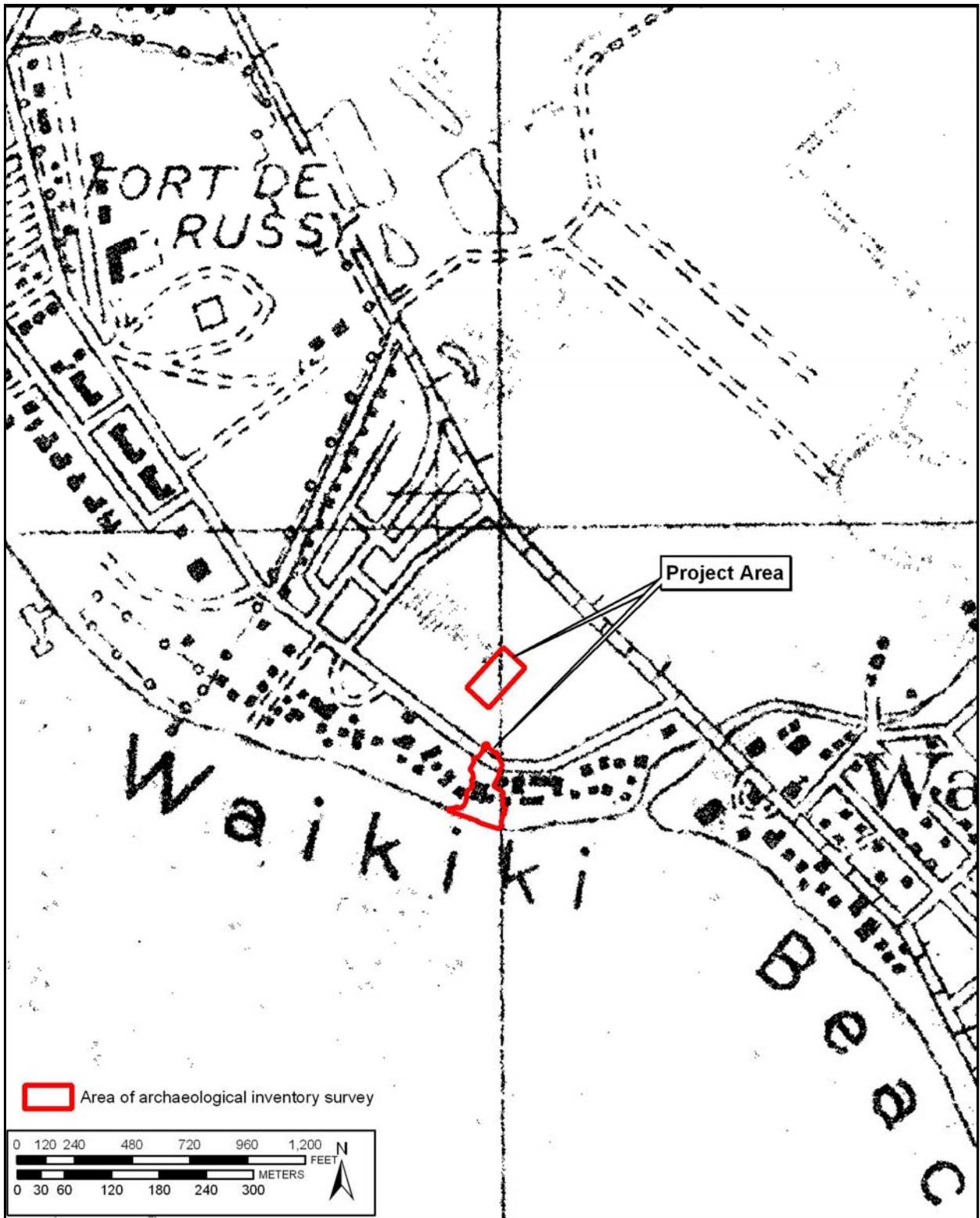


Figure 20. 1919 Fire control map with overlay of areas of work

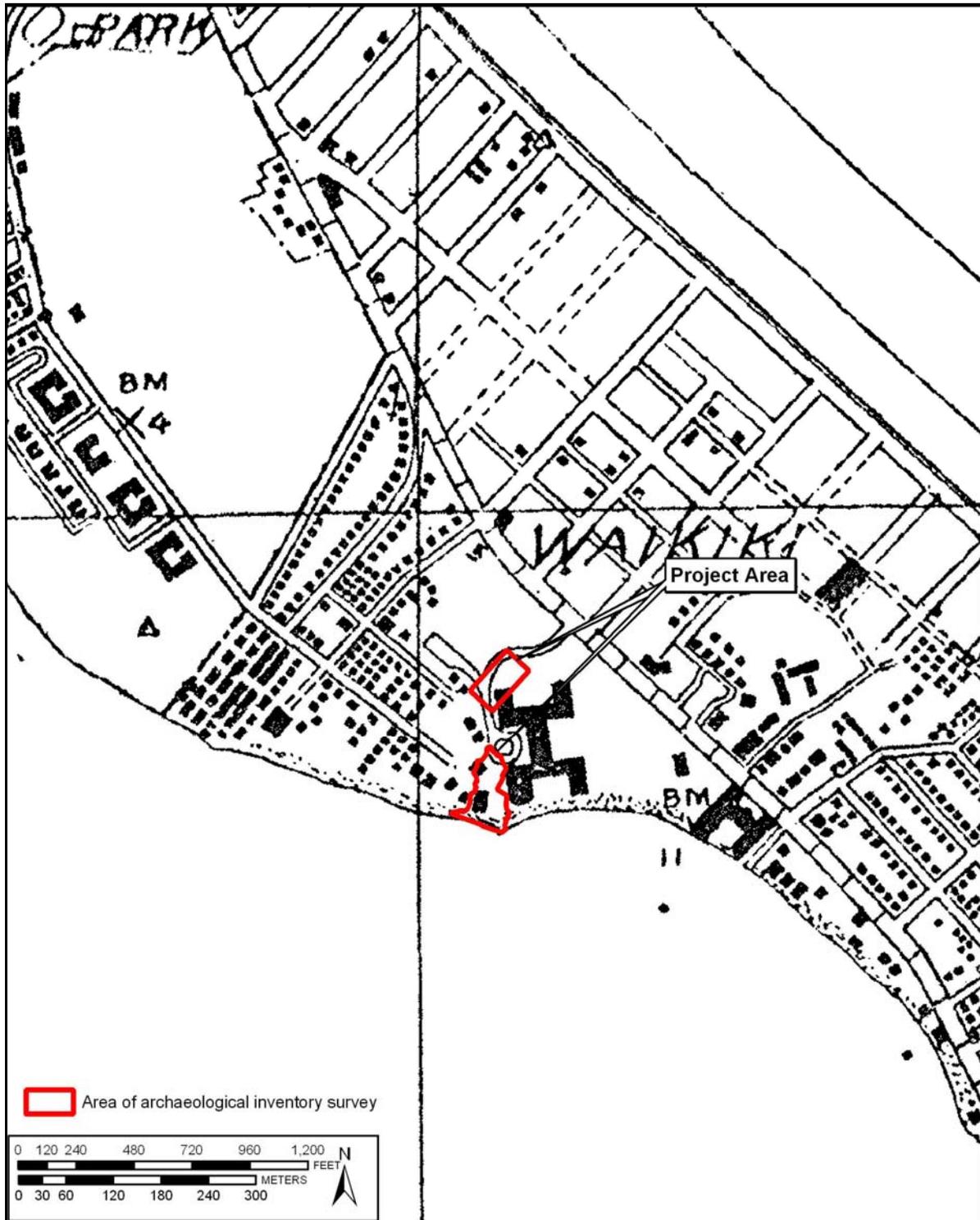


Figure 21. 1927 U.S. Geological Survey map with overlay of areas of work (older maps contain more disturbance and are more difficult to accurately use to pinpoint project locations)

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.”

3.6 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]?”

3.7 1950s to the Present

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. A 1943 War Department map (Figure 22) indicates that, up to that time, no buildings were located between the Royal Hawaiian Hotel and Kalākaua Avenue. By the late 1950s, a row of retail shops had been constructed along Kalākaua Avenue. In the late 1970s, these shops were demolished and the present Royal Hawaiian Shopping Center was constructed on the present project area parcel. The thirty-one story Sheraton Waikiki was completed in 1971 and with 1,904 rooms was the largest resort hotel in the world at that time (Hibbard and Franzen 1986:165).

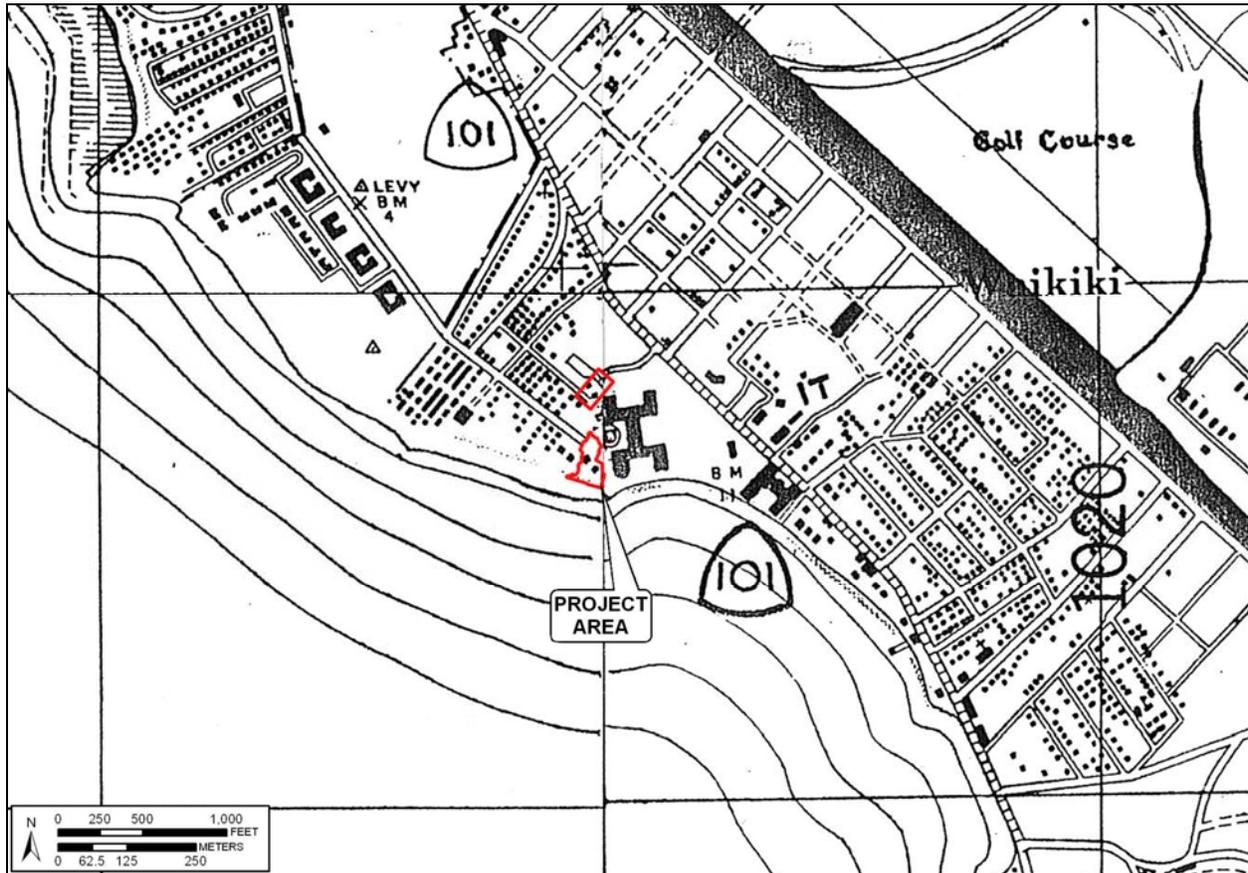


Figure 22. 1943 War Department Diamond Head and Honolulu quad maps with overlay of areas of work

3.8 History of Shifting Sands and Ground Disturbances in the Project Area

Even before the Waikīkī coast became a tourist attraction, rich *haole* businessmen built their own beach houses along the shore. West of the Seaside were three houses, according to the recollections of Elizabeth Kinau Wilder, who grew up in their Waikīkī home in the 1910s. She recalled:

A narrow driveway, which faced the length of our front yard, led to the Youngs. Mr. Young didn't have enough room for his carriage to turn around, so S.G. [Samuel Gardner Wilder, Elizabeth's grandfather] let him use some of his property as a friendly gesture, never dreaming that he would never get it back! And when the Macfarlanes' house was found to be fifteen feet on our land, S.G. gave it to him rather than have the house torn down!

The 1914 Fire Insurance map (see Figure 17), shows to the west of the Seaside dining room (with a semicircular rotunda), the "Seaside Hotel Rooms" partially over the water, which is the old Hawaiian Annex. Adjacent to this is a series of bathhouses and then a large family residence (labeled with a "D" for dwelling). This house is identified in several historic photographs as the "Bertha Young" house. Bertha was a playmate of Elizabeth Wilder, who remembers many pleasant days spent at the adjacent Seaside Hotel.

One famous couple who stayed at the Seaside Hotel was Jack London and his wife Charmian, who visited Waikīkī twice, first in 1907 and then again in 1915. Charmian recorded her different view of the hotel in the two visits. In 1907, they stayed at the Seaside Hotel:

This domicile is a brown tent-house, comprising three rooms separated by thin portieres, with an accessory bathhouse and servant room, also of tenting, as is the last of a scattered row of detached accommodations belong to the Seaside Hotel, some of them weathered old cottages whose history one would love to know. . . . [London 1917:62].

Besides our cottage row, the Seaside Hotel comprises one large frame house of many rooms, half over the water reached by a winding driveway from the main avenue through a grove of lofty coconut palms, under which stray large cottages belonging to the hotel. . . . Beyond the curving steps, on the lawn toward the sea, grow two large *hau* trees, each in the center of a round platform where drinks are served [London 1917:5-66].

In 1915, on the London's second visit, the area around the Seaside had changed dramatically:

Not a day passed before, in swimming-suits, we walked down Kalia Road to the Seaside Hotel, and once more felt underfoot the sands of Waikiki. But such changes had been wrought by sea and mankind that we could hardly believe our eyes, and needed a guide to set us right.

The sands, shifting as they do at irregular periods of storm, had washed away from before the hotel, leaving an uninviting coral-hummock bottom not to be negotiated comfortably except at high tide, and generally shunned. A forbidding sea-wall buttressed up the lawn of the hotel. While the only good beach was the restricted stretch between where the row of cottages once had begun, and the old Moana Hotel [London 1917:281].

Charmian London wrote a note in the book, that “At this writing, 1917, the sands are again level with the seawall . . . (London 1917:281).

The indication that the beach in front of the Seaside changed from a gentle slope to the sea, to loss of the beach entirely, to reaching the top of the seawall is mentioned in several historic accounts. During the 1912 Trans-Pacific yacht race, the crew visited the Seaside for a dance:

On the evening of July 2nd, the yachtsmen attended a dance at the Seaside Hotel. This hotel is on Waikiki Beach, and the trees on the lawn, which slope right down to the surf, were prettily decorated with colored electric lamps for the occasion [Clark 1912:214-215].

In contrast, is Elizabeth Kinau Wilder’s recollection of the Seaside Hotel beach area in the 1910s. When the Army brought in a large cannon on a barge for Fort DeRussy, they cut a hole in the reef. Wilder says:

This completely changed the pattern of the currents. The beach at Waikīkī was never the same. Instead of the reef holding the sand of the beach and preventing them from being carried out by the changing tides, the sand was swept through the hole in the reef, never to return. What had been a glorious sandy beach—which no other beach on earth could touch—was nothing. Property owners lost any where from ten to thirty feet of their ocean frontage. Everyone was forced to put up sea walls to keep from losing their houses as well. Instead of running from the grass right out to the ocean, we had to go down slippery steps to a miserable little strip of sand which, during certain months was non-existent. At times I could jump from our seawall right into the water. . . . [Wilder 1978:72].

The contrasting Seaside Hotel Beach can be seen in a 1910 photo and a 1916 photo. The first (Figure 23) has only a small curb by the beach, the second a large seawall. The caption of the second (Figure 24) is labeled: “The Seaside Hotel changed little over the years. The same algarrobas shaded the grounds but lawn and palms had been platted to filled ground contained now by a sea wall” (Scott 1968:631).

In the 1930s, this portion of the coast still could only be traversed on the top of the sea wall, as Betty Sorenson recalled of her childhood at her home on Beachwalk in Waikīkī.

The sea wall in front of these houses had a right of way along the top, and I stole looks at the front porches as I walked along the sea wall. First I ogled the tourists at the Halekulani [Hotel], and then I ogled the beautiful people sitting on their lanais [Sorenson 1995:66].



Figure 23. 1910 photograph of beach in front of the Seaside Hotel, view to the west; note short seaside wall (photograph from Grant 1996:52)



Figure 24. 1916 photograph of beach in front of the Seaside Hotel; note large seawall, with sand nearly up to the top of the wall (photograph from Scott 1968: 631)

I have seen Waikiki Beach with the water coming in large waves clear up to the sea wall at the Royal Hawaiian Hotel in the winter, with hardly any beach to lie on in front of the hotel. Later on, sand was imported and the beach was much improved, but Waikiki Beach has always had rather opaque water [Sorenson 1995:67].

Thus the ground surface of the project area has probably been disturbed by a number of natural and man-made causes. Seasonal shifts of currents and storm swells have changed the slope and width of the beach over time. Man-made changes to the reef and to stream systems, such as during the construction of the Ala Wai Canal, led to beach erosion. To save the beach, the residents of this area built seawalls and filled in the land behind (*mauka*) the walls. Sand was later imported to restore the beaches.

Ground disturbance was also extensive during the demolition of older structures and the erection of the new large hotels. Figure 25 shows some of the modifications to the land in 1925-26 during the construction of the Royal Hawaiian Hotel. After World War II, the hotel was remodeled; the old dining room was demolished and a new one was built. A 1946 photograph shows the extensive ground modification that took place near (east) of the current project area at that time (Figure 26).

The Bertha Young home survived the demolition of the Seaside Hotel in the 1920s and the construction of the Royal Hawaiian Hotel in 1927 (see Figure 19; Figure 27). The house is still shown on the 1956 Sanborn Fire Insurance map, between the hotel and a large parking lot. It may have survived until the construction of the Sheraton Waikiki in 1971. The location of this house would be in the proposed two-tier resort pool area for the current project.



Figure 25. Construction of the Royal Hawaiian Hotel in 1925 and 1926; note the numerous coconut trees (photograph from Cohen 1986:20)



Figure 26. 1946 photograph of the demolishing of the Persian Room (the old dining hall) to make way for the Monarch Room (the new dining hall) (photograph in Cohen 1986:61)

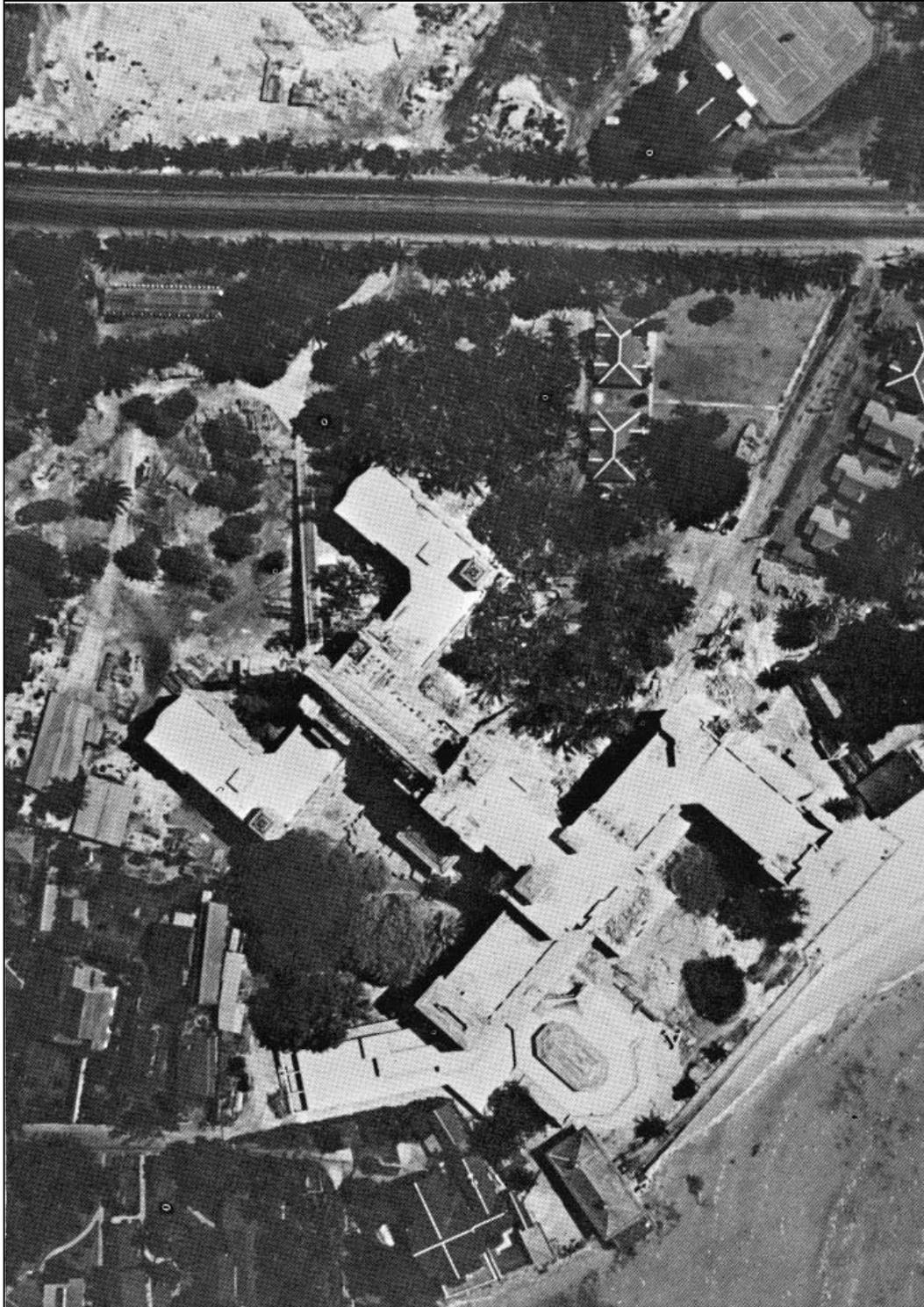


Figure 27. 1926 photograph of the Royal Hawaiian Hotel; note the Hawaiian annex overhanging the beach and the Bertha Young house to the west -peaked roof resembles a cross (photograph from Cohen 1986:25)

Section 4 Data Pertaining to Human Burials in Waikīkī from Traditional Sources

Death at Waikīkī is documented in a number of traditional accounts including accounts of human sacrifice, accounts of fighting in Waikīkī in the wars of Kahekili and Kamehameha and from mid-nineteenth century Land Commission Award records.

4.1 Accounts of Human Sacrifice at Waikīkī

Hawaiian authors in the nineteenth and twentieth centuries have emphasized that victims for sacrifice were “criminals”, “wrongdoers,” or “individuals who had broken tabu, or rendered themselves obnoxious to the chiefs” (Kanahale 1986:116). Another major category of human sacrifice victims were the “*kauwā*.” Pukui (Pukui and Elbert, 1971: 128) translates *kauwā* as “Untouchable, outcast, pariah: a cast which lived apart and was drawn on for sacrificial victims.”

Waikīkī was famous for the drowning of *kauwā* with the same formulaic phrase ‘*Moe mālie i ke kai o ko haku*’ (‘Lie still in the waters of your superior’) used for *kauwā* drowning at Kawailumaluma‘i, Kewalo and Kualoa. An account of sacrificial drowning of *kauwā* at Waikīkī appeared in the Hawaiian language Newspaper *Ka Loea Kālai‘āina*:

A penei na‘e i kauwā loa [sic. “loa‘a”] ai. Aia a mana‘o ke Ali‘i Nui (Mō‘ī) e ‘au‘au kai i Waikīkī Eia ka nīnau a ke Ali‘i Nui i ke ali‘i ma lalo iho ona, “Pehea āu mau wahi lepo kanu o Pu‘u Ku‘ua? ‘A‘ole paha he mau wahi pōhuli?”

Eia ka pane a ke ali‘i ma lalo iho ona, “He Pōhuli nō. ‘O ke kauoha ia akula nō ia e ki‘i.

‘Oiai ko kāne me ka wahine e nanea ana me nā keiki, a hiki ‘ana ke ki‘i i mau keiki. ‘O ke kū a‘ela nō ia o ka makuakāne a lawe ‘ana i kāna mau keiki a hiki i Waikīkī.

Aia ho‘i a hiki i ka wā a ke Ali‘i e hele ai i ka ‘au‘au kai, a laila, hoouna ‘ia mai ke kahu e ki‘i mai i ua keiki a lawe aku ia ma kahi pāpa‘u o ke kai, ma kahi a ke Ali‘i nui e hele kū ‘ana, a laila kau nā lima o ka Mō‘ī i luna o kahi keiki a me kahi keiki, ma nā‘ā‘ī o nā keiki a pa‘a ai.

‘O ka hua ‘ōlelo ma ka waha o ke Ali‘i nui e ‘ōlelo ai, “‘A‘ole pau ku‘u loa! ‘A‘ole pau ku‘u loa!” ‘Oiai ‘o ia e ‘au ana me ka pa‘a nō o nā lima i nā keiki a hiki i ka umauma ke kai o ke ali‘i.

Ua lana a‘ela nā keiki i luna o ka ‘ilikai, aia ke alo i lalo. Eia ho‘i ka ‘ōlelo a ka makuakāne ma kula aku nei, “Moe mālie i ke kai o ko Haku,” a pēlā aku.

‘O ke kai o Waikīkī ke kai i ‘ōlelo ‘ia he kai lumaluma‘i kanaka o ka lua, aia i Kualoa.

Translation:

When the ruling chief wished to go to Waikīkī for sea bathing he asked the chief just below him in rank, "How are my planting places at Pu'u Ku'ua, [a place in the Wai'anae Range famous as a kauwā residence and place of mixed caste] have they not produced young suckers?" The chief next to him answered, "There are some suckers," and sent someone for them. When the men, women and children least expected it, the messenger came to get some of the children. The father stood up and took his sons to Waikīkī.

Then, when the ruling chief went sea bathing, he sent an attendant to get the boys and take them to a shallow place where the ruling chief would come. Then the ruler placed a hand on each of the boys, holding them by the necks. The words he uttered were, "My height has not been reached! My height has not been reached!" He advanced and held onto the boys until the sea was up to his chest. The boys floated on the water face down. The father on shore called out, "Lie still in the sea of your Lord," and so on.

The Sea of Waikīkī is said to have been used to kill men in and the other place is Kualoa.

No specific location at Waikīkī is indicated as the sacrificial site.

Regrettably much uncertainty also remains regarding the exact location of the four Waikīkī *heiau* associated with human sacrifice. Papa'ena'ena, certainly the most famous, 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 'Ī'ī, Kamehameha placed at Papa'ena'ena the remains of an adulterer - "all prepared in the customary manner of that time" ('Ī'ī 1959:50-51). This would have been one of the last human sacrifices in the kingdom.

Regarding the death of the famous prophet Ka'ōpuluhulu by Kahahana, Thrum writes: "After a while the body of the priest was placed on a double canoe and brought to Waikīkī and placed high in the cocoanut trees at Kukaeunahi [sic, Kukaunahi?] the place of the temple, for several ten-day periods (*he mau anahulu*) without decomposition and falling off of the flesh to the sands of Waikīkī." [Note: Kahahana's place of residence at Waikīkī was Ulukou, the present site of the Moana Hotel which was built in 1901. The closest and most likely heiau would appear to be the Helumoa Heiau formerly located on or very near the grounds of the Royal Hawaiian Hotel.

Numerous accounts of human sacrifice (or near sacrifice) at Waikīkī have a mythopoeic quality for which the historical basis is uncertain.

The *heiau* associated with sacrifice are listed below in Table 2.

Table 2. Sites Associated With Human Sacrifice in Waikīkī

Place Name	Location	Grounds for believing associated with human sacrifice	Source
Papaenaena Heiau (Le'ahi)	Waikīkī in the vicinity of La Pietra and the Hawai'i School for Girls	" <i>Heiau po 'okanaka</i> "	Thrum 1906:44
Kapua Heiau	Waikīkī in the vicinity of the Natatorium	" <i>Heiau po 'okanaka</i> ", place of sacrifice of Kaolohaka	Thrum 1906:44
Helumoa Heiau	'Āpuakēhau Waikīkī at or near the Royal Hawaiian Hotel	<i>Heiau po 'okanaka</i> , the place of sacrifice of Kauhi Kama" the defeated <i>mō 'ī</i> of Maui in his raid on O'ahu about 1610, in the reign of Kaihikapu	Thrum 1906:44
Shallow sea of Waikīkī	Waikīkī location uncertain	Account of <i>kauwā</i> drowning	<i>Ka Loea Kalaiaina</i> , 7/8/1899
Kūpalaha Heiau	Waikīkī in the vicinity of the zoo entrance	Account of near sacrifice of Kapo'i there	Kamakau 1991:23

Of particular concern for the present project is Helumoa Heiau which is unfortunately not well documented in the literature. We know of no maps showing the location of Helumoa Heiau. Thomas Thrum (1906:44) relates that it was a "place of sacrifice" going back at least as far as A.D. 1610. The Maui chief Kauhiakama was said to have been sacrificed by the O'ahu chief Ka'ihikapu there (Hibbard and Franzen 1986:5). Later Thomas Thrum (1927:34) would note: "This temple was long ago demolished, not a stone being left to mark the site, which was doubtlessly near, if not *the* [italics in original] actual spot now graced by the new Royal Hawaiian Hotel." Additional data supporting this site as a major place of human sacrifice is provided in Pukui et al.'s (1974:44) comments regarding the origin and meaning of the place name "Helumoa". They write: "Old land division near the Royal Hawaiian Hotel at Helu-moa Street, Waikīkī, and site of a *heiau* where Ka-hahana was sacrificed. Lit. chicken scratch. (Chickens scratched to find maggots in the victim's body.)" We conclude the former location of the *heiau* was quite close to the Royal Hawaiian Hotel. The prominent point just on the Sheraton side of the Royal Hawaiian Hotel in the vicinity of the southeast corner of the Southwest Royal Hawaiian Hotel proposed work area appears likely for its commanding position and view planes.

4.2 Accounts of Battles at Waikīkī

4.2.1 Kahekili's Invasion of O'ahu Circa 1783

In 1867, Samuel M. Kamakau wrote the following account of the invasion of the island of O'ahu by the Maui ruling chief, Kahekili:

I ka pae 'ana o Kahekili a me nā 'au wa'a kaua o nā li'i o Maui, ma Waikīkī, e noho ana nō ka Mō'ī Kahahana ma Kawānanakoa, ma Nu'uānu, ma uka o Honolulu. I ka lohe 'ana o Kahahana, ua hiki mai 'o Kahekili me nā 'au wa'a i lako i nā mea kaua. Ua piha ho'i mai Ka'alāwai a hiki i Kawehewehe ka pa'a i nā wa'a kaua o Kahekili mai Maui, Moloka'i a me Lāna'i mai, no laila, maka'u honua 'ēwale ihola nō 'o Kahahana, a ho'ākoakoa a'ela i kona po'e ali'i a me nā koa . . . 'ewalu ko lākou nui i hele i ke kaua. Ua komo loa kēia po'e 'ewalu i loko o 'Āpuakēhau, i laila kahi i kaua ai me ke koa launa 'ole, a ua ho'opuni 'ia mai lākou a puni e nā koa o Maui, a laila, wāhi a'ela k'ia po'e 'ewalu i loko o ka puoko o ke kaua, a nahā a'ela ka po'e i ho'opuni ai iā lākou nei. I ko lākou luli 'ana a'e na'e e ho'i mai, ua piha loa 'o mua i nā koa, 'a'ohe wahi ka'awale o Kawehewehe, e hiolo ana nā pololā e like me nā paka ua, akā, 'a'ohe na'e he wahi mea a pō'ino 'o kēia po'e 'ahi kananā, akā, 'o kēlā po'e koa o Maui ua pau i ka make. I ka hiki 'ana i kuāuna o Punalu'u, e iho mai ai i Luahinewai, e hiki mai ai i nā niu a Kuakuaaka . . . 'Ekolu ho'ouka kaua 'ana o nā 'ao'ao 'elua, a ua make like nō.

I ka malama o Ianuari 1, o ka A. D. 1783, ua 'ākoakoa nā ali'i a me nā pūkaua, nā pū'ali a me nā koa o Kahekili, a māhele 'ia ihola 'elua po'e kaua. Māhele 1. 'O Kahekili ka pūkaua. Māhele 2. 'O Hū'eu ka pūkaua. 'O kā Hū'eu po'e kaua, ma uka o Kānelā'au a me Kapapakōlea, ma uka o Pūowaina. 'O ka māhele mua, ma luna o Hekili a hiki i Kahēhuna a me 'Auwaiolimu. 'O Kaheiki ke kahua kaua. . . Lilo ihola ke aupuni o O'ahu a me Moloka'i . . . (Kū'oko'a, 3/30/1867)

Kahahana, [ruling chief of O'ahu] who was then living at Kawānanakoa in Nu'uānu, back of Honolulu, was filled with consternation when he heard that Kahekili had come with a fleet of war canoes that reached from Ka'alāwai to Kawehewehe, and he rallied his warriors about him [but] eight of the warriors . . . went to 'Āpuakēhau and fought against the whole host, and when they found themselves surrounded by the Maui warriors they broke through the front lines, only to find their way of retreat bristling with more warriors and no way to turn in all of Kawehewehe. Spears fell upon them like rain, but it was they who slew the warriors of Maui. At the border of Punalu'u, on the way down to Luahinewai and the cocconut grove of Kuakuaaka [there was fighting] . . . Three times both sides attacked, and three times both were defeated. In January 1783, a decisive battle was fought with Kaheiki as the battlefield. Kahekili's forces were divided into two companies, one under Hū'eu's leadership stationed at Kānelā'au and Kapapakōlea back of Pūowaina and the other under his own command stationed

from above Hekili to Kahēhuna and ‘Auwaiolimu.... . . . thus O‘ahu and Molokai were taken . . . (Kamakau 1961:135-137)

The account makes reference to fighting at “Kawehewehe.” Kawehewehe is understood as the name of the beach on the ‘Ewa side of the Royal Hawaiian Hotel (adjacent to Helumoa), just east of the Halekūlani Hotel, Waikīkī. The sick were bathed here as treatment. The patient might wear a seaweed (*limu kala*) lei and leave it in the water as a request that his sins be forgiven hence the origin of the name (Lit., the removal Pukui et al. 1974:99).

Fornander’s (1919 Volume VI, part 2; page 289) account of “The Story of Kahahana” provides the detail that the army of the Maui chief Kahekili was encamped at ‘Āpuakēhau, where they were organizing and preparing to march inland, and it was there the O‘ahu forces first attacked “the Maui troops collected at the *heiau*.” There “a fight commenced to which Hawaiian legends record no parallel”. (Fornander 1919 Volume VI, part 2; page 289) A reconstruction of Kamakau’s account of Kahekili’s attack (Figure 28) definitely suggests battle casualties in Waikīkī although most of these likely occurred just northwest of the present project area. Intense fighting and mortality are indicated in the immediate vicinity of the Royal Hawaiian and Sheraton Waikiki resorts.

4.2.2 Account of the Invasion of Kamehameha Circa 1795

In 1867, Samuel M. Kamakau wrote the following account of the invasion of the island of O‘ahu by the ruling chief, Kamehameha:

Holo akula ho‘i ka ‘au wa‘a kaula o Kamehameha a pae i Waikīkī, a ua pani ‘ia mai Wai‘alaie a Waikīkī e nā ‘au wa‘a kaula o Kamehameha.

‘O Kalanikūpule ho‘i a me kona mau ali‘i, e noho ana lākou ma Nu‘uanu, Kanoneakapueo, Kahapa‘akai, Luakaha, Kawānakoā, Kaukahōkū, Kapaeli, Kaumuohena a me Pū‘iwa nā kahua kaula. (Kū‘oko‘a, 6/8/1867)

Translation:

Kamehameha’s war fleet sailed to Waikīkī where it landed and the beaches from Wai‘alaie to Waikīkī were covered with the war canoes of Kamehameha.

Kalanikūpule and his chiefs were stationed at Nu‘uanu, Kanoneakapueo, Kahapa‘akai, Luakaha, Kawānakoā, Kaukahōkū, Kapaeli, Kaumuohena a me Pū‘iwa, the battlefields (where the main fighting took place).

This account emphasizes that the main fighting started in the uplands but fighting at Waikīkī is probable.

Another historical account depicting the famous battle of Nu‘uanu in which Kamehameha I unifies the islands, is given in *He Buke ‘Oia‘I‘o Kū‘auhau Ali‘i*, page 131. The “Battle of Nu‘uanu” chant was examined in the hopes it would provide clues to where fighting occurred and possible burials as a result of the battle.

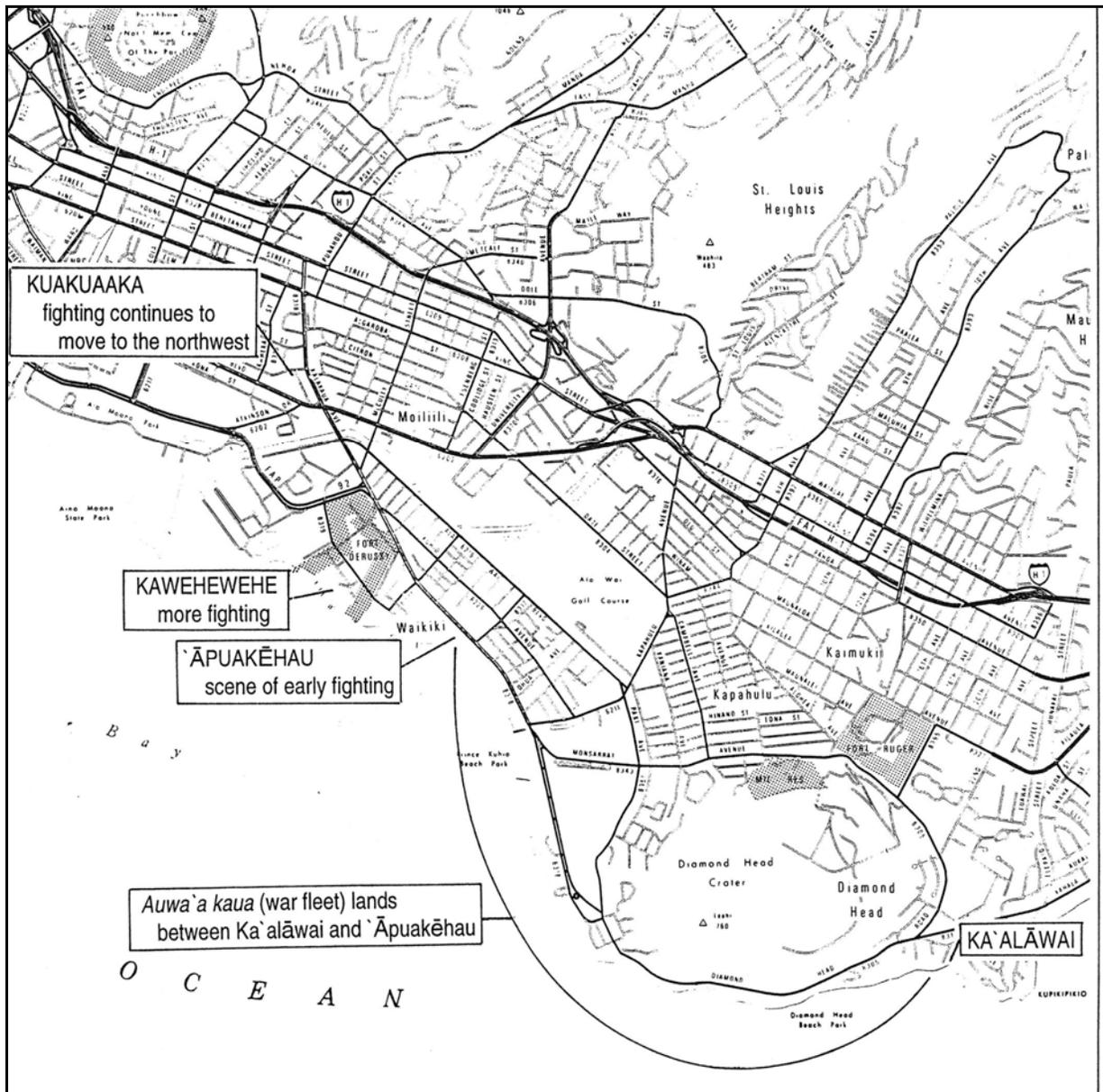


Figure 28. Reconstruction of Kahekili's Invasion of O'ahu Circa 1783

The chant is prefaced by the following explanation: [This is] "A chant of the battle of Nu'uaniu waged by Kamehameha the Great in the month of April, 1795. Composed by Kala'ikūahulu and transcribed by G. M. Keola, Dec. 15, 1880.

Kala'ikūahulu, was a skilled orator, genealogist and kahuna (priest) during the time of Kamehameha. He was also selected to be a member of Kamehameha's advisory counsel (Kamakau 1992:173, 175). Samuel Kamakau (1992:394), noted historian, writes "Kala'ikūahulu was the composer who glorified the names of the chiefs of Hawai'i in chant."

A very brief analysis of the chant is provided here. The chant is divided into two parts, Māhele 1 and Māhele 2. The chant basically sets up the sequence of the Nu‘uanu Battle and gives a vivid description of the intensity of the fighting that occurred. Part 2 of the chant basically chronicles the story from the time Kamehameha’s war fleet leaves the shores of Moloka‘i (after its conquest), crosses the Moloka‘i Channel and enters the *papa* (reef flats) off of O‘ahu. From the chant, we know that Lopakapū, Kamehameha’s cannon is on board one of the canoes, as well as his war god, Kūka‘ilimoku. Poetic references are made to Kamehameha, comparing him to the long, sharp spines of the *wana*, the *nohu* — a poisonous fish, the *palani* known for its sharp barb which snags and the *kōkala kū* — the porcupine fish whose body is covered with long spines that inflict pain. In the chant, Kamehameha is declared the victor even before he has landed on the sands of Kākuhihewa, at Hononunu (the site of the War Memorial) in Waikīkī.

From the locations of the place names listed in the chant, it seems that indeed, as Kamakau wrote (*Kū‘oko‘a*, 6/8/1867), the coastline was covered with Kamehameha’s war fleet from Wai‘alae Bay to Waikīkī and on to Kou (Honolulu Harbor). Very quickly, the battle moves out of Waikīkī toward Kou (downtown Honolulu) and up toward Pūowaina (Punchbowl). Kamehameha splits his troops into two divisions. One moving up toward Pūowaina and Nu‘uanu and the other going through Makiki and coming around the back side of Pūowaina. The chant creates a vivid picture of the intensity and fierceness of the fighting which occurred. A description is given of the general populace fleeing wildly through the taro fields in Makiki. The battle intensifies at Kānelā‘au on the east slopes of Punchbowl, where Kalanikūpule’s forces are trapped and surrounded. Kamehameha has the advantage of his canon, Lopaka, commanded by Hū‘eo (Isaac Davis). The O‘ahu battalions are forced to flee. Some, escape the heat of the battle and try to make their way back toward Waikīkī, probably in a last ditch effort to escape via canoe, while others flee toward ‘Ewa. However, the majority of the forces head toward Nu‘uanu and the *pali* with Kamehameha’s men in fast pursuit.

Line 94 of the chant is perplexing in that it makes mention of “numerous [people] being killed at Kuamo‘o” (*make lehulehu i Kuamo‘o*). It is not clear whether this is a reference to Kuamo‘o, O‘ahu, Kuamo‘o on Hawai‘i or possibly an obscure reference to a different Kuamo‘o location in close proximity to the place names mentioned in the chant. The locality of Kuamo‘o on O‘ahu is spoken of by Kamakau in relation to the 1794 battle of Kuki‘iahu, between Ka‘eokūlani of Maui and Kalanikūpule of O‘ahu. Mention is made of “The heights of Kuamo‘o, Kalauao, and Aiea” and that Ka‘eo’s men were “cut off . . . between Kalauao and Kuamo‘o (Kamakau 1992:169). This Kuamo‘o is clearly the one located in the ‘Ewa District, far outside the boundaries where the Nu‘uanu battle took place. The famous battle of Kuamo‘o at Kailua, Kona took place in 1819, after Kamehameha’s death, over the upheaval of the *‘ai kapu* (the religious taboo system). It seems odd that a chant written to commemorate Kamehameha and the Nu‘uanu battle would make reference to a battle which occurred 24 years later and after the death of Kamehameha. It is even more odd to find a reference to either of the Kuamo‘o battles within the sequence of Waikīkī place names given. The chant is clearly recounting the various place names in their order along the coast of Waikīkī. Regardless, both known Kuamo‘o locations are nowhere near the vicinity of Waikīkī or the Punchbowl-Nu‘uanu areas. The present day Kuamo‘o Street in Waikīkī, situated between Kūhiō Avenue and Ala Wai Boulevard, is said

to have been named for Mary Kuamo‘o Ka‘oana‘ena, the sister of Kekuaoakalani who was killed at the Kuamo‘o battle of 1819 (PN:119).

Line 144 once again mentions the place name Kuamo‘o and is prefaced by the preceding line: “The people of O‘ahu ask, who is this facing us? Who is the warrior at Kuamo‘o?” The chant seems to be referring to a specific place name within the area of the battle zone but, this cannot be for certain. Research into place names and 19th century maps did not reveal any additional information regarding another “Kuamo‘o location” on O‘ahu .

In summary, the main reason for studying this Nu‘uanu Battle chant was to get an idea of where the fighting occurred and to determine areas of density for possible burials related to this particular war. From the chant, it is clear that the battle moved out of Waikīkī proper very quickly. Granted, there were skirmishes along the way, but the main fighting and loss of life occurred near the eastern slopes of Punchbowl and ended at Nu‘uanu Pali.

4.3 Land Commission Award Testimony

There are approximately 14,500 records associated with Land Commission Award (LCA) claims during the Māhele of 1847-1853. Of these records, 428 are for claims awarded and unawarded in Waikīkī. Among these, 428 claims there is only one mention of a graveyard or burial place and it is in claim 613 (to Kuluwailehua) which is not awarded. This appears to be completely different than Kuluwailehua’s claim for LCA 1281 within the present project lands. The land is described in a deed transfer of November 21, 1841 from Kalua to Kuluwailehua. as “my house site” and it is “a separate place and is a burial ground.” In this same document (*Native Testimony* 384-385 volume 2; probably 1848 or 1849) the boundaries given as “Mainunu’s lot on the Waikiki side; Chapel St, *mauka*; Kauwaina’s lot, ‘Ewa; and Kaupena’s lot, *makai*.” In an earlier document (July 1, 1847) for claim 613 the boundaries are given as: “North, house lot of Kauwaina; east, Church Street and the lot of Mainunu; south, house lots of Mainunu and Hakau; west, house lot of Kaupena” (*Native Register*, 299-300 volume 2).

Kuluwailehua is awarded the land under No. 637, which does not mention the burial ground. Kuluwailehua holds many awarded claims in Waikīkī, as well as others on O‘ahu and other islands (Māhele database 1998, waihona.com). It is uncertain at this point where the reported burial ground is located. Possibly “Church Street” was adjacent to the church shown on nineteenth century maps northwest of the present Ka‘iulani Avenue, well away from the present project area.

4.4 Analysis of Waikīkī Burials

Our present evaluation of the Waikīkī burials is much more mundane than battle deaths or human sacrifices - namely that the vast majority of the deceased were the common people of Waikīkī. Withington (1953:16), probably referring to the ‘*oku‘u* plague [circa 1804], says: “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” (Bowen 1961:38). While

many of the Waikīkī burials likely accumulated slowly over centuries other burials probably relate to such early and repaid depopulation by introduced diseases.

Rank seems to have had profound influences on places available for disposal. 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 disposal seems to have decreased as rank decreased. Disposal 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).

Bowen (1961:21) notes that most Hawaiians in the pre-contact period belonged to the *maka'āinana* or commoner class and their bones were usually buried in no other area than their particular home *'ili* (land division within an *ahupua'a*); this particular practice is reflected in a Hawaiian term for one's natal locality - *kulāiwi* meaning "plain of one's bones" (Cleghorn 1987:41).

Burials are commonly reported from clean, consolidated sand deposits and beach burial was clearly a common method of interment practiced by Hawaiians (Cleghorn 1987:42). One of the earliest references to Hawaiian burial customs was made by Urey Lisiansky (1814:122), who visited Hawai'i in June, 1804. He notes: "The poor are buried anywhere along the beach . . ."

Commenting on the nature of burial areas and body positions used in burial, Ellis (1827:361-363) says: "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 them in a sitting posture" (Bowen 1961:142). Ellis picks up on an important point that has been noted by archaeologists that the probability of burials within or in very close proximity to Land Commission Award house lot claims is significantly greater than is typical away from such house lot claims. This indicates a heightened probability of burials in portions of the present study area particularly the South Sheraton and Southwest Royal Hawaiian proposed areas of work.

Regarding the Castle burials, at the east end of Waikīkī, Bowen goes on to say: "Concerning the circumstances of burial, Emerson says: 'From the absence of fractures and marks of violence in the bones I have examined, such as might have been caused in battle, I am inclined to think that the site where they were found was at one time a Hawaiian cemetery.'" (1961: 149) Indeed it seems likely that the remains thus far documented including those within the present project area relate to common mortuary practices.

4.5 Previous Archaeological Research

The *ahupua'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 the twentieth 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 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.

Historic cultural deposits have been found in the general area of the project area. During construction of the Halekulani Hotel, just west of the project area, 48 historic and prehistoric features were excavated with six human burials reported. An extensive artifact analysis of historic materials was conducted. It was found areas in the near vicinity in this beach environment were used for fishing, gathering shellfish, raising animals, cooking food in earthovens with basalt lines stones, and as a place to bury their dead (Davis 1984: 87).

A list of projects conducted in the Waikīkī area is presented in Table 3. A supplementary listing of burial finds from Waikīkī that ended up in the osteological collections of the Bernice Pauahi Bishop Museum is presented in Table 4. A discussion of projects focusing on burials (Figure 29) 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 *nihopalaoa*, 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,

Table 3. Previous Archaeological Investigations in Waikīkī Ahupua'a

Reference	Type of Investigation	General Location	Findings
Emerson 1902	Burial recovery account	Present Elks Club	At least four individuals, all presumed to be Hawaiian and associated burial goods
McAllister 1933	Island-wide survey	All of O'ahu	Waikīkī listed as Site 60.
1963 Bishop Museum (cited in Neller 1984)	Bishop Museum burial recovery	2431 Prince Edward Street	Two + individuals from a construction trench
Honolulu Star-Bulletin; 1963; Yost 1971	Burial recovery account	Present Outrigger Canoe Club	27 Burials
1964 Bishop Museum Site Files	Burial recovery account	Fronting the Surfrider Hotel	4 burials?
1976 Bishop Museum Site Files	Burial recovery account	Hale Koa Hotel	Six burials
Nakamura 1979	History Graduate Thesis	Waikīkī	History of Waikīkī with focus on the radical changes in land use that occurred in the early 20th century.
Neller 1980	Monitoring Report	Kālia Burial Site: Hilton Hawaiian Village	Brief field inspection: partial recovery of 3 historic Hawaiian burials, trash pit from 1890's, no prehistoric Hawaiian sites.
Bishop Museum 1981	Testing, Excavations, & Monitoring	Halekulani Hotel	Intact cultural deposits found.
Neller 1981	Reconnaissance Survey	Halekulani Hotel	Limited background research on area
Acson 1983	Historical Research	'Ewa to Diamond Head	Nine walks through Waikīkī, photos, maps and historical info.
Davis 1984	Archaeological and Historical Investigation	Halekulani Hotel	48 historic and prehistoric features excavated with six human burials reported.
Neller 1984	Informal Narrative Report	Paoakalani Street	Recovery of seven human skeletons at construction site

Reference	Type of Investigation	General Location	Findings
Center for Oral History 1985	Oral Histories, Volumes I-IV	Waikīkī	Oral Histories of Waikīkī, 1900-1985, Volumes I-IV
1985 IARII(Beardsley and Kaschko 1997)	Archaeological monitoring and data recovery	Pacific Beach Hotel Office Annex	2 burials and cultural deposits
Griffin 1987	Burial Recovery Report	Along Kalākaua Ave. near corner of Kai'ulani St.	Bones removed and bagged by construction crew, burial found in makai wall of gas pipe excavation.
SHPD 1987	Burial, Recovery Report	Kalākaua Ave. and Ka'ulani Street	From excavation adjacent to Moana Hotel (site -9901).
Bath & Kawachi 1989	Burial, Recovery Report	Ala Wai golf Course	2 burials
Davis 1989	Reconnaissance Survey & Historical Research	Fort DeRussy	Fishponds and other features are buried in this area. Sites -4573 thru -4577 are fishponds, 4570 is a remnant cultural deposit.
Riford 1989	Background Literature Search	TMK: 2-6-014:039	List of literature pertaining to Waikīkī area.
Rosendahl 1989	Inventory Survey, Prelim. Report	Fort DeRussy	Historic artifacts, no human remains
Athens 1990	Letter	TMK: 2-6-023:025	Letter to SHPD listing human remains at IARII lab from Pacific Beach Hotel, and Barbers Point Generating Station.
Hurst 1990	Historical Literature Search	Waikikian Hotel	Background and planning document. No fieldwork was done.
Chigioji 1991	Assessment	2 parcels, TMK 2-6-24:65-68 and 80-83, TMK 2-6-24:34-40 & 42-45	Formerly a corner of the 'Āinahau estate; remainder of parcels, former 'auwai, kalo and rice fields; test excavations and specific sampling strategy recommended.
Davis 1991	Monitoring Report	Fort DeRussy	See also Davis 1989. Subsurface features and material remains date to early post-contact times (c. 1780s to 1790s) through the mid-19th century.

Reference	Type of Investigation	General Location	Findings
Kennedy 1991	Monitoring Report	TMK: 2-6-022:014 IMAX theatre location	Pollen and bulk-sediment ¹⁴ C samples from ponded sediments were recovered. The three ¹⁴ C dates and pollen sequence were inverted.
SHPD 1991	Public Inquiry	TMK: 2-6-024:036	Bones were determined to be non-human and part of the extensive fill material present
Simons et al. 1991	Interim Field Study, Monitoring & Data Recovery	Moana Hotel Area	8 burials, preliminary osteological analysis indicates pre-contact type; pre- and post artifactual material recovered.
Hurlbett 1992	Monitoring Report	TMK: 2-6-008:001	Site -2870 (3 burials) found by Neller in 1980. This report is on testing and monitoring in same area.
Pietrusewsky 1992a	PA Report	Moana Hotel	Right half of human mandible found by hotel guest.
Pietrusewsky 1992b	PA Report	Lili'uokalani Gardens Site, Hamohamo	Human Remains from the Lili'uokalani Gardens Site, Hamohamo, Waikīkī, O'ahu
Rosendahl 1992	Monitoring Report	Hilton Hawaiian Village	Identified 12 historic refuse pits, 3 historic to modern trenches.
Streck 1992	Memorandum for Record	Fort DeRussy	Human burial discovery (believed to be late prehistoric Hawaiian) during data recovery excavations, May, 20, 1992.
Cleghorn 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Remains of one human individual, mandible identified.
Dagher 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Human remains of at least one person identified, excavation recommended.
Dega & Kennedy 1993	Inadvertent Discovery of Remains	Waikīkī Aquarium	Discovery of unidentified bone fragments, all remains turned over to SHPD.

Reference	Type of Investigation	General Location	Findings
Hammatt & Chiogioji 1993	Archaeological Assessment	16-Acre Portion of the Ala Wai Golf Course	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.
Carlson et al. 1994	Report of Human Remains	Realignment of Kālia Road, Fort DeRussy	Approximately 40 human burials (the majority were recovered in a large communal burial feature& a cultural enriched layer that contained postholes.
Maly et al. 1994	Archaeological and Historical Assessment Study	Convention Center Project Area	Recommend subsurface testing to determine presence or absence of cultural deposits and features.
McMahon 1994	SHPD Burial Report	Intersection of Kalākaua and Kuamo'ō Streets	Inadvertent Burial Discovery: misc. bones uncovered in back dirt pile during construction. Follow up by CSH.
Hammatt & Shideler 1995	Sub-surface Inventory Surface	Hawai'i Convention Center Site, 1777 Kalākaua Ave.	No further work recommended.
Jourdane 1995	Inadvertent Discovery of Human Remains	Paoakalani Avenue	Human skeletal remains discovered in planted strip between street and sidewalk fronting hotel.
Simons et al. 1995	Data Recovery Excavations	Fort DeRussy	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.
Cleghorn 1996	Inventory Survey	TMK: 2-6-016:23, 25, 26, 28, 61, 69	7 backhoe trenches excavated, no sites located.
Grant 1996	Historical Reference	Waikīkī	Historical information about Waikīkī prior to 1900.
Hammatt & Shideler 1996	Data Recovery	Hawai'i Convention Center Site	No clear evidence that Kūwili Pond sediments present in project area; no further work recommended.
McDermott et al. 1996	Inventory Survey	'Āinahau Estate	Buried remnants of 'auwai and lo'i and human burial found. ¹⁴ C dates

Reference	Type of Investigation	General Location	Findings
Denham et al. 1997	Data Recovery Report	Fort DeRussy	Excavations conducted at fishponds, ¹⁴ C dates mid-17th C.
Denham & Pantaleo 1997	Monitoring and Excavations Report	Fort DeRussy	Final Report does not include SHPD recommendations. 10 subsurface features and 9 burial locations found. ¹⁴ C dates
Beardsley & Kaschko 1997	Monitoring and Data Recovery Report	Pacific Beach Hotel Office Annex	Traditional Hawaiian cultural deposits and 2 human burials. 3 ¹⁴ C dates
Hammatt & Chiogioji. 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 & 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., Ala Moana Blvd., & 'Ena 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.
Hammatt & Chiogioji 2000	Archaeological Assessment	Honolulu Zoo Parcel	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.
LeSuer et al. 2000	Inventory Survey	King Kalākaua Plaza Phase II	Site -5796 has been adversely affected by land alteration of the project area. Site -4970, has been adequately documented.
Perzinski et al. 2000	Burial Findings	Kalākaua Ave. between Kai'ulani & Monsarrat Avenues	44 sets of human remains; 37 disinterred, 7 left in place; believed to be Native Hawaiian, interred prior to 1820.

Reference	Type of Investigation	General Location	Findings
Cleghorn 2001 a & b	Mitigation	Burger King Construction Site	Concerning three incidents of uncovered human remains while locating a buried sewer-line for the ABC's store.
Corbin 2001	Inventory Survey	Hilton Waikikian Property	No arch. sites were found during excavations of the area
Elmore & Kennedy 2001	Burial Report	Royal Hawaiian Hotel	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.
McGuire & Hammatt 2001	Cultural Assessment for Waikīkī Beach Walk Project	Along Lewers St., Beach Walk, Kālia Rd. & Saratoga Rd.	Primary cultural concern identified as inadvertent burial discovery. Cultural monitoring recommended for all subsurface work within project area.
Perzinski & Hammatt 2001a	Monitoring Report	Kapi'olani Bandstand	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.
Perzinski & Hammatt 2001b	Monitoring Report	Kapi'olani Park	No cultural layer, artifacts, midden or human burials were encountered during the excavations.
Perzinski & Hammatt 2001c	Monitoring Report	Kalākaua Avenue from the Natatorium to Poni Mo'i Road	No cultural layer, artifacts, midden or human burials were encountered during the excavations.
Rosendahl 2001	Assessment Study	Outrigger Beach Walk	Assessment of previous archaeology and historical literature.
Winieski & Hammatt 2001	Monitoring Report	TMK: 1-2-6-025:000	There is a possibility that Hawaiian or Historic materials as well as human burials may still be present within the project area.
Borthwick et al. 2002	Inventory Survey	71,000 sq. ft. parcel, TMK: 2-6-016:002	No burials were found during testing; absence of dry jaucas sand deposits indicate that burial finds are unlikely in project area.
Bush et al. 2002	Monitoring Report	Kalākaua Avenue, between Ala Moana Blvd. and Kapahulu Ave.	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.

Reference	Type of Investigation	General Location	Findings
Calis 2002	Monitoring Report	Lemon Road	No historic deposits, major previous disturbance
Elmore & Kennedy 2002	Monitoring Report	Fort DeRussy	No findings.
Mann & Hammatt 2002	Monitoring Report	Lili'uokalani Avenue and Uluniu Avenue	5 burial finds of 6 individuals; two historic trash pits.
Putzi & Cleghorn 2002	Monitoring Report	Hilton Hawaiian Village	No findings during monitoring of trench excavations for sewer connections.
Winieski, Perzinski, Shideler et al. 2002	Monitoring Report	Kalākaua Ave. between Ka'iulani and Monsarrat Avenues.	44 human burials encountered, 37 disinterred; buried habitation layer identified, with traditional Hawaiian artifacts, midden, firepits, & charcoal; fragment of light gauge rail, remnant of Honolulu Transit trolley system, observed; low energy alluvial sediments associated with the now channelized muliwai Kukaunahi also observed.
Winieski, Perzinski, Souza et al. 2002	Monitoring Report	Kūhiō Beach	Skeletal remains of 10 individuals, six disinterred, only 2 in situ. 4 indigenous artifacts, none in situ. Discontinuous cultural layer, historic seawall.
Bush et al. 2003	Monitoring Report	International Marketplace	Historic trash found.
Tome & Dega 2003	Monitoring Report	Waikīkī Marriot	One isolated not in situ possible human bone fragment found. Recommends monitoring during future work.
Tulchin & Hammatt 2003	Archaeological & Cultural Impact Assessment	2284 Kalākaua Ave.	Notes possibility of burials in the project area; recommends an inventory survey with subsurface testing.
Chiogioji, et al. 2004	Archaeological Inventory Survey	Tusitala Vista Elderly Apartment	SIHP sites -6682, -6705, -6706, and -6707 including human remains, remnants of the Ainahau Estate and agricultural sites
Freeman et al. 2005	Archaeological Inventory Survey	Hobron Lane	Four sites identified during subsurface testing; 1 disturbed burial; 1 coffin burial with two individuals; 1 cultural deposit; and, 1 fishpond sediment

Reference	Type of Investigation	General Location	Findings
O'Hare, Shideler & Hammatt 2005	Archaeological Inventory Survey	Kaio'o Drive	Site 50-80-14-6848, a pre-contact fire pit radiocarbon dated to AD 1470-1660, was recorded.
O'Leary, et al. 2005	Archaeological Inventory Survey	1-Acre Parcel, 2284 Kalākaua Avenue (former Waikiki 3 Theater)	1 burial encountered
O'Leary, et al. 2005	Archaeological Assessment	0.5-Acre Royal Kāhili Condo	No significant finds
Bell, and McDermott 2006	Archaeological Inventory Survey	Allure Waikīkī Development (former Wave Waikiki location),	2 human burials and a cultural deposit
Hammatt, and Shideler 2006a	Archaeological Assessment	Two Parcels at the Corner of Kūhiō and Kapahulu Avenues	No significant finds, study area abuts former Ku'ekaunahi Stream (now overlain by Kapahulu Avenue)
Hammatt, and Shideler 2006b	Archaeological Assessment	0.015-Acre Parcel at the Corner of Kūhiō and Kapahulu TMK: 2-6-027:052	No significant finds, study area abuts former Ku'ekaunahi Stream (now overlain by Kapahulu Avenue)

Table 4. References to Burial finds in Waikīkī from the Bishop Museum NAGPRA Inventory

Date	Account	Source
1913	...two individuals from Waikīkī...	FR* page 1; BPBM records indicate this was ID No OA0002 & 0003 from the Sacred Hearts Convent, Waikīkī
1916	...one individual from Waikīkī...	FR* page 2; BPBM records indicate this was ID No OA009 a “sand burial”
1917	“from unknown location in Waikiki”	BPBM records indicate this was ID No OA0012 (no details)
1923	...one individual from the ‘Āinahau district, Waikīkī...	FR* page 2; BPBM records indicate this was ID No OA0018 “found by Hawaiian Dredging Company by dredge Kewalo”
1923	...five individuals from Helumoa, Waikīkī, O‘ahu were collected by Kenneth P. Emory. Museum information indicates they were victims of the 1853 smallpox epidemic...	FR* page 2; BPBM records indicate this was ID No.'s OA0019 – OA0023 logged in on October 1923
1926	...one individual from Waikīkī... found during house construction	FR* page 3; BPBM records indicate this was ID No OA0087 from a residence in Waikīkī
1927	...one individual from Waikīkī...	FR* page 3
1950	3207 Noela Drive “Found at rear of donor’s property during excavation	BPBM records indicate this was ID No OA0211 and OA0212
1955	...two individuals from Waikīkī...	FR* page 7; BPBM records indicate this was ID No OA 0315 discovered at the Reef Hotel Waikiki
1957	...nine individuals from Waikīkī...	FR* page 8; BPBM records indicate this was ID No. 's OA0391 to OA0402 from Dad Center located along Kalākaua Avenue
1961	...one individual from Waikīkī...	FR* page 8; BPBM records indicate this was ID No OA0419 from 331 Saratoga Avenue
1962	...one individual from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0421 “from sand burial near Reef Hotel”
1963	...five individuals from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0424 “found on Edgewater Drive near Reef Hotel” [it would be atypical for the BPBM to assign one ID No. to 5 burials]

Date	Account	Source
1963	...96 individuals from Waikīkī...[donated by Bowen]	FR* page 9; BPBM records indicate this was ID No.'s OA0425 to OA0455 "from Old Outrigger Canoe Club Premises" Note: Bishop Museum records from 1963 specify the finds donated by Robert N. Bowen on January 22, 1963 were from "the <u>Old</u> Outrigger Canoe Club Premises" However the 1/24/63 <i>Honolulu Advertiser</i> article concerns burial finds at the present club location by the Elk's Club.
1964	...four individuals from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0464 "from site on beach in front of old Outrigger Canoe Club" [it would be atypical for the BPBM to assign one ID No. to 4 burials]
1965	"Human remains collected from San Souci Beach, Waikiki"	BPBM records indicate this was ID No OA0633
1966	Two accessions from 2431 Prince Edward Street	BPBM records indicate this was ID No OA0462 & OA0467 from 'ewa side of lot <i>makai</i> of Prince Edward Street
1967	...one individual from Waikīkī...	FR* page 11; BPBM records indicate this was ID No OA0516 from the "Tahiti by Six" at the International Market Place
1970	...eight individuals from Waikīkī...[donated] by the Sheraton Hawai'i Corp....recovered during excavations for tank construction...	FR* page 11; BPBM records indicate this was ID No OA0522 on Sheraton Hawai'i Corp Property logged in on 3/6/1970
1981	...eight individuals from Waikīkī...[donated] by Bertell Davis	FR* page 12; BPBM records indicate this was ID No.'s OA0565 to OA0571 "from unknown location in Waikiki; also OA0572 "recovered through archaeological excavation at the Halekulani hotel, Waikiki
1996	...one individual from Waikīkī...acquired during the early 1900s	FR* page 14

FR* = Federal Register January 28, 1998 (Volume 63, Number 18)

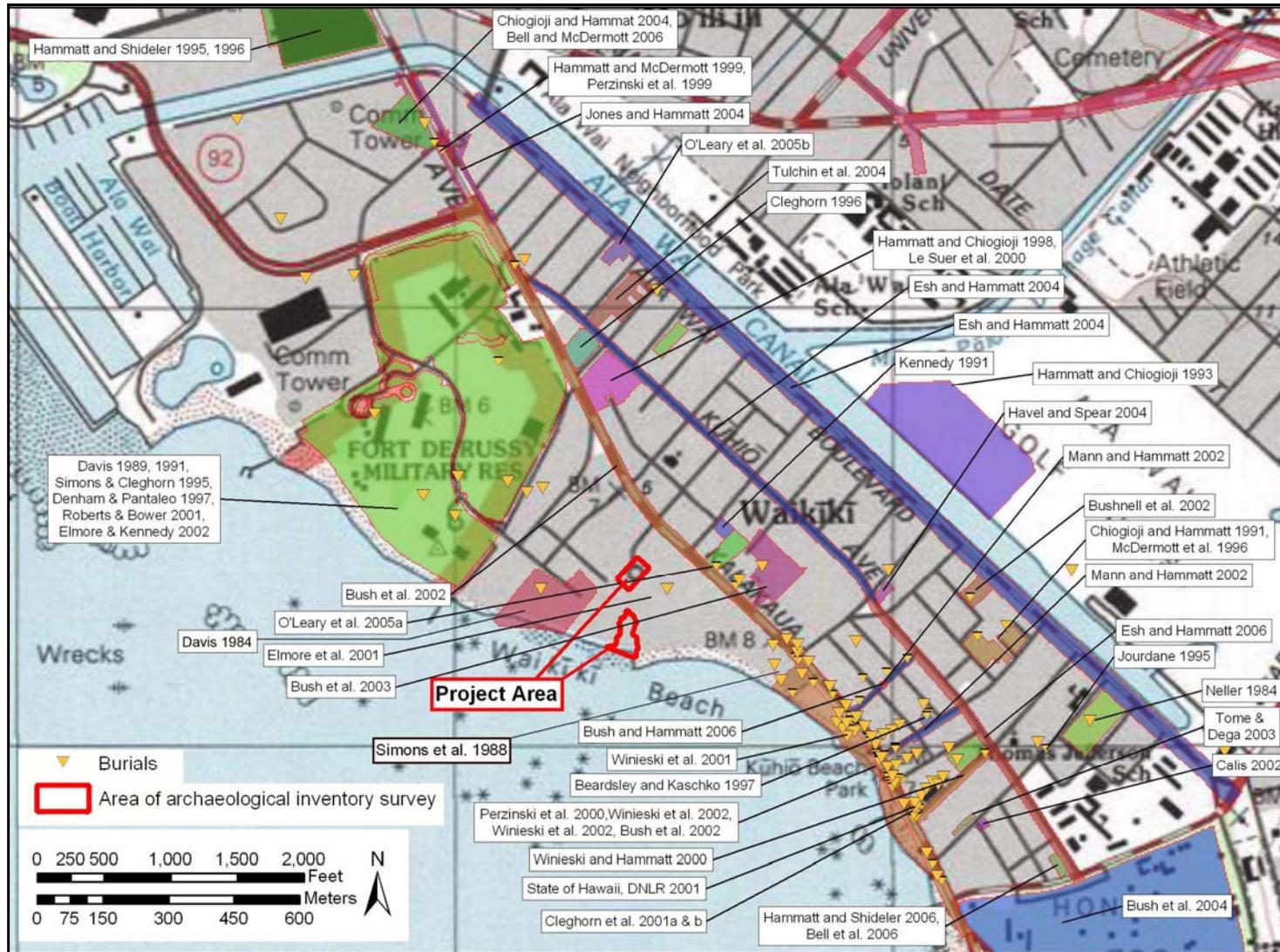


Figure 29. Previous Archaeological Work in Waikiki, focusing on locations of burials

according to John Papa 'Ī'ī, Kamehameha placed at Papa'ena'ena the remains of an adulterer – “all prepared in the customary manner of that time” ('Ī'ī 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 hoolewa 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 according to Yost (1971: 28). Apparently, no formal archaeological report on the burials was produced.

BPBM records show thirty-one accessions of human remains (ID No.'s OA0425 to OA0455) donated by Robert N. Bowen on January 22, 1963 stating that they were all from “the Old Outrigger Canoe Club Premises” which suggests the former location by the Royal Hawaiian Hotel. However the 1/24/63 *Honolulu Advertiser* article concerns burial finds at the present club location by the Elk's Club. The *Federal Register* of January 28, 1998 (Volume 63, Number 18 page 4281) asserts that: “In 1963, human remains representing 96 individuals from Waikiki O'ahu were collected and donated to the Bishop Museum by Robert N. Bowen. There is a mystery here. The *Honolulu Star-Bulletin* and Yost accounts speak only of mass burials at the present Outrigger Canoe Club Premises (by the Elks Club) while the Bishop Museum records speak only of mass burials at the old Outrigger Canoe Club Premises (by the Royal Hawaiian) and the Federal Register provides no location data within Waikiki but gives a significantly greater number of individuals (96) than suggested in the Yost history of the Outrigger (which specifies 27 burials). Given the close relationships of the dates of the report of Bowen's work on multiple burials at the present Outrigger Canoe Club (Jan. 24, 1963) and the date of accession of remains at Bishop Museum (Jan. 22, 1963), and noting that there is no account in the Bishop museum records of remains from the “new: Outrigger Canoe Club location. it appears most

likely to us that all of the burials reported were actually from the present “new” Outrigger Canoe Club location. This remains uncertain.

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 that contained "a large percentage of luxury items, including porcelain table wares 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:i). 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 beachfront 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, Hurlbett 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 postholes.

In 1993, during construction activities at the Waikīkī Aquarium, directly adjacent to the present project area, 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 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 'Ōhua 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). These discoveries were the closest to the current project area on the *makai* side of Kalakaua 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 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 Ka'iulani and 'Ōhua Avenues (Winieski 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 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.

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 '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 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 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 State Site number(s) be assigned to these three previously disturbed burials. The only primary in situ burial encountered on Uluniu Avenue was assigned State Site #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 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 Lipe'epe'e Street. Four historic properties were documented in the survey including human remains a cultural layer and a fishpond remnant.

In 2005 Cultural Surveys Hawai'i conducted an archaeological inventory survey of a 72,135 square foot (1.67 acre) project area on Kaio'o Drive (TMK: [1] 2-6-012: 37, 38, 39, 40, 41, 42, 43, 44, 55, 56, 57) (O'Hare et al. 2005). One. Site 50-80-14-6848, a pre-contact fire pit radiocarbon dated to AD 1470-1660, was recorded.

In summary, past archaeological research, from the beginning of the twentieth century to the present has produced evidence that traditional Hawaiian cultural deposits, historic trash deposits, and, most notably, human burials, do exist throughout the breadth of the Waikīkī area.

Burials reported from outside the present project area but in the immediate vicinity include: 4 individuals "from site on beach in front of old Outrigger Canoe Club" *Federal Register* January 28, 1998 Volume 63, Number 18 page 9; BPBM records indicate this was ID No OA0464), 8 sets of human remains from Moana Hotel renovations (Simons et al. 1991), human remains from near the International Market Place (Bishop Museum records for 1967, Bush et al. 2003), and human remains at the former Waikiki 3 Theater location (O'Leary, et al. 2005).

Three areas of very high densities of burials have been previously reported from Waikīkī: in 1963 from the present Outrigger Canoe Club (apparently 96 burials – but see discussions above), in 1993 in a large communal burial feature uncovered during the realignment of Kālia Road at Fort DeRussy (approximately 40 human burials, Carlson et. al. 1994) and during a Kalākaua Avenue water line project near the intersection with Kealohilani Avenue (18 burials; Perzinski et

al. 2000). It seems probable that additional areas with a high density of burials will be encountered in the future.

4.6 The Present Project Area

4.6.1 Finds During the Construction of the Royal Hawaiian Hotel 1923

It is widely assumed that at the time of the construction of the Royal Hawaiian Hotel that many human burials and other archaeological finds were encountered. Kanahale (1995:99) writes of an “*ulu maika* course was part of the royal sports complex of Kahuamokomoko in Helumoa” and states that: “When excavations for the Royal Hawaiian Hotel were made in the early 1920s many *ulu maika* discs were found.”

It seems highly probable that the “five individuals from Helumoa, Waikīkī, O‘ahu” that were collected by Kenneth P. Emory of the Bishop Museum in October of 1923 and reported as “victims of the 1853 smallpox epidemic” came from construction related to the Royal Hawaiian Hotel (*Federal Register* January 28, 1998 Volume 63, Number 18 page 2; BPBM records indicate this was ID No.’s OA0019 – OA0023).

4.6.2 Finds During the Construction of the Sheraton 1970

It seems highly probable that “. . . eight individuals from Waikīkī . . . [donated] by the Sheraton Hawai‘i Corp. . . . recovered during excavations for tank construction . . . in March 1970 were indeed associated with the initial construction of the hotel (*Federal Register* January 28, 1998 Volume 63, Number 18 page 11; BPBM records indicate this was ID No OA0522 found on Sheraton Hawai‘i Corp Property logged in on 3/6/1970).

4.6.3 Discovery of Human Remains at the Sheraton Waikiki Basement (Accounting Department) C. 1993

Consultation with various parties confirms a previous discovery of human remains in the southeast corner of the Sheraton Waikiki building, c. 1993, during work on a sewer line in the basement of the accounting department. The discovery of human remains is understood as involving only one human female forearm. It appears that the bone was found within approximately 6” of the sewer pipe and had been disturbed during initial construction of the Sheraton. We understand the bone was re-interred on the east side of the Sheraton Waikiki building near the Grand Staircase and that a prominent reddish colored basalt boulder marker observed present there denotes the re-interment location. The remains will be protected from any disturbance during the inventory survey.

4.6.4 Elmore and Kennedy 2001 Burial

In April 2001, human remains were inadvertently disturbed during excavations associated with the construction of a spa at the Royal Hawaiian Hotel (Elmore and Kennedy 2001; Figure 30 and Figure 31). 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

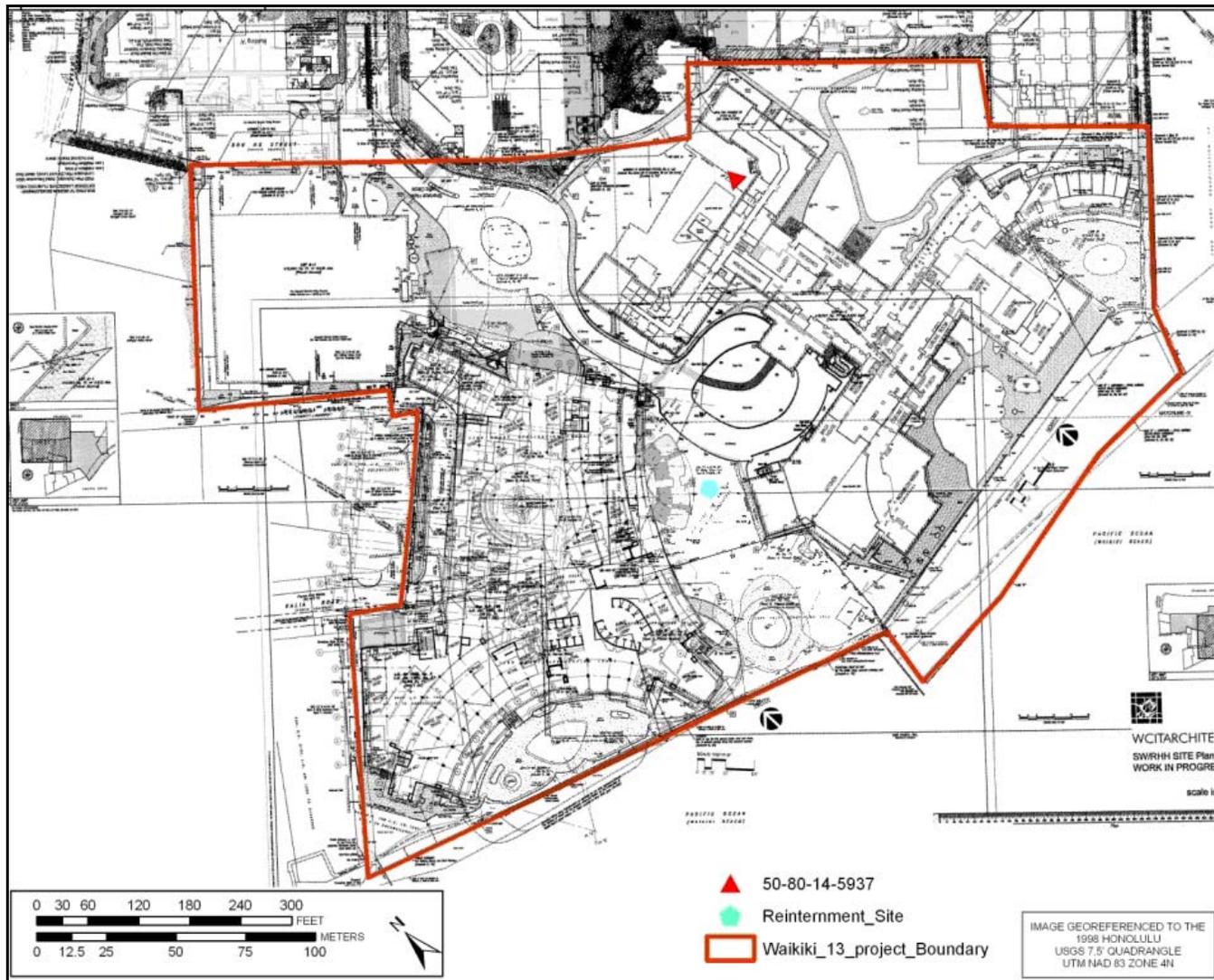


Figure 30. Site plan showing the approximate location of SIHP # 50-80-14-5937 (human remains) within the Sheraton Waikiki/Royal Hawaiian Hotel property

encountered on the North side of the hotel in the spa garden. 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 artefacts associated with it. The associated artefacts included one shell button found in-situ and three more shell buttons found in the disturbed material. A single drilled dogtooth was also found during excavation but could not be positively associated with the burial site.

The Elmore and Kennedy (2001:9) study relates:

One of the landscaping employees reported having encountered human remains in a nearby location twenty years ago while digging a hole to plant a tree. He indicated that upon encountering the remains, he dug the hole much deeper, and placed the remains at the base of the pit before planting the tree. The tree is no longer extant, though its roots could be seen at the time of the current [2001] investigation.

No further information has been identified regarding these additional remains “in a nearby location”. As a generalization, there is a higher likelihood of additional burials in the vicinity of post-contact burials (as in the case of Site 50-80-14-5937) than in the vicinity of pre-contact burials.

4.6.5 Recent Royal Hawaiian Hotel Vicinity Finds

A recent OHA letter (Nāmu‘o September 15, 2004) has noted that subsequent to that discovery, a human skull was turned in to the Burial Sites Program of the State Historic Preservation Division by an anonymous donor. The OHA letter (Nāmu‘o September 15, 2004) recommended that the question of the provenience of these *iwi* (bones) should be pursued. To address this directive, Cultural Surveys Hawai'i researched the prior holdings of human remains in Bishop Museum osteological catalogs and met (on 2/17/05) with Ms. Lurline Salvadore formerly of the Kamehameha Schools' staff and a former representative to the O'ahu Island Burial Council. Ms. Salvadore did confirm that it was also her understanding that several sets of remains discovered during the prior re-development of the Royal Hawaiian Shopping Center (perhaps c. 1979) were indeed re-interred in the Hali'a Aloha Kūpuna re-interment facility constructed near the entrance to the Honolulu Zoo. Study of Bishop Museum records, however, did not reveal any accession numbers relating to this location and time frame. Thus the history of previous discoveries of human remains within the area remains something of a mystery.

4.7 Background Summary and Predictive Model

This study has served to highlight a dozen or more concerns for possible cultural resources within the five areas in which renovation work may potentially adversely impact cultural resources. Indications of possible cultural resources identified in the historic record include the following:

- The common place name for this area “Helumoa” is translated as “chicken scratch” with the provided explanation that “Chickens scratched to find maggots in the victim’s body” in reference to the remains of human sacrifices at the Helumoa Heiau (Pukui et al. 1974:44). We know of no maps showing the precise location of Helumoa Heiau.

Thomas Thrum (1906:44) relates that it was a “place of sacrifice” going back at least as far as A.D. 1610. Later Thomas Thrum (1927:34) would note: “This temple was long ago demolished, not a stone being left to mark the site, which was doubtlessly near, if not *the* [italics in original] actual spot now graced by the new Royal Hawaiian Hotel.” It seems most likely to us that the Helumoa Heiau was located on the prominent point between the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work. This suggests a heightened probability of human remains in all the proposed areas of work, but in particular in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of renovation work.

- Assertions that the royal residence of the ruling chiefs Kahekili and Kahahana before him, and perhaps previous O‘ahu ruling chiefs were located between the Royal Hawaiian Shopping Center and the Royal Hawaiian Hotel (‘I‘i 1959:17; Kanahale 1995:134). This area includes the North Sheraton proposed area of renovation work.
- Fornander’s (1919 Volume VI, part 2; page 289) account of “The Story of Kahahana” provides the detail that (circa 1785) the massive invasion force of the Maui chief Kahekili was encamped at ‘Āpuakēhau, where they were organizing and preparing to march inland. Furthermore, it was there at ‘Āpuakēhau that the O‘ahu forces first attacked “the Maui troops collected at the *heiau*.” There “a fight commenced to which Hawaiian legends record no parallel” (Fornander 1919 Volume VI, part 2; page 289). It appears clear that the fighting referred to began in close proximity to Helumoa Heiau. It seems most likely to us that the Helumoa Heiau was located on the prominent point between the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work. This suggests a heightened probability of human remains in all the proposed areas of work but in particular in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work
- ‘I‘i provides more specific data in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 declaring that “Kamehameha himself lived on this land.” [between the Royal Hawaiian Shopping Center and the Royal Hawaiian Hotel] (Appendix A-2). This LCA 228 area includes the North Sheraton proposed area of work.
- ‘I‘i comments in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 that relatively high status attendants of Kamehameha I (“Their work was taking care of the house and preparing the food. These people were in constant contact with the chiefs and were close to each and every chief”) continued to live on the property when Kamehameha I died (‘I‘i, Appendix A-2).
- Kanahale (1995:99) writes of an “*‘ulu maika* course that was part of the royal sports complex of Kahuamokomoko in Helumoa” and states that: “When excavations for the Royal Hawaiian Hotel were made in the early 1920s many *‘ulu maika* discs were found.” indicating the prospect for further finds in the general vicinity.
- Land Commission Awards (summarized in Table 1) indicate a pattern of relatively dense, relatively high status habitation within the project area lands particularly in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work but also in the West Sheraton (grease interceptor) and North Sheraton proposed areas of work.

- Reference in the October 1923 records of the Bernice Pauahi Bishop Museum that “. . . five individuals from Helumoa, Waikīkī, O‘ahu were collected by Kenneth P. Emory. Museum information indicates they were victims of the 1853 smallpox epidemic . . .” (*Federal Register* January 28, 1998 Volume 63, Number 18). Given that the Royal Hawaiian was not opened until February 1, 1927 it is not clear to us that these remains were from construction of the Royal Hawaiian. Regardless, the Helumoa remains could not have been recovered from very far away. The rationale for Emory’s association of the remains with the smallpox epidemic is not known to us at this time. Because of the nature of the disease, small pox burial grounds could include many sets of remains indicating the prospect for further finds in the general vicinity.
- Reference in the 1970 records of the Bernice Pauahi Bishop Museum that: “. . . eight individuals from Waikīkī . . . [donated] by the Sheraton Hawai‘i Corp. . . . recovered during excavations for tank construction . . .”. This would appear to relate to the original work at the Sheraton Waikiki that was completed in 1971. This suggests a heightened concern for the North Sheraton and South Sheraton proposed areas of work but also indicates the prospect for further finds in the general vicinity.
- The understanding that several sets of remains were discovered during the prior re-development of the Royal Hawaiian Shopping Center (perhaps c. 1979) (personal communication from Ms. Lurline Salvadore formerly of the Kamehameha Schools’ staff).
- The apparent discovery of human remains c. 1993 (personal communication from Mr. David Lee) during work on a sewer line in the basement of the accounting department of the Sheraton Waikiki just northwest of the South Sheraton area of proposed work indicating a heightened probability of finds in this area. We believe these remains were relocated to the Southwest Royal Hawaiian area of proposed work.
- This discovery of human remains (that still remain in place in the North Royal Hawaiian Hotel proposed area of work - SIHP # 50-80-14-5937) in April 2001 during excavations associated with the construction of the Abhasa Spa at the Royal Hawaiian Hotel (Elmore and Kennedy 2001). The Elmore and Kennedy (2001:9) study relates an anecdotal account of additional remains “in a nearby location”. As a generalization, there is a higher likelihood of additional burials in the vicinity of post-contact burials (as in the case of Site 50-80-14-5937) than in the vicinity of pre-contact burials.
- The substantial history of archaeological work in Waikīkī has indicated a relatively high density of burials within Beach sand and Jaucas sand deposits such as constitute the soils in the entire project area. Much of Waikīkī was formerly quite low-lying, at or close to the water table. Lands that were slightly higher, such as the present project area were preferentially chosen for interment of the dead.
- Early historic commercial residences such as the Waikīkī Villa, Hawaiian Annex, and Honolulu Seaside Hotel exist within portions of the project area. Possible existing historic trash pits, foundations, and cultural features may exist within the project area.

In view of these points enumerated above it seems that close co-ordination with the State Historic Preservation Division and other concerned parties is appropriate. The present study amounts to a good faith effort to compile evidence of the likelihood of historic properties underlying the areas of potential ground disturbance and matters for concern are indicated.

The presence of possible historic properties does not however mean that the project related ground disturbance will encounter any. The probability of encountering historic properties is, as a sweeping generalization, directly related to the extent of disturbance of intact cultural deposits.

Section 5 Results of Fieldwork

5.1 Project Background

The inventory survey fieldwork was divided into two phases. The first phase included post-hole excavations in locations limited to areas inside the footprint of specific construction designs where project construction could potentially impact cultural resources. The purpose of Phase I testing was to estimate the presence or absence of cultural features within the project area as well as to provide stratigraphic information including depths of imported fill material. The second phase included using the information from Phase I fieldwork to situate two 2-m square test units in the locations specifically found to possibly contain these cultural resources. Geotechnical work in the area was not completed before inventory survey fieldwork and therefore that information could not be taken into consideration for specific locating of the test excavations.

5.2 Inventory Survey, Phase I

There are four specific areas proposed for renovation that may involve subsurface impacts. Two of these areas (South Sheraton and East Royal Hawaiian Hotel) were not suggested for testing during the archaeological inventory survey. In the case of the East Royal Hawaiian Hotel area, this is believed to have been very close to the mouth of the 'Āpuakēhau Stream *muliwai* or lagoon backwater and is thought to be the least sensitive of the five proposed renovation areas. This area is thought to have been open water or a shifting sand bar into the twentieth century. Both the South Sheraton and East Royal Hawaiian Hotel renovation areas are quite developed with actively used swimming pools, paved decks and amenities. Any attempt at excavation in these areas under present conditions would be problematic both in terms of impact to on-going hotel operations and because of physical impediments to the excavation work. The SW Royal Hawaiian Hotel Pool area of work and the North Sheraton Traffic Island were tested during this inventory survey. A fifth area had been proposed for the installation of a grease trap interceptor, this part of the project was abandoned.

The SW Royal Hawaiian Hotel area of work consists of a swimming pool and paved deck on the seaward end and an adjacent large lawn extending inland (Figure 32). This is understood as the locus of Land Commission Awards (LCA) 1782 to Kahope, LCA 1281 to Kuluwailehua owned by Mr. and Mrs. Macfarlane, and LCA 228 to Kaleiheana with many houses located in the immediate vicinity circa 1846 and probably for some time before that. The Helumoa Heiau may have been located close by. Ten to eleven post-holes were proposed for this area during Phase I archaeological inventory survey testing.

The North Sheraton area of work consists primarily of asphalt-paved roads, a portion of the Sheraton Waikiki reception area, and a small circular landscaped median (Figure 33). This area is understood to have been part of Land Commission Award 228 to Kalaiheana (Kaleiheana), which has been suggested to have included certain royal residences. Three post-holes were proposed for this area during Phase I archaeological inventory survey testing.

5.2.1 Phase I Testing

Phase I included twelve successful post-hole excavations in two separate areas in the vicinity of the Royal Hawaiian and the Sheraton Waikiki Hotels in downtown Waikiki. Inventory survey



Figure 32. SW Royal Hawaiian Hotel Pool Area, view to southeast

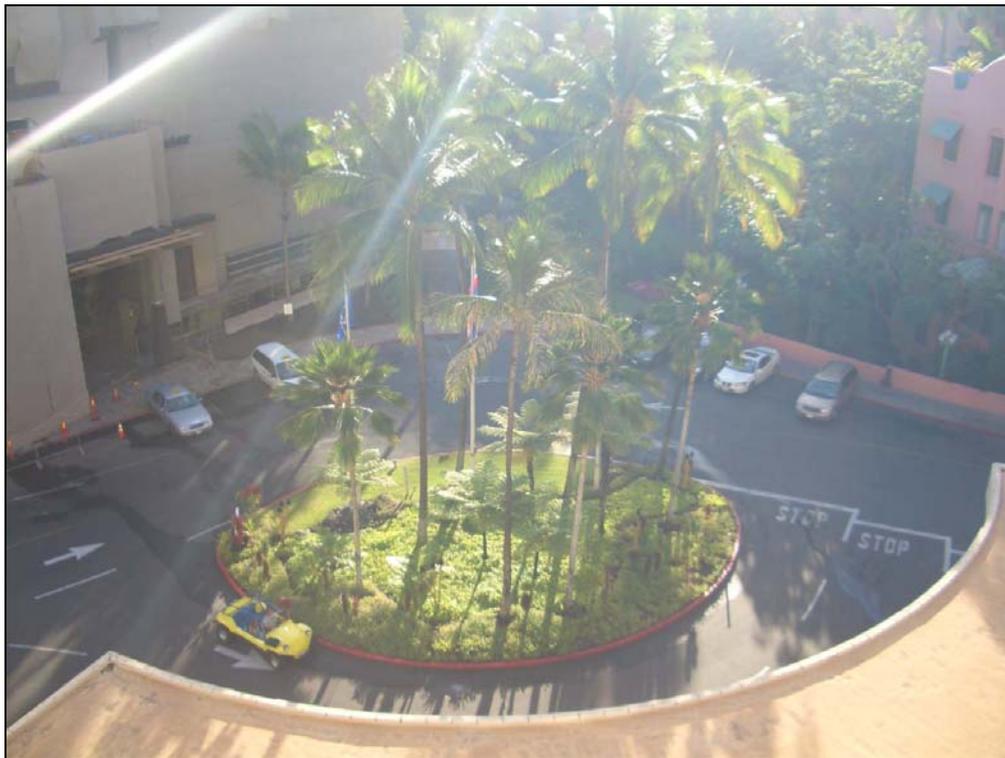


Figure 33. North Sheraton Traffic Island, view to northeast

work was intermittently conducted from October 1, 2007 to October 16, 2007 by several CSH archaeologists. Initial testing was performed on October 1st and 2nd of 2007 by three CSH archaeologists, David Shideler, Douglas Thurman and Rosanna Runyon. The initial testing began in the SW Royal Hawaiian Hotel Pool area and found a high density of subsurface utilities present impeding further progress. Due to the lack of blueprints for the area and the large number of above ground and subsurface utilities, it was decided that electronic toning would need to be conducted in order to be effective with the post-hole testing. A plan map was created noting the locations of identified gas, electric and water lines as well as the locations of all test units attempted (Figure 34).

Work continued from October 5th through October 10th of 2007 with four CSH archaeologists, Rosanna Runyon, Katie Whitman, Nifae Hunkin, and Alexander Hazlett. The fieldwork focused again on the SW Royal Hawaiian Hotel Pool Area. On October 5th, David Gremminger with Geolabs, Inc., performed electronic toning around the project area. Information gained from the toning was used to locate areas that had less of a probability of containing subsurface utilities. A detailed plan map was created showing the relative locations of the eleven successful test units completed in this area in relation to the proposed two-tier resort pool construction plans (Figure 35). This work concluded Phase I fieldwork in the SW Royal Hawaiian Hotel Pool project area.

Inventory survey fieldwork began in the North Sheraton Traffic Island project area on October 16, 2007. Fieldwork was conducted by Rosanna Runyon and Jeff Fong. Three test units were planned for this area, focusing on the *mauka* portion of the traffic island. One test unit was attempted and was successful. The test unit provided adequate information as to not require the need for further post-hole testing in the North Royal Hawaiian Hotel Traffic Island area of work. A map showing the location of the post-hole test unit is shown in Figure 36. This work concluded all Phase I fieldwork for the project.

5.2.2 Phase I Results

General information and stratigraphic information from all attempted test units during Phase I fieldwork is provided below. Stratigraphy for Phase I excavations is summarized in Table 5 presented after test unit descriptions. All collected artifacts are summarized in Appendix C.

Test Unit (T.U.) 1

Excavation of Test Unit 1 (T.U. 1) began on the morning of Oct. 1, 2007 and was excavated to a depth of 270 cmbs. Three strata were encountered Stratum I (0-105 cmbs) a historic fill layer, Stratum II (105-170 cmbs) is a disturbed sand layer, and Stratum III (170-270 cmbs) a natural marine deposited Jaucus sand layer (Figure 37). Historic material was collected from Stratum II.

T.U. 2 A & B

Work began on Test Unit 2A on Oct. 1, 2007. At 10 cm below surface a white PVC irrigation pipe was encountered. Its approximate direction ran east to west. The T.U. 2A excavation was unsuccessful.

Test Unit 2B was opened 30 cm south of T.U. 2A on Oct. 1, 2007 and work continued on the test unit through Oct. 2, 2007 to a depth of 270 cmbs. Three strata were encountered Stratum I

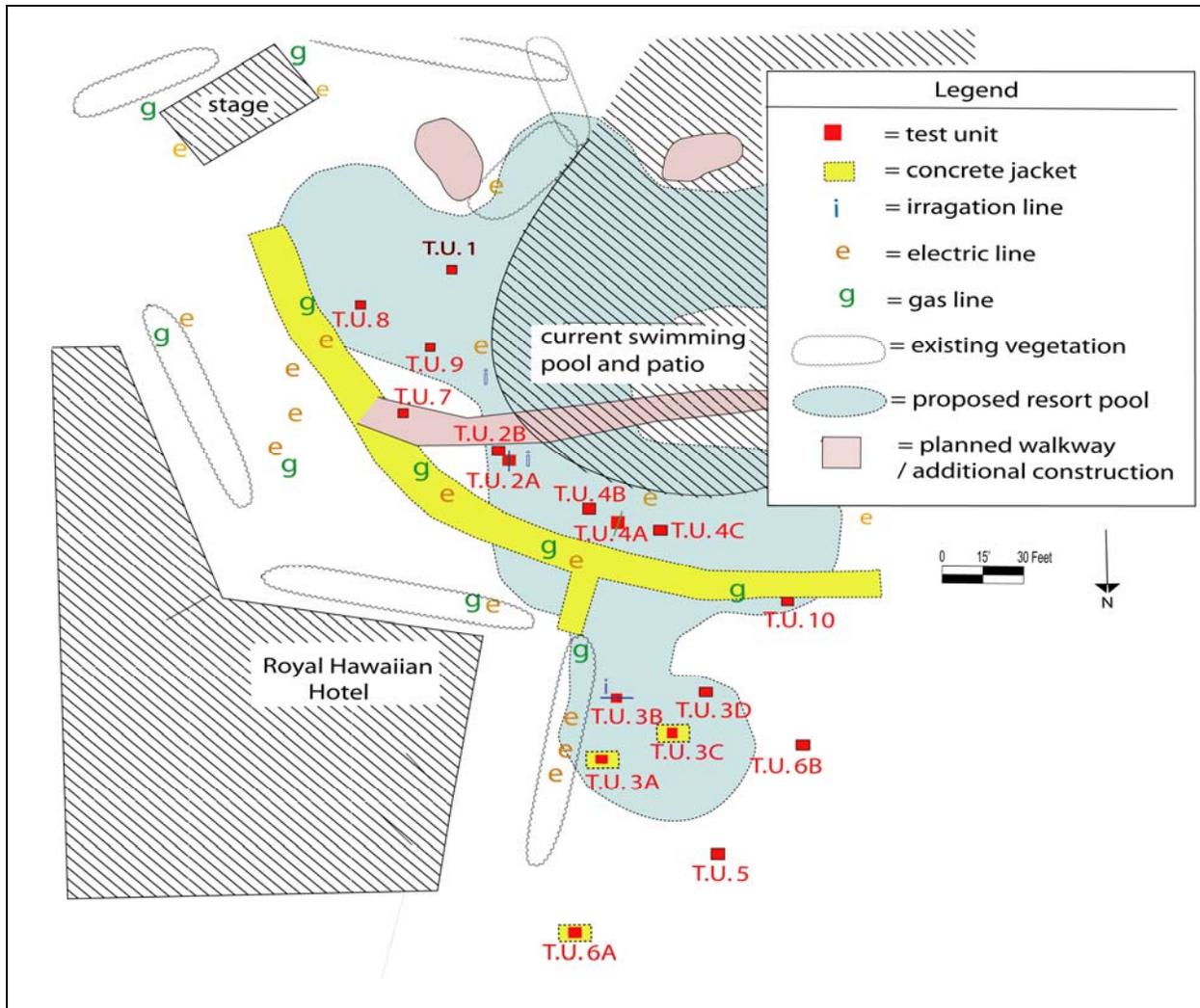


Figure 34. Map showing known utilities and locations of all attempted test units in the SW Royal Hawaiian Hotel Pool Area, Phase I

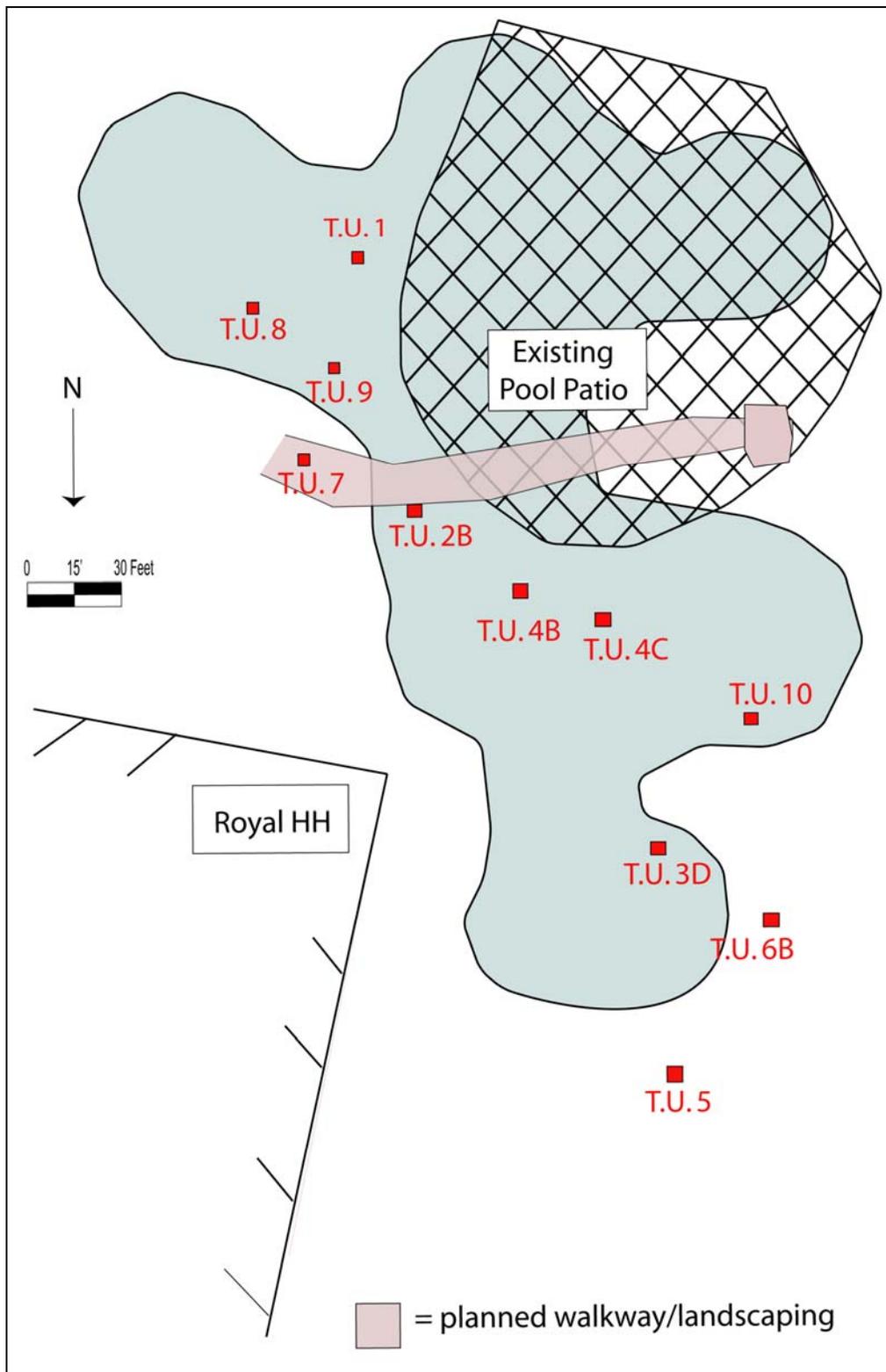


Figure 35. Relative Locations of Successful Test Units in Relation to the Two-Tier Resort Pool Construction Plans, SW Royal Hawaiian Hotel Pool Area, Phase I

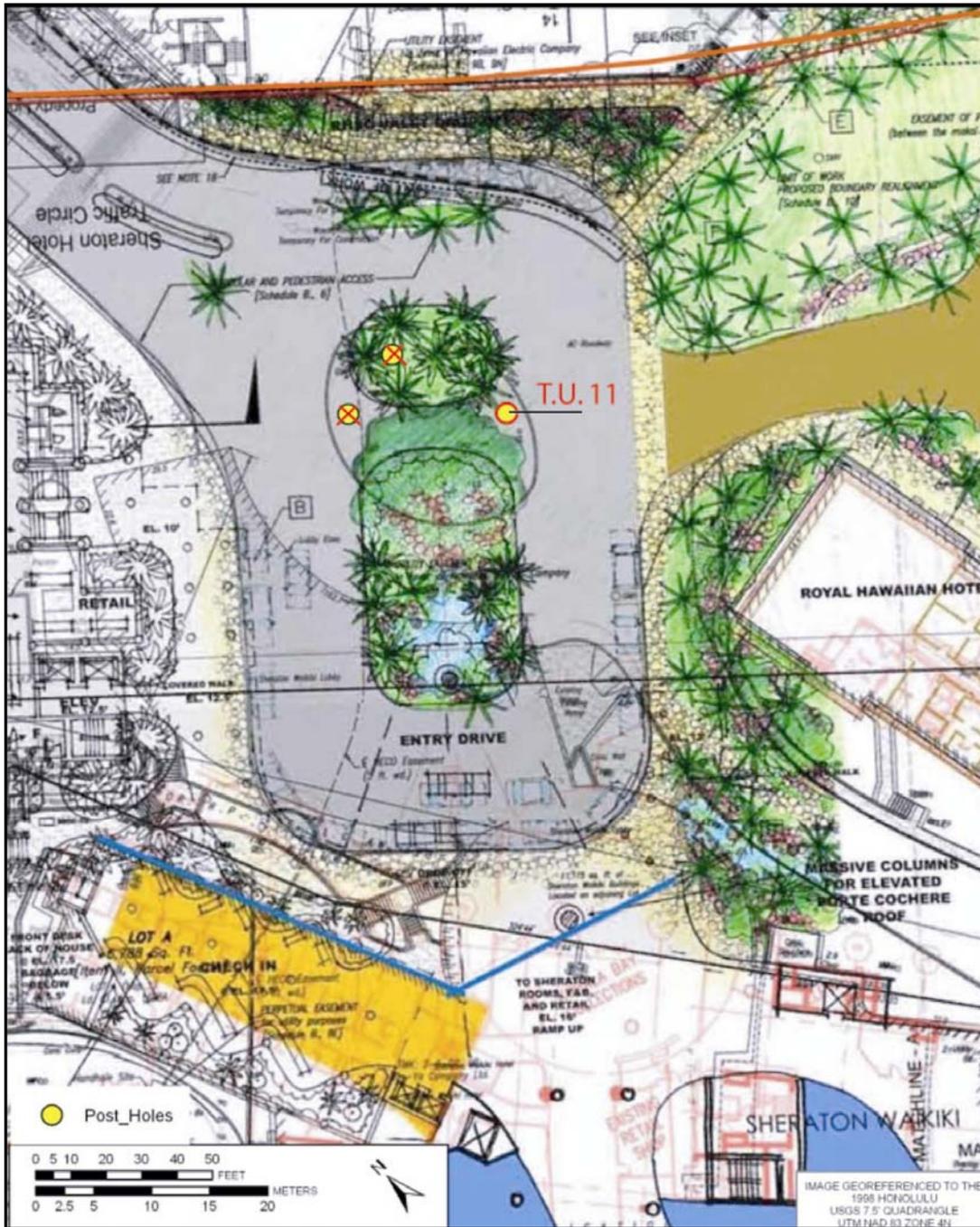


Figure 36. Portion of Renovation plans for the North Royal Hawaiian Hotel Traffic Island area of work, showing the location of T.U. 11 and the locations of two other proposed test units which were determined not to be necessary, Phase I

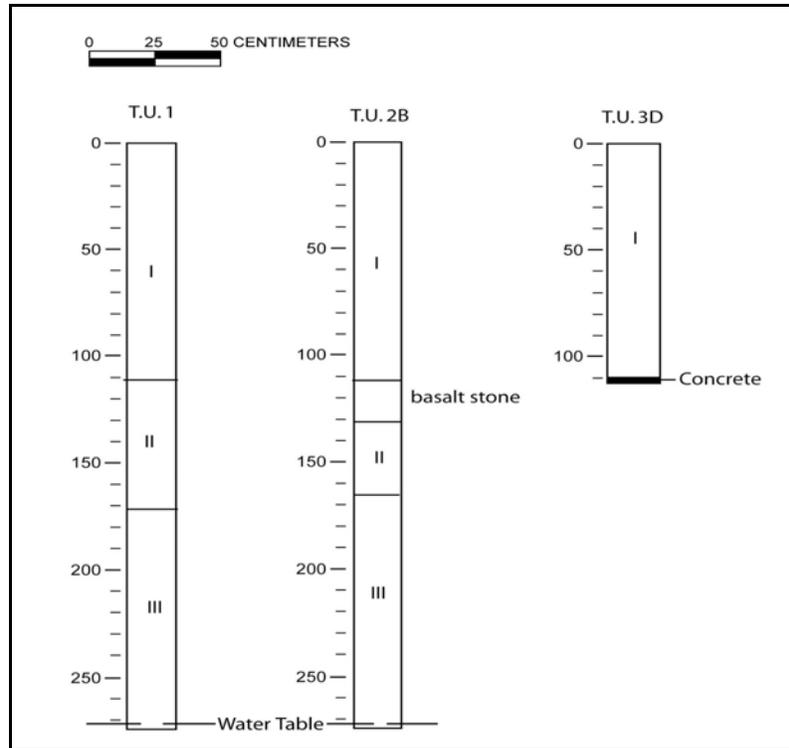


Figure 37. Profiles of Test Units 1, 2B, and 3D located in the SW Royal Hawaiian Hotel Pool Area

(0-110 cmbs) a historic fill layer, Stratum II (130-165 cmbs) a disturbed sand layer, and Stratum III (165-270 cmbs) a natural marine deposited Jaucus sand layer (Figure 37). Large pieces of basalt were encountered and removed from 110-130 cmbs in the transition from Stratum I to Stratum II. Historic material was collected from Stratum II.

TU 3 A, B, C, & D

T.U. 3A was begun on Oct. 1, 2007 and was excavated to 30 cmbs where a concrete jacket was encountered. T.U. 3A was unsuccessful.

T.U. 3B was begun on Oct. 1, 2007 and continued through Oct. 2, 2007. The test unit was position 4.5 meters south of T.U. 3A and was excavated to a depth of 80 cmbs where a cast iron drainage pipe was encountered. Hotel staff was notified of damage to the drainpipe and the Sheraton engineer patched the pipe. T.U. 3B was unsuccessful.

T.U. 3C was begun on Oct. 9, 2007 and was excavated to a depth of 25 cmbs where a slab of concrete impeded further progress. Therefore, T.U. 3C was unsuccessful.

T.U. 3D was begun on Oct. 9, 2007 and was excavated to a depth of 110 cmbs where a slab of concrete (possibly a subsurface storage room ceiling) impeded further progress. The test unit contained one stratum, Stratum I (0- 110 cmbs), a thick historic fill layer (see Figure 37).

The Royal Hawaiian Hotel pool maintenance informed CSH archaeologists there were subsurface rooms below our project area. Upon examination, it was found that a subsurface

storage room, staff locker rooms, and a large laundry room exist below the project area. T.U. 3 D most likely hit the ceiling of the subsurface storage room. The storage room ceiling is approximately 9 feet high.

TU 4 A, B, & C

T.U. 4A was begun on Oct. 2, 2007 and was excavated to a depth of 80 cmbs where a copper wire was encountered. We called the Sheraton engineer and were informed that copper wire was placed over the top of gas lines running throughout the area and to excavate at least 1.5 feet away from T.U. 4A. Therefore T. U. 4A was unsuccessful.

T.U. 4B was begun on Oct. 2, 2007 and was positioned 3 feet perpendicular to the direction that the copper wire from T.U. 4A was running. At a depth of 100 cmbs a concrete jacket was encountered, halting further excavations. There is a possibility that the concrete jacket encountered during this excavation may be the concrete ceiling of a subsurface storage room, which would make this test unit successful. T. U. 4 B contained one stratum, Stratum I (0-100 cmbs), a thick historic fill layer (Figure 38).

T.U. 4C was begun on Oct. 8, 2007 and work continued through Oct. 10, 2007. T. U. 4 C was situated approximately a meter west of T.U. 4 A. Oct. 10, 2007, the test unit was excavated to a depth of 110 cmbs where a concrete slab (possibly a subsurface storage room ceiling) impeded further progress. This test unit as well as T.U. 4B are considered successful and indicate the storage room ceiling exists approximately 1m below surface level in this area. T.U. 4 C contains one stratum, Stratum I (0-110 cmbs), a thick historic fill layer (refer to Figure 38).

T.U. 5

T.U. 5 was begun on the morning of Oct. 5, 2007 and work continued through Oct. 9, 2007. T.U 5 contained one stratum, Stratum I (0-270 cmbs), a thick historic fill layer (refer to Figure 38). This test unit was uncharacteristic for this project area due to the extremely dense amount of basalt gravel. T.U. 5 indicates that the area near its vicinity was heavily filled in with at least 270 cmbs (approx. 9 feet) of imported fill sediment. The water table was not observed, however, the lower sediments were becoming moist.

T.U. 6 A & B

T.U. 6A was begun on the morning of Oct. 5, 2007 and was excavated to a depth of 25 cmbs where a slab of concrete impeded further progress. Therefore T.U. 6 A was unsuccessful.

T.U. 6B was begun on the morning of Oct. 8, 2007 and work continued through Oct. 9, 2007. The test unit contained one stratum, Stratum I (0-185 cmbs), a historic fill layer (refer to Figure 38). The test unit was excavated to a depth of 185 cmbs where a slab of concrete (possibly the subsurface storage room ceiling) impeded further progress. The water table was observed at 180 cmbs.

The Sheraton engineer was called as a precautionary measure in case a water utility had been broken causing the water observed. The engineer pumped out the water with a water pump and determined we had hit a hard concrete slab, likely the subsurface storage room ceiling.

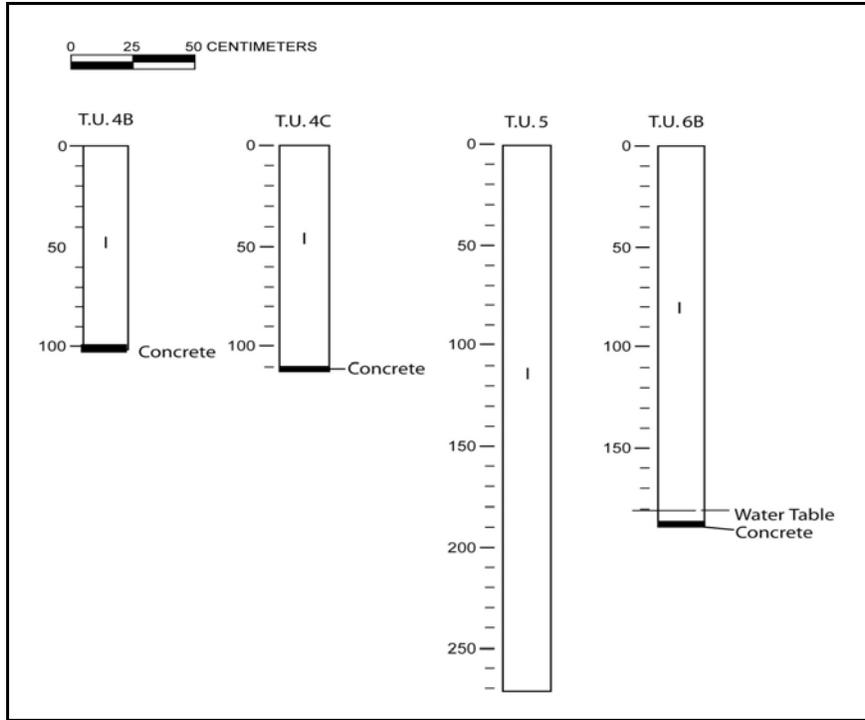


Figure 38. Profiles 4B, 4C, 5, and 6B located in SW Royal Hawaiian Hotel Pool Area

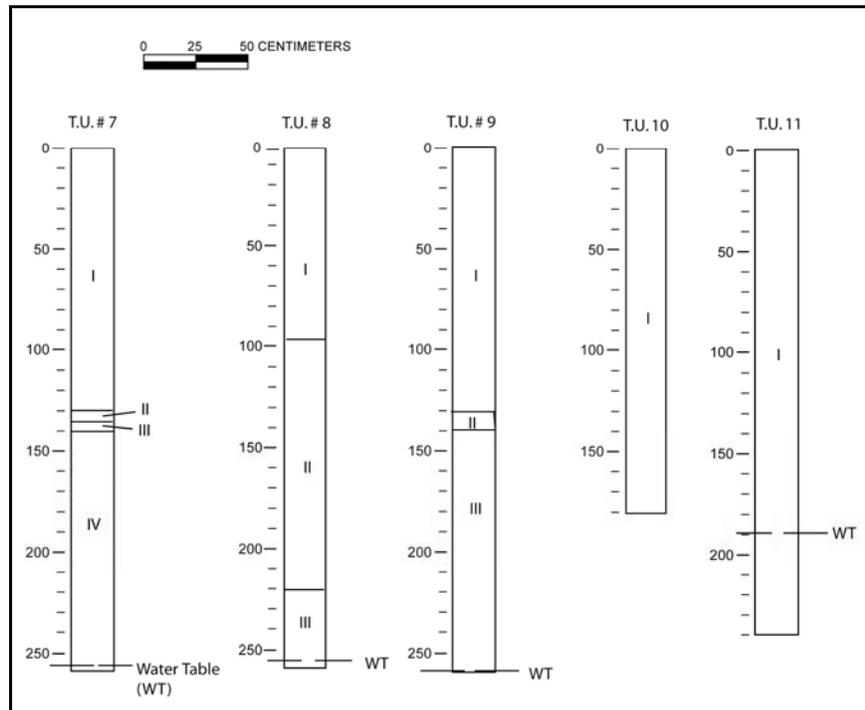


Figure 39. Profiles of T.U. 7, 8, 9, and 10 located in the SW Royal Hawaiian Hotel Pool Area, and T.U. 11 located in the North Royal Hawaiian Traffic Island

T.U. 7

T.U. 7 was begun on the morning of Oct. 5, 2007 and was excavated to a depth of 260 cmbs. Four strata were encountered Stratum I (0-130 cmbs) a historic fill layer, Stratum II (130-135 cmbs) a disturbed sand layer, Stratum III (135-140 cmbs) a thin layer of jaucas sand, and Stratum IV (140-260 cmbs) a disturbed sand layer (Figure 39). The water table was observed at approx. 255 cmbs. Historic artifacts were collected from Stratum II and a faunal bone was collected from Stratum III. The profile of T.U. 7 indicates the area around the vicinity of the test unit has been highly disturbed

T.U. 8

T.U. 8 was begun on the morning of Oct. 5, 2007 and work continued through Oct. 8, 2007. The test unit was excavated to a depth of 255 cmbs and consisted of three strata, Stratum I (0-100 cmbs) a historic fill layer, Stratum II (100-215 cmbs) a disturbed sand layer, and Stratum III (215-255 cmbs) a natural marine deposited Jaucus sand layer (refer to Figure 39). The water table was observed at 250 cmbs. Historic artifacts from Stratum II and Stratum III were collected.

T.U. 9

T.U. 9 was begun on the morning of Oct. 5, 2007 and was excavated to a depth of 260 cmbs. Three different strata were observed, Stratum I (0-130 cmbs) a historic fill layer, Stratum II (130-140 cmbs) a disturbed sand layer, and Stratum III (140-260 cmbs) a natural marine deposited Jaucus sand layer (refer to Figure 39). The water table was observed at 260 cmbs. Historic artifacts were collected from Stratum II and III.

T.U. 10

T.U. 10 was begun on Oct. 9, 2007 and work continued through Oct. 10, 2007. T.U. 10 was excavated to a depth of 180 cm and contained one stratum, Stratum I (0-180 cmbs) a historic fill layer (refer to Figure 39). This unit contained an extremely dense amount of brick and basalt gravel, similar to T.U. 5. The test unit was excavated to the depth required for the project and stated in the inventory survey. The location of this unit suggests the vicinity is most likely either all fill material or just above a subsurface storage room.

T.U. 11

T.U. 11 was begun on October 16, 2007 in the North Sheraton Traffic Island project area. This was the only test unit excavated in this area. T.U. 11 was excavated to a depth of 240 cmbs and contained one stratum, Stratum I (0-240 cmbs), a historic fill layer (refer to Figure 39). The sediment of this test unit was very similar to the Stratum I fill sediment found in all of the SW Royal Hawaiian Hotel Pool Area test units. The water table was observed at approximately 190 cmbs.

Due to the depth of the fill sediment found in T.U. 11 it is most probable all the test units planned for the North Sheraton Traffic Island project area will contain only fill material as well.

Further post-hole testing of this area will not be of much importance and is not suggested for the project at this time.

Table 5. General Stratigraphy found throughout the Phase I inventory survey fieldwork

Stratum	Soil Description
Stratum I	Fill Horizon; 10 YR 3/2, very dark greyish brown; clay loam, weak fine to medium crumb structure, friable moist consistency, slightly plastic, terrestrial fill sediment
Stratum II	Disturbed Sand; 10 YR 3/4, dark yellowish brown; medium grain sand, structureless, single grain, loose dry consistency, non-plastic The fill layer contains a high volume of historic debris.
Stratum III	Jaucus Sand; 10 YR 7/3, very pale brown; fine sand, structureless, loose dry consistency, non-plastic This layer contains historic debris and is possibly mixed with a buried A-Horizon.
Stratum IV	Disturbed Sand Fill; 10 YR 3/4, dark yellowish brown; medium grain sand, structureless, single grain, loose dry consistency, non-plastic The fill layer contains a high volume of historic debris.

5.2.3 Summary of All Attempted Phase I Test Units

- T.U. 1 Successfully completed, 270 cmbs
- T.U. 2A Abandoned when encountered PVC pipe, 10 cmbs
- T.U. 2B Successfully completed, 270 cmbs
- T.U. 3A Abandoned when encountered concrete jacket, 30 cmbs
- T.U. 3B Abandoned when encountered cast iron drainage pipe, 80 cmbs
- T.U. 3C Abandoned when encountered concrete jacket, 25 cmbs
- T.U. 3D Successfully completed to concrete impediment, 110 cmbs
- T.U. 4A Abandoned when encountered copper wire (indicating gas line beneath), 80 cmbs
- T.U. 4B Successfully completed to concrete impediment, 100 cmbs
- T.U. 4C Successfully completed to concrete impediment, 110 cmbs
- T.U. 5 Successfully completed, 270 cmbs
- T.U. 6A Abandoned when encountered concrete jacket, 25 cmbs

- T.U. 6B Successfully completed to concrete impediment, 185 cmbs
- T.U. 7 Successfully completed, 260 cmbs
- T.U. 8 Successfully completed, 255 cmbs
- T.U. 9 Successfully completed, 260 cmbs
- T.U. 10 Successfully completed, 180 cmbs
- T.U. 11 Successfully completed, 240 cmbs

The total number of successful test units in the SW Royal Hawaiian Hotel Pool Area was eleven (T.U.'s: 1, 2B, 3D, 4B, 4C, 5, 6B, 7, 8, 9, 10). The total number of successful test units in the North Sheraton Traffic Island was one (T.U. 11).

CSH attempted eighteen test unit locations in the project area, a total of twelve test units were considered successful. From the information gathered from these twelve test units the depth of fill deposits and location of jaucas sand deposits were determined (as shown in test unit profiles). The entire project area including the SW Royal Hawaiian Hotel Pool Area and the North Sheraton Traffic Island, contained thick imported fill deposits and was highly disturbed by utilities and building construction activities. Recent information informing CSH of subsurface storage and locker rooms underneath the majority of the northern portion of the SW Royal Hawaiian Hotel Pool project area indicates that this area is highly disturbed and contains more than 270 cm of imported fill material in some locations, as indicated by T.U. 5. Fieldwork in the North Sheraton Traffic Island found this area to contain more than 240 cm of imported fill material. Only one test unit was required in this area due to the depth of fill materials. The proposed construction of an asphalt roadway in this area would not impact any sediments other than fill material.

Phase II post-hole testing indicated Jaucas sand deposits, commonly known to contain significant archaeological materials and human burials, were found within the project area. Jaucas sand was only observed in the *makai* portion of the SW Royal Hawaiian Hotel Pool Area from approximately 170-220 cm below the ground surface. The undisturbed jaucas sand sediment could be impacted by the proposed two-tier resort pool development. For Phase II work in this project area it was requested that test units be located in the SW Royal Hawaiian Hotel Pool area. No culturally significant artifacts, features, or historic properties were observed during Phase I inventory survey fieldwork. As would be expected due to the heavy fill deposits and the relatively small amount of jaucas sand observed.

5.3 Inventory Survey, Phase II

It was determined from Phase I of this inventory survey that the SW Royal Hawaiian Hotel Pool area was the location of highest probability for finding cultural deposits and/or burials. The SW Royal Hawaiian Hotel Pool area was the only area tested during Phase I to contain natural jaucas sand sediments at a depth which could be impacted by the proposed renovation work. Therefore, Phase II test units were situated in this portion of the project area. In consultation with SHPD, two 2m x 2m test units (T.U. 12 and T.U. 13) were deemed necessary in this location. The locations of the test units are shown in Figure 40 to Figure 42. T.U. 12 contained several significant cultural materials and two isolated human bone fragments within a disturbed sand

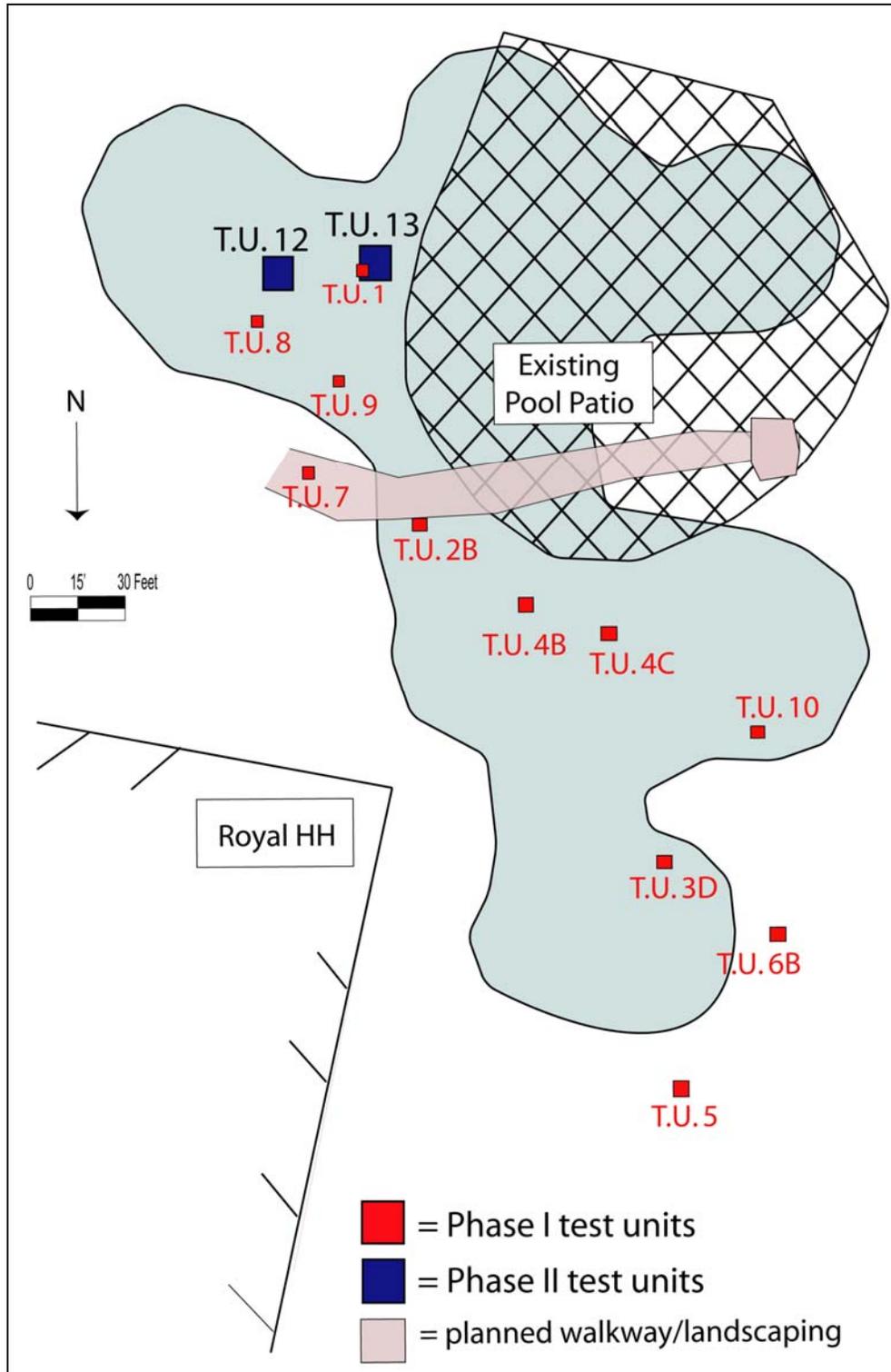


Figure 40. Plan map showing all successful test units (in red) and the relative location of the two Phase II test excavations (in blue).



Figure 41. Photo showing the general location of T.U. 12 in the SW Royal Hawaiian Hotel Pool area, in the process of removing upper fill sediment with a backhoe



Figure 42. Photo showing the general location of T.U. 13 in the SW Royal Hawaiian Hotel Pool area, the orange fencing marks the west boundary of the test unit excavation

stratum. T.U. 13 contained disturbed sand and jaucas sand strata. Several features were identified in the jaucas sand stratum however did not contain any significant cultural materials or remains.

5.3.1 Phase II Testing

Backhoe excavation was necessary to remove upper fill sediment (Strata Ia-Ic) from the Phase II test unit locations. Backhoe excavation was monitored by two CSH archaeologists, David Shideler and Connie O'Hare. Sediment was removed down to the existing disturbed sand stratum (Stratum IIa). Two test units, T.U. 12 and T.U. 13, were excavated on the *makai* end of the SW Royal Hawaiian Hotel Pool Area. T.U. 12 was excavated from November 12 through November 14, 2007. The unit was centered between the Royal Hawaiian Hotel and the existing pool. A photo showing the general area of T.U. 12 is shown in Figure 41. T.U. 13 was excavated from November 14 through November 16, 2007 and was located between T.U. 12 and the existing pool. A photo of the general area of T.U. 13 is shown in Figure 42. The test units were divided into four one-meter portions, all sediment was consistently kept in separate portions during removal, screening, and artifact collecting. All collected artifacts are summarized in Appendix C.

5.3.2 Phase II Results

T.U. 12

Once the upper fill sediment was removed with a backhoe, a 2m x 2m test unit (T.U. 12) was laid out (Figure 43). Sediment was removed using shovel, trowel, and buckets. T.U. 12 contained disturbed sand sediment (Stratum IIa-IIc) and was excavated to approximately 2.25m in depth (approximately seven and a half feet). The disturbed sand sediment included many basalt cobbles and boulders and an abundance of cultural material (bottles, ceramics, metal, brick, faunal bone, marine shell, etc.). A plan map is shown in Figure 44. The test unit walls were profiled and photographs were taken upon completion of the excavation. Profiles and photos are shown in Figures 43-49.



Figure 43. Photo showing T.U. 12 after removal of fill sediments to the disturbed sand stratum (Stratum II) and laying out the test unit

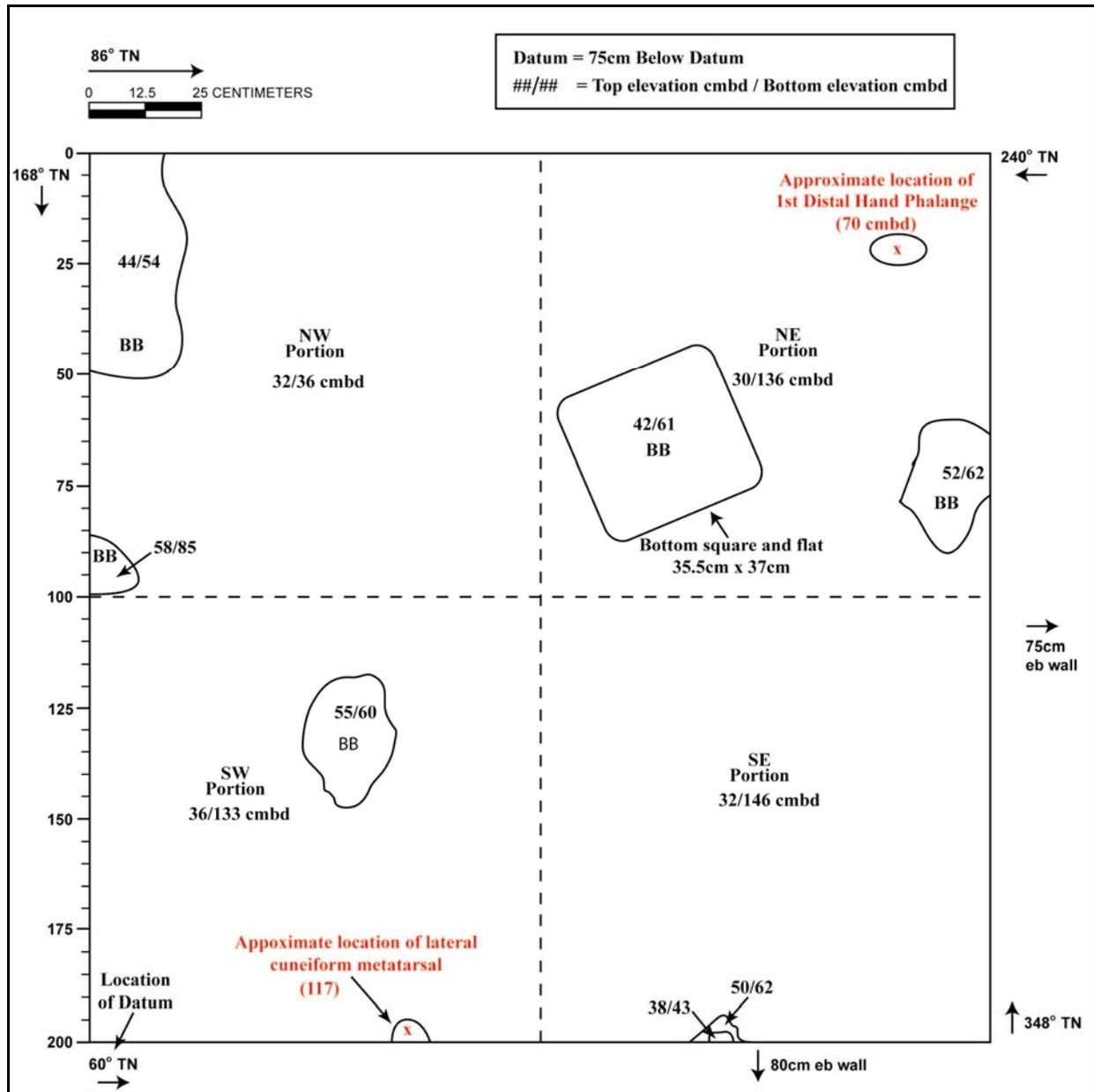


Figure 44. Plan map of T.U. 12 showing the four divided portions, basalt inclusions, and the approximate locations of the first distal hand phalange and the lateral cuneiform metatarsal discoveries

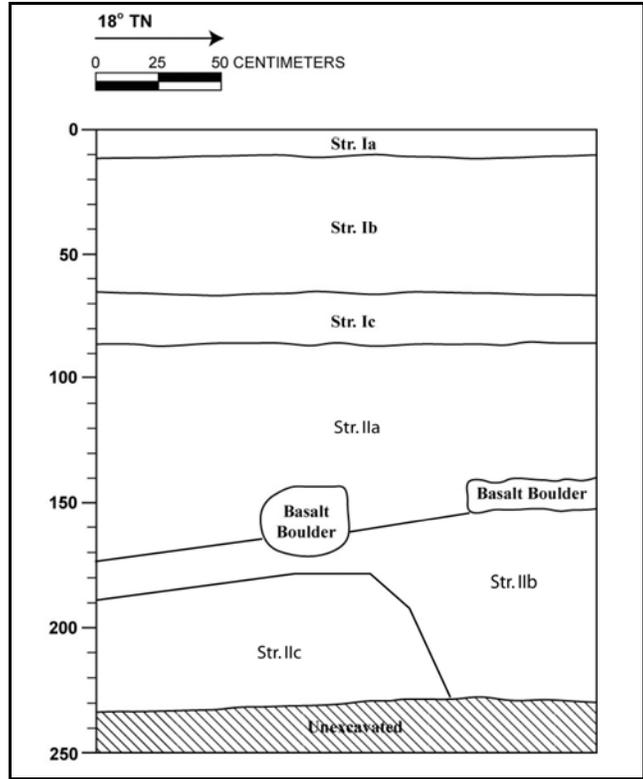


Figure 45. West wall profile of T.U. 12, showing fill strata Ia-Ic and the hand excavated Stratum II layer containing basalt boulder inclusions and abundant cultural material



Figure 46. Photo of the west wall of T.U. 12, hand excavated portion showing Stratum II disturbed sand

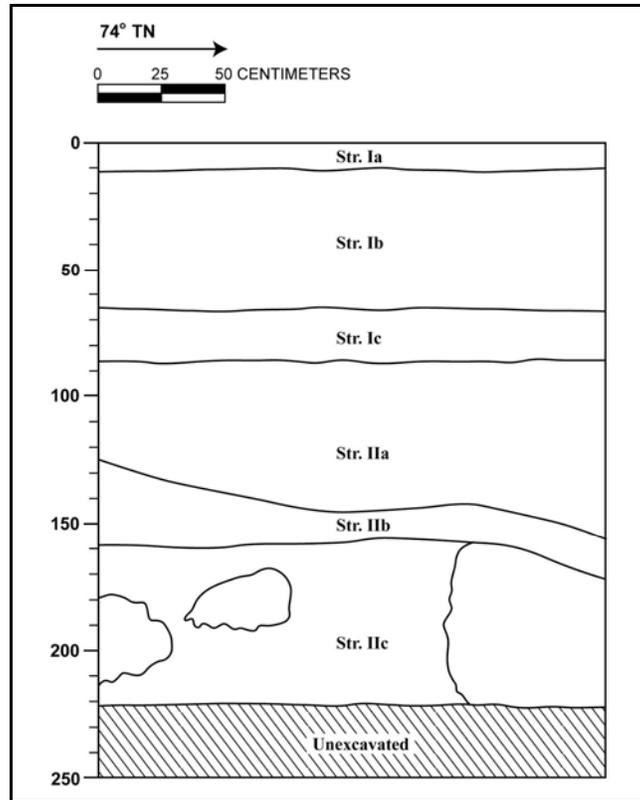


Figure 47. North wall profile, showing fill strata Ia-Ic, hand excavated Strata IIa-IIc disturbed sand sediment



Figure 48. Photo of the north wall of T.U. 12, hand excavated portion showing Stratum Ia-Ic

The sediment of T.U. 12 consisted of:

Stratum Ia (0-10cmbs)	<p>7.5 YR 3/3 (dark brown); silt loam; moderate, fine, crumb structure; moist, friable consistency; slightly plastic; no cementation; terrestrial sediments; abrupt and smooth lower boundary</p> <p>This is a modern A-Horizon layer and contains abundant rootlets, basalt pebbles, and sand.</p>
Stratum Ib (10-65cmbs)	<p>7.5YR ¾ (dark brown); clay loam; weak, fine to medium, crumb structure; moist, friable consistency; slightly plastic; no cementation; mixed sediments, very abrupt and smooth lower boundary</p> <p>This is a historic fill layer and contains rootlets, basalt pebbles and cobbles, and historic materials (glass, brick).</p>
Stratum Ic (65-85 cmbs)	<p>Gley 1 4/N (dark greenish grey) with 7.5 YR 4/3 (brown) clay; extremely gravelly; strong, blocky structure; dry, loose consistency; non-plastic; no cementation; terrestrial sediment; very abrupt and smooth lower boundary</p> <p>This is a fill layer and contains construction base gravel.</p>
Stratum II(a) (85-233 cmbs)	<p>10 YR 4/2 (dark grayish brown) with heavy fine to medium mottles of 10 YR 8/3 (very pale brown) fine sand; sand, medium texture; structureless, single grain structure; moist, loose consistency; non-plastic; no cementation; mixed sediments; diffuse and irregular lower boundary</p> <p>This is an on-site disturbed sand layer and contains marine shell, faunal bone, and historic material (glass, ceramics, metal, etc.).</p>
Stratum IIb (125-170 cmbs)	<p>10 YR 3/3 (dark brown); sand, medium texture; structureless, single grain structure; moist, loose consistency; non-plastic, no cementation; mixed sediment; abrupt and smooth lower boundary</p> <p>This is an on-site disturbed sand layer and contains marine shell, faunal bone, and dense historic material (bottles, ceramics, metal, etc.).</p>
Stratum IIc (155-220 cmbs)	<p>10 YR 4/2 (dark grayish brown) with medium to large mottles of 10 YR 8/3 (very pale brown); sand, medium texture; structureless, single grain; moist, loose consistency; non-plastic; no cementation; mixed sediment</p> <p>This is an on-site disturbed sand layer and contains marine shell and historic material (glass, ceramics, metal, etc.)</p>

All sediment observed during hand excavation of T.U. 12 was from Stratum II disturbed sand. Although lower portions of the north and south profile walls show jaucas sand (refer to Figure 47 to Figure 49), the exposed sediment is merely large mottles of jaucas sand. This is evidenced by the continuation of disturbed sand sediment shown in the east and west profile walls as well as the presence of large wires coming from the base of the excavation indicating more disturbed sand sediment remains below. The profile indicates the on-site sediments in this area have been heavily disturbed. A photo was taken after completion of T.U. 12 and is shown in Figure 49.



Figure 49. Photo of T.U. 12 at the completion of excavation, showing the south and west walls, view to the southwest (notice the large mottle of jaucas sand in the south wall)

Several significant cultural materials and isolated human bones were recovered from this test unit. At approximately 72 cm below datum (cmbd) [147 cm below surface (cmbs)] in the SE $\frac{1}{4}$ portion of T.U. 12, a coral file was found in the screen and bagged. At approximately 1500 on November 12, 2007 a distal hand phalange (thumb) was recovered in the screen from the NE portion of the test unit. The phalange was found approximately 70 cmbd (145 cmbs) in Stratum II disturbed sand. Once the bone was identified, SHPD was notified of the find as well as the project managers and all necessary calls were made. The phalange was temporary placed in a brown paper bag and kept in the excavation unit until a more permanent location was determined.

At approximately 2 p.m. on November 13, 2007 a left lateral cuniform metatarsal (foot bone) was found in the SW portion of T.U. 12 in Stratum II disturbed sand at approximately 117 cmbd (192 cmbs). Once the bone was identified, SHPD was notified of the find and determined to make a site visit. As with the previous find, the bone was placed in a brown paper bag and kept in the excavation unit until a more permanent location could be determined.

On November 14, 2007 the skeletal elements found in T.U. 12 were re-interred to the near vicinity of Site # 50-80-14-5937, located on Royal Hawaiian Hotel grounds (shown in project area maps in this report).

T.U. 13

Archaeological monitoring was conducted by CSH while fill sediments were removed with a backhoe down to the disturbed sand stratum (Stratum II). Once the disturbed sand stratum was observed the base of the excavation was leveled and a 2m x 2m test unit (T.U. 13) was laid out. The sediment was removed using shovel, trowel, and buckets. T.U. 13 contained a Stratum II disturbed sand layer and an undisturbed Stratum III jaucas sand layer. A plan map was drawn and is shown in Figure 50. Walls were profiled and photographs were taken upon completion of the test unit. Profiles and photos are shown in Figure 50 to Figure 58.

Stratum II contained very little cultural material. A metal utility pipe was found running through the NE and NW portions of T.U. 13 (refer to plan view Figure 50). The pipe was determined to be an abandoned electrical pipeline. A relatively small amount of disturbance around the pipe was noted and can be seen in profile (refer to profile Figure 55).

Once Stratum III jaucas sand sediments were observed, the base of excavation was leveled and new artifact bags were assigned. The leveled surface of Stratum III indicated several possible feature outlines. Fourteen features were recorded in T.U. 13. Each possible feature was bisected in order to observe its shape and get beginning and ending elevations. Feature locations and elevations are shown on the plan map (refer to Figure 50). Sediment from each feature was kept separate and screened in a 1/8 inch screen. All materials from each feature were collected and are shown in Appendix C. Table 6 gives a summary of the features identified in T.U. 13.

The features were defined as either trash pits, possible post-molds, or undefinable (see Table 6). Features 1, 4, 6, 8, 9, and 11 are defined as possible post-molds. Features 1, 4, 8 and 9 appear to be somewhat aligned and at approximately similar depths. It is not clear whether these post-molds are pre contact or historic, however several of the possible post-mold features are seen in profile walls and appear to originate from the disturbed sand stratum, indicating a later age of construction.

No features contained substantial burnt bone or definite archaeological midden material. Feature 2 contained a large amount of faunal bone (fish, small to medium mammal bone) and charcoal, yet the feature appeared to have been previously disturbed, as the faunal material was found inside the feature as well as scattered around the feature. In particular, a portion of an articulated fish (possibly a Barracuda) was found inside Feature 2, while another portion of that fish was found articulated but located just outside of the feature. Therefore, no carbon dating was performed.

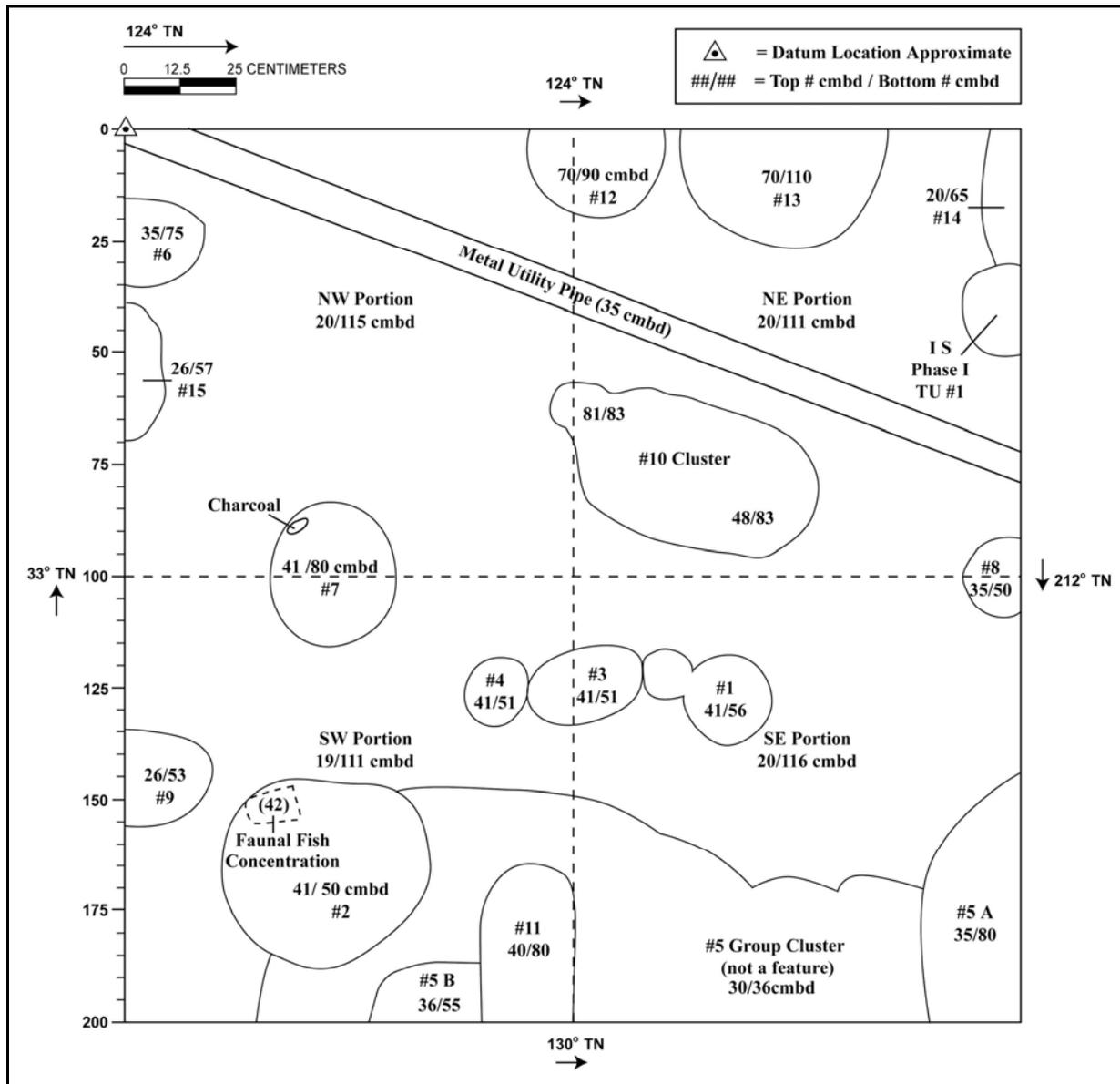


Figure 50. Plan map of T.U. 13, showing the locations of possible feature outlines, subsurface utilities, and the location of the Phase I, T.U. 1 post-hole

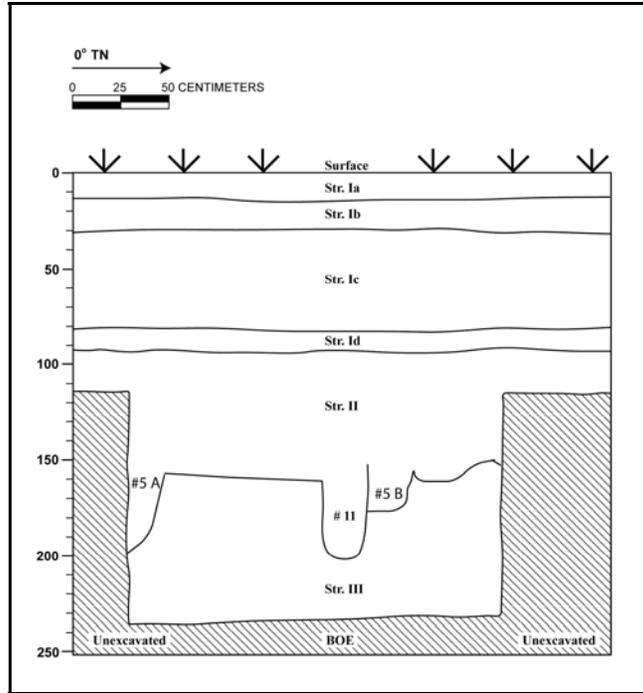


Figure 51. South wall profile showing Strata Ia-Id fill layers and hand excavated Stratum II and Stratum III layers, notice Features 5a, 5b, and 11



Figure 52. Photo showing the south wall of T.U. 13, notice features 5a, 5b, and 11 encroaching into Stratum III jaucas sand

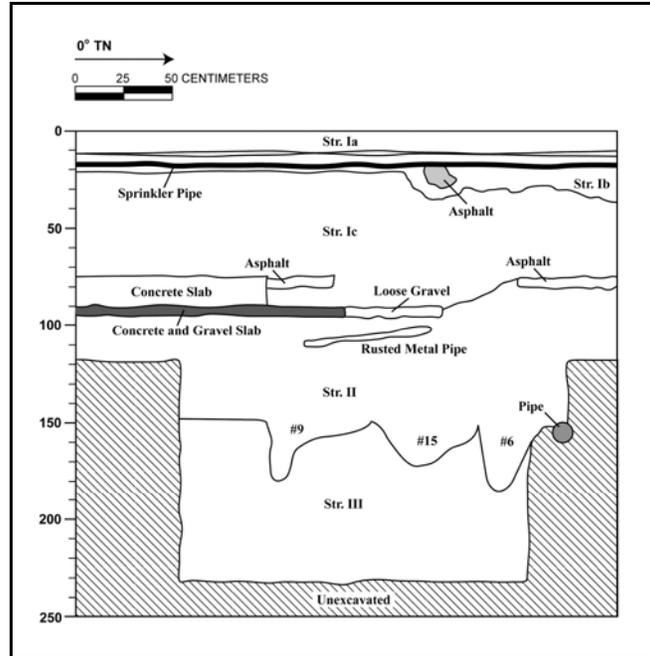


Figure 53. West wall profile showing Strata Ia-Ic fill sediment and utility lines and hand excavated Stratum II and Stratum III layers, notice features 6, 9, and 15



Figure 54. Photo showing T.U. 13 west wall, notice the stepped concrete impediment in the southwest corner and utility pipes, as well as features 6, 9, and 15

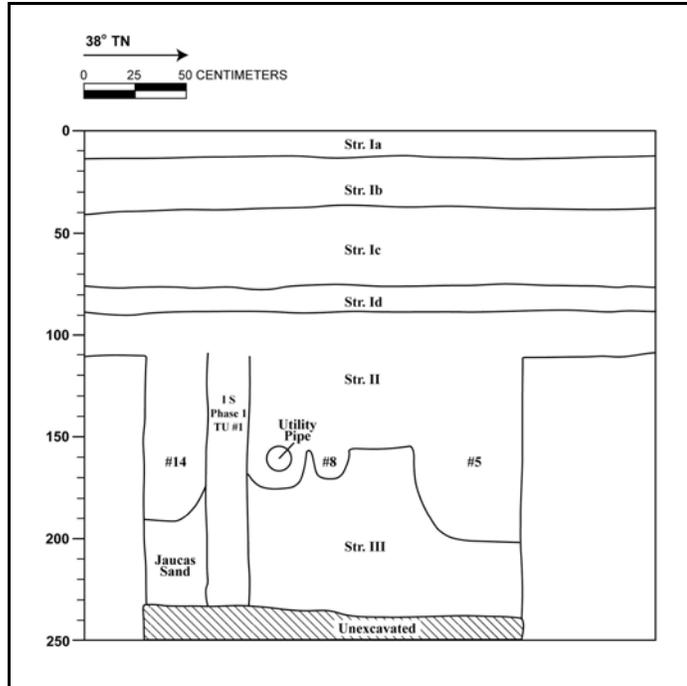


Figure 55. East wall profile showing Strata Ia-Id fill layers and hand excavated Stratum II and Stratum III layers, notice the I.S. Phase I T.U.1 post-hole and features 5a, 8, and 14



Figure 56. Photo of T.U. 13 showing the east wall, notice the utility pipe, Phase I T.U.1 post-hole excavation, and features 5a, 8, and 14

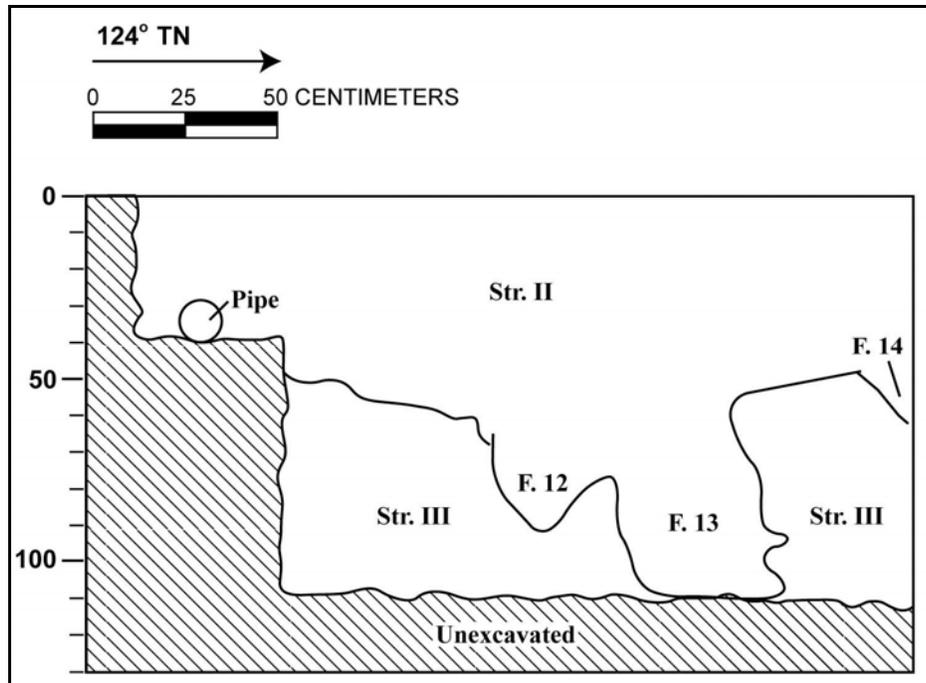


Figure 57. North wall profile, showing the hand excavated Stratum II and Stratum III layers, notice features 12, 13, and 14

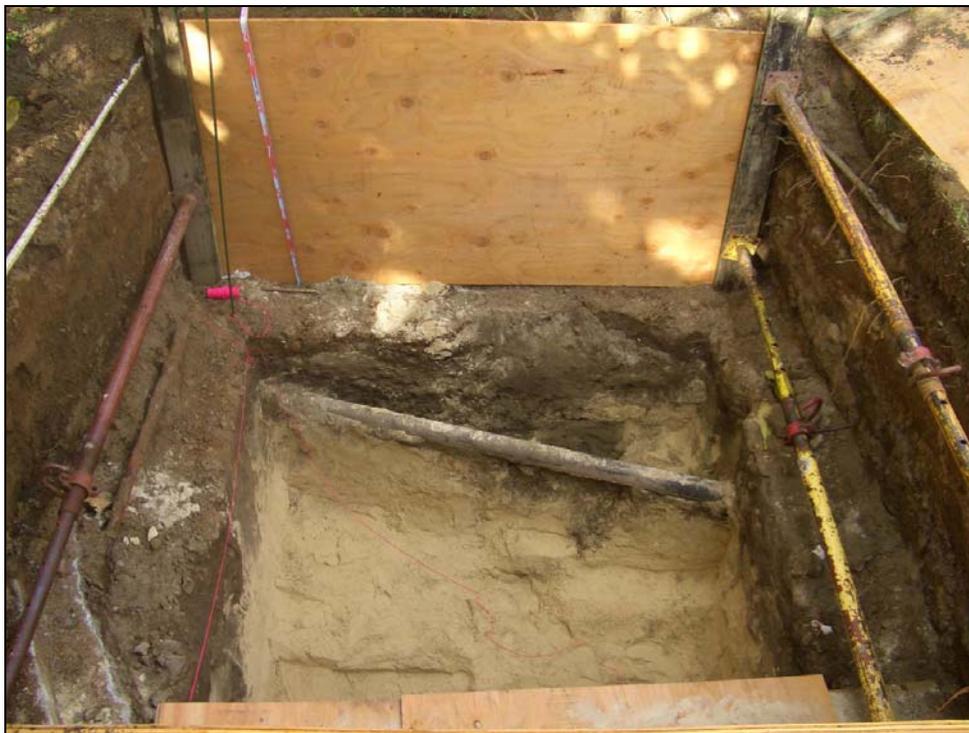


Figure 58. Photo of T.U. 13 showing the north wall

The general stratigraphy of T.U. 13 consisted of:

Stratum Ia (0-12 cmbs)	<p>7.5 YR 3/3 (dark brown); silt loam; moderate, fine, crumb structure; moist, friable consistency; slightly plastic; no cementation; terrestrial sediments; abrupt and smooth lower boundary</p> <p>This is a modern A-Horizon and contains abundant rootlets, basalt pebbles, and sand.</p>
Stratum Ib (10-30 cmbs)	<p>5 YR 3/3 (dark reddish brown); very gravelly; silt; weak, fine, crumb structure; dry, weakly coherent consistency; non-plastic; weak cementation; terrestrial sediment, abrupt and smooth lower boundary</p> <p>This is a fill layer and contains basalt gravel.</p>
Stratum Ic (30-80 cmbs)	<p>7.5YR 3/4 (dark brown); clay loam; weak, fine to medium, crumb structure; moist, friable consistency; slightly plastic; no cementation; mixed sediments, very abrupt and smooth lower boundary</p> <p>This is a historic fill layer and contains rootlets, basalt pebbles and cobbles, and historic materials (glass, brick).</p>
Stratum Id (80-90 cmbs)	<p>Gley 1 4/N (dark greenish grey) with 7.5 YR 4/3 (brown) clay; extremely gravelly; strong, blocky structure; dry, loose consistency; non-plastic; no cementation; terrestrial sediment; very abrupt and smooth lower boundary</p> <p>This is a fill layer and contains construction base gravel.</p>
Stratum II (90-155 cmbs)	<p>10 YR 3/2 (very dark grayish brown) with mottles of 10 YR 8/4 (very pale brown) and charcoal flecking; sand, fine texture; structureless, single grain; dry, loose consistency; non-plastic; no cementation; mixed sediments; diffused and wavy lower boundary</p> <p>This is an on-site disturbed sand layer and contains marine shell and small amounts of historic material (glass, wire, ceramic sherds).</p>
Stratum III (155-240 cmbs)	<p>10 YR 8/3 (very pale brown); fine sand; structureless, single grain; moist, loose consistency; non-plastic; no cementation; marine sediment</p> <p>This is a natural jaucas sand layer and contains marine shells.</p>

Table 6. Summary of Features Identified in T.U. 13

Feature	Type of Feature	Contents/Remarks
1	Possible Historic Post-Mold	Contained shell and a glass fragment
2	Trash pit	Contained a high volume of faunal bone, charcoal, and marine shell usually found in pre-contact midden deposits
3	Undefined pit	Contained only shell
4	Poss. post-mold	Contained shell, basalt, and charcoal
5A, 5B	Trash pits	Contained marine shell, charcoal, and faunal bone
6	Poss. post-mold or trash pit	Contained shell and faunal bone
7	Trash pit	Contained shell, charcoal, and bone
8	Poss. post mold	Contained only shell
9	Poss. post mold	Contained shell, charcoal, and faunal bone
10	Undefined historic feature	Contained shell and historic material, irregular in shape
11	Post mold or wall impression	Contained coral, marine shell, basalt, charcoal
12	Historic trash pit	Contained marine shell and historic materials
13	Trash pit	Contained shell, basalt, and charcoal
14	Undefined pit	Nothing collected

Section 6 Results of Laboratory Analysis

6.1 Phase I

Out of eleven successful test unit excavations only five test units contained Stratum II and/or Stratum III artifacts. All other test units contained only imported fill materials from utility installation and building construction activities. The majority of the artifacts recovered indicate there were active historic properties in the vicinity of the project area, which correlates with historic accounts and existing architecture. The small amount of shell, basalt, charcoal, and faunal remains recovered does not indicate a high presence of pre-contact activity in the project area. However, the relatively small artifact sample size and small amount of sand sediment tested, the heavy importation of fill sediments, and the high volume of utility disturbance must all be taken into account. All Phase I artifacts are shown in Appendix A.

6.2 Phase II

All cultural materials from the disturbed sand and jaucas sand sediments were collected. The artifacts were processed and tabulated in order to get a general understanding of land use in the project area. The majority of artifacts were found in T.U. 12 disturbed sand sediment and thus time periods are mixed together. Artifacts gathered indicate the land was used from pre-contact times until recent modern times. A detailed catalogue of Phase II recovered artifacts is presented in Appendix C.

For further analysis, a descriptive qualitative approach was used on the collected traditional Hawaiian and historic materials due to the context in which the majority of the material were found. The disturbed sand strata provided a chronologically mixed yet homogenous layer of land use. The origin of the cultural materials provided general information on the post-contact lifestyle in Waikiki. Detailed results of the laboratory analysis are presented in a table format in Appendix A. Summary tables of the data are presented in the following section.

For T.U. 12 the artifact catalogue numbers and thus the artifact bags, are made of three sets of letters and numbers. The code consists of: the portion from which the artifact was found, the date in which the artifact was collected, and the individual number of the artifact being catalogued. Test Unit 12 was a 2 m x 2 m test unit, hence each portion of the test unit comprised a 1m x 1m area. There were no arbitrary levels at which artifacts were collected from, instead artifact bags were labeled by the day in which they were collected. The third part of the catalogue number corresponds to each individually catalogued artifact or group of common artifacts (-01 and so on).

For T.U. 13 two systems for cataloguing were used. The general code used consists of: the portion from which the artifact was found, the date in which the artifact was collected, the number of the arbitrary layer (1-3), and the individual number of the artifact being catalogued or a general catalogue number (-00) for the entire bag. Features were catalogued by: the feature number, the date, and the individual number of the artifact.

6.2.1 Traditional Hawaiian Artifacts

The forms and functions of traditional Hawaiian artifacts were determined using reference material (i.e. Barrera and Kirch 1973; Brigham 1974; Buck 2003; Emory et al. 1968). Several traditional Hawaiian or pre-contact materials were found. Table 7 shows all the traditional Hawaiian artifacts recovered from the inventory survey. All of the artifacts were recovered from Stratum II of Test Unit (T.U.) 12. Photos of the artifacts are shown in Figure 59 and Figure 60.

A coral file was found in T.U. 12 at 147 cm below the surface. Coral files were traditionally used for smoothing and polishing. They were used to make small artifacts, such as fish hooks, and also to finish large artifacts, such as canoes (Buck 1957:257).

One bone fishhook head fragment was found in T.U. 12 from Stratum II, disturbed sand sediment. The work of Emory, Bonk, and Sinoto (1959) established that the form of Hawaiian fishhooks changed over time at an archaeological site at South Point on Hawai'i island, including the heads of the fishhooks. The artifact found during this inventory survey is identified as a "Head Type 4A" one-piece fishhook (Hammatt and Shideler 1996:48). Sinoto (1962) later provided additional information on the changes of head types over time, which showed that the incidence of Type 4 heads increased in number over time at the South Point site; in other words, they were most commonly found in the later periods (see figure in Kirch 1985:207).

Three pieces of worked shell were also found within T.U. 12. Mother-of-shell pearl, called *pā* or *paua*, by the Hawaiians is found in bivalves in Hawai'i from the families Pteriidae and Isognomonidae. The mother-of-pearl was used as a fishing lure attached to a bone fish hook, or used to make a small fish hook itself. Buck (1957:325) says the semi-circular pearl shell hooks were called *makau paweo* (pearl fishhook) and were used to catch 'opelu (mackerel scad; *Decapterus* spp.). The fishing lure was shaped like a plate, using the entire shell, and was attached to a bone hook. The color and sheen of the pearl shell attracted the fish, such as the *aku* (bonito; *Euthynnus* sp.), to the hook (Malo 1951:79). Samuel Kamakau described the making of these shell "plates."

For pearl shell lures, a good-size *uhi* [*Pteria*, or *Pinctada* sp.] or *paua* shell was selected, the size of a hand or larger. . . . The shell was cut down from base to tip. The carver scraped down the coarse outer covering until the small part was reached. . . It was to the *aku* as a beautiful chiefess . . ."

Margaret Titcomb (1978:350) provides additional information:

A hole was drilled thorough the ridge at the base of the shell and a hook of wood or dog bone fastened to it securely with fine cord. Hog bristles were fastened at the base of the hook where it joined the lift of the shell and crossed there so that the hook would not turn over. As the hook moved over the water, the bristles sprayed on the water, and the *aku* mistook it for the 'iao (bait fish) and rushed to seize it.

The three mother-of-pearl fragments from the artifact collection are all smooth on all sides with some beveled edges, showing that they have been filed or shaped. This smoothing made a blank, which could have been further formed into a "plate" *aku* lure or a small 'opelu hook

Table 7. Traditional artifacts from Test Unit 12, Stratum II

Provenience	Depth (cmbd)	No.	Wt. (g)	Material	Function	Description
SE-12-01	32-81	1	3.4	coral	File	Approx. 4cm in length, three smooth sides joining at a point
NW-12-37	32-70	1	0.6	bone	Fishing gear	Small to medium mammal bone with smoothed sides; Worked bone (poss. pre-form fishhook)
NW-12-01	32-70	1	0.5	bone	Fishing gear	One-piece fish hook head fragment; Pre-contact artifact. Head Type: HT4a (Hammatt and Shideler 1996:48)
SW-13-40	78- 133	1	1.1	<i>Isognomon sp.</i>	Fishing gear	Possible fish hook blank
NW-12-36	32-70	1	1	<i>Pteria spp.</i>	Fishing gear	Possible fish hook blank
NE-13-42	79-136	1	0.7	Marine shell	Fishing gear	Worked shell
SE-12-33	32-81	1	33.1	<i>Charonia tritonis</i>	Ceremonial object	Possible shell horn fragment
NW-14-13	136-145	1	2.2	Volcanic glass	Cutting/ scraping tool	Tertiary flake
SE-12-12	32-81	1	0.1	Volcanic glass	Cutting/ scraping tool	Tertiary flake

Provenience=Unit portion-Date Collected-Catalog Number

Depth: cmbd=centimeters below datum

No.=Number of pieces

Wt. (g)=Weight in grams

Note: No traditional artifacts were found from Test Unit 13



Figure 59. Photo of traditional Hawaiian artifacts found in T.U. 12, side 1, from left to right: worked bone, fishhook head fragment, coral file, 3 pieces of worked mother-of-pearl shell



Figure 60. Photo of traditional Hawaiian artifacts found in T.U. 12, obverse side

One aperture lip of a triton shell (*Charonia tritonis*) was found. This species, called *pū*, was often used to fashion a shell horn, also called *pū* (Titcomb 1978 346-347).

Two volcanic glass (also called basaltic glass) flakes were also recovered from Test Unit 12. Flakes of this material were used for a variety of tasks, as suggested by Barrera and Kirch (1973:185-186):

Basaltic glass holds a fine, sharp edge and the tools make excellent cutting and scraping implements. They may have been used in food preparation, for cutting and scraping plant materials, or for delicate woodworking. . . . the suggestion, then is that the ubiquitous basaltic-glass flakes functioned as a prehistoric “pocket knife” to use a modern analogy.

6.2.2 Historic Artifacts

Research on historic artifacts focused on the function and manufacturing dates of the items, using reference texts (i.e. Elliott 1988; Fike 1987; Lebo 1997; Lister and Lister 1989; Millar 1988; Munsey 1970; Toulouse 1971; Zumwalt 1980).

An abundance of historic material was found in the disturbed sand stratum (Stratum II). Table 8 is a summary of all historic artifacts summarized by test unit portion and Table 9 shows all diagnostic historic artifacts (these 2 tables follow discussions of artifact types). All diagnostic (dateable) material was recovered from Stratum II of Test Unit 12. Photos of some of these historic materials are shown in Figures 61 to 67.

Glass Artifacts

The first category of historic artifacts is bottle and window glass. The majority of this material was fragmentary and non-diagnostic, but there were two whole bottles and a few intact bottle lips and bases that could be dated by their manufacturing techniques. The terminology and date ranges used in the following discussion follow the excellent site on bottle identification and dating maintained by the Bureau of Land Management and the Society for Historic Archaeology (<http://www.sha.org/bottle/index.htm>).

No pontil marks were found on any bottle fragments, indicating that the bottles were probably manufactured after ca. 1865, when the technology shifted from free-blown bottles to bottles blown in a mold, with the lip finished by hand (BIMAL: blown in mold, applied lip). The technology for manufacturing shifted again in 1903, when a machine was built to blow bottles automatically from the base to the lip. This was known as the Automatic Bottle Machine (ABM), and it was so much more efficient and cheaper than the old methods, that by 1920, most of the American bottle manufacturers had switched to this new technique. Thus from an analysis of whole bottles or lip fragments, it seems most of our bottles were manufactured between 1850, when bottles were blown into a mold by a glass worker, to 1920 when bottles were blown by a machine.

When bottles were free-blown or blown in a mold, the lip of the bottle was finished by hand as the last step. Beginning in the 1800s, additional glass was “applied” around the lip as a bead or collar, usually to stabilize the lip or to provide a protuberance for some type of metal closure. Beginning in the 1870s, the technique changed, and the neck and the lip of the bottle were re-

fired (without adding additional glass) and molded with a “lipping tool.” These tools were quickly adopted, and by the 1890s applied lips were phased out and lips were finished by lipping tools. Five bottle or lip fragments from T.U. 12 had tooled lips, which means they were manufactured between the 1870s and the 1920s.

There are a variety of lip finish types for bottles in the collection, including one “packer” finish, two “double-oil” finishes, one “champagne” finish (usually used on champagne/wine bottles), a “brandy” finish (usually used on beer/whiskey/ale bottles), a “prescription” finish, and a “grooved ring” finish. All of these finishes for tooled lips date from 1870 to the 1920s.

One whole bottle with a tooled Hutchinson-type closure. The bottle was embossed on the body with “Hollister & Co. Honolulu, H.I.” The Hollister Soda Works was the first soda work company founded in the Hawaiian Islands in 1863 by Hollister and Hyland. They branched out into the druggist business in 1875, but kept their soda works at 73 Hotel Street in downtown Honolulu. In 1894, they, along with the Tahiti Lemonade Works (established in 1888), were incorporated into the Consolidated Soda Works (Elliott 1971:6, 28-29). A bottle with this type of closure, with this embossing, and with distinctive rounded shoulders, is illustrated in Elliott and Gould’s (1988:107) book, *Hawaiian Bottles of Long Ago*. This bottle is dated to the early 1890s.

One bottle fragment is embossed “Hollister & Co., Druggists, Honolulu, H.I., Elliott and Gould (1988:196-197) illustrate medicinal bottles with this company name dated to the 1880s and early 1890s.

A glass stopper for a Lea and Perrins Worcestershire bottle was also recovered. This stopper would have been used on a bottle with a club sauce finish. Lea and Perrins Worcestershire Sauce was invented in the 1830s in England. The bottles were first imported from England, but in 1877, the American agents, John Duncan and Sons began to bottle the sauce in America. Lea and Perrins was created in Worcester, England in the 1830’s. The glass stopper and ring corks were used until 1957, when they were replaced by a metal screw cap (Zumwalt 1980:269).

There are several glass fragments of a dark olive, almost black color. This color of bottle was mainly used on soda/beer/whisky/ale before 1910. After that date, other colors predominate. Two bottles, including one for “Kist” soda, have Applied Color Label (ACL), a technique that baked pigments on a bottle to produce colored labels. This technique was invented in 1934.

Two base fragments also provide some dating information. The bases have small beads on the base or around the heel, called “stippling.” This effect was introduced in 1940 to strengthen the bottle base and was used mainly on bottles that were refilled numerous times, such as beer and soda bottles. Two bottle bases have this stippling and thus date to after 1940. One bottle is embossed “Federal law prohibits sale of this bottle.” This information was first added to bottles during the depression, to discourage people from using empty bottles for illegal liquor. The warning was placed on some bottles until 1974.

Several bottles have some type of embossing (raised letters or icons) on the body or base of the bottle. This embossing can identify the glass manufacturer or the name of the company that filled the bottle. One bottle is embossed “Mellin’s Infant’s Food, Doliber-Goodale Co., Boston, Small Size.” Mellin’s Infant Food was a “soluble, dry extract from wheat and malted barley dissolved in cow’s milk and hot water for the nourishment of infants and invalids” according to an 1896 promotional pamphlet (Doliber-Goodale 1896). The company was formed in London in

the 1870s and was promoted by the Doliber-Goodale Co. of Boston in 1882. The product was known simply as Mellin's Food by 1898 (Fike1987:57; Zumwalt 1980: 300-301). This bottle is highly diagnostic due to the ten year period for the product name. An interesting item on this product is that for years the picture of a smiling baby on ads for this product was an idealized portrait of her baby drawn in 1900 by a well-known 19th century graphic artist, Maude Humphrey Bogart, whose son kept his given name during his later movie career.

Several makers' marks were observed on bottles and ceramics indicating dates and origin of manufacture. Several bottles had the makers mark "W.T. & Co.". This mark is known to have been used by an American manufacturing company Whitall Tatum Company. The founding company began out of Millville, New Jersey in 1806. The company went through several name changes and makers marks, providing narrow date ranges of manufacture (Toulouse 1972:544). The company name using an ampersand (&) was used from the mid 1870s to 1901 (Lockhart et al. 2006:3).

An amber glass bottle base contained a maker's mark (an anchor over an H) for the Anchor Hocking Glass Corporation. The two companies Anchor, a bottling company based out of Ohio, and Hocking, a bottle closure company who had acquisitioned companies in Pennsylvania and New Jersey, merged in 1937 to form Anchor Hocking Corporation (Toulouse 1972). The company grew in size and eventually had plants distributing across America. In 1977, the logo used on bottles changed to a simple blue anchor. Thus this bottle fragment dates from 1937-1977.

An aqua glass bottle contained the maker's mark "L.G. Co." This bottle was manufactured either by the Lindell Glass Company of St. Louis, Missouri (c. 1875-c.1880s) or the Lyndeboro Glass Company, South Lyndeboro, N.H. (1866-1886) (Whitten 2005:5).

A colorless bottle base reading "P.D." was found. This company mark was used by druggists' Parke Davis & Company. Their first sales office was out of New York City in 1881. The company soon expanded and has sales offices throughout the world (Toulouse 1972:417).

Ceramics

A summary of the type of ceramics by test unit portion in Test Unit 12 is presented in Table 8. The collection is dominated by whitewares (64.3%), then porcelains (32.7%) and a few stoneware fragments (2.9%). The ceramics are decorated with hand-painted motifs, transfer-prints, and with decals. Several plate fragments have a gilded band along the rim. Only a few of these ceramic types can be used for dating. Three makers' marks were found on the backs of several fragments, described in Table 10 and shown on Figures 61 to 63.

The white wares are dominated by fragments of one dinner set, representing 17% of the total ceramic assemblage. These fragments, which are from five or six vessels (plates, saucers, and one large platter) have a geometric black transfer-print on the front side and a makers mark on the base (Figure 61). The mark is "J & M P B & Co." beneath the picture of a garter and the words "Bracelet." Bracelet is probably the name of the pattern. John Bell and his brother Mathew Perston formed the J & M. P. Bell & Co. in Glasgow, Scotland in 1842. In the nineteenth century, they made mainly refined earthenwares and porcelain decorated with transfer print patterns. The type of decoration, along with the makers' marks, dates these dishes to the 1870s, as a recent study on the pottery has determined:

The generally accepted view of the transfer-printed patterns issued by Bells is that the ones with elaborate backstamps with scenes attached date roughly from the 1840s and 1850s; that those with the pattern name in an oval or oblong frame, however elaborate, date from the 1860s and those with the pattern name above or below an oval garter make with J. & M. P. B & Co. on it are from the 1870s. Of course, any with J. & M.P.B & Co. Ld will date from after 1880 [Kelly 2006:24].



Figure 61. Makers' mark on dinner service from Test Unit 12; J & M P B & C^o

A second makers' mark (Figure 62) was found on a whiteware plate. The mark shows a beehive, then the words "Wallis Gimson & Co." This company was an earthenware manufacturer established in Lane Delph, Fenton, Staffordshire, England from 1884 to 1890 (Stokes on Trent 2006). The transfer print rose pattern on this plate is called "Garfield" according to a China Replacement web site, and is dated to c. 1884 (<http://www.replacements.com/webquote/WGIGAR.htm>).



Figure 62. Makers' mark on whiteware plate from Test Unit 12: Wallis Gimson & C^o on left; mark shown on Stokes-on-Trent site to the right

The third makers mark is for a porcelain fragment with a hand-painted floral scene on the front. On the back is the picture of an animal; on the fragment from Test Unit 12, the animal looks like a bear. Under the picture are the letters N. D. & Co. A web site has these initials listed as a maker's mark for an unknown Bohemian or Czechoslovakian pottery. They have an illustration of a similar mark that resembles a boar, rather than a bear (Figure 63). Although Czechoslovakian, the pottery is often marked as Austrian, as in the makers mark illustrated on the web site. As the site explains:

When porcelain was first produced in Bohemia, Bohemia was a part of the Habsburg Monarchy in the Austro-Hungarian Empire. There were several mines

in the area of Karlovy Vary, Czech Republic (Karlsbad, Bohemia, Austria). Another area with several factories is Trnovany, Czech Republic (Teplitz, Bohemia, Austria). These areas became the center of porcelain production, especially Karlovy Vary. Bohemian porcelain made before 1918 may be marked with the country of origin as Austria. Most of the factories were founded when the area was still under Austrian rule. Thus, the town and village names are the German/Austrian names. Once Czechoslovakia became a country, the towns and villages may or may not use their Czech names in their marks [<http://www.collectorscircle.com/bohemian/porcelain/unidentified/marks1.html>].

This means that the mark shown on the right pre-dates 1918, when Czechoslovakia became a country. Unfortunately, the fragment from Test Unit 12, shown on the left, does not have any location information, so this cannot be used to date our porcelain fragment.

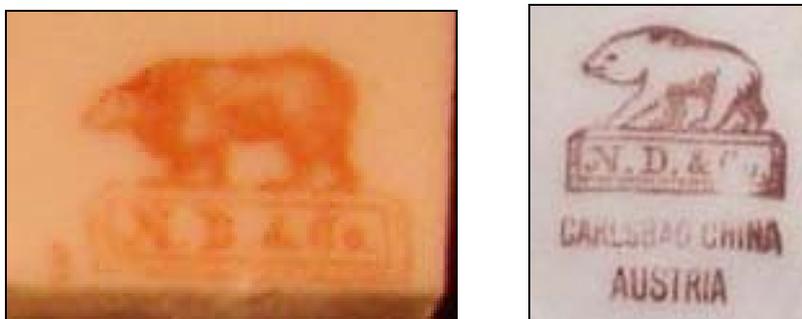


Figure 63. Makers' mark on porcelain fragment from Test Unit 12, on the left: N D & C°; a similar mark for an unknown pre-1918 Czechoslovakian pottery on the right

Other Historic Artifacts

Other historic artifacts which can be used to determine dates are listed in Table 11 (below). They consist of three buttons (one clay, one shell, and one porcelain), a clay marble, a plastic comb fragment, a worked bone fragment, a copper .22 rimfire cartridge, a spark plug (which may have been used as a fishing weight), and a kaolin pipe bowl fragment. These items cannot be used to determine narrow date ranges, but they are more indicative of items found in pre WWII historic archaeological deposits, than in deposits dating to the last half of the twentieth century to the present. The pipe bowl fragment is especially interesting, as Hawaiians after contact became great smokers, as noted with disgust by some of the early missionaries, such as Hiram Bingham, who wrote:

Before the Gospel was extensively acknowledged, the people, though able to command few luxuries, were fond of smoking tobacco, and all classes, men, women, and children indulged extensively in the practice, which would be injurious in any community. They usually cultivated and cured the article for themselves, and made their own pipes, commonly of wood. . . . When the evils of the habit, as filthy, expensive, and unnecessarily stimulating and deleterious to

health and life, were pointed out by the missionaries, and abstinence recommended, many natives relinquished the practice . . . [Bingham 1849:584].

The clay pipe was probably imported, and may have belonged to a foreign-born resident rather than a native Hawaiian.

Summary of Diagnostic Historic Artifacts

In summary, in the collection from Test Unit 12 (Test Unit 13 did not contain any diagnostic material), there are several items with a narrow date range, such as:

A whiteware transfer print dinner set (at least six vessels) dated to the	1870s
A Whital Tatum bottle dated from	1875-1901
A whiteware transfer print plate dated to	1884-1890
A Hollister Druggists Co. bottle dated to the	1880s-1890s
A Hollister Co. soda bottle dated to the	1890s
A Mellins Infant Food jar dated to	1888-1898
Four dark olive bottles	Pre-1910
One porcelain fragment, possibly dated to	Pre-1915
Seven bottle fragments with applied lips dated to	pre-1920

and numerous other items, such as clay marbles, clay and shell buttons, and clay pipes that are more common in late nineteenth century historic deposits, than in twentieth century trash dumps. In contrast, there are only a few definite nineteenth century artifacts:

One bottle lip made with an Automatic Bottle Machine	Post 1905
Three bottle fragments with Applied Color Label	Post 1933
Two bottle bases with stippling	Post 1940
One bottle with "Federal Law" embossed	1935-1947

As indicated by the 1914 Sanborn Fire Map (see Figure 17) through 1956 Sanborn fire insurance map, it appears the Test Units 12 and 13 were located in or near a private residence that was standing from at least 1914 to 1956. The artifacts suggest single family domestic refuse rather than commercial or industrial refuse. The majority of the glass maker's marks are American in origin, however the ceramic maker's marks are European. Status can be inferred by the use of European ceramics, as they would have been more expensive to import. Thus the majority of the artifacts seem to represent a nineteenth century single-family trash deposit, with some mixture of more modern material.

Table 8. Summary of Historic Artifacts from Test Unit 12, Stratum II, by test unit portion

HISTORIC ARTIFACTS – T.U. 12 - STRATUM II					
Provenience	NE	SE	SW	NW	TOTALS
CONSTRUCTION					
Ceramic redware poss. sewer pipe fragment	229.9	28.3	249.3	1363.8	1871.3
Ceramic redware poss. Flower pot fragment	0.3		4.5	1.6	6.4
Poss. Sewer pipe or flowerpot				2.9	2.9
Ceramic earthenware tile fragments	96.6	104.2	42.0	51.4	294.2
Concrete fragment	1167.8	943.6	241.2	26.0	2378.6
Concrete & basalt			204.4	501.9	706.3
Brick fragment	21.6	43.5	41.7	17.1	123.9
Basalt fragments	17.2		102.8		120.0
Mortar				33.0	33.0
Plaster fragments	0.5	1.1	37.2		38.8
Metal utility valve				1050.0	1050.0
Metal sewer pipe		4.5			4.5
Rubberized Asphalt	45	64.1	248.8	30.6	388.5
TOTALS	1578.9	1189	1172	3078.3	7018.4
HARDWARE					
Metal Nail	416.6	108.8	156.3	216.3	898.0
Metal nails, bolts		129.5			129.5
Metal screw	2.1		16.8		18.9
Metal washer	5.0	4.6			9.6
Metal springs				53.1	53.1
Metal clasp/bracket	4.5				4.5
Metal thin wire	2.9	45.9	5.4	4.3	58.5
Metal & Porcelain Insulator	28.5				28.5
TOTALS	459.6	288.8	178.5	273.7	1200.6
BOTTLES/CANS					
Aqua bottle glass fragment	678.4	349.8	80.7	117.6	1226.5
Aqua glass bottle	431.1				431.1
Amber bottle glass fragment	627	139.2	7.2	51.7	825.1
Clear bottle glass fragment	250.5	7.3	17.7	26.8	302.3
Clear glass bottle stopper	81.8				81.8
Dark olive bottle glass fragment	2846.2	42.2	52	262.7	3203.1
Green bottle glass fragment		17.2	11.7	2.6	31.5
Clear glass jar fragment				14.2	14.2
Clear glass lid fragment	2.3				2.3
Clear glass handle	19.1			9	28.1
Clear glass plate fragment	32.6	2.2			34.8
Milk glass - pressed glass	112.6			17.2	129.8
Bottle/window glass	19.9		37.6	69.9	127.4
Window glass	175.9				175.9

Glass Lamp Chimney				4.6	4.6	
Plastic jar liner		0.1			0.1	
Aluminum bottle cap						
Aluminum pull-tab						
Metal bottle cap-crown top			6.1		6.1	
HISTORIC ARTIFACTS - TEST UNIT 12 - STRATUM II						
Provenience		NE	SE	SW	NW	TOTALS
Metal can frags.		299.1				299.1
TOTALS		5576.5	558	213	576.3	6923.8
UNKNOWN FUNCTION						
Metal fragment		255.5	26.4	95.4	150.6	527.9
Quartz fragment		0.8				0.8
Aluminum fragment		0.5				0.5
Plastic fragment		0.1	0.5			0.6
Metal object			639.1			639.1
TOTALS		256.9	666	95.4	150.6	1168.9
CERAMICS						
Porcelain - plain		36.3	38.1	67.2	237.7	379.3
Porcelain, rim band		392.8				392.8
Porcelain, decals			13.1		54.4	67.5
Porcelain, painted stencil		139.3				139.3
Porcelain with painted Japanese floral design		118.7		5.5		124.2
Porcelain, transfer print (willow design)		33.8				33.8
Porcelain, decals		182.3				182.3
Whiteware, rim band		36.1			55.5	91.6
Whiteware -plain		584.0	17.9	7.8	162.8	772.5
Whiteware, painted		12.9				12.9
Whiteware, with decals		1.7		4.2		5.9
Whiteware "Bracelet Pattern" (transfer print)		699.0				699.0
Whiteware (ironstone)		989.8				989.8
Whiteware - blue willow transfer print			9.9			9.9
Whiteware, transfer print			12.1			12.1
Stoneware - plain		22.1	1.5g	21.2	3.7	47.0
Stoneware bottle/jug		66.3		3.8		70.1
TOTALS		3315.1	91.1	109.7	514.1	4030.0

Table 9. Table showing all diagnostic historic artifacts from T.U.12, Stratum II

DIAGNOSTIC GLASS HISTORIC ARTIFACTS - TEST UNIT 12, STRATUM II				
Provenience	Depth (cmbd)	Type	Diagnostic Attribute	Mfg. Date
NE-13-10	79-136	Aqua bottle lip sherd	Packer finish; tooled double oil finish	1850-1920s; 1820-1920s
NE-13-11	79-136	Aqua bottle base sherd	Embossed "L. G. CO" Lindell Glass Co., St. Louis, MO (c. 1875-c.1880s) or Lyndeboro Glass Co., South Lyndeboro, N.H. (1866-1886)	1866-1880s
NE-12-13	30-79	Amber bottle lip sherd	Automatic Bottle Machine	Post-1905
NE-13-01	79-136	Aqua bottle	Embossed "Hollister & Co. Honolulu, H.I." ; tooled Hutchinson closure	1880s
NE-13-04	79-136	Dk olive bottle lip sherd	Tooled double oil; Champagne finish	1880-1920s; 1850-present
NE-13-07	79-136	Amber bottle lip sherd	Tooled brandy finish	1880-1920s
NE-13-09	79-136	Aqua bottle body/base sherd	Embossed "W T & CO (Whittal Tatum & Co.)	1875-1901
NE-13-17	79-136	Clear bottle body sherd	"P.D." (Parke Davis & Company, Detroit, MI	1875-present
NE-13-18	79-136	Clear bottle body sherd	Applied Color Label; "*1884*" circle with eagle?	Post-1933
NE-13-19	79-136	Clear bottle base/body sherd	Embossed "* . . . er & co., *ggists, *lulu h.i." base reads : "wt&co pat. Jan. 22, 78, f, usa" (Hollister & Co., Druggists, Honolulu, H.I. - Whittal Tatum & Co.); applied prescription finish	1880-early 1890s
NE-13-23	79-136	Clear bottle stopper	Embossed "LEA & PERRINS"	1877-1957
SE-12-20	32-81	Dk olive bottle body sherd	Dark Olive Green color	Pre-1910
SE-12-22	32-81	Clear bottle body sherd	Label reads "***s*" possibly "Kist"ACL	1840-1957
SE-13-16	81-146	Aqua bottle	"Mellin's Infant's Food, Doliber-Goodale Co., Boston, Small Size" (Fike 1987:57); tooled finish with cap seat	1888-1898
SE-13-17	81-146	Aqua neck/lip bottle sherd	Patent finish	1850-1920s

Provenience	Depth (cmbd)	Type	Diagnostic Attribute	Mfg. Date
GLASS BOTTLES				
SE-13-18	81-146	Amber bottle base sherd	"Not To Be Refill . . .*" Makers mark "AH" (Anchor Hocking Glass Corporation); stippling on base; stippling on base	1940-present
SE-13-19	81-146	Amber bottle body sherd	Stippling on base	Post 1940
SE-13-20	81-146	Dk olive bottle body sherd	Dark Olive Green color	Pre-1910
SW-12-01	36-78	Dk olive bottle body sherd	Dark Olive Green color	Pre-1910
SW-12-03	36-78	Amber bottle body sherd	"*s sale *ottle*" Poss. reads: Fed. Law prohibits sale of this bottle"	1935-1974
SW-12-09	36-78	Aqua bottle body sherd	Applied Color Label	Post-1933
SW-13-08	78-133	Dk olive bottle body sherd	Dark Olive Green color	Pre-1910
SW-13-11	78-133	Clear bottle body sherd	Applied Color Label	Post-1933
NW-13-17	70-136	Dark olive bottle lip sherd	Applied, grooved ring finish	1820-1890
NW-14-04	136-145	Clear jar rim sherd; external threads	Wide mouth continuous external thread finish	Post-1905

Table 10. Diagnostic Ceramic Artifacts, Test Unit 12, Stratum II

DIAGNOSTIC CERAMIC HISTORIC ARTIFACTS - TEST UNIT 12, STRATUM II				
Provenience	Depth (cmbd)	Type	Diagnostic Attribute	Mfg. Date
NE-13-24	79-136	whiteware rim, body, and base sherds; Rim frag has black transfer print with red hand-painted band; Partial set; Plate, saucer, and platter; (20 pcs, 651.6 g)	Makers Marks: J & M P B & Co."; or J & M P Bell & Co. "Bracelet Pattern"	1870s
NE-13-43	79-136	whiteware saucer base, rim, and body sherds (10 pieces; 141.7 g); transfer print with roses	Makers mark: "*844, carfield, Wallis Gimson & Co";	1884-1890
SW-12-05	36-78	Porcelain base sherd; hand-painted interior, green leaf design (5.5 g)	Makers mark on base "N.D. & Co." ; unknown Austrian potters mark; a plate with a similar mark has additional information after the mark "Carlsbad China, Austria" (Snodgrass 2006)	
NE-14-05	136-141	whiteware body sherd; Smooth rim, black transfer print with red hand-painted band near rim (47.4 g)	"Bracelet Pattern"	1870s
NW-13-30	70-136	whiteware rim herd; black transfer print with red hand-painted band	"Bracelet Pattern"	1870s
NW-13-31	70-136	whiteware two base sherds.	"Bracelet Pattern"	1870s

Table 11. Other Diagnostic Historic Artifacts

OTHER DIAGNOSTIC HISTORIC ARTIFACTS				
Provenience	Depth (cmbd)	Material	Description	Mfg. Date
NE-12-30	30-79	Fired clay	Button, clay; half , showing two holes through center, prob 4 holes total (0.1 g)	
SE-12-32	32-81	Marine shell	Button, shell, with two holes in center, approx. 1.5 cm dia. (0.2 g)	
SW-12-10	36-78	Porcelain	Button, white porcelain, 4 hole design in center, etched lines radiating to rim (0.9 g)	Mainly 1850 to 1920 (IMACS)
SE-13-31	81-146	Plastic	Comb fragment, with teeth on two sides of a central body (2.8 g)	
NW-12-16	32-70	Fired clay	Marble, clay; approx. 1/2" in diameter (3.2 g)	Mainly Pre 1860 (IMACS)
NE-12-58	30-79	bone	Worked bone with small bore tinted of cupreous metal (1.2 g)	
NE-13-57	79-136	Metal, cupreous	Copper cartridge, .22 rim fire shot, "U" etched on head (0.5 g)	
SW-12-11	36-78	Metal, ferrous and porcelain	Spark plug (56.9 g); possibly used as a fishing weight	"U" stamped on base: Remington Arms Co. "Champion, J-8"; mfg. from 1904 to present
SW-13-39	78-133	Fired clay	Pipe bowl fragment, Two hand carved parallel rectangles with criss-cross band pattern (0.7 g)	Up to early years of 20th century



Figure 64. Photo of two whole bottles found in T.U. 12, the bottles are embossed “Mellins Infant Food Doliber-Goodale Co., Boston, Small Size” and “Hollister & Co. Honolulu, H.I.”



Figure 65. Photo showing a historic pipe fragment found in T.U. 12 during the inventory survey

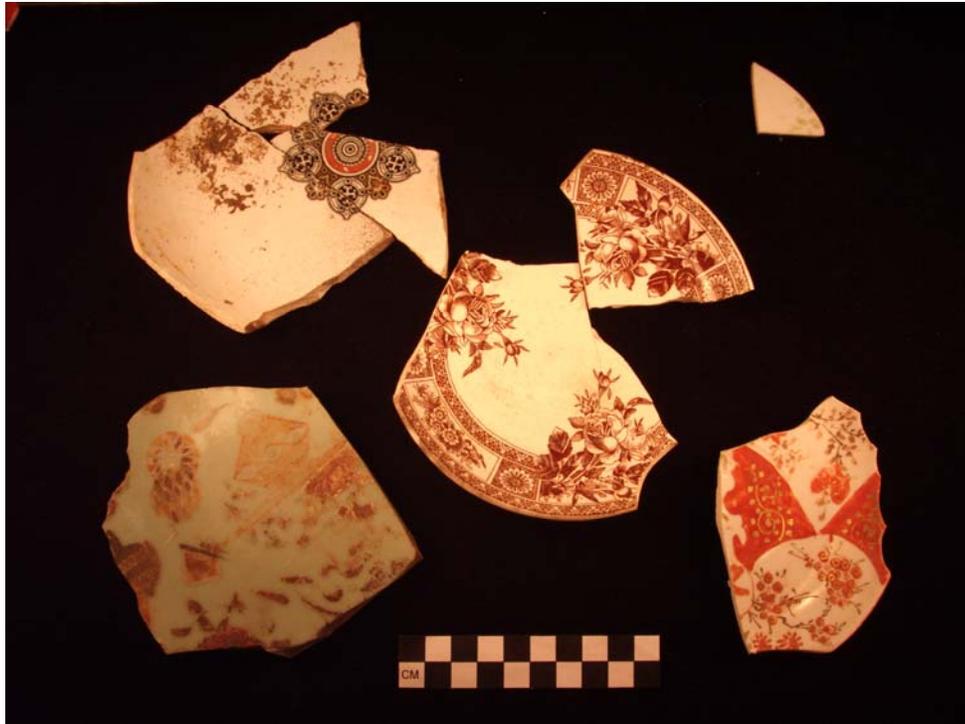


Figure 66. Photo showing different ceramic pattern types which have an accompanying makers mark



Figure 67. Photo showing the makers marks of the ceramics in the previous photo

6.2.3 Faunal Material

The faunal material was dominated by invertebrate remains. Only a small amount of bone was recovered. Non-human vertebrate faunal material was identified to the lowest possible taxa at the CSH laboratory using an in-house comparative collection and reference texts (i.e. Olsen 1964; Schmid 1972; Sisson 1914). A summary of the material for Test Unit 12, Stratum II is presented in Table 12. A few teeth were identified as either *Canis familiaris* (Domestic Dog) or *Sus scrofa* (Domestic Pig). Fish teeth were identified as from one of the Scaridae family (Parrotfish). A small number of the bones (unidentified to family) were burnt or had possible cut marks, but the small amount of modified bone indicates that the recovered material is probably not the result of household/kitchen trash, as there would be a larger number of butchered bones of domestic animals.

Invertebrate remains were identified to genus and species, weighed, and analyzed. Data was tabulated by stratigraphic unit, date, and catalog number (Appendix C). The marine shells were identified and analyzed at the Cultural Surveys Hawai'i laboratory in Waimanalo, O'ahu using an in-house comparative collection and reference texts (i.e. Abbott and Dance 1990; Eisenberg 1981; Kay 1979; Titcomb 1977). Weights for each taxa were summarized for each test unit portion. The gastropod collection from Test Unit 12 (Table 12) is dominated by species from the families Turbinidae (*Turbo* sp. 45.1%), Hipponicidae (15.9%), Neritidae (*Nerita* sp. 9.9%), Cypraeidae (*Cypraea* sp. 8.7%), Conidae (*Conus* sp. 8.5%) and Strombidae (*Strombus* sp. 8.4%). The bivalve collection is dominated by species from the families Mytilidae (*Brachidontes* sp. – 23.7%), Tellinidae (*Tellina* sp. 28.5%), Pteriidae (26.1%), and Lucinidae (*Ctena* sp. 11.7%). Several of these taxa were favorite foods of the Hawaiians, such as the *Turbo*, *Nerita*, *Cypraea*, *Conus*, and *Strombus* gastropods and *Brachidontes* sp. Bivalves (Titcomb 1978:337-3530). The abundance of these species is suggested to reflect direct human predation and represents the remnant of a light midden scatter within the disturbed fill. The abundance of the shells of the Pteridae were often used to make fish lures or hooks. However, other species, especially the common small hoof shells (Hipponicidae), the small specimens of mussels (Mytilidae), and the small *Ctena* sp. bivalves, were not common food items. These small shells are a common component of natural beach sand as they are light and are washed or blown on to the beach. These two species were the dominant taxa in the Stratum III material (Table 13), which had a far lesser variety of shell species.

It is likely that a majority of the gastropod, bivalve, and urchin material does not represent food remains. However, the presence of large, heavy shells such as the *Turbo* sp. and *Conus* sp. indicates that at least some of the material was brought into this area by people, and is not simply the result of wave or wind action. It is also noted that at least three of the *Pteria* shells were possibly fish hook blanks, and that species from the family Pteridae could have been brought to the area to manufacture fishing gear.

Table 12. Summary of all faunal material from T. U. 12, Stratum II, by unit portion

Provenience	NE	SE	SW	NW	
BONE					
Sm-Med Mammal	32.1	76.7	13.1	36.0	157.9
Sm. Mammal			4.0		4.0
<i>Canis familiaris</i>	6.2	2.8	3.6	3.7	16.3
<i>Sus scrofa</i>		0.9		0.9	1.8
Med. Mammal		1.7			1.7
Fish bone & scales	1.1	1.3	0.8	0.4	3.6
Scaridae (Parrotfish)	2.7				2.7
TOTALS	42.1	83.4	21.5	41.0	188.0
MARINE INVERTEBRATES					
GASTROPODS					
<i>Catenella</i>	0.1				0.1
<i>Cellana</i> spp.	3.8		0.9		4.7
Cerithiidae	1.7				1.7
<i>Conus</i> sp.	1.7	25.3	12.2		39.2
<i>Conus striatus</i>			10.3		10.3
<i>Coralliophila violacea</i>		0.8			0.8
<i>Cymatium</i> spp.			2.4		2.4
<i>Cypraea caputserpentis</i>	17.5	3.7	31.0	6.1	52.2
<i>Diodora octagona</i>	0.2	0.1		0.1	0.3
Hipponicidae	33.5	33.5	27.6	29.4	94.6
<i>Malea pomum</i>		0.4			0.4
<i>Nerita picia</i>	27.3	20.0	11.7	26.8	59.0
<i>Strombus</i> spp.	9.7	17.8	22.7	4.0	50.2
Turridae		0.3		0.1	0.3
<i>Trochus sandwicensis</i>	5.7	0.3	0.2	0.7	6.2
<i>Turbo sandwicensis</i>	95.0	74.2	99.7	58.1	268.9
Ranellidae	4.6				4.6
Vermetidae		0.4	0.3	0.2	0.7
BIVALVES					
<i>Brachidontes crebristriatus</i>	19.5	19.0	14.1	12.3	52.6
<i>Chama</i> spp.	0.5		8.5		9.0

Provenience	NE	SE	SW	NW	
<i>Ctena bella</i>	15.5	4.9	5.6	13.0	26.0
<i>Isognomon</i> sp.	1.4	1.2	2.6		5.2
<i>Periglypta reticulata</i>	2.1		5.8	0.9	7.9
<i>Pteridae</i>	29.7	18.9	9.4	13.6	58.0
<i>Tellinidae palatam</i>	33.0	17.4	13.0	8.7	63.4
TOTAL SHELL	302.5	238.2	278.0	174.0	818.7
SEA URCHINS					
<i>Echinometra oblonga</i>	0.5	2.1	0.4	0.4	
<i>Echinometra mathaei</i>	0.4				
<i>Heterocentrotus mammilatus</i>	3.1	1.1	0.4	3.2	
OTHER					
Coral	38.6	71.0	36.5	15.0	
Unident. Shell	24.4	21.3	3.9	31.1	
Crab claws	0.4				

Table 13. Summary of all faunal material from T.U. 13, by test unit portion and stratum

T.U. 13									
Marine Shell									
Provenience	NE	NE	NW	NW	SE	SE	SW	SW	
Stratum	II	III	II	III	II	III	II	III	
GASTROPODS									TOTALS
Conus spp.	15.4	9.2		5.7	1.8	1.3	17.7	1.2	52.3
Cypraea caputserpentis				2.5		4.6		0.4	7.5
Diodora octagona		0.2		0.2		0.4		0.1	0.9
Hipponicidae	3.6	31.7	7.9	35.3	9.6	43.0	13.4	39.7	184.2
Nerita picea	2.7	1.9	4.5	0.7	9.6	2.3	10.7	0.2	32.6
Ranellidae				0.5					0.5
Strombus spp.		2.2		5.0	4.2	3.3	1.7	2.7	19.1
Trochus intextus		0.4				7.7	4.0	4.1	16.2
Turbo sandwicensis	10.4	8.9	3.9	30.6	16.3	24.5	13.3	27.2	135.1
Vermetidae						0.1		0.1	0.2
BIVALVES									
Brachidontes crebristriatus	0.7	26.4	3.0	55.7	1.5	59.5	7.7	43.5	198.0
Ctena bella	2.0	11.6	1.3	14.7	4.1	17.6	5.5	17.9	74.7
Periglypta reticulata						0.5			0.5
Pteria spp.	1.5		0.2		0.4				2.1
Tellinia palatam	4.5	0.6	6.5		7.8		3.2	1.2	23.8
Echinometra oblonga	2.3		1.4			0.1	0.7		4.5
Unidentified Bivalve		0.7							0.7
Unidentified Shell		3.6		5.4	7.6	3.3		10.7	30.6
TOTAL SHELL									
SEA URCHINS	43.1	97.4	28.7	156.3	62.9	168.2	77.9	149.0	783.5
T.U. 13									
Echinothrix calamaris		0.1	0.1		0.1			0.1	0.4
H. mammillatus	0.5				0.1		4.7	0.7	6.0
Coral					7.6	8.1		34.7	50.4
Unsorted invertebrates	14.8	2.4	16.3	19.1		464.6	31.3	154.4	702.9
BONE									
Fish								1.8	1.8
Sm.-med. mammal			0.6						0.6
Unidentified Bone	4.8		14.5	0.1	8.3			27.7	55.4
TOTALS	63.2	99.9	60.2	175.5	79.0	640.9	113.9	368.4	1601.0

Section 7 Summary and Interpretation

Improvements to the Royal Hawaiian and Sheraton Waikiki Hotels could potentially impact cultural resources. Based on historical/cultural context and the results of past archaeological investigations in the vicinity, it was agreed in consultation with the SHPD that an archaeological sub-surface survey was warranted for this project. SHPD/DLNR and OHA requested an archaeological inventory survey study be undertaken. In consultation with SHPD an archaeological inventory survey plan (Shideler and Hammatt 2007) was submitted and approved by SHPD (6E-42 Historic Preservation Division review letter dated July 31, 2007; Log No. 2007.2122 Doc No. 0707ED30; present Appendix A). The inventory survey plan described the proposed activities, the cultural setting, and the data pertaining to potential pre-contact and early historic archaeological deposits and/or burials that could be encountered. Project-related fieldwork was carried out per the provisions of the project's inventory survey plan. The present archaeological assessment report was prepared per the requirements of Hawai'i Administrative Rules HAR 13-276-5 and is intended for review and approval by the SHPD and possible consideration by agencies of the City & County of Honolulu. Although this study was initiated as an archaeological inventory survey, because no new sites were identified or designated this study is termed an Archaeological Assessment as per HAR 13-275-5 (b) 5 (A)

For this archaeological survey program, the fieldwork was divided into two phases. Phase I consisted of post-hole excavations in two areas within the project area deemed to be in locations where significant cultural resources could potentially be present. Phase II consisted of excavation of two 2x2 m test units in the SW Royal Hawaiian Hotel Pool Area, as had been located as the only area which needed Phase II testing. Standard inventory surveys practices were followed, test unit profiles were drawn and photographed, and the exposed sediments were described. Collected artifacts were analyzed and tabulated. This is suggested to be an appropriate sample size to address the nature and extent of project related subsurface impacts as they are presently understood. The level of endeavor is suggested to be a good faith effort to assess and inventory such sub-surface cultural resources as might be present.

The entire project area examined was overlain with thick fill sediments and an abundance of subsurface utilities. In the SW Royal Hawaiian Pool area, these fill sediments were located above sometimes quite thick greatly disturbed sand sediments believed to originate from the immediate area and underlying natural jaucas sand sediment. No in-situ archaeological cultural deposits were identified as a result of the project's Phase I archaeological inventory survey program. This would be expected due to these heavy fill deposits, building construction activities, and heavy utility disturbance. Phase II of the archaeological inventory survey found the on-site disturbed sand to contain pre-contact through modern cultural materials including human skeletal remains, traditional Native Hawaiian artifacts and artifacts from the mid to late 1800s. Additionally, Phase II found a thick layer of natural jaucas sand still exists in the SW Royal Hawaiian Pool area.

Background research indicates the project area has been consistently utilized since pre-contact times. Thirteen Land Commission Awards were claimed in the resort area in the mid-nineteenth century. Most of the awards claimed a house lot near the beach. A few artifacts found in this project area indicate the area was used in pre-contact times for fishing and tool manufacture, but

there is little other archaeological evidence for traditional Hawaiian habitation remaining in the area. Such evidence has largely been obliterated by later occupations.

In the latter post-contact period (ca. post 1850), the area has been used for private residences: in the early portion of this period it was the domain of the royal family and the high *ali'i*. Foreign born businessmen and the children of missionaries began to acquire property along the beach in the late nineteenth century. They built large beach houses, which were used on weekends and holidays. The Young, Wilder, and Macfarlane families had house lots within and adjacent to the project area by 1897. A Sanborn fire insurance map shows the location of these houses relative to the shore and to the Hawaiian Annex bathhouse, built in 1889, and the Seaside Hotel, built in 1906. Thus high-status families that could afford the best imported wares, such as ceramic dinner sets of Scottish, English, and Austrian manufacture, lived in this area in the latter part of the nineteenth and early part of the twentieth century. In addition, dinners and parties took place at the seaside hotels, which may account for some of the recovered historic artifacts.

Most of the historic artifacts found in the highly disturbed sand strata was probably single-family household trash, possibly discarded under the house or mixed in with the sand layers during one of the many periods of house/hotel construction, demolition, and remodeling. It is interesting that there is little food remains, suggesting that the not all household trash was deposited here. Again this may suggest that some trash, like broken bits of pottery, were discarded underneath the *lanai* (porches), which were probably raised above the ground surface. This would not obviously be a good place to discard food refuse, but would have been a good place to discard bottle and ceramic fragments.

The disturbed context of the historic artifact finds in Test Units 12 and 13 was also probably the result of storm surges, beach erosion, and in-filling of areas behind the seawalls. The nineteenth-century artifacts are not within a single trash feature, are found within an over 1.0 m thick stratum of mixed sand and are found within a stratum which also contains a few twentieth-century bottle fragments. However, it is still probable that they are all associated with nineteenth-century occupation particularly of the Bertha Young house, when the house was the locus for the business elite in the Hawaiian Islands. Although from such a mixed context, the artifacts still provide us with an interesting view into the early lifestyles of the Euro-Americans in Waikīkī during the nineteenth and early twentieth centuries.

Section 8 Project Effect and Mitigation Recommendations

8.1 Project Effect

On the basis of the historic background research and the archaeological fieldwork summarized in this study it is expected that cultural resources may exist in the project area. It was evident during the inventory survey that a thick deposit of fill material overlies previously disturbed sand sediment and natural jaucas sand sediments. Pre-contact cultural materials, human remains and artifacts relating to the mid- to late-1800s occupation were found in the disturbed sand sediment and it is possible archaeological cultural materials including features and/or burials may exist in underlying undisturbed sand sediment.

8.2 Mitigation Recommendations

Where project construction could potentially impact cultural resources, on-site archaeological monitoring is recommended within a formal archaeological monitoring program. An archaeological monitoring plan is being prepared for this project and will be submitted to the SHPD for review and approval. It is recommended that a qualified archaeologist monitor all ground disturbance activities associated with the project's construction that penetrate into the disturbed sand and/or natural jaucas sand deposits.

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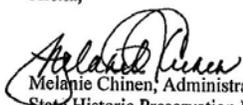
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Appendix A SHPD Chapter 6E-42 Review Letter

 <p style="font-size: small;">LINDA LINGLE GOVERNOR OF HAWAII</p>	 <p>STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES STATE HISTORIC PRESERVATION DIVISION 601 KAMOKILA BOULEVARD, ROOM 555 KAPOLEI, HAWAII 96707</p>	<p style="font-size: x-small;">LAURA EL THIREN DEPUTY CHIEF OF BUREAU BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT</p> <p style="font-size: x-small;">ALLAN A. SMITH INTERIM DEPUTY DIRECTOR - LAND</p> <p style="font-size: x-small;">KEN C. KAWAHARA DEPUTY DIRECTOR - WATER</p> <p style="font-size: x-small;">AQUATIC RESOURCES BOATING AND OCEAN RECREATION BUREAU OF CONVEYANCES COMMISSION ON WATER RESOURCE MANAGEMENT CONSERVATION AND COASTAL LANDS CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING FORESTRY AND WILDLIFE HISTORIC PRESERVATION KAOLOAWE ISLAND RESERVE COMMISSION LAND STATE PARKS</p>
<p>July 31, 2007</p> <p>David W. Shideler Cultural Surveys Hawai'i, Inc. P.O. BOX 1114 Kailua, Hawai'i 96734</p> <p style="text-align: right;">LOG NO: 2007.2122 DOC NO: 0707ED30 Archaeology</p> <p>Dear Mr. Shideler:</p> <p>SUBJECT: Chapter 6E-42 Historic Preservation Review – Revised Archaeological Inventory Survey Plan for Improvements to the Royal Hawaiian Hotel and Sheraton Hotels Waikiki Ahupua'a, Kona District, Island of O'ahu TMK: (1) 2-6-002:005, 006, and 026</p> <p>Thank you for submitting the aforementioned revised inventory survey plan by Hammatt and Shideler (May 2007), which we received on June 20, 2007. The inventory survey was prepared to guide the archaeological inventory survey that will be conducted in support of construction and renovation activities at the Royal Hawaiian and Sheraton hotels.</p> <p>In a previous letter dated May 17, 2007 (LOG NO: 2007.1350, DOC NO: 0705amj18), we requested nine revisions to the previously submitted archaeological inventory survey plan. All nine of our requested revisions were incorporated into the submitted plan. Therefore, we accept this archaeological inventory survey plan in fulfillment of HAR §13-284.</p> <p>We look forward to receiving an archaeological inventory survey report.</p> <p>Please contact me at (808) 692-8015 if you have any questions or concerns regarding this letter.</p> <p>Aloha,</p> <p> Melanie Chinen, Administrator State Historic Preservation Division</p> <p>ED</p>		

Appendix B Land Commission Awards

B-1 LCA 104 F.L., Kekuaanoa

Kekuaanoa, Haliimaile, 3 December 1851 N.R. 765-766v3

The Honorable William L. Lee, Greetings: I hereby present my claim in some 'Ilis in Honolulu and in Waikiki in the lands of the Fort which I am caring for. Here are the names:

[Following discussion of Honolulu 'Ili lands omitted]

Here are my claims at Waikiki:

2 lo`i at Kalia, `Ili in Waikiki.

5 fish ponds at Kalia in Waikiki.

1 muliwai of Piinaio, in Waikiki.

Those are my claims which I have thought of. There is one cocoanut grove. Makalii, also at Kalia. That is what I state to you. Farewell to you. M. KEKUANA OA

N.T. 390v10 No. 104 F.L. M. Kekuaanoa (from page 320) for 17 August 1854, Victoria Kamamalu L. Kukoa, sworn, I have seen his house site in Kapuni, Waikiki, Kona, Oahu.

Mauka, Road

Waialae, Hamohamo boundary

Makai, beach

Honolulu, a meeting house.

This place was received from Kinau in 1839. She had received it from her mother.

Mahuka, sworn, the statements above are correct and I have seen his other claims. 2 ponds named Paweo, also Kaipuni, Pau, Kaihikapu, Manolepa and Kaohai in Waikiki, Kona, Oahu.

He had received the land from Kinau in 1839. She had received it from Kaahumanu in 1832. No objections.

[Award 104 F.L.; R.P. 4492 (Kaihikapu Puuiki)& 4493; Kalia Waikiki Kona; 1 ap.; 1.49 Acs; Kuhimana Honolulu Kona; 1 ap.; 2 Acs; no R.P. ; Kamanolepa Waikiki Kona; 1 ap.; 2.06 Acs; R.P. 4492; Kapuni Waikiki Kona; 1 ap.; 31 Acs; R.P. 4492; Uluniu Waikiki Kona; 1 ap.; 31 Acs; R.P. 4493; Uluniu Waikiki Kona; 1 ap.; 71.7 Acs]

B-2 LCA 228 , Kalaiheana

[Kalaiheana], Ii, claimant F.R. 150v1

No. 228 1 document in Native Register, page 1, volume 2

N.R. 1-3v2 No. 228, [Kalaiheana], John Ii for Kalaiheana

Greetings to the Commissioners whom the Moi has appointed to quiet land titles: I, the undersigned hereby state that Kalaiheana's land, called Kanewai, is at Waikiki. It has some leles in Manoa - Keapuapu, Holoawalu /Kaloalu in N.T./, Pakui, and the lele of Pahoa at Waikiki; and the sea of Kahala. That was the land of Keeaumoku at Waikiki, adjoining the north side of Kalaepohaku. This land became his upon the victory of Kamehameha I at the Battle of Nuuanu, also Waialua, as was the custom of granting land to chiefs at that time. When the peleleu /fleet of large canoes/ came, the land passed from Keeaumoku to Papa and Kalaiheana, and all the leles were also conveyed. From thence came this acquisition and there was no deterrent until the year 1841. For the first time, an edge of Kahala as taken for Waialae. And in the year 1846 another portion was taken for Kalaepohaku, in the month of May, or perhaps June. The witnesses are Keheana and Eleele. This is ended.

Also, there is the cocoanut grove of Heleumoa at Waikiki. It is said that perhaps two years after /the Battle of/ Nuuanu, it went to some of us, to Kalaiheana, from Kamehameha I. No one objected until the year 1846, in the month of May or June, when it as taken for the first time. The witnesses are Kapuakaona and Ku.

Since Kalaiheana has chosen me as his representative, therefore I am making this request to you, the Land Commissioners.

I am, your servant,

John Ii

To: W. R., J. R., Y. K., K, Royal School, August 14, 1846

F.T. 162-163v1

Claim No. 228, John Ii, attorney, Kalaiheana, claimant, August 30 [1847]

Ku testified on oath, He knows the land in this case. It is at Waititi, its name is Helumoa. It is cocoanut land. Witness knows the boundaries.

Kalaukau is the name of the land, east

Keamoku that on the North

On the West is the old road leading from Honolulu

On the South is a stream called Apukokohau.

Claimant holds the land from Kamehameha I who gave it to Kaileo, he gave it to Papa, he willed it when he died to Keawikalohi, and he gave it to the claimant.

No person has claimed the land from the first-named person down until 1846. It came into claimant's hands in the time of Rihoriho. Kuluwilehua is the counter claimant.

John Ii, testified on oath, that he knows the place, and that the persons already named were those who were living under Kamehameha, who had particular care of his household property

and were known by the chiefs as such. Kamehameha himself lived on this land; & when he died, he left them in possession.

The chiefs went with Kamehameha to Hawaii & were there when he died, but their families remained. When Rihoriho came to the government he allowed them to remain.

After Kamehameha's death, the chiefs returned. Rihoriho fixed his residence on the same spot. So it has been through the reign of Kamehameha II & Kaahumanu, and has been left all along in possession of this class of people. Those living on the land are under claimant; six in number with own houses.

Kuluwailehua, stated that he founds his claim on his mother, a regular claim from Kamehameha, Rihoriho, Kaahumanu &c, through his mother's ancestors to himself. In 1842 he was living under Kekuanaoa, then the land became Kekuanaoa's and witness lived on it. It became Kekuanaoa's from Kekauluohi who had it from the King. In 1842 and 1843 this land was returned to witness and he lived under the King on it.

Witness relies on 7 Sec. 3 Chapter of laws of 1839, page 27. There are two divisions of this land; one of cocoanut trees & the other of kalo. The former piece has been taken off and constitutes the claim of Kalaiheana, and ought to be returned, according to the law cited. It was one land formerly, but Kamehameha I divided it, and gave it to Kalaiheana's ancestors.

Note. In another clause of those laws cited, the one referred to is restricted in its operation to the space of 6 months from the time of enactment.

The Board voted unanimously a freehold less than allodial to Kalaiheana for the part claimed and occupied by him and rejected the counter claim of Kuluwailehua.

Resumed page 164

F.T. 164-165v1

Claim No. 228, John Ii for Kalaiheana from page 162. September 1847

Claim No. 2 under 228. Eleele testified on oath that he knows the place which is at Waikiki. Kanawai is its name. It borders on the sea, which enters part of it.

On South & East is land of Kalaipohaku

On Northeast & North is land of Waihi

From Northwest & West round is Piliamo

On West Keokapu has land.

This land belonged to Keaumoku, father of Kaahumanu. The land was taken in possession by him under Kamehameha I when the last battle was fought in Nuuanu. Another land at Waiialua was also given him at the same time. When Kaumoku obtained it was in 1804. Claimant is his descendant. At that time it extended farther in the sea than now. The family has been in constant possession ever since & have never lived away from it since 1804. Witness is not related to the family.

Kaeana, testified on oath, that he knows the land & confirmed the general deposition of the former witness. He stated that Keapuapu, Pakui, Koloahu, Kaiokahala, Komolipo, Papaa were all living on the land or outside of it, and are members of the family, and live under claimant.

A freehold title less than allodial was voted by the Board to Kalaiheana.

N.T. 268v2 No. 228, John li [for Kalaiheana], Honolulu, August 30, 1847

Ku, sworn by the Word of God and stated. I have seen the property of Kalaiheana named Helumoa, it is a cocoanut grove and the boundaries are Keonuku on the right, Kaluaohau on the east, the river Apuakohau on the south and the old road to Honolulu here is on the west side. Kailio had received his interest from Kamehameha I; from Kailio to Papa; Papa to Keawekalohe and from Keawekalohe to Kalaiheana. Kalaiheana has lived there from the long ago to the year 1846 when Kuluwailehua had objected to him.

John Ii, sworn by the Word of God and stated, I have seen this land and these names which are written in this claim document are the attendants of Kamehameha 1. Their work was taking care of the house and preparing the food. These people were in constant contact with the chiefs and were close to each and every chief. When Kamehameha I died, they continued to live on the property and when the chief returned from Hawaii Kalaiheana went to live there. These people have lived there since Kamehameha II to Kaahumanu's reign, and to the year 1846 when Kuluwailehua had raised objections.

See page 271

Kuluwailehua's statement of objection to Kalaiheana. The interest to this land is for my parents who had lived (there) from Kamehameha I to Kaahumanu's reign. When my parents died in the year 1842, the land was taken by M. Kekuanaoa and I lived under him. Kekuanaoa had received his interest from Kekauluohi and Kekauluohi had received her interest from the king. In the year 1843 the land had become mine thro' the king and when I had looked (read) the Kuluwailehua's statement concerning borders, I realized that a border of my land had become Kalaiheana's property so I took that cocoanut grove because that is a border for Pahoia.

N.T. 271v2

No. 228, John Ii, [for Kalaiheana], From page 267

Eleele, sworn by the Word of God and stated, I have seen this land Kanewai by name in Waikiki, also the taro and the sea of Kahala. The boundaries are Waihi from the north to the east, Kalaepohaku on the east and the south sides and Palimoo and Kiokapu on the west side. That land is for Keeumoku I. He is the father of Kaahumanu and Keeumoku had received that land at the time of the battle of Nuuanu. Waihi at Waialua is another land. During the expansion, this land was given to Kalaiheana in the year 1804 and he has lived there since that time to this, no one has objected.

Kaheana, sworn by the Word of God and stated, I have seen this land, as has been mentioned by Eleele; however, there are other lands which I have seen (1) Keapuapu, (2) Kaloalu, (3) Kamoolepo of "Pakui." Kahala is the sea of these lands and the sea [name]. These are leles' for Kanewai and living there is through Keeumoku.

Pahoa, Kahala and Panewai are outside of the boundaries of Pahoa Ie. The land Pahoa is on the east, Nanaikola and Kamoku are on the west side. During the expansion these lands were taken by Kalaiheana but Pahoa was acquired by Keopulani through Kamehameha and in the year 1835, that land was returned again to Kalaiheana.

[Award 228; R.P. 7722; Pahoa Waikiki; 1 ap.; 1.11 Acs; no R.P.; Kanewai Manoa Kona; 1 ap.; 66.59 Acs; R.P. 8823; Helumoa Waikiki Kona; 3 ap.; 4.93 Acs; R.P. 7720; Kanewai Manoa Kona, 27 Acs 115 Anana 19 Kapuai; R.P. 7721; Kanewai Kahala Kona; 1 ap.; 173 Acs 54 lq[?] fathoms]

B-3 LCA 822, Okuu

**No. 922, Okuu, Helumoa, Waikiki, Honolulu, Oahu, October 1847
N.R. 536v2**

To the President of the Land Commissioners, William L. Lee, and J. H. Smith, Z. Kaauwai, John Ii. N. Namauu, being the commissioners to weigh the truth of the claims, in accordance with your directions, therefore, I hereby petition for the house lot claim at Helumoa in Waikiki. It was agreed by us that I would petition to you, the com-missioners who strip off the claims which are invalid and select the right claims when you know the truth, as in my claim of which I am telling you correctly. The circumference outside of this house is 104 fathoms 4 feet 9 inches. There are witnesses there who will testify truthfully as to my claim to you, the ones who act justly and correctly.

I am, with thanks, your obedient servant.

OKUU

F.T. 262v2

Claim 922, Okuu, April 3 [1848]

Kupanihi, sworn, I know this place. It is a house lot in Waititi, bounded:

Ewa by Kukiiuhi's
Mauka by John Ii's
Waititi by Nuu's and Hope's
Makai by the sea.

It has an adobie fence and five houses, one belonging to Ku, one to myself, 1 to Kini and two to claimant, who got the place from Kamaukoli, who had it from Kaahumanu in whose time Okuu came by it (about 1822). I know of no other person claimant it but him.

Kini, sworn, and confirmed all the previous particulars.

N.T. 602,604v2

No. 922, Okuu, wahine, 922 [note: no page 603]

Kupanihi, sworn and stated, "I have seen house lot which is at Waikiki. Thus, the boundaries are:

Kalaiheana's land, towa-rd the mountain
Nu's land and Kahope's lot, Waikiki and
the beach is toward the sea.

This place has a mud enclosure and there are five houses in there. Three of us are house owners. One house is mine, another is for Kini and the other is for Ku. Okuu had received this from Kamaukoli who had his interest from Kaahumanu, but Kamaukoli is the interest for life there. This land had been for Okuu's older brother and upon his death, Okuu had inherited it. I have not known that anyone has objected."

Kini, sworn and stated, "I have seen this place. Everything about it is just as Kupanihi has related here."

[Award 922; R.P. 4463; Helumoa Waikiki Kona; 1 ap.; .32 Ac.]

B-4 LCA 1281, Kuluwailehua

Kuluwailehua, Honolulu, 6 December 1847

N.R. 54v3

To the Land Commissioners, Greetings: I hereby tell you of my claims at Waikiki in the `ili of Kamoku, which was from the Mo`i; I live there under his protection, and the ko`eles and po`alimas, and the genuine land* and the cocoanut grove and the fishery and the benefits of the land are mine under the Mo`i.

My own claims are a house lot and three lo`i which are my very own, from my makuahine.

I also tell you of Kamoku Two, the `ili of William Lunalilo which I have. The po`ailimas and the ko`eles are for William Lunalilo. I hold it as was the custom of the makuas.

Here is my own claim, for a house lot and five lo`i which is held by my kaikuahine who is over me, but I have the administration of it, this was the own property of our makuakane; three are her own and two are mine, a total of five lo`i.

There is also a claim for a small single lo`i in Kuilei; this single claim is held by me.

These are my claims which I tell you of.

Farewell to you all, L. KULUWAILEHUA

/*Translator's note: refers to land long developed and held under a konohiki./

F.T. 458v2

Cl. 1281, Kuluwailehua, September 4, 1848

[margin note: See Native Register page 242, volume III] [should say Native Testimony]

Kahiaweawa, sworn, I know these lands. They are an ili in Waititi called Kamokuakahi, Oahu. Claimant presented a paper from the Minister of Finance showing the land Kamoku was set aside to claimant in the division of lands, stating there were 8 natives & Hoaina) living on the land as his tenants, whose names are: 1. Kahiawaawa; 2. Anee; 3. Malo; 4. Keaka; 5. Haole; 6. Kaeina; 7. Kalione; 8. Kahiamoe; 9. Kawelohoalii, 10, Kaua.

These men are not counter claimants and claimant says he does not wish to disturb the rights of these tenants.

2. Claimant has 5 kalo patches and a house lot in Kamoku elua which is Kanaina's or William Lunalilo's land (Postponed till 6th Instant)

3. I know the kalo patch claimant has in "Kuilai. It is bounded:

By Hao's land Mauka

Waimanalo by Namekanu's

Makai by a small road

Waititi by an auwai and the land of Kaaha.

Claimant had this land from Maka in 1847. Maka received it from Kealoaloa in 1831 and held it in peace until he gave it to Kuluwailehua, who now owns and cultivates it.

Ana, sworn, Knew these lands and confirmed the previous testimony.

N.T. 242-234v3

No. 1281, Kuluwailehua, September 4, 1848

Kahiaweawe, sworn and stated, "I have seen this land named Kamoku. It is an ili land in Waikiki and there are five patches and a house on Kamoku II.

Here is the number of people who are all living there, for they do have interest: 1) myself, 2) Anee, 3) Malo, 4) Keaka, 5) Haole, 6) Kaina, 7) Kalaeone, 8) Kahiamoe, 9) Kawelohelii, 10) Kaua. This is a division of Kuluwailehua from the King. To page 738

Kamaku is for Samuel Kuluwailehua. It is an ili at Waikiki in Kona, Oahu. This distribution is good and I am approving it. The land which is mentioned in writing above is for S. Kuluwailehua. It has been approved and may be taken to the land officers who quiet titles. (Signed) Kamehameha 3 Royal Residence January 31, 1848

I am announcing that this is a certified copy from the Book of Land Distribution. Office of the Minister of Interior, G. M. Robertson, Secretary

September 4, 1848

2. Parcel - This claim has been postponed to Wednesday. These are the patches and house lot at Kamoku II.

3. One patch is at Kuilei in Waikiki.

Hao's land is mauka

Nameakami's land, Waimanalo

a small street, makai

Kaaha's land, Honolulu.

Kuluwailehua's land is from Maka given in the year 1847. Maka had received this land in 1831 from Keolaloa. It had been acquired without cost because Kuluwailehua is Maka's nephew.

Anee, sworn and stated, "I have seen this land just as Kahiaweawe had seen it; no one had objected to Kuluwailehua."

N.T. 738v3

No. 1281, Samuel Kuluwailehua, from page 242

Land Division from the king of the ahupuaa land, county and island, Kamoku ili in Waikiki, Kona, Oahu.

This is to certify this grant; it is good. The land written above is for S. Kuluwailehua. It has been approved and it may be presented before the land commissioners.

Signed, Kamehameha

Royal Palace, January 31, 1848

This is a certified copy from the Award Book, W. Goodale

N.T. 738-739v3

No. 1281, S. Kuluwailehua

February 23, 1851, from page 242, No. 1281, S. Kuluwailehua

Kahiaweawe, sworn, I have seen Kuluwailehua's parcels of land at Kamoku I in Waikiki - 5 parcels of land, Keomuku and Pau.

1 coconut grove and Keomuku sea; the boundaries are:

Mauka, land of Kekuaaoa

Waikiki, land of Keohokalole named Hamohamo

Makai, the surf's breaking point

Ewa, land of Kekuaaoa.

3 patches; the boundaries are:

Mauka, land of Haumea

Waialae, land of John Young, called Pahoa

Makai, land of M. Kekuaaoa

Ewa, land of C. Kanaina.

6 patches and a pasture, and the boundaries are:

Mauka, land of Uma

Waialae, land of M. Kekuaaoa, Pahupahuapuaa

Makai, land of Kekuaaoa Kalia

Ewa, land.

House lot and 13 taro patches:

Mauka, Kalia stream

Waialae, land of Kekuanaoa named Waiaka

Makai, land of Kekuanaoa Ewa, land of C. Kanaina.

1 taro patch at Pa`u:

Mauka, land of M. Kekuanaoa

Waikiki and Makai, land of C. Kanaina

Ewa, land of Kekuanaoa by the stream.

Kanekoa, Kuluwailehu's mother, had given him these sections of land in 1840 and she had received this land from Keopulani during the time of Kamehameha I where she has lived to 1848, at which time King Kamehameha III gave her a grant by the Mahele. No one had objected. The natives have retained their interests.

[Award 1281; R.P. 166; Kamoku Waikiki (Ap. 1); 1 ap.; 6.35 Acs; R.P. 7428; Waikiki Kona; (Ap. 2); 1 ap.; .92 Ac.; R.P. 403; Kamoku 2 Waikiki Kona; 2 ap.; 15.89 Acs; Land Patent 8102; Waikiki Kona; (Ap. 3); 1 ap.; 4.55 Acs]

B-5 LCA 1379 Kapule II

N.R. 93v3

To the Land Commissioners, Greetings: s: I, the undersigned, hereby tell of my claim for two lo'i at Auaukai, two rows /of taro/* at Hohe, one irrigation ditch, the pond named Kalokomoo, also a house lot at Keomuku in Waikiki, Island of Oahu.

KAPULE X

Residence: Keomuku

/*A communal taro patch at Waikiki./

F.T. 507v2

No. 1379, Kapule II, September 29, 1848

Wailehua, sworn, This land is in the ili of Auaukai, Waititi, claimant has a house lot in the next ili of Keaumoku, of several pieces.

1. House lot:

Mauka is Auwa's land

Waialae, Oku's

Makai, Kaelemakule's

Honolulu, Government land (nahelehele).

It is fenced and claimant has 1 large and 1 small house on it.

2. Two kalo patches.

Mauka is Keohokalele's, Waialae and Makai also

Honoluu, Peleuli's.

3. Part of a kalo patch:

Mauka is a large kalo patch of many owners

Waialae, Paku's

Makai, Keohokalole's

Honolulu, Kaluahinenui's.

Claimant had this land from Kamaukole, lord of it in Kaahumanu 1 time, and has ever since held it without dispute. He does poalima work. Kamaukole is his konohiki.

N.T. 315v3

No. 1379, Kapule II, September 29, 1848

Wailehua, sworn, I have seen his place in the ili of Auaukai in Waikiki. The house lot is at Keomuku

1. 1 house lot:

Mauka is Ana's land

Waialae, Okuu's place

Makai, Kaelemakule's place

Honolulu, a government land.

There is a large house, one little house, there is a fence.

2. 2 taro patches:

Mauka, Waialae and Makai is Keohokalole's land

Honolulu, Peleuli's land.

3. 2 rows of taro:

Mauka for people

Waialae, Paka's land

Makai, Keohoka lolo's place

Honolulu here, Kaluahinenui's place.

Kapule II had received his land from Kamaukoli at the time of Kaahumanu I and he has lived peacefully to the present time; no one has objected. He had gone to do Friday detail regularly. Kamaukoli was his konohiki.

[Award 1379; R.P. 2824; Auaukai Waikiki Kona; 2 ap.; .25 Ac.]

B-6 LCA 1385, Kaelemakule

N.R. 94-95v3

To the Land Commissioners, Greetings and the peace of God: I, the undersigned, hereby tell of my claim for one *lo'i* at Auaukai, one row at Hohe /of taro/, also a house lot at Keomuku in Waikiki, Island of Oahu

KAELEMAKULE

Residence: Keomuku

F.T. 8v3-4

Cl. 1385, Kaelemakule, October 9, 1848

Kokomo, sworn, This place is in Auaukai, Waititi. It is kalo land, consisting of

1. House lot, fenced and claimant owns one house on it, bounded:
 Mauka by Kapule's land, Waialae also
 Makai by sea
 Honolulu by Kuapaiea's.

2. One kalo patch:
 Mauka is Kapule's
 Waialae is Nuuanu's
 Makai is Nui
 Honolulu is Opupahoa's.

One row of kalo in a large patch, which is bounded as a whole: Mauka by Palupalu
 Waialae by Paku's (teacher)
 Makai by Kukealiieau's
 Honolulu by Kanai's (land).

Claimant had these lots from Kamaukule [Kamaukoli?] in time of Kaahumanu I. Kamaukule was and is konohiki under Kekuanaoa, who owns the land and has been held undisputed to the present time.

N.T. 327-328v3

No. 1385, Kaelemakule, From pg. 142, Vol. X, October 9, 1848

Kokomo, sworn, I have seen his place at Auaukai in Waikiki of 1 taro patch and 1 row of taro.

1. 1 house lot:
 Mauka is Kapule's place, also Waialae
 Makai, the sea;
 Honolulu, Kuapaia's place.

2. 1 taro patch:
 Mauka is Kapule's place
 Waialae, Nuuanu's place
 Makai, Nu's place
 Honolulu, Opupahoa's place.

1 row of taro in the big patch:
 Mauka is Palupalu's place
 Waialae, Paku's place
 Makai, Kultiaiau's place
 Honolulu, Kanae's pasture.

Kamaukoli had given him his land at the time of Kaahumanu I. Kamaukoli is the konohiki under Kekuanaoa and he has always lived there to this time; no one has objected. Postponed until

Kamaukoli shall come also.

N.T. 142v10

No. 1385, Kaelemakule (from page 327, volume 3), Claim Settlement Building, 16 April 1852

Objection by konohiki, Kamehameha III

Kelemakule, sworn, I have been in error in the filing of my single row claim in the koele patch of the konohiki called "Hohe" in Waikiki, Oahu. I hereby reject my interest in that patch. It shall be fore the konohiki forever without opposition and I shall live under the konohiki similarly to the old ways of this land.

[Award 1385; R.P. 2829; Auaukai Waikiki Kona; 1 ap.; .17 Ac.]

B-7 LCA 1445 , Kanemakua

Kanemakua, Waikiki, Oahu, December 9, 1847N.R. 114v3

Greetings to the Land Commissioners: I hereby tell of my land claim for my five lo`i in Mooiki in Waikiki. I got these places in the time of Kamehameha and have held them under the konohiki with no objections from anyone.

I have also two other lo`i at Mookahi in Waikiki which I got in the time of Kaahumanu I and which I have held peacefully with no objections.

I also have a house lot at Waikiki which I got in the time of Kameham-eha II and have held peacefully with no objections. There are seven houses there which are mine alone. Also, I have three irrigation ditches.

KANEMAKUA X

F.T. 39-40v3

Cl. 1445, Kanemakua, December 11, 1848

No. 1, Ku, sworn, I know this place. It is in Waititi in the ili of Mooiki, consisting of kalo land having 4 patches and 1 house of claimants.

It is bounded:

Mauka by Kamakahonu's
 Waialae by Kauhao's land (konohiki)
 Makai by Kahanaumaikai's
 Honolulu lby Paki's.

Claimant had this lot from Kamakahonu in time of Boki as a gift from his chief, and he has lived there and cultivated the land ever since without any dispute, there has never been any counter claimant to this time.

No. 2. Second land is in Mookai, consisting of 2 patches standing apart.

1st is bounded by Kaniho's land Mauka

Waialae by Paki's

Makai by Laimakahi's

Honolulu by Aumea's.

2d patch, Kaniho's is mauka

Paki's is Waialae

Keaweikini's is makai

Aumoe is Honolulu.

Claimant has these two patches from Kailiuli in time of Kaahumanu. He was konohiki, now dead, and has held them like the others to the present time undisputed, and cultivated them.

No. 3. House lot, situated in Helamoa, Waititi and bounded:

Mauka by Kekuanaoa's land

Waialae by an arm of the sea

Makai, the sea

Honolulu by Kaluahinenui's.

There are 8 houses on it. Claimant owns two; Kahanaumaikai, one; Kalaauli, one; Kaaia, one; Kahui, two; and I own two. These all live under claimant and he under Kalaiheana. They came under permission of claimant who lives on it.

Claimant had this land from Kalaiheana in time of Boki and has lived there in peace to the present time. The land is fenced. Three streams are included in the preceding bounds given, which are separately mentioned in the claim.

Kaanana, sworn, stated he knew the above testimony to be true.

Kalanikua, said this land had been surveyed by John Richardson and after by himself as part of Kalaiheana's claim.

Kalaiheana's testimony wanting. See page 427.

F.T. 427v3

No. 1445, Kanemakua, February 23, 1853, from page 39

Counter Susan (Naki)

Kalaiheana, sworn, says he knows the house lot of claimant in "Helamoa," Waikiki. It belonged to witness from the time of Kamehameha I until he gave it to claimant about the year 1825. I never gave any part of that place to Kahue. Kanemakua has held the land in question ever since.

N.T. 362-363v3

No. 1445, Kanemakua, October 11, 1848

Ku, sworn, I have seen his place at Mooiki ili land in Waikiki. There are four patches and Ku's own house which has not been enclosed.

1. 4 taro patches:

Mauka is Kamakahonu
 Waialae, Kauhao's place
 Makai, Kahanaumaikai
 Honolulu, Paki's land.

Kaiakoili had given Ku this interest at the time of Poki, while he /Ku/ was living as a servant and he has continued to live there to the present time with no objections from anyone.

2. 1 taro patch is at Mookahi in Waikiki in two sections.
 Mauka is Kaniho's land
 Waialae, Paki's land
 Makai, Kalimakuhi's land
 Honolulu, Haumea's place.

3. 1 taro patch:
 Mauka is Kaniho's land
 Waialae, Paki's land
 Makai, Keaweikini's place
 Honolulu, Haumea's place.

Ku had received this interest from Kailiuli during the time of Kaahumanu. Kailiuli had been a konohiki and is now dead. Ku has lived there to the present; no one has objected.

4. 1 house lot at Helumoa in Waikiki where:
 Mauka is Kekuaanao's place
 Waialae, a river
 Makai, the sea
 Honolulu, Kaluahinenui's place.

Kaluahinenui has 2 houses, Kahanaumaikai 1, Kailiuli 1, Kaia 1, Kahue 2, and Ku, 2 houses and all of these People live under Kanemakua because this is his place received from Kalaiheana during the time of Poki and he has lived there to the present; no one has objected. This place has been completely enclosed around the property.

Kaanaana, sworn, Our testimonies are similar.

Postponed until Kalaiheana can be heard.

[Award 1445; R.P. 2560; Helumoa Waikiki Kona; 1 ap.; 1.6 Acs; Kamooiki Waikiki Kona; 1 ap.; .75 Ac.; Kamookahi Waikiki Kona; 2 ap.; .43 Ac.]

A-8 LCA 1463, Wahahee

No. 1463, Wahahee, Waikiki, Oahu, December 9, 1847

N.R. 121v3

Greetings to the Land Commissioners: I hereby tell of my land claim at Kaluakau in Waikiki. I have two lo'i there. I also have a house claim at Waikiki with one house there. –

I got this place in the time of Kamehameha I and hare held it peace-fully with no objections. I have three other lo'is at Nukuaua in Waikiki which were given me by Nalaweha in the year 1846 which I have held in peace with no objections.

WAHAHEE X

F.T. 54-55v3

Cl. 1463, Wahahee, December 18, 1848

Opio, sworn, I know this land. It is in Waititi, district of Kaluakau and Kanukuaua, consisting of kalo land kula, and a house lot in Helumoa.

House lot, claimant has one household. It is fenced.

Mauka is Kekuanaoa's,

Waialae also

Makai, Kuluwailehua's

Honolulu, Kekuanaoa.

2. Kaluakau two kalo patches:

Mauka is Male's

Waialae, Palupalu's

Makai, Kekuhuna's

Honolulu is Kanapuni's.

3. Kanukuaua, One kalo patch and auwai:

Mauka is Kuahuia's

Waialae, Kawai's

Makai is Nahoo's

Honolulu, Haaeo's.

4. One kalo patch.

Mauka is Haaeo's

Waialae, Kaaipua's

Makai is Government kalo patch

Honolulu is Naoho's.

Claimant had the house lot No. 1 from Kulaiheana in time of Kaahumanu I and has ever since lived in it without any dispute. He had No. 2 kalo patch from Pakanaka same time as No. 1, and has held it in peace also.

He had No. 3 and 4 from Nalaweha, konohiki, about 1845 and has never been disturbed in the right.

Kahiuka, sworn, and confirmed the above testimony.

Nalaweha wanted.

N.T. 377-378v3

No. 1463, Wahahee, December 18, 1848

Opio, sworn, I have seen his place at Kaluaokau with 2 patches; Kanukuaua in Waikiki, 2 patches and 1 ditch; Helumoa, 1 house lot and these places are all in Waikiki.

1. 1 house-lot with one house and there is a fence.

Mauka and Waialae is Kekuanaoa

Makai, Kuluwailehua

Honolulu, Kekuanaoa.

2. 2 patches at Kaluaokau where:

Mauka is Male

Waialae, Palupalu

Makai, Kekahuna

Honolulu, Kanapuni.

3. 1 patch, 1 ditch at Kanukuaua:

Mauka is Kuahina

Waialae, Kawai

Makai, Naohi

Honolulu, Haaheo.

4. 1 patch at Kanukuaua:

Mauka is Haaheo

Waialae, Kaaipuaa

Makai, a government patch

Honolulu, Naoho.

Kalaiheana had given Wahahee the house lot during the time of Kaahumanu I, which is Section I and he has lived there since that time to the present; no one has objected.

Pakanaka had given section II at the time of Kaahumanu I and he /Wahahee/ has always lived there without any objections.

Sections III and IV are from Nalaweha at the time M. Kekuanaoa was touring on Oahu here probably in the year 1846 and life has always been the same to the present time without any objections. Kahiuka, sworn, Our testimonies are similar /the hearing for/ sections 3 and 4 have been postponed till Nalaweha is available.

[Award 1463; R.P. 715; Helumoa Waikiki Kona; 1 ap.; .14 Ac.; R.P. 4247; Kanukuaua Waikiki Kona; 2 ap.; .97 Ac.]

B-9 LCA 1508 Kahoouluulu

No. 1508, Kahoouluulu

N.R. 139v3

To the Land Commissioners, Greetings: I hereby tell you of my land claim for one lo'i, one kula, one section of irrigation ditch and one house lot, in the `ili of Pahupahuapuaa in Waikiki, Island of Oahu. That is that I am telling you.

KAHOOUULUULU X

Keawamuku at Waikiki, December 4, 1847

F.T. 68v3

Cl. 1508, Kahoouhuluhulu, December 27, 1848

Wailehua, This land is in Pahupahupuaa in Waititi, consisting of kalo & kula and a house lot in Waititi kai.

1. House lot in Waititi kai:

Mauka, Popoki
 Waialae, Kapule
 Makai Kaina
 Honolulu, Kauhau.

Claimant has 1 house, partly fenced.

2. Kalo, 2 patches:

Mauka, Kaleiwakalei
 Waialae, my land
 Makai, Kamaukole
 Honolulu, Kukuapoi.

3. Kula and a kalo stream, in part.

Mauka is Kukui
 Waialae, Keohokalole
 Makai, Kaleimakalii
 Honolulu, Kekuanaoa.

Kaahumanu I gave all this [these] lots to Claimant, who now holds them under me as agent for Victoria.

N.T. 394v3

No. 1508, Kahoouluulu

Wailehua, sworn, I have seen Kahoouluulu's land at Pahupahuapua in Waikiki

1. House lot:

Mauka is Opoki's lot
 Waialae, Kapule's lot
 Makai, Kaena's lot
 Honolulu, Kaauhau.

There is a house and a fence.

2. Two patches at Pahupahuapuaa:

Mauka is Kaleimakalii's lot
 Waialae, my land
 Makai, Kamaukoli's land
 Honolulu, Kekuapoi's place.

3. Pasture and a ditch:

Mauka is Kukue's land

Waialae, Keohokalole's place
 Makai, Kaleimakalii's lot
 Honolulu, Kekuanaoa's place.

I had given Kahoouluulu land at the time of Kaahumanu, now it is under Kamamalu.

[Award 1508; R.P. 5945; Pahupahupuaa Waikiki Kona; 3 ap.; 1.13 Acs]

B-10 LCA No. 1511, Kanae

N.R. 140v3

To the Land Commissioners, Greetings: I, the undersigned, hereby tell of my land claim for one row of /taro/ hills, in the lo'i of Hohe in Waikiki, one irrigation ditch in the `ili of Kanukuaua, one small kula, one house lot, one pond; that is what I have to tell you.

KANAE X

Keawamuku at Waikiki, December 4, 1847

F.T. 69v3

Cl. 1511, Kanae, December 27, 1848

Kamanonui, sworn, I know these lands, all in Waititi, consisting of:

1 House lot near the sea, 1 house and fenced:

Mauka is Auwa's

Waialae, Keoho

Makai, sea

Honolulu, Kapule.

2. Hog pond, unknown.

3. Kula land in Hohe:

Mauka is Panelua

Waialae, Paku

Makai, Kauiki

Honolulu, Kaluahinenui.

5. One line of kalo in a general kalo patch, is included in No. 3.

Kaahumanu gave these lots to claimant and he has held them undisputed to the present time.
 Kekuanaoa is konohiki.

Kauiki, sworn, confirmed the testimony as above.

N.T. 395-396v3

No. 1511, Kanae, From page 142, Vol. 10

Kamanonui, sworn, I have seen Kanae's land at Hohe, the stream in Waikiki and the house lot at Keonuku.

One house has been enclosed.

Mauka is Ana's place

Waiialae, Keoho's place

Makai, the sea

Honolulu, Kapule's place.

Witnesses for the ponds have failed to be present.

There is also a pasture at Hohe.

Mauka is Paelua's place

Waiialae, Pehu's place

Makai, Kauiki's place

Honolulu, Kiluahinenui's place.

This is from Kaahumanu to Kekuanaoa and to Kamamalu at this time.

Kauiki, sworn, I have seen Kanae's land just as Kamananui has stated here.

N.T. 142v10

No. 1511, Kanae (from page 395, Volume 3) Claims Building, 16 April 1852

Objections by konohiki, Kamehameha III.

Kanae, sworn, I have been in error in the filing of my single row claim in the koele patch of the konohiki called "Hohe" in Waikiki. Oahu. I hereby reject my interest in that patch. It shall be fore the konohiki forever without opposition and I shall live under the konohiki similarly to the old ways of this land.

[Award 1511; R.P. 2821; Kanukuaua Waikiki Kona; 2 ap.; 1.59 Acs]

B-11 LCA 1782 Kahope

No. 1782, Kahope
N.R. 252v3

To the Land Commissioners, Greetings: I hereby state my claim for one small lo'i and one section of irrigation ditch, at the 'ili of Niukukahi in Waikiki. This is my claim to you.

I am, with thanks.

KAHOPE X, his mark

Waikiki, Oahu, 16 December 1847

F.T. 491v14

No. 1782, Kahope, claimant

Kanemakua, sworn say, the portion of the claim of Kahope is Apana hale in Helumoa, Waikiki, Oahu.

It is bounded:

Mauka by the cocoanuts of Helumoa

Kekaha by the pahale belonging to me

Makai by the sea shore

Honolulu by the pahale of Okuu.

Claimant received the house lot from Kaahumanu in the time of Kaumualii and has held the same in undisputed possession ever since.

Kaia, sworn says, the above testimony is true & is also his own.

N.T. 512v3

No. 1782, Kahope, October 30, 1849

Kauhao, sworn, I have seen his place at Niukukahi in Waikiki - 1 section.

1 taro patch

Mauka, Kahehi

Waialae, Kaiahopuwale

Makai, Koa

Honolulu, Kaia.

I had given him his land in the year 1843 and he has lived comfortably to the present time; no one has objected.

[Award 1782; R.P. 4249; Helumoa Waikiki Kona; 1 ap.; .31 Ac.; Kanuikukahi Waikiki Kona; 1 ap.; .2 Ac.]

B-12 LCA 2126 Keoho (Keaho)

No. 2126, Keoho, Waikiki, Oahu, December 23, 1847
N.R. 365v3

Greetings to the Land Commissioners: I hereby state my claim for land consisting of a house lot, a pond, two rows of taro, a section of irri-gation ditch and some hills of taro /or sweet potato/, which are on the stream /side/ of Kalia. I got this place in the time of Kaahumanu I and have held them in peace, with no objections. There is also a kula at Kawelulua.

KEOHO X

F.T. 483v14

No. 2126, Keaho, claimant

Makapo, sworn say, the land of claimants contains 2 puepue, a kula & pahale in one piece in the ili of Kuwelulua, Waikiki & is bounded:

Mauka by land of Kalawaia
 Kekaha by the ili of Hamohamo
 Makai by land of Nahuna
 Honolulu by a loi Kahuelua.

Claimant received the land from Kaahumanu & has held the same in quiet until the present time.

Aua, sworn says the above testimony is true & is also his own.

[Award 2126; R.P. 2577; Keomukukai Waikiki Kona; 1 ap.; .71 Ac.]

B-13 LCA 8023 Aua

No. 8023, Aua, Waikiki, 12 February 1848

N.R. 478v5

The Esteemed Land Commissioners, Hale Kauila, Honolulu, Oahu. Greetings to you all: I, the one whose name is below, hereby state my claim for land, in the `Ili of Auaukai in the Ahupua`a of Waikiki. One lo`i is in Kalia `Ili, One pauku of taro is in the stream water course and there is another pauku of stream. There is one row of taro in Hohe, and another pauku also in Hohe. There is one house lot, one kula planted in sweet potatoes and gourd.

These claims which have been explained above were from Kamaukoli, given in the time when Kaahumanu I was living, when Kaahumanu and Kamehameha III returned from the circuit of Hawaii. I am, respectfully,

AUA

F.T. 475v14

No. 8023, Aua, claimant

Kuine, sworn say, he knows the land of Aua. It consists of 3 pieces.

Apana 1. A loi in Auaukai, Waikiki, Oahu is bounded:

Mauka by the land of Ohuu

Kekaha by the land of Maukoli

Makai by the land of Manamana

Honolulu by the land of Oahuu.

Apana 2. A kahawai & kula in Kalia, Waikiki. It is bounded:

Mauka by the land of Kalamanamana

Kekaha by the land of Kualulua a kahawai

Makai by the land of Hamohamo no konohiki

Honolulu by the land of Kaia in Kalia.

Apana 3. A house lot yard in Keomuku, Waikiki, bounded:

Mauka by the loko of Helumoa of Ii

Kekaha by the kula nui of Helumoa

Makai by the house lot of Kapule

Honolulu by the house lot of Puepue.

Claimant received the land from his father-in-law, Kamaukoli in the time of Kaahumanu & has held the same in quiet ever since.

Kahonu, sworn, confirms the above as true, his [and] also his own.

[Award 8023; R.P. 5943; Auaukai Waikiki Kona; 1 ap.; .05 Ac.; Kalia Waikiki Kona; 2 ap.; .64 Ac.; Keomuku Waikiki Kona; 1 ap.; 1 Ac. 1.18 chains]I. S. Plan Approval by SHPD

Appendix C Artifact and Faunal Assemblages for T U 12 & 13

CONSTRUCTION ARTIFACTS - TEST UNIT 12, STRATUM II										
Provenience.	NE-12-03	NE-12-04	NE-12-07	NE-12-23	NE-12-26	NE-13-46	NE-13-48	NE-13-49	NE-13-50	NE-13-55
Depth (cmbd)	30-79	30-79	30-79	30-79	30-79	79-136	79-136	79-136	79-136	79-136
Material	Ceramic - Redware	Ceramic - Earthenware	concrete	Ceramic - Redware	brick	Ceramic - Earthenware	Ceramic - Redware	brick	concrete	concrete
Type	Poss. Sewer pipe frag.	flat tile frags.	Concrete-one smooth side	Poss. flower pot frags.	Brick frag	flat tile frags.	Poss. Sewer pipe frag.	Brick	Concrete-one smooth side	Dimpled exterior
Function	Construction	Construction painted red on both sides	Construction	Construction/Landscaping	Construction	Construction painted red on both sides	Construction	Construction	Construction	Construction
Decoraton	brown glaze						brown glaze			no glaze
Weight (g)	141.1	35.9	32.0	0.3	0.7	56.3	86.4	12.3	1000.0	31.0

CONSTRUCTION ARTIFACTS - TEST UNIT 12, STRATUM II										
Provenience.	NE-13-56	NE-13-59	NE-14-03	NE-14-13	NE-14-14	NE-14-15	NW-12-07	NW-12-08	NW-12-09	NW-12-13
Depth (cmbd)	79-136	79-136	136-141	136-141	136-141	136-141	32-70	32-70	32-70	32-70
Material	basalt	plaster	concrete	Ceramic - Earthenware	Ceramic - Redware	brick	Ceramic - Redware	brick	Ceramic - Earthenware	Concrete and basalt
Type	basalt fragments	wall/ ceiling plaster	Concrete-one smooth surface	flat tile frags.	Poss. Sewer pipe frag.	Brick frag.	Poss. Sewer pipe frag.	Brick frags.	flat tile frags.	Concrete-one smooth surface
Function	Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction	Construction
Decoraton				Construction painted red on both sides	Construction brown & white glaze		Construction brown glaze		Construction painted red on both sides	
Weight (g)	17.2	0.5	104.8	4.4	2.4	8.6	274.6	5.6	24.4	188.9

CONSTRUCTION ARTIFACTS - TEST UNIT 12, STRATUM II										
Provenience	NW-13-02	NW-13-09	NW-13-11	NW-13-12	NW-13-13	NW-13-14	NW-13-15	NW-13-32	NW-14-07	NW-14-09
Depth (cmbd)	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	136-145	136-145
Material	Metal, ferrous	Ceramic - Redware	concrete	Ceramic - Redware	mortar	brick	Concrete and basalt	Ceramic - Earthenware	Ceramic - Earthenware	Ceramic - Redware
Type	Utility, water valve	Poss. Sewer pipe frag.	Concrete-one flat side	Poss. flower pot frags.	Mortar with flat surface	Brick frags		flat tile frags.	flat tile frags.	Poss. Sewer pipe frag.
Function	Construction	Construction	Construction	Construction/Landscaping	Construction	Construction	Construction	Construction	Construction	Construction
Decoraton	1	brown & white glaze	yellow paint					painted red on both sides	painted red on both sides	brown glaze

HARDWARE - TEST UNIT 12, STRATUM II2											
Provenience	NE-12-01	NE-12-02	NE-12-11	SW-12-21	SW-12-22	SW-12-23	SW-12-24	NE-12-29	NE-13-52	NE-13-54	NE-13-58
Depth (cmbd)	30-79	30-79	30-79	36-78	36-78	36-78	36-78	30-79	79-136	79-136	79-136
Material	Metal, ferrous	Metal, cupreous	Metal, cupreous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous and non ferrous	Ferrous metal	Metal, ferrous and porcelain	Metal, cupreous
Type	Wire/square nails	screw	Clasp or bracket	Wire nails	screw	cut square nails	wire frag.	Thin wires	Wire/square nail	Insulator	Washer, ring, ribbed piece Hardware
Function	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware
Number	35	1	1	19	1	2	1	2	40	1	1
Weight (g)	100.0	2.1	4.5	53.2	16.8	38.3	5.4	2.9	282.5	28.5	5.0

HARDWARE - TEST UNIT 12, STRATUM 12											
Provenience	NE-14-01	NW-12-02	NW-13-01	NW-13-03	NW-13-04	NW-13-05	NW-14-01	SE-12-03	SE-13-01	SE-13-09	SE-13-13
Depth (cmbd)	136-141	32-70	70-136	70-136	70-136	70-136	136-145	32-81	81-146	81-146	81-146
Material	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous	Metal, ferrous
Type	Wire nails	Wire nails	Wire springs for furniture	Wire nails	Wire	Square nail (cut nail)	Wire nails	wire frags.	nails (wire, square), bolts	wire, one with barb	washer, 7/8" diameter
Function	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware	Hardware
Number	7	59	2	18	4	1	3	2	32	2	1
Weight (g)	34.1	145.3	53.1	48.7	4.3	9.0	13.3	6.0	129.5	37.9	4.6

HARDWARE - TEST UNIT 12, STRATUM 12			
Provenience	SE-12-02	SW-13-03	SW-14-06
Depth (cmbd)	32-81	78-133	133-150
Material	Metal, ferrous	Metal, ferrous	Metal, ferrous
Type	Wire nails	Wire nails	Wire nails
Function	Hardware	Hardware	Hardware
Number	28	16	2
Weight (g)	108.8	59.1	5.7

CANS/LIDS - TEST UNIT 12, STRATUM II							
Provenience	NE-13-51	NE-12-08	NE-12-08	SE-12-13	SE-13-14	SW-12-12	SE-12-10
Depth (cmbd0)	79-136	30-79	30-79	32-81	81-146	36-78	32-81
Material	metal, ferrous	metal, ferrous	metal, ferrous	aluminum	aluminum	metal, ferrous	plastic
Type	Can frags.	Can frags.	Can frags.	BACARDI rum bottle cap	can pull-tab	Crown top bottle cap, highly corroded	Bottle or jar lid liner
Number		6	6	1	1	1	2
Weight (g)	187.7	111.4	111.4	1.5	0.3	6.1	0.1

TRANSPORTATION - TEST UNIT 12, STRATUM II							
Provenience	NE-12-05	NE-13-53	NE-14-16	NW-12-05	NW-13-08	SE-12-05	SE-13-32
Depth (cmbd)	30-79	79-136	136-141	32-70	70-136	32-81	81-146
Material	Rubberized asphalt						
Type	Roadway frag.						
Function	Transportation						
Number	42	4	1	1	7	7	1
Weight (g)	32.7	12.3	1.4	29.3	1.3	26.6	37.5

TRANSPORTATION - TEST UNIT 12, STRATUM II			
Provenience	SW-12-15	SW-13-02	SW-14-05
Depth (cmbd)	36-78	78- 133	133-150
Material	Rubberized Asphalt	Rubberized asphalt	Rubberized asphalt
Type	Roadway frag.	Roadway frag.	Roadway frag.
Function	Transportation	Transportation	Transportation
Number	19	1	1
Weight (g)	238.4	6.8	3.6

MANUPOINTS - TEST UNIT 12, STRATUM II						
Provenience	Depth (cmbd)	Number	Weight (g)	Material	Type	Description
SW-12-19	36-78	4	8.9	basalt	Manuport	Two whole water-worn pebbles, two small smooth pebbles
SW-13-24	78-133	2	2.9	basalt	Manuport	One water worn basalt pebble and one thin, flat pc. basalt
SE-12-08	32-81	1	10.2	basalt	Manuport	Water worn pebble
SE-13-33	81-146	14	73.6	basalt	Manuport	Basalt rocks, includes water-worn pebbles
NW-12-14	32-70	3	37	basalt	Manuport	Water-worn pebbles
NW-13-10	70-136	1	10.3	basalt	Manuport	Water-worn pebble
NW-14-12	136-145	1	1.8	basalt	Manuport	Water-worn pebble
NE-12-06	30-79	7	24.2	basalt	Manuport	Water worn pebbles
NE-14-04	136-141	1	9.9	basalt	Manuport	Water-worn pebble, straight worn groove on one side

BOTTLES/GLASS - TEST UNIT 12, STRATUM II											
Provenience	NE-12-12	NE-12-13	NE-12-14	NE-12-15	NE-12-16	NE-12-17	NE-12-18	NE-13-01	NE-13-02	NE-13-03	NE-13-04
Depth (cmbd)	30-79	30-79	30-79	30-79	30-79	30-79	30-79	79-136	79-136	79-136	79-136
Type	bottle	bottle	bottle	pressed glass with blue design	bottle/window?	Unknown	lid	bottle	bottle	bottle	bottle
Portion	body	lip	1 neck; 7 body	frag.	frag.	frag.	frag.	Complete	body	base	lip
Color	amber	amber	Dk olive	Clear	clear	Aqua	Clear	Aqua	Dk olive	Dk olive	Dk olive
Number	14	1	8	2	3	1	1	1	243	16	3
Wt.	6.6	11.7	18.8	2.4	19.9	1.2	2.3	431.1	1800	940	73.8
BOTTLES/GLASS - TEST UNIT 12, STRATUM II											
Provenience	NE-13-05	NE-13-06	NE-13-07	NE-13-08	NE-13-09	NE-13-10	NE-13-11	NE-13-12	NE-13-13	NE-13-14	NE-13-15
Depth (cmbd)	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136
Type	bottle	bottle	bottle	bottle	bottle	bottle	bottle	bottle	bottle	stopper; circular, ½ inch flange, 2 ½ inch diameter complete	bottle
Portion	body	body/base; base	lip	body	body/base	lip	base	base	body	complete	body
Color	Amber g	Amber	Amber	Aqua	Aqua	Aqua	Aqua	Aqua	Aqua	Aqua	Clear
Number	11	2	1	50	9	4	1	2	3	1	145
Wt.	39.3	531.5	33.3	294.3	145.5	140.7	78.0	7.2	11.5	71.1	189.8
BOTTLES/GLASS - TEST UNIT 12, STRATUM II											
Provenience	NE-13-16	NE-13-17	NE-13-18	NE-13-19	NE-13-20	NE-13-21	NE-13-22	NE-13-23	NE-14-08	NE-14-09	NE-14-10
Depth (cmbd)	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	136-141	136-141	136-141
Type	window glass	bottle	bottle	bottle	plate*;	pressed glass; blue design	handle	stopper	bottle	bottle	pressed glass with blue design
Portion	frags.	base	body	lip; base	rim	frag.	circular knob frag.	complete	body	body	frag.
Color	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	clear	Clear
Number	44	3	1	2	2	53	3	1	5	1	2
Wt.	175.9	8.3	1.7	25.1	32.6	106.9	19.1	10.7	23.3	2.3	3.3

BOTTLES/GLASS - TEST UNIT 12, STRATUM II											
Provenience	NE-14-12	NE-14-19	NW-12-17	NW-12-18	NW-12-19	NW-12-21	NW-13-16	NW-13-17	NW-13-18	NW-13-19	NW-13-20
Depth (cmbd)	136-141	136-141	32-70	32-70	32-70	32-70	70-136	70-136	70-136	70-136	70-136
Type	bottle	bottle	bottle	bottle	bottle; window?	kitchenware	bottle	bottle	bottle	Unknown	bottle
Portion	body	body	body	body	frags.	handle; ribbed	body	lip	lip; base; 10 body	frag.	body
Color	Amber	Dk olive	Amber glass shards	Green glass	clear; aqua	clear	Dk olive	Dk olive	Amber	Lt green	Aqua
Number	2	2	9	2	22	1	25	1	12	1	5
Wt.	4.6	13.6	5.1	1.9	27.5	9.0	230	32.7	46.4	0.7	65.4
BOTTLES/GLASS - TEST UNIT 12, STRATUM II											
Provenience	NW-13-21	NW-13-22	NW-13-23	NW-13-23	NW-13-25	NW-14-02	NW-14-03	NW-14-04	SE-12-19	SE-12-20	SE-12-21
Depth (cmbd)	70-136	70-136	70-136	70-136	70-136	136-145	136-145	136-145	32-81	32-81	32-81
Type	bottle	bottle; window?	bottle	Lamp chimney	pressed glass; blue design	bottle	bottle	jar; external threads	bottle	bottle	bottle
Portion	body; lip	body	body	frag.	body and rim	body	body	rim	body	body	body/ shoulder
Color	Aqua glass,	clear; aqua	Clear	Clear	Milk glass?	Clear	Amber	clear	aqua	Dk olive	Green
Number	2	26	2	3	7	12	1	1	2	4	3
Wt.	52.2	42.4	4.9	4.6	17.2	21.9	0.2	14.2	52.8	13.3	11.4
BOTTLES/GLASS - TEST UNIT 12, STRATUM II											
Provenience	SE-12-22	SE-12-24	SE-12-25	SE-13-16	SE-13-17	SE-13-18	SE-13-19	SE-13-20	SE-13-21	SE-13-22	
Depth (cmbd)	32-81	32-81	32-81	81-146	81-146	81-146	81-146	81-146	81-146	81-146	
Type	bottle	bottle	bottle	bottle	bottle	bottle	bottle	bottle	bottle	bottle; window?	
Portion	body	body	body; 1 base	Complete	neck/lip	base	body	body	body	body	
Color	Clear	Amber	clear; aqua	Aqua	Aqua	amber	Amber	Dk olive	Green	clear; aqua	
Number	2	9	29	1	1	1	4	3	2	19	
Wt.	7.3	13.9	30.8	202.5	38.2	91.8	33.5	28.9	5.8	25.5	

BOTTLES/GLASS - TEST UNIT 12, STRATUM II											
Provenience	SE-13-24	SW-12-01	SW-12-02	SW-12-03	SW-12-08	SW-12-09	SW-13-08	SW-13-09	SW-13-10	SW-13-11	SW-13-19
Depth (cmbd0)	81-146	36-78	36-78	36-78	36-78	36-78	78- 133	78- 133	78- 133	78- 133	78- 133
Type	plated/ embossed blue design	bottle	bottle	bottle	unknown	bottle	bottle	bottle	bottle	bottle	bottle
Portion	Unknown	body	body	body	frags. clear	body Aqua	body Dk olive	body Amber	body Green	body clear	body clear
Color	clear	Dk olive	Amber	Amber							
Number	1	8	6	1	26	2	8	4	2	1	9
Wt.	2.2	27.5	2.6	2.4	37.6	80.7	24.5	2.2	11.7	10.1	7.6

CERAMICS - TEST UNIT 12, STRATUM II										
Provenience	NE-13-28	NE-13-29	NE-13-30	NE-13-31	NE-13-32	NE-13-33	NE-13-34	NE-13-35	NE-13-36	
Depth (cmbd)	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136
Paste	whiteware	porcelain	porcelain	stoneware	porcelain	porcelain rim, body, and base sherds	whiteware	porcelain	porcelain	porcelain
Part	body sherds	base and rim sherds	base and body sherds	body and finish	base, body and rim sherds		body sherds	body sherds	body sherd	body sherd
Description			gilding near rim, textured body; Possible platter	brown; bead finish, pressed lion seal on body; bottle/jug	Hand-painted, with orange-red and gold floral designsaucer, poss. Japanese makers mark	Blue willow pattern; saucer	Two gilded bands with blue sponge paint design between	Brown transfer print with green decal	Red decal with flow blue decoration and hand-painted gilding	
Number	70	3	11	6	12	11	2	2	1	
Weight (g)	430.0	31.5	392.8	66.3	118.7	33.8	34.3	2.0	38.6	

CERAMICS - TEST UNIT 12, STRATUM II									
Provenience	NE-13-37	NE-13-38	NE-13-40	NE-13-43	NE-13-44	NE-13-45	NE-13-83	NE-14-05	NE-14-06
Depth (cmbd)	79-136	79-136	79-136	79-136	79-136	79-136	79-136	136-141	136-141
Paste	whiteware	stoneware	whiteware	whiteware	porcelain	Whiteware (ironstone)	whiteware	whiteware	whiteware
Part	base sherds	body sherds	rim sherd	base, rim, and body sherds	base sherds	body and handle	body frag	body frag	rim and body sherds
Description	Brown glaze exterior, pink interior; ribbed exterior		pearl; blue banded rim	Brown transfer print floral design w "844, carfield, Wallis Gimson & Co" makers mark on saucer base	pearl glaze; polychrome red, orange, gold, brown hand painted stencil; plate	Textured molded body with branch handle	Grey with etched banding	Bracelet Pattern, Smooth rim, black transfer print with red hand-painted band near rim	
Number	1	1	1	10	2	6	1	1	8
Weight (g)	12.9	12.2	1.0	141.7	139.3	88.9	0.8	47.4	39.0

CERAMICS - TEST UNIT 12, STRATUM II									
Provenience	NE-14-07	NW-12-10	NW-12-11	NW-12-12	NW-13-12	NW-13-26	NW-13-27	NW-13-28	NW-13-29
Depth (cmbd)	136-141	32-70	32-70	32-70	70-136	70-136	70-136	70-136	70-136
Paste	porcelain	stoneware	porcelain	porcelain	redware	porcelain	Porcelain	porcelain	whiteware
Part	body sherd	body sherd	rim and body sherds	body sherds	body sherds	rim and body sherds	rim and body sherds	base sherd	rim, body, and base sherds
Description	black backing	white interior and exterior	3 pcs. polychrome green and pink floral decal and scalloped rim, 1 pc. green floral decal w/ gilding		medium thickness	plate fragments	rim frag thick & texturized; scalloped rim and molding w/ green decal, body frag-polychrome decal & gilding	thick; etched makers mark "I.L."	mendable rim and body frags
Number	1	1	4 pcs	5 pc	2	9	3	1	10
Weight (g)	0.1	3.6	16.4	1.7	1.6	142.4	38.0	92.6	158.7

CERAMICS - TEST UNIT 12, STRATUM II							
Provenience	NW-13-30	NW-13-31	NW-14-05	NW-14-06	NW-14-08	NW-14-10	SE-12-27
Depth (cmbd)	70-136	70-136	136-145	136-145	136-145	136-145	32-81
Paste	whiteware	whiteware	porcelain	whiteware	whiteware	redware	stoneware
Part	rim and body	base sherds	rim sherd	body sherd	body sherds		body sherd
Description	Rim frag has black transfer print with red hand-painted band, "Bracelet pattern"; one body sherd with gilding and blue sponge paint, one with flow blue and molded lettering, one blue decal	Bracelet Pattern	scalloped rim, molding	Blue coloration on exterior and interior		salt glaze crock	salt glaze
Number	4	2	1	1	1	2	1
Weight (g)	55.5		1.0	0.1	4.0	2.9	1.5

CERAMICS - TEST UNIT 12, STRATUM II							
Provenience	SE-12-28	SE-12-29	SE-12-30	SE-12-31	SE-13-26	SE-13-27	SE-13-28
Depth (cmbd)	32-81	32-81	32-81	32-81	81-146	81-146	81-146
Paste	porcelain	porcelain	whiteware	whiteware	whiteware	whiteware	porcelain
Part	rim, body and handle sherds	body sherds	body sherds	rim and body sherds	body sherds	body sherds	body sherds
Description	gilding on rim, body green decal and gilding, gilded handle	One thick piece, two thin	One thick, one thin	Rim piece has blue "willow-like" pattern, body frag. has poss. blue transfer print		Decorated whiteware, one pc. green transfer print, one pc. brown transfer print, one with brown glaze	
Number	3 pcs	2 pcs	2	2	4	3	6
Weight (g)	12.4	9.7	7.4	9.9	10.5	12.1	28.4

CERAMICS - TEST UNIT 12, STRATUM II											
Provenience	SE-13-29	SW-12-04	SW-12-05	SW-12-07	SW-13-13	SW-13-14	SW-13-15	SW-13-16	SW-13-17	SW-14-01	SW-14-03
Depth (cmbd)	81-146	36-78	36-78	36-78	78-133	78-133	78-133	78-133	78-133	133-150	133-150
Paste	porcelain	Porcelain	Porcelain	Porcelain	porcelain	stoneware	whiteware	porcelain	whiteware	stoneware	whiteware
Part	body sherds	rim/body sherd	base sherd	body sherd	body & base sherds	body sherds	rim sherds	rim and body sherds	rim and body frags	finish	body sherd
Description	Green and purple polychrome decal	molding, scalloped rim; saucer fragment	hand-painted interior, green leaf design; makers mark on base "N.D. & Co."	Very thick	Very thick	white glaze crock		scalloped rim with polychrome decal	1 Rim sherd with blue decal, 2 body sherds with hand-painted (1) red and (1) green	applied rim; bottle/jug finish	
Number	1	1	1	1	3	1	1	3	3	1	1
Weight (g)	0.7	2.5	5.5	24.2	38.0	21.2	5.9	2.5	4.2	3.8	1.9

FAUNAL BONE - TEST UNIT 12, STRATUM II												
Provenience	NE-12-53	NE-12-54	NE-12-55	NE-12-56	NE-12-57	NE-13-61	NE-13-62	NE-13-63	NE-13-64	NE-14-18	NW-12-38	
Depth (cmbd0)	30-79	30-79	30-79	30-79	30-79	79-136	79-136	79-136	79-136	136-141	32-70	
Comments	long bone fragment		Burnt; cut marks		cut; 8 pcs.		3 teeth		22 pcs.		3 pcs.	Burnt
Weight (g)	6.4		1.5		8.2		1.2		13.7		1.1	4.1
Sm-Med Mammal												
Sm. Mammal												
<i>Canis familiaris</i>			1.9	4.3								
<i>Sus scofra</i>												
Med. Mammal												
Fish bone & scales							1.1					
Parrotfish					2.7							

FAUNAL BONE - TEST UNIT 12, STRATUM II											
Provenience	NW-12-39	NW-12-40	NW-12-41	NW-13-48	NW-13-49	NW-13-50	NW-13-51	NW-14-23	NW-14-24	SE-12-15	SE-12-16
Depth (cmbd0)	32-70	32-70	32-70	70-136	70-136	70-136	70-136	136-145	136-145	32-81	32-81
Comments		Tooth		2 pcs.	13 pc.	Poss. Cut marks; 4 pcs	2 teeth	Burnt; 4 pcs.	11 pcs.		3 pcs. cut marks
Weight (g)											
Sm-Med Mammal			15.7		6.5	3.5		0.8	5.4	10.6	10.4
Sm. Mammal											
<i>Canis familiaris</i>		1.7					2.0				
<i>Sus scofra</i>							0.9				
Med. Mammal											
Fish bone & scales	0.3			0.1							
Parrotfish											

FAUNAL BONE - TEST UNIT 12, STRATUM II											
Provenience	SE-12-17	SE-12-18	SE-13-56	SE-13-57	SE-13-58	SE-13-59	SW-12-26	SW-12-27	SW-12-46	SW-12-47	SW-13-04
Depth (cmbd0)	32-81	32-81	81-146	81-146	81-146	81-146	36-78	36-78	36-78	36-78	78- 133
Comments	Burnt		burnt/ cut	3 pcs.			25 pcs.	3 teeth	poss. Dog		Burnt
Weight (g)											
Sm-Med Mammal			21.5			34.2			1.8	0.2	9.8
Sm. Mammal							3.8				
<i>Canis familiaris</i>				2.8							
<i>Sus scofra</i>				0.9							
Med. Mammal	1.7										
Fish bone & scales		0.4			0.9					0.3	
Parrotfish											

FAUNAL BONE - TEST UNIT 12, STRATUM II				
Provenience	SW-13-44	SW-13-45	SW-14-08	SW-14-09
Depth (cmbd0)	78- 133	78- 133	133-150	133-150
Comments		Burnt	2 teeth	2 pcs.
Weight (g)				
Sm-Med Mammal		1.3		
Sm. Mammal				0.2
<i>Canis familiaris</i>			3.6	
<i>Sus scofra</i>				
Med. Mammal				
Fish bone & scales	0.5			
Parrotfish				

INVERTEBRATES - TEST UNIT 12, STRATUM II																			
Provenience	NE-12-31	NE-12-32	NE-12-33	NE-12-34	NE-12-35	NE-12-36	NE-12-37	NE-12-38	NE-12-39	NE-12-40	NE-12-41	NE-12-42	NE-12-43	NE-12-44	NE-12-45	NE-12-46	NE-12-47	NE-12-48	
Depth (cmbd)	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79
Weight (g)																	47	79	
GASTROPODS																			
<i>Catenella</i>																			0.1
<i>Cellana</i> spp.																3.8			
<i>Cerithiidae</i>																		1.7	
<i>Conus</i>																	1.2		
<i>Coralliophila violacea</i>																			
<i>Cymatium</i> spp.																			
<i>C. caputserpentis</i>														0.5					
<i>Diodora octagona</i>													0.1						
Hipponicidae			9.4																
<i>Malea pomum</i>																			
<i>Nerita picea</i>	11.7																		
Ranellidae																			
<i>Strombus</i> spp.											1								
<i>Tellinidae palatam</i>					18.4														
<i>Trochus</i>																4.1			
<i>Turbo sandwicensis</i>				37.1															
Turrid																			
Vermetidae																			
BIVALVES																			
<i>B. crebristriatus</i>		8.6																	
<i>Chama</i> spp.																			
<i>Ctena bella</i>												7.9							
<i>Isognomon</i>																			
<i>Periglypta reticulata</i>										2.1									
<i>Pteria</i> spp. (pearl shell)						6.2													
Unident. Shell																			
SEA URCHINS																			
<i>Echinometra mathaei</i>									0.4										
<i>Echinometra oblonga</i>								0.5											
<i>H. mammilatus</i>							2.7												
Crab claws																			

INVERTEBRATES - TEST UNIT 12, STRATUM II																			
	NE-12-	NE-12-	NE-12-	NE-13-															
Provenience	50	51	52	42	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
Depth (cmbd)	30-79	30-79	30-79	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136	79-136
Weight (g)																			
GASTROPODS																			
<i>Catenella</i>																			
<i>Cellana</i> spp.																			
<i>Cerithiidae</i>																			
<i>Conus</i>																0.5			
<i>Coralliophila violacea</i>																			
<i>Cymatium</i> spp.																			
<i>C. caputserpentis</i>													17						
<i>Diodora octagona</i>																			0.1
Hipponicidae					22.6														
<i>Malea pomum</i>																			
<i>Nerita picea</i>							14.7												
Ranellidae																	4.6		
<i>Strombus</i> spp.												7.7							
<i>Tellinidae palatam</i>										14.1									
<i>Trochus</i>														1.6					
<i>Turbo sandwicensis</i>					38.8														
Turrid																			
Vermetidae																			
BIVALVES																			
<i>B. crebristriatus</i>								10.8											
<i>Chama</i> spp.																			
<i>Ctena bella</i>									6.1										
<i>Isognomon</i>															1.4				
<i>Periglypta reticulata</i>																			
<i>Pteria</i> spp. (pearl shell)										23.1									
Unident. Shell	4.2																		
SEA URCHINS																			
<i>Echinometra mathaei</i>																			
<i>Echinometra oblonga</i>																			
<i>H. mammilatus</i>																			0.4
Crab claws																			

INVERTEBRATES - TEST UNIT 12, STRATUM II																						
	NE-12-31	NE-12-32	NE-12-33	NE-12-34	NE-12-35	NE-12-36	NE-12-37	NE-12-38	NE-12-39	NE-12-40	NE-12-41	NE-12-42	NE-12-43	NE-12-44	NE-12-45	NE-12-46	NE-12-47	NE-12-48	NE-12-48	NW-12-31	NW-12-32	
Provenience	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	48	31	32	
Depth (cmbd)	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	30-79	32-70	32-70
Weight (g)																						
GASTROPODS																						
<i>Catenella</i>																			0.1			
<i>Cellana</i> spp.															3.8							
<i>Cerithiidae</i>																		1.7				
<i>Conus</i>																	1.2					
<i>C. caputserpentis</i>													0.5									
<i>Diodora octagona</i>													0.1									
Hipponicidae			9.4																			
<i>Malea pomum</i>																						
<i>Nerita picea</i>	11.7																					
Ranellidae																						
<i>Strombus</i> spp.										1												
<i>Tellinidae palatam</i>					18.4																1	
<i>Trochus</i>																	4.1					
<i>Turbo sandwicensis</i>				37.1																		
Vermetidae																						
BIVALVES																						
<i>B.crebristriatus</i>		8.6																				
<i>Ctena bella</i>												7.9										
<i>Isognomon</i>																						
<i>Periglypta reticulata</i>										2.1												
<i>Pteria</i> spp. (pearl shell)						6.2																
Unident. Shell																						
SEA URCHINS																						
<i>Echinometra mathaei</i>										0.4												
<i>Echinometra oblonga</i>								0.5														
<i>H.mammilatus</i>							2.7															1.1
Crab claws																						

INVERTEBRATES - TEST UNIT 12, STRATUM II																						
	NW-12-	NW-12-	NW-12-	NW-12-	NW-13-	NW-14-	NW-14-															
Provenience	33	34	35	42	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	14	15	
Depth (cmbd)	32-70	32-70	32-70	32-70	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	70-136	136-145	136-145
Weight (g)																						
GASTROPODS																						
<i>Cerithiidae</i>																						
<i>Conus; Conus striatus</i>																						
<i>Coralliophila violacea</i>																						
<i>Cymatium</i> spp.																						
<i>C. caputserpentis</i>												0.7										
<i>Diodora octagona</i>																	0.1					
Hipponicidae											16.6											
<i>Nerita picea</i>							13.3													4.3		
<i>Strombus</i> spp.										4												
<i>Tellinidae palatam</i>													7.5									
<i>Trochus</i>																						
<i>Turbo sandwicensis</i>					35.6																	
Turrid																						
Vermetidae																		0.2				
BIVALVES																						
<i>B.crebristriatus</i>						7.2															1.2	
<i>Chama</i> spp.																						
<i>Ctena bella</i>												4.2										
<i>Isognomon</i>																						
<i>Periglypta reticulata</i>	0.9																					
<i>Pteria</i> spp. (pearl shell)								8.7														
Unident. Shell		11.6																15.2				
SEA URCHINS																						
<i>Echinometra mathaei</i>																						
<i>Echinometra oblonga</i>																0.4						
<i>H.mammilatus</i>			0.9												1							
Crab claws																						

INVERTEBRATES - TEST UNIT 12, STRATUM II																					
	NW-14-	SE-12-																			
Provenience	16	17	18	19	20	21	22	33	34	35	36	37	38	39	40	41	42	43	44	45	46
Depth (cmbd)	136-	136-	136-	136-	136-	136-	136-	32-	32-	32-	32-	32-	32-	32-	32-	32-	32-	32-	32-	32-	32-
Weight (g)	145	145	145	145	145	145	145	81	81	81	81	81	81	81	81	81	81	81	81	81	81
GASTROPODS																					
<i>Cellana</i> spp.																					
<i>Conus</i>																			6.3		
<i>Conus; Conus striatus</i>																					
<i>Coralliophila violacea</i>																				0.4	
<i>C. caputserpentis</i>														1							
<i>Diodora octagona</i>																					
Hipponicidae			1.7													11.2					
<i>Nerita picea</i>										6.1											
Ranellidae																					
<i>Strombus</i> spp.										3.9											
<i>Tellinidae palatam</i>						0.2											6.8				
<i>Trochus</i>																					
<i>Turbo sandwicensis</i>	0.8								40												
Turrid																					
Vermetidae																					
BIVALVES																					
<i>B.crebristriatus</i>																5.6					
<i>Ctena bella</i>				5.5								2.9									
<i>Isognomon</i>																			0.9		
<i>Periglypta reticulata</i>																					
<i>Pteria</i> spp. (pearl shell)		0.5										10.1									
Unident. Shell							4.3														
SEA URCHINS																					
<i>Echinometra mathaei</i>																					
<i>Echinometra oblonga</i>																					
<i>H.mammillatus</i>					0.2																0.7
Crab claws																					

INVERTEBRATES - TEST UNIT 12, STRATUM II																					
	SE-12-	SE-12-	SE-12-	SE-12-	SE-12-	SE-13-															
Provenience	47	48	49	50	51	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Depth (cmbd)	32-	32-	32-	32-	32-	81-	81-	81-	81-	81-	81-	81-	81-	81-	81-	81-	81-	81-	81-	81-	81-
Weight (g)																					
GASTROPODS																					
<i>Cellana</i> spp.																					
<i>Cerithiidae</i>																					
<i>Conus</i>																					
											19										
<i>Conus; Conus striatus</i>																					
<i>Coralliophila violacea</i>																					
																0.4					
<i>Cymatium</i> spp.																					
<i>C. caputserpentis</i>																					
									2.7												
<i>Diodora octagona</i>																					
																					0.1
Hipponicidae																					
<i>Malea pomum</i>																					
													22.3								
<i>Nerita picea</i>																					
						13.9															
<i>Strombus</i> spp.																					
<i>Tellinidae palatam</i>																					
														10.6							
<i>Trochus</i>																					
																					0.3
<i>Turbo sandwicensis</i>																					
							34.2														
Vermetidae																					
		0.4																			
BIVALVES																					
<i>B. crebristriatus</i>																					
									13.4												
<i>Ctena bella</i>																					
																2					
<i>Isognomon</i>																					
																					0.3
<i>Periglypta reticulata</i>																					
<i>Pteria</i> spp. (pearl shell)																					
																		8.8			
Unident. Shell																					
				3.9																	
SEA URCHINS																					
<i>Echinometra mathaei</i>																					
															1.8						
<i>Echinometra oblonga</i>																					
	0.3																				
<i>H. mammilatus</i>																					
																0.4					
Crab claws																					

INVERTEBRATES - TEST UNIT 12, STRATUM II																					
	SE-13-	SE-13-	SE-13-	SE-13-	SE-13-	SW-12-	SW-12-43														
Provenience	51	52	53	54	55	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
Depth (cmbd)	81-	81-	81-	81-	81-	36-	36-	36-	36-	36-	36-	36-	36-	36-	36-	36-	36-	36-	36-	36-	36-78
Weight (g)																					
GASTROPODS																					
<i>Conus</i>													12.2								
<i>Conus; Conus striatus</i>																					
<i>Coralliophila violacea</i>																					
<i>Cymatium</i> spp.																			2.4		
<i>C. caputserpentis</i>									1.2												
<i>Diodora octagona</i>																					
Hipponicidae										10.5											
<i>Malea pomum</i>				0.4																	
<i>Nerita picea</i>						4.5															
<i>Strombus</i> spp.		5.1	8.8														2.3				
<i>Tellinidae palatam</i>													4.2								
<i>Trochus</i>																					
<i>Turbo sandwicensis</i>										32.4											
Turrid	0.3																				
Vermetidae																					
BIVALVES																					
<i>B.crebristriatus</i>							4.3														
<i>Chama</i> spp.																8.5					
<i>Ctena bella</i>												2.6									
<i>Isognomon</i>															0.9						
<i>Periglypta reticulata</i>																			3.3		
<i>Pteria</i> spp. (pearl shell)															3.5						
Unident. Shell					17.4															2.4	
SEA URCHINS																					
<i>Echinometra mathaei</i>																					
<i>Echinometra oblonga</i>																					0.4
<i>H.mammilatus</i>																					
Crab claws																					

INVERTEBRATES - TEST UNIT 12, STRATUM II																						
	SW-12-	SW-12-	SW-13-	SW-14-	SW-14-11																	
Provenience	44	45	25	26	27	28	29	30	31	32	33	34	35	36	37	38	40	41	42	10		
Depth (cmbd)	36-78	36-78	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	78-133	133-150	133-150	
Weight (g)																						
GASTROPODS																						
<i>Conus; Conus striatus</i>											10.3											
<i>Cymatium</i> spp.																						
<i>C. caputserpentis</i>							29.8															
<i>Diodora octagona</i>																						
Hipponicidae			16.2																			
<i>Malea pomum</i>																						
<i>Nerita picea</i>						7.1																
Ranellidae																						
<i>Strombus</i> spp.											19.9											
<i>Tellinidae palatam</i>													8.8									
<i>Trochus</i>																			0.2			
<i>Turbo sandwicensis</i>				66.6																		
Turrid																						
Vermetidae			0.3																			
BIVALVES																						
<i>B. crebristriatus</i>					9.8																	
<i>Chama</i> spp.																						
<i>Ctena bella</i>										1.9												
<i>Isognomon</i>													0.6									
<i>Periglypta reticulata</i>											2.5											
<i>Pteria</i> spp. (pearl shell)																5.2						0.7
Unident. Shell																		1.1				
SEA URCHINS																						
<i>Echinometra mathaei</i>																						
<i>Echinometra oblonga</i>																						
<i>H. mammilatus</i>																						
Crab claws																						

INVERTEBRATES - TEST UNIT 12, STRATUM II							
	SW-14-12	SW-14-13	SW-14-14	SW-14-15	SW-14-16	SW-14-17	SW-14-18
Provenience	12	13	14	15	16	17	18
Depth (cmbd)	133-150	133-150	133-150	133-150	133-150	133-150	133-150
Weight (g)							
GASTROPODS							
<i>Coralliophila violacea</i>							
<i>Cymatium</i> spp.							
<i>C. caputserpentis</i>							
<i>Diodora octagona</i>							
Hipponicidae				0.9			
<i>Malea pomum</i>							
<i>Nerita picea</i>	0.1						
Ranellidae							
<i>Strombus</i> spp.		0.5					
<i>Tellinidae palatam</i>							
<i>Trochus</i>							
<i>Turbo sandwicensis</i>			0.7				
Turrid							
Vermetidae							
BIVALVES							
<i>B. crebristriatus</i>							
<i>Chama</i> spp.						0.9	
<i>Ctena bella</i>							
<i>Isognomon</i>							
<i>Periglypta reticulata</i>							
<i>Pteria</i> spp. (pearl shell)							
Unident. Shell							0.4
SEA URCHINS							
<i>Echinometra mathaei</i>							
<i>Echinometra oblonga</i>							
<i>H. mammilatus</i>					0.4		
Crab claws							

CERAMICS, TEST UNIT 13									
Provenience	NE-15-1-00	NE-15-1-00	NW-15-1-00	NW-15-1-00	SE-15-1-00	SE-15-1-00	SW-15-1-00	SW-15-1-00	SW-15-1-00
Stratum	II	II	II	II	II	II	II	II	II
Depth (cmbd)	20-35	20-35	20-30	20-30	20-30	20-30	19-30	19-30	19-30
Paste	Earthenware	Redware	Earthenware	Whiteware	Whiteware	Porcelain	Porcelain	Porcelain	Redware
Portion		body sherd sewer pipe with brown glaze		body sherd black transfer print palm tree design	body sherd	body sherd black backing	rim sherd	body sherd Thin sherd with black backing	body sherd Medium thickness; possibly flower pot
Description	tile		tile				Thick		
Number	1	1	1	1	1	3	1	2	1
Weight (g)	0.8	2.8	3.4	3.6	1.2	0.7	68.8	0.9	7.2

GLASS, TEST UNIT 13									
Provenience	NE-15-1-00	NE-15-1-00	NE-15-1-00	NE-15-1-00	NE-15-2-00	NE-15-2-00	NW-15-1-00	NW-15-1-00	SE-15-1-00
Stratum	III	III	III	III	III	III	II	II	II
Depth (cmbd0)	35-70	35-70	35-70	35-70	35-70	35-70	20-30	20-30	20-30
Color (body sherds)	Dark olive	Green	Amber	Clear	Amber	Window glass	clear	Amber	Dark olive
Number	2	1	3	7	1				2
Weight (g)	3.8	0.8	1.2	9.1	0.1	2.9	13.4	1.2	8.5

GLASS, TEST UNIT 13						
Provenience	SE-15-1-00	SE-15-1-00	SE-15-1-00	SW-15-1-00	SW-15-1-00	SW-15-1-00
Stratum	II	II	II	II	II	II
Depth (cmbd0)	20-30	20-30	20-30	19-30	19-30	19-30
Color (body sherds)	Aqua	Clear	Clear; textured	mirror frag.	Clear	amber
Number	2	10	1	1	8	2
Weight (g)	1.8	29.3	5.8	0.2	14.2	0.3

MISCELLANEOUS REMAINS, TEST UNIT 13, STRATUM II AND III											
Provenience	NE-15-1-00	NE-15-2-00	NE-15-3-01	NE-15-3-02	NW-15-1-00	NW-15-3-12	SE-15-1-00	SE-15-3-12	SW-15-1-00	SW-15-2-12	SW-15-3-15
Stratum	II	II	III	III	II	III	II	III	II	III	III
Depth (cmbd)	20-35	35-70	70-74	70-74	20-30	70-85	20-30	70-82	19-30	30-70	70-95
Brick	2.3					5.3	1.8		3.8		
Basalt	11		4.5			1.6	6.4	3.1	3.9		0.1
Charcoal	2.4	0.4		0.4		0.4		1.1		1.7	0.8
Ferrous metal fragments		22.6				1					
Wire Nails	9.9					30.9		28.5			
Can frag.						24.8			0.7		
Wire						1.2					

MARINE SHELL, TEST UNIT 13, STRATUM II AND III																			
Provenience	NE-15-1-00	NE-15-2-00	NE-15-3-01	NW-15-1-0	NW-15-2-00	NW-15-3-01	SE-15-1-00	SE-15-2-00	SE-15-3-01	SW-15-00	SW-15-2-01	SW-15-2-02	SW-15-2-03	SW-15-2-04	SW-15-2-05	SW-15-2-06	SW-15-2-07	SW-15-2-08	SW-15-2-09
Stratum	II	III	III	II	III	III	II	III	III	II	III								
Depth (cmbd)	20-35	35-70	70-74	20-30	30-70	70-85	30	70	82	30	70	70	70	70	70	70	70	70	30-70
GASTROPODS																			
<i>Conus</i> spp.	15.4		9.2		4.9	0.8	1.8	1.3		17.7									
<i>C. caputserpentis</i>					0.5	2.0		4.6											
<i>Diodora octagona</i>			0.2			0.2	0.1												0.1
Hipponicidae	3.6	14.9	16.8	7.9	15.0	20.3	9.6	30.8	12.2	13.4			20.4						
<i>Nerita picea</i>	2.7	1.0	0.9	4.5	0.7		9.6	2.3		10.7									
<i>Ranellidae</i>						0.5													
<i>Strombus</i> spp.		2.2			2.9	2.1	4.2	0.6	2.7	1.7					2.2				
<i>Trochus intextus</i>			0.4					4.4	3.3	4.0					2.2				
<i>T. sandwicensis</i>	10.4	2.9	6.0	3.9	9.5	21.1	16.3	16.9	7.6	13.3		12.7							
<i>Vermetidae</i>									0.1										
BIVALVES																			
<i>B. crebristriatus</i>	0.7	6.3	20.1	3.0	12.5	43.2	1.5	40.8	18.7	7.7	19.3								
<i>Ctena bella</i>	2.0	6.6	5.0	1.3	4.9	9.8	4.1	10.5	7.1	5.5					8.9				
<i>P. reticulata</i>									0.5										
<i>Pteria</i> spp.	1.5			0.2			0.4												
<i>Tellinia palatam</i>	4.5		0.6	6.5			7.8			3.2							1.2		
Unidentified Bivalve			0.7																
Unidentified Shell			3.6			5.4	7.6		3.3										
SEA URCHINS																			
<i>E. calamaris</i>		0.1		0.1			0.1												
<i>E. oblonga</i>	2.3			1.4				0.1		0.7									
<i>H. mammillatus</i>	0.5						0.1			4.7									0.1
OTHER																			
Coral							7.6		8.1										
Unsorted Shell	14.8	2.4		16.3	9.2	9.9		464.6		31.3									
BONE																			
Fish																			
Sm.-med. mammal				0.6															
Unidentified Bone	4.8			14.5	0.1		8.3												

MARINE SHELL, TEST UNIT 13, STRATUM II AND III																			
Provenience	SW-15-2-10	SW-15-2-11	SW-15-2-13	SW-15-2-14	SW-15-2-15	SW-15-3-01	SW-15-3-02	SW-15-3-03	SW-15-3-04	SW-15-3-05	SW-15-3-06	SW-15-3-07	SW-15-3-08	SW-15-3-09	SW-15-3-10	SW-15-3-11	SW-15-3-12	SW-15-3-14	SW-15-3-13
Stratum	III																		
Depth (cmbd)	30-70	30-70	30-70	30-70	30-70	70-95	70-95	70-95	70-95	70-95	70-95	70-95	70-95	70-95	70-95	70-95	70-95	70-95	70-95
GASTROPODS																			
<i>Conus</i> spp.																			1.2
<i>C. caputserpentis</i>													0.4						
<i>Diodora octagona</i>																			
Hipponicidae							19.3												
<i>Nerita picea</i>								0.2											
Ranellidae																			
<i>Strombus</i> spp.																			
<i>Trochus intextus</i>																			
<i>T. sandwicensis</i>										14.5									
Vermetidae																			0.1
BIVALVES																			
<i>B. crebristriatus</i>						24.2													
<i>Ctena bella</i>									9.0										
<i>P. reticulata</i>																			
<i>Pteria</i> spp.																			
<i>Tellinia palatam</i>																			
Unidentified Bivalve																			
Unidentified Shell		4.1																	6.6
SEA URCHINS																			
<i>E. calamaris</i>																			0.1
<i>E. oblonga</i>																			
<i>H. mamillatus</i>																			0.6
OTHER																			
Coral	27.2																		7.5
Unsorted					154.4														
BONE																			
Fish			1.8																
Sm.-med. mammal				27.4															0.3
Unidentified Bone																			

INVERTEBRATES, T.U. 13									
SUMMARY									
Marine Shell									
Provenience	NE	NE	NW	NW	SE	SE	SW	SW	
Stratum	II	III	II	III	II	III	II	III	
GASTROPODS									TOTALS
<i>Comus</i> spp.	15.4	9.2		5.7	1.8	1.3	17.7	1.2	52.3
<i>Cypreaeidae caputserpentis</i>				2.5		4.6		0.4	7.5
<i>Diodora octagona</i>		0.2		0.2		0.4		0.1	0.9
Hipponicidae	3.6	31.7	7.9	35.3	9.6	43.0	13.4	39.7	184.2
<i>Nerita picea</i>	2.7	1.9	4.5	0.7	9.6	2.3	10.7	0.2	32.6
<i>Ranellidae</i>				0.5					0.5
<i>Strombus</i> spp.		2.2		5.0	4.2	3.3	1.7	2.7	19.1
<i>Trochus intextus</i>		0.4				7.7	4.0	4.1	16.2
<i>Turbo sandwicensis</i>	10.4	8.9	3.9	30.6	16.3	24.5	13.3	27.2	135.1
<i>Vermetidae</i>						0.1		0.1	0.2
BIVALVES									
<i>Brachidontes crebristriatus</i>	0.7	26.4	3.0	55.7	1.5	59.5	7.7	43.5	198.0
<i>Ctena bella</i>	2.0	11.6	1.3	14.7	4.1	17.6	5.5	17.9	74.7
<i>Periglypta reticulata</i>						0.5			0.5
<i>Pteria</i> spp.	1.5		0.2		0.4				2.1
<i>Tellinia palatam</i>	4.5	0.6	6.5		7.8		3.2	1.2	23.8
<i>Echinometra oblonga</i>	2.3		1.4			0.1	0.7		4.5
Unidentified Bivalve		0.7							0.7
Unidentified Shell		3.6		5.4	7.6	3.3		10.7	30.6
TOTAL SHELL									
SEA URCHINS	43.1	97.4	28.7	156.3	62.9	168.2	77.9	149.0	783.5
<i>Echinothrix calamaris</i>		0.1	0.1		0.1			0.1	0.4
<i>H. mammillatus</i>	0.5				0.1		4.7	0.7	6.0
Coral					7.6	8.1		34.7	50.4
Unsorted invertebrates	14.8	2.4	16.3	19.1		464.6	31.3	154.4	702.9
BONE									
Fish								1.8	1.8
Sm.-med. mammal			0.6						0.6
Unidentified Bone	4.8		14.5	0.1	8.3			27.7	55.4
TOTALS	63.2	99.9	60.2	175.5	79.0	640.9	113.9	368.4	1601.0

RECOVERED MATERIAL, FEATURES FROM TEST UNIT 13												
Provenience	F1-15-01	F1-15-02	F1-15-03	F1-15-04	F1-15-05	F1-15-06	F1-15-07	F1-15-08	F2-15-00	F3-15-00	F4-15-01	F4-15-03
Depth (cmbd)	41-56	41-56	41-56	41-56	41-56	41-56	41-56	41-56	41-50	41-51	41-51	41-51
GASTROPODS												
<i>Cellana sandwincensis</i>							0.1					
<i>Conus</i> spp.												
<i>Cypraea caputserpentis</i>												
<i>Hipponicidae</i>			0.5									
<i>Nerita picea</i>	0.9											
<i>Strombus</i> spp.										0.4		
<i>Turbo sandwicensis</i>				0.8						0.9		
<i>Vermetidae</i>												
BIVALVES												
<i>Brachidontes crebristriatus</i>										0.1	0.3	
<i>Ctena bella</i>					0.1					0.2		0.1
<i>Pteria</i> spp.						0.1						
<i>Tellinidae palatam</i>												
Misc. Bivalve												
Misc. shell												
SEA URCHINS												
<i>Echinometra oblonga</i>												
<i>H. mammillatus</i>		0.3										
OTHER												
coral												
Unsorted basalt									456.5			
charcoal												
Faunal												
Fish bone												
Colorless glass								0.1				
Misc.												

**Archaeological Monitoring Plan for
Improvements to the Royal Hawaiian and Sheraton Hotels
Waikīkī, Kona District, O‘ahu
TMK: [1] 2-6-002:005, 006, & 026**

**Prepared for
Wilson Okamoto Corporation**

**Prepared by
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**Cultural Surveys Hawai‘i, Inc.
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December 2007

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Management Summary

Reference	Archaeological Monitoring Plan for Improvements to the Royal Hawaiian and Sheraton Hotels Waikīkī, Kona District, O‘ahu TMK: [1] 2-6-002:005, 006, & 026 (Runyon, Shideler and Hammatt 2007)
Date	December 2007
Project Number (s)	Cultural Surveys Hawai'i Inc. (CSH) Project Code: WAIKIKI 17
Investigation Permit Number	CSH performed recent subsurface survey fieldwork under state archaeological permit number 07-19, issued by State of Hawai'i Department of Land and Natural Resources / State Historic Preservation Division (DLNR / SHPD). The indicated monitoring work may be performed under the same permit number and a subsequent permit to be issued for 2008.
Project Location	This study focuses on the lands of the Royal Hawaiian Hotel and Sheraton Waikiki Hotel in central Waikīkī on the south shore of O‘ahu
Tax Map Keys and Recorded Fee Owner	<p>TMK [1] 2-6-2: 5 (10.3 Acres) Kyo-ya Hotels & Resorts LP BP Bishop Trust Estate</p> <p>TMK [1] 2-6-2: 6 (3.5 Acres) Kyo-ya Hotels & Resorts LP</p> <p>TMK [1] 2-6-2: 26 (0.9 Acres) For interest shareholders please see Exhibit A (Appendix A)</p>
Agencies	The State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR)
Project Description	Proposed renovation work may include a wide variety of subsurface impacts including installation of certain construction infrastructure such as dust screens, silt fences, plywood barricades, wash down areas, and pits. There will be demolition of a number of existing walls and pools and pool decks, as well as the Sheraton Grand staircase. Minor excavation will be associated with the construction of a new two-tier resort pool between the Royal Hawaiian and the Sheraton Waikiki. The Royal Hawaiian swimming pool will be re-worked. The round-about in front of the Sheraton Waikiki entrance will be re-worked. Various new screen walls, retaining walls, utility lines, curbs, signs, driveways, walkways and landscaping efforts will also involve subsurface impacts. The vast majority of the subsurface impacts of the renovation work should be entirely within existing fill deposits or within fill deposits to be imported as part of the project.
Project Acreage	The area of the Royal Hawaiian Hotel and Sheraton Waikiki resorts is understood as approximately 601,205 square feet (13.8 acres or 55,853 m ²).

Area of Potential Effect (APE) and Survey Acreage	The Area of Potential Effect is understood as any portions of the hotels and grounds in which renovation related subsurface work may impact natural sediments potentially including cultural resources and/or human remains.
Historic Preservation Regulatory Context	This archaeological monitoring plan (Runyon, Shideler and Hammatt 2007) is intended for review and approval by the SHPD. This plan was prepared per the requirements of Hawai'i Administrative Rules HAR 13-279-4
Number of Historic Properties Identified	The Royal Hawaiian Hotel and Sheraton Waikiki hotels are not listed on the State or National Registers of Historic Places. The only formal site in the vicinity is Site # 50-80-14-5937 a human burial on the grounds of the Royal Hawaiian Hotel.
Mitigation Recommendation	On-site archaeological monitoring is required for all ground disturbance activities into both disturbed sand and undisturbed jaucas sand sediments. A qualified archaeologist will monitor all ground disturbance through these strata associated with the project construction.

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Section 1 Introduction

1.1 Project Background

Cultural Surveys Hawai'i, Inc. (CSH) was contacted regarding providing archaeological services in support of proposed renovations at the Sheraton Waikiki and Royal Hawaiian Hotel resorts in central coastal Waikīkī, O'ahu, Hawai'i (Figures 1-4). Potential ground disturbance is anticipated to occur in a number of areas during the course of major renovation work at the Sheraton Waikiki and Royal Hawaiian Hotel. This archaeological monitoring plan includes an overview of the proposed renovation work, a cultural history of the project area, a discussion of previous archaeological studies in the vicinity and recommendations to govern the archaeological monitoring during renovation work. Interests in these lands are held as follows: TMK [1] 2-6-2: 5 (10.3 Acres) Kyo-ya Hotels & Resorts LP and B P Bishop Trust Estate; TMK [1] 2-6-2: 6 (3.5 Acres) Kyo-ya Hotels & Resorts LP; TMK [1] 2-6-2: 26 (0.9 Acres), interests are held by numerous parties (see Appendix A).

This archaeological monitoring plan (Runyon, Shideler and Hammatt 2007) is intended for review and approval by the SHPD. This plan was prepared per the requirements of Hawai'i Administrative Rules HAR 13-279-4

1.2 Environmental Setting

1.2.1 Natural Environment

The project area is flat and averages 2 to 3 meters above mean sea level. The average rainfall in this coastal area of Waikīkī is between 20-30 inches per year, with temperatures ranging from 60 to 85 degrees Fahrenheit (Armstrong 1973:56). Northeasterly trade winds prevail throughout the year, although their frequency varies from more than 90% during the summer months to 50% in January; the average annual wind velocity is approximately 10 miles per hour (Okamoto 1998:2-1).

Although the area has been graded the natural soil deposit is Jaucus sand (JaC), and Beaches (BS) (Figure 4), calcareous soils developed in wind and water deposited sand from coral and seashells (Foote et al. 1972).

A major feature of the immediate project area until it was filled in c. 1922 was the outlet of 'Āpuakēhau Stream (shown in several figures throughout this report). This stream formed a lagoonal backwater (*muliwai*) just back from the coast. It appears that the configuration of the stream mouth changed significantly shortly before it was filled in. It is understood that the *muliwai* entered the sea where the east side of the Royal Hawaiian Hotel is today but by 1919 the stream appears to have been straightened and shortened to enter the sea further to the east, between the present Moana and Royal Hawaiian Hotels.

The project lands were famous as the locus of the Helumoa cocconut grove (see Figures 6 and 7) said to have been planted by the ruling chief Kākuhihewa and to have included nearly 10,000 palm trees (Hibbard and Franzen 1986:4 & 5). It is popularly understood that a portion of the Helumoa grove "still stands on the Royal Hawaiian Hotel grounds today." (Hibbard and

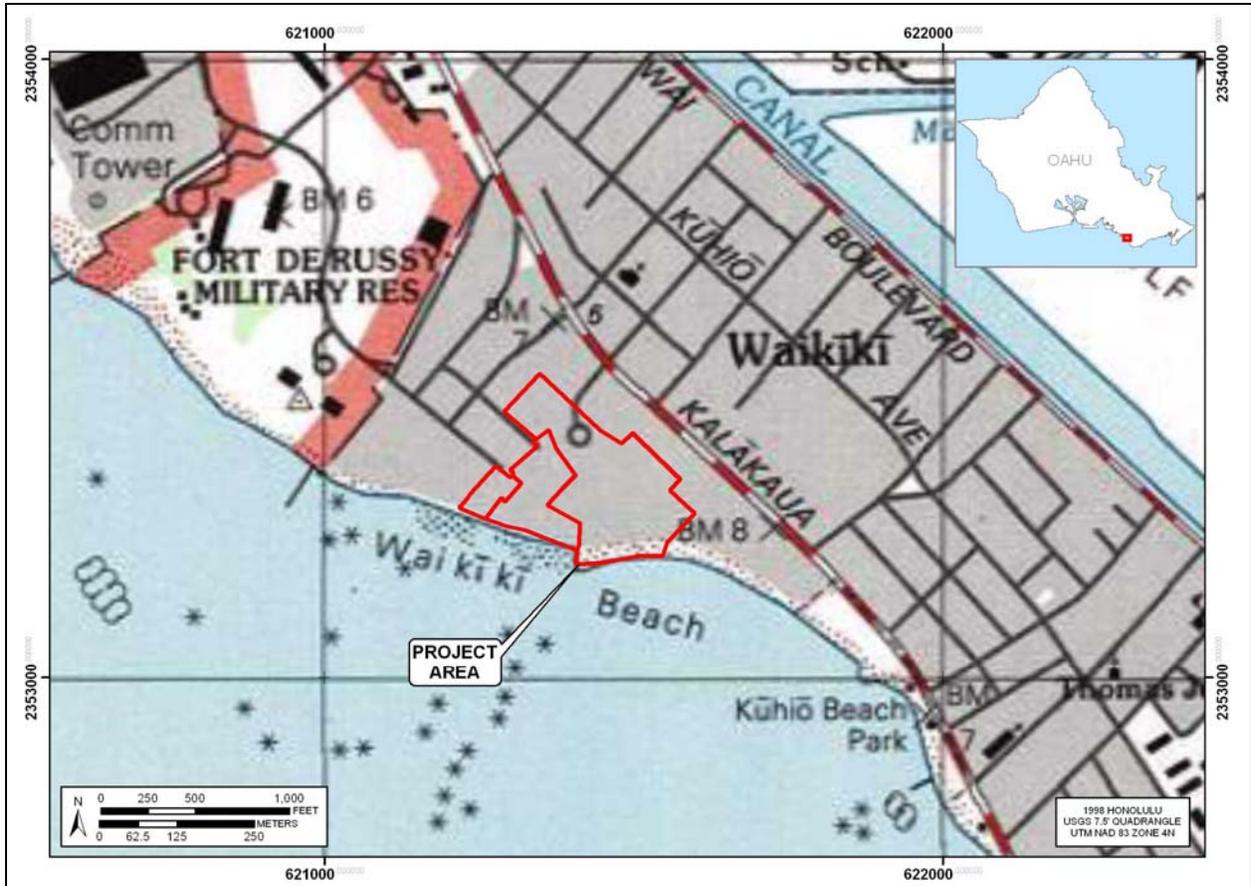


Figure 1. Portion of 1998 Honolulu USGS 7.5 Topographic Quadrangle Map, with overlay of the Sheraton Waikiki and Royal Hawaiian property

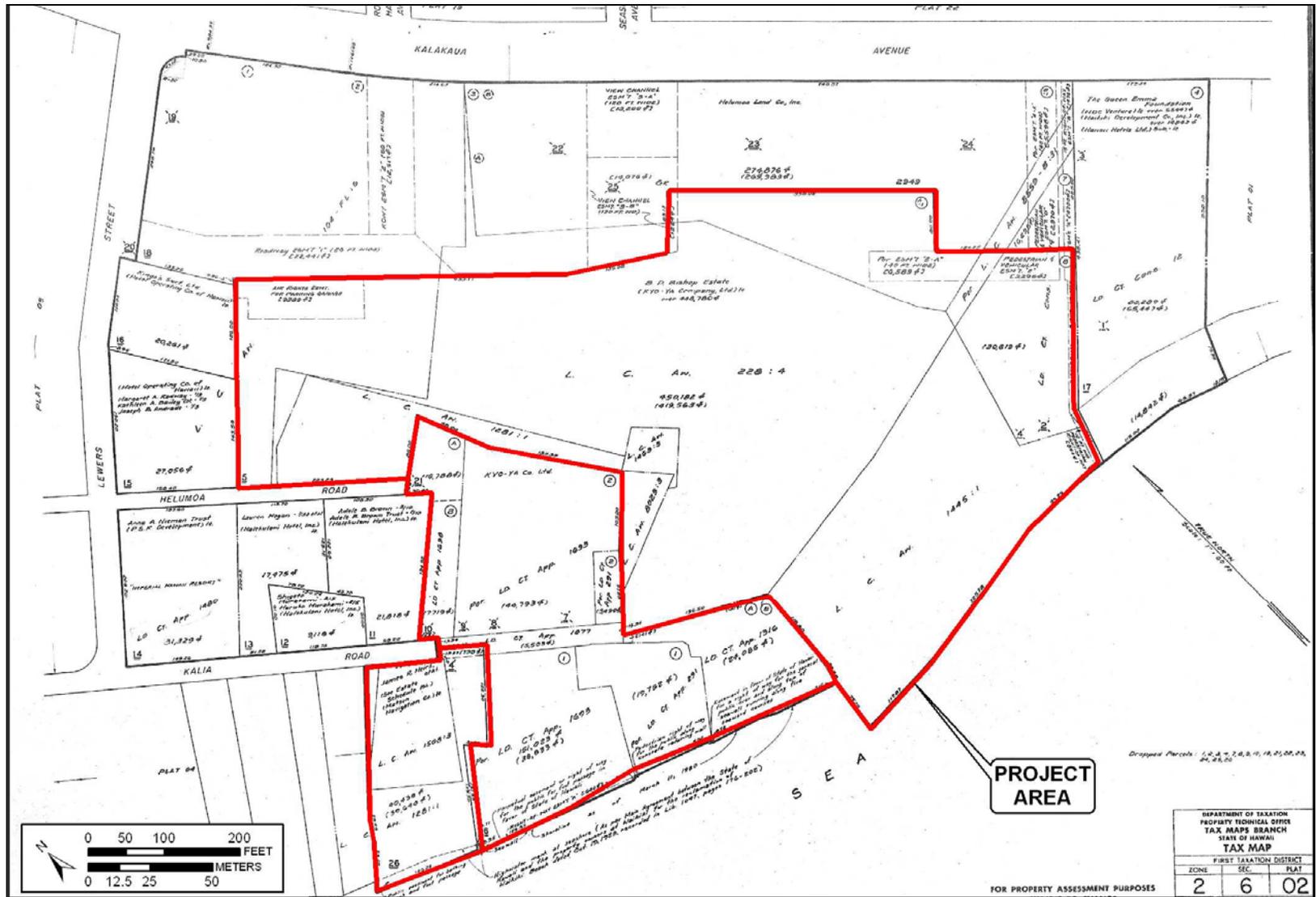


Figure 2. Tax Map [1] 2-6-002 with overlay of with overlay of the Sheraton Waikiki and Royal Hawaiian property



Figure 3. Portion of a 2005 USGS orthophoto quadrangle, aerial photo with overlay of the Sheraton Waikiki and Royal Hawaiian property

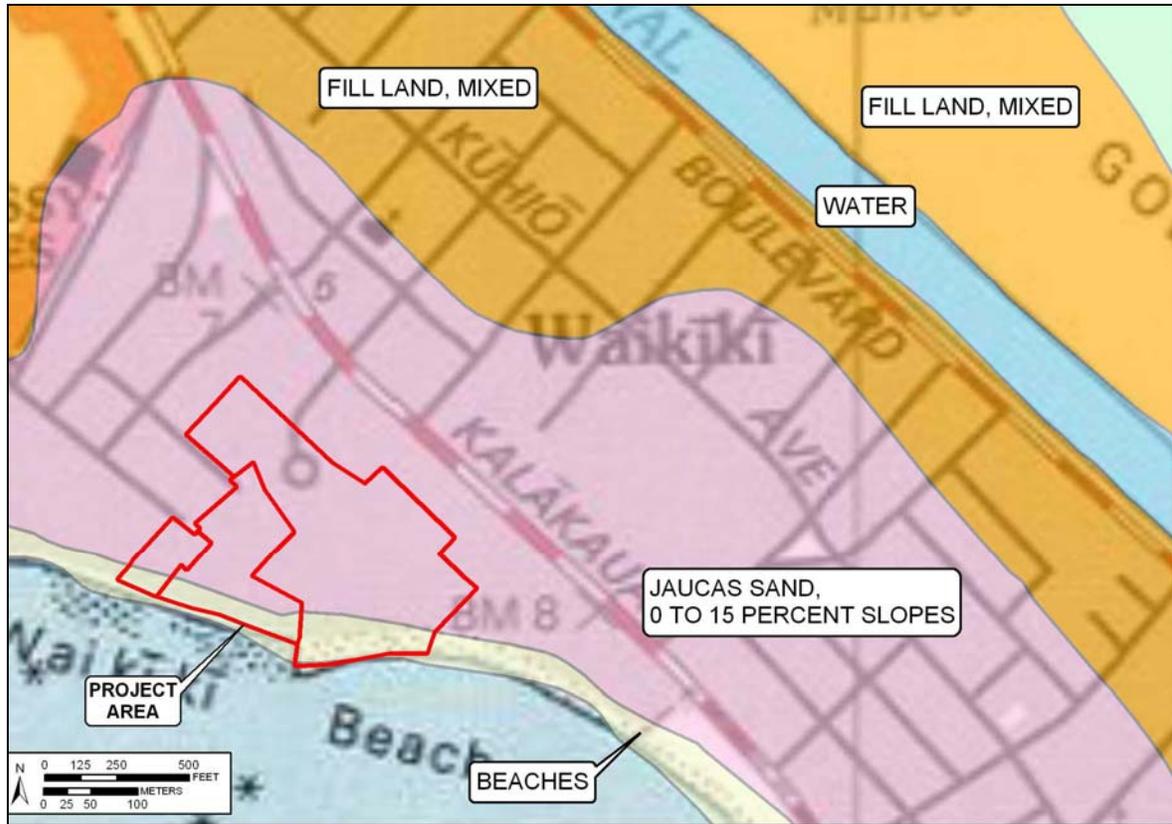


Figure 4. Portion of 1998 Honolulu USGS 7.5 Topographic Quadrangle Map, showing the project area soils

Franzen 1986:7) Generally, vegetation in the Waikīkī area today includes mainly introduced exotics, such as Banyan, MacArthur Palm, Brassia, Coconut, Plumeria, Money, Alexander Palm, Manila Palm, Date Palm, Fern, Monkey Pod, Tulip Wood, and Opiuma trees and a variety of grasses.

1.2.2 Built Environment

The Royal Hawaiian Hotel was formally opened on February 1 1927 and with a maximum height of 150 feet was the tallest privately owned building in the Territory at that time (Hibbard and Franzen 1986:99).

The thirty-one story Sheraton Waikiki was completed in 1971 and with 1,904 rooms was the largest resort hotel in the world at that time (Hibbard and Franzen 1986:165).

1.3 Nature of Proposed Work Involving Ground Disturbance

A renovation project of this scale inevitably involves quite a variety of subsurface impacts (Figures 5 to 8). These will begin with installation of certain construction infrastructure including dust screens, silt fences, plywood barricades, wash down areas, and wash down pits some of which will involve small support excavations to a depth of 4 feet. There will be demolition of a number of existing walls and pools and pool decks, as well as the Sheraton Grand staircase. The round-about in front of the Sheraton Waikiki entrance will be re-worked (Figure 5). Minor excavation will be associated with a new two-tier resort pool (Figures 6) between the Royal Hawaiian and the Sheraton Waikiki. The Royal Hawaiian swimming pool will be re-worked. Various new screen walls, retaining walls, utility lines, curbs, signs, driveways, walkways and landscaping efforts will also involve subsurface impacts.

As explained the vast majority of the subsurface impacts of the renovation work should be entirely within existing fill deposits or within fill deposits to be imported as part of the project. The archaeological subsurface survey associated with the renovation project did indeed document very thick fill deposits in some areas. The archaeological subsurface survey associated with the renovation project targeted two areas of particular concern: the present round-about in front of the Sheraton Waikiki entrance and the area of the proposed resort pool. The former was shown to have quite thick fill deposits and we have little concern for disturbance of intact culture bearing sediments in that area. The fill deposits in the resort pool area between the Royal Hawaiian and the Sheraton Waikiki were not quite as thick throughout as hoped but the underlying strata are quite disturbed by previous development efforts.

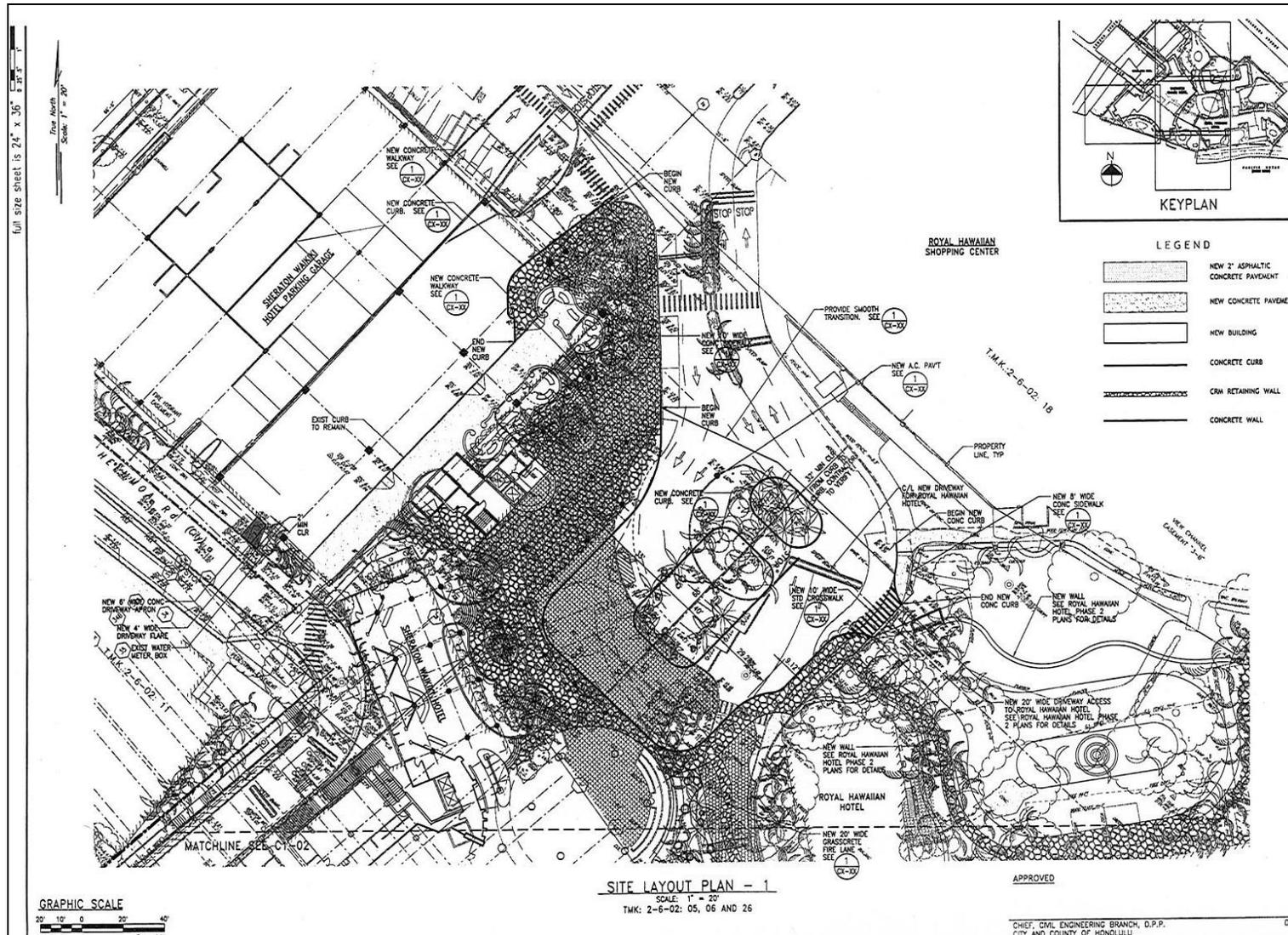


Figure 5. Renovation Site Layout Plan 1 showing re-working of the round-about in front of the Sheraton Waikiki entrance

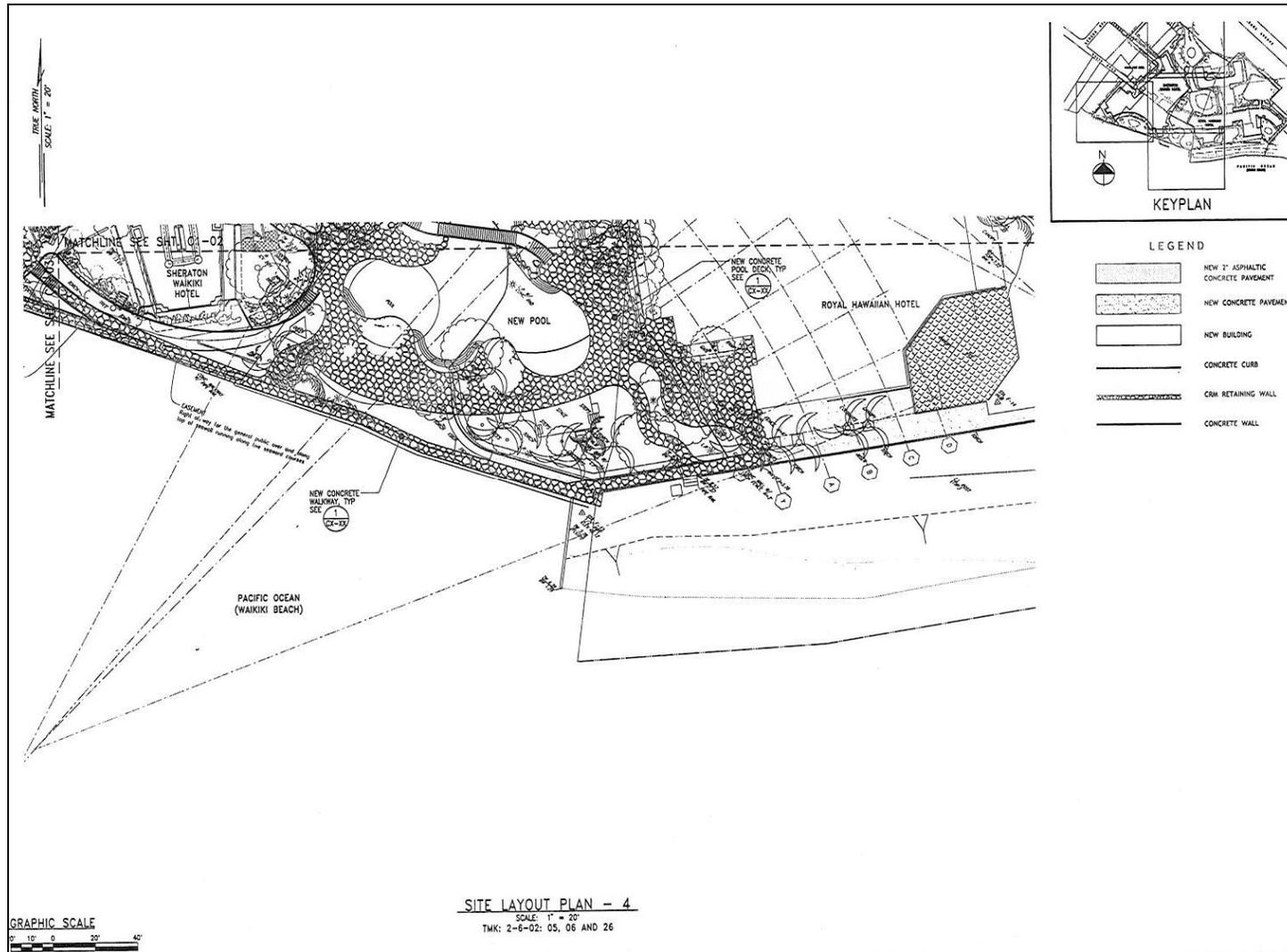


Figure 6. Renovation Site Layout Plan 4 showing seaward portion of the new two tier resort pool between the Royal Hawaiian and the Sheraton Waikiki

Section 2 Background Research

2.1 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. Kanahele (1995:134) notes the continuity in the royal residences and provides the following account:

The royal residences were generally located in the same areas that all of Waikīkī's ancient chiefs had located their residences for hundreds of years. Kamehameha V's residence, for example, was at Helumoa where Kamehameha I's *kauhale*, or residence, was, as was Kahekili's and Kahahana's before him. His cottage stood on the site now occupied by the Royal Hawaiian Hotel; some identify the exact site as the hotel's present *lū'au* grounds (between the rear or *mauka* side of the hotel and the *makai* side of the Royal Hawaiian Shopping Center)

Kanahele (1995:134-1345) goes on to explain that: "Three features were common to royal locations in Waikīkī. They were situated 1) near the beach, 2) next to a stream or 'Auwai (canal) and 3) among a grove of cocoanut or *kou* trees." This account fits Helumoa particularly well with its famous cocoanut grove (Figures 7 & 8). It may well be that the immediate vicinity of the present Royal Hawaiian Hotel was a center of the royal court of O'ahu for centuries - as Kanahele indicates.

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 wresting control of O'ahu by defeating the island's chief, Kalanikūpule. Following his conquest of O'ahu in 1795 it is understood that Kamehameha I set up court at Pua'ali'ili'i "an area in Waikīkī that included all of Helumoa and 'Āpuakēhau" (Hibbard and Franzen 1986:2). This is understood as the lands of the present Royal Hawaiian Hotel extending to the east as far as the present Moana Hotel. (Hibbard and Franzen 1986:3). The 19th-century Hawaiian historian John Papa 'Ī'i (1959:17), himself a member of the *ali'i* (chiefly class), described the king's Waikīkī residence:

Kamehameha's houses were at Puaaliilii, *makai* of the old road, and extended as far as the west side of the sands of 'Āpuakehau. Within it was Helumoa where Ka'ahumanu mā went to while away the time. The king built a stone house there, enclosed by a fence . . . ('Ī'i 1959:17).

'Ī'i 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" ('Ī'i 1959:17). 'Ī'i provides more specific data in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 declaring that "Kamehameha himself lived on this land." (Appendix C, page C-4). The land referred to is basically a strip running just *mauka* of the Royal Hawaiian Hotel and just *makai* of the Royal Hawaiian Shopping Center – as Kanahele asserts above.



Figure 7. View of Helumoa Coconut grove c. 1870s (Royal Hawaiian Hotel location), view to east (adapted from Hibbard and Franzen 1986:4)



Figure 8. View of the 'Āpuakēhau Stream *muliwai* or lagoonal backwater c. 1880s, Helumoa grove in background, view to west, believed to be a view *mauka* of the present Kalākaua Avenue (adapted from Hibbard and Franzen 1986:4)

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 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 “Whyteete” 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 waterfowl 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 Hawaiians.

2.2 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 dry land agricultural plots, though on a greatly reduced scale than had been previously possible with adequate manpower.

The Sheraton Waikiki/Royal Hawaiian Hotel project area was a patchwork of thirteen Land Commission Awards circa 1850. The Land Commission Award (LCA) documentation is provided in detail in Appendix C of this study and is summarized in Table 1. The location of many of these LCAs are shown on the 1881 Bishop map (Figure 9) and subsequent Land Court Application documents (Figure 10).

It appears that many of the LCAs were primarily residential and were awarded to loyal retainers of the Kamehameha dynasty. In 1847 John 'Ī'ī stated in testimony regarding LCA 228 granted to Kaleiheana:

. . . I have seen this land and these names which are written in this claim document are the attendants of Kameameha 1 [sic. Kamehameha the Great]. Their work was taking care of the house and preparing the food. These people were in constant contact with the chiefs and were close to each and every chief. When Kamehameha I died, they continued to live on the property and when the chief returned from Hawaii Kaleiheana went to live there. These people have lived there since Kamehameha II to Kaahumanu's reign, and to the year 1846 when Kuluwailehua had raised objections. (John 'Ī'ī's testimony regarding LCA 228 granted to Kaleiheana; see Appendix page B-5)

It is further stated that Kamehameha I lived on this land until his death and subsequently the land has been the resting place for the chiefs down to Kamehameha V. Many of the recipients of the LCAs indicated they were either "under" some adjacent party or had other parties "under" them on their land suggesting a continuity of high status parties in the mid-1800s.

Table 1. Land Commission Awards in Project Lands

LCA #	Claimant	Traditional Names	General Location	Comments
104 FL	Kekuanaoa	Kapuni	NW Sheraton	House site, also claimed 2 <i>lo'i</i> , 5 fish ponds and 1 <i>muliwai</i> elsewhere at Waikīkī.
228	Kalaiheana Kaleiheana	Helumoa	N Sheraton N Royal Hawaiian Hotel	Claims cocoonut grove at Helumoa with stream called Apukokohau adjacent, six with own houses living under claimant
822	Okuu	Helumoa	S end of Sheraton	House lot claim with an adobe fence and five houses; Kupanihi, Kini & Ku are house owners
1281	Kuluwai-lehua	References to Kamoku, Kamoku-akahi &	Central Sheraton	Difficult to differentiate between 5 Waikīkī land claims

LCA #	Claimant	Traditional Names	General Location	Comments
		Kamoku elua [Kamoku 1 & 2] – these appear to be variants of the more common “Keomuku”		
1379	Kapule II	Keaumoku [understood as a variant of “Keomuku”]	S Sheraton	House lot claim with a large house, a little house and a fence
1385	Kaelemakule	Keomuku	S Sheraton	House lot claim
1445	Kanemakua	Helamoa [sic. “Helumoa”]	Central Royal Hawaiian Hotel	House lot claim with 7 (variously 8) houses claimant owns 2 – seemingly other residents under the claimant are Kahanaumaikai, Kalaauli, Kaaia, Kahui & Ku
1463	Wahahe‘e	Helumoa		House lot claim with 1 house & a fence
1508	Kaho‘oululu	Pahupahuapua‘a	SW Sheraton	House lot claim partly fenced
1511	Kanae	Keonuku [understood as a variant of “Keomuku”]	S Sheraton	House lot claim
1782	Kahohe	Helumoa	SW Royal Hawaiian Hotel	House lot claim is bounded: <i>Mauka</i> by the cocoanuts of Helumoa, Kekaha by the <i>pāhale</i> belonging to Kanemakua, <i>Makai</i> by the sea shore, Honolulu by the <i>pāhale</i> of Okuu
2126	Keaho (Keoho)	Kuweluwelu, Keomukukai	S Sheraton	2 <i>puepue</i> , a <i>kula</i> and <i>pāhale</i> in one piece
8023	Aua	Keomuku	Central Sheraton	House lot claim bounded <i>mauka</i> by <i>loko</i> of Helumoa of ‘Ī‘Ī and <i>mauka</i> by the <i>kula</i> nui of Helumoa.

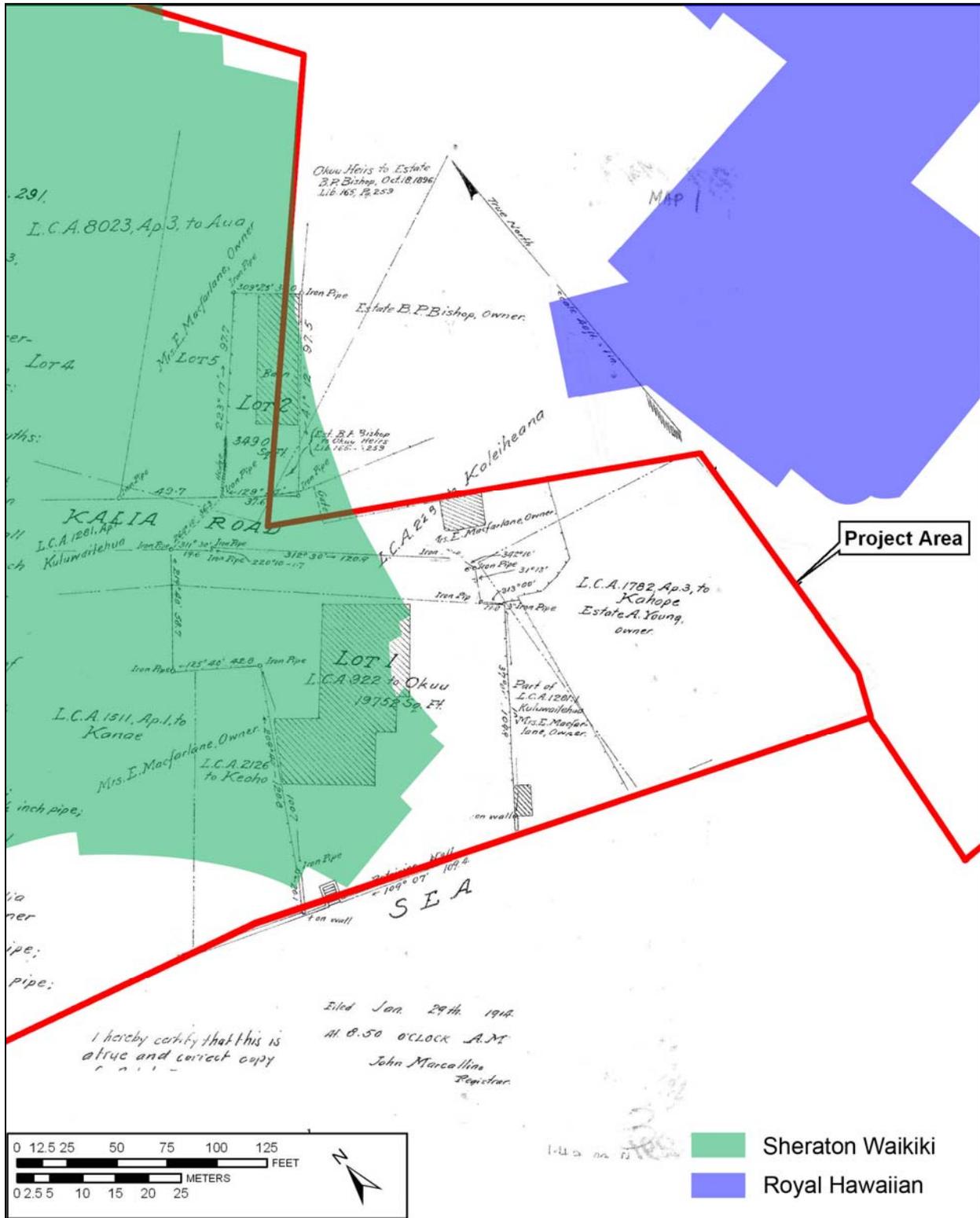


Figure 10. Portion of Land Court Application map 291 showing relationship of Sheraton and Royal Hawaiian to LCAs

A portion of LCA 1281 is located in the south-west portion of the SW Royal Hawaiian Hotel project area. This area of land was owned by Mrs. Macfarlane, as shown in a portion of the Land Court Petition No. 291. (Figure 10).

2.3 Mid to Late 1800s

The most notable establishment in the present project area in the late 1800s was “King Kamehameha V’s grass thatched cottage [that] was located among the famous 10,000 cocoanut trees of Helumoa” (Grant, Hymer 2000). Helumoa (“Resting Place”) became the King’s Park and Grove (Figure 11):

The most notable grass hut in Hawaii Nei . . . is the structure erected at Waikiki by Kamehameha V, who used it as his seaside bungalow . . . often (assembling) his cabinet meetings there and transacting much of his official business beneath the thatched roof . . . [There] in the early 1820’s, Liholiho (Kamehameha II), son of the conqueror, waged his battles with the bottle; the substantial grass house with its outbuildings, surrounded by an extensive royal cocoanut grove served as a beach hideaway” (E. B. Scott, 1968).

Kamehameha V, better known as Prince Lot, died in 1872. Through a succession of inheritance after his death, the land on which he rested on the shores of Waikiki, were left to



Figure 11. Kamehameha V’s house on the beach of Waikiki (E. B. Scott, 1968)

Princess Ruth Ke'elikōlani, who passed away in March of 1883, and ultimately it was given to Princess Bernice Pauahi Bishop: “the last direct descendant of Kamehameha I and sole heir to the crown lands” (Kamehameha Schools 2001). An 1893 map by W.A. Wall indicates the landowner was then Charles R. Bishop, Princess Bernice Pauahi Bishops husband (Figure 12). The Bishops built a large seaside residence with a big veranda on the seaward side that appears to have been in the inland portion of the present Southwest Royal Hawaiian Hotel study area.

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. 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 (Figure 13).

Hotels, bathhouses, and gathering places became established in the vicinity of the project area in the late 19th century. A particularly well known gathering place, the Waikiki Villa also known as the Hawaiian Annex with four apartments for overnight guests was built circa 1890 at the present location of the Sheraton Waikiki and was one of the first Waikīkī enterprises to rent rooms (Hibbard and Franzen 1986) (Figure 14).

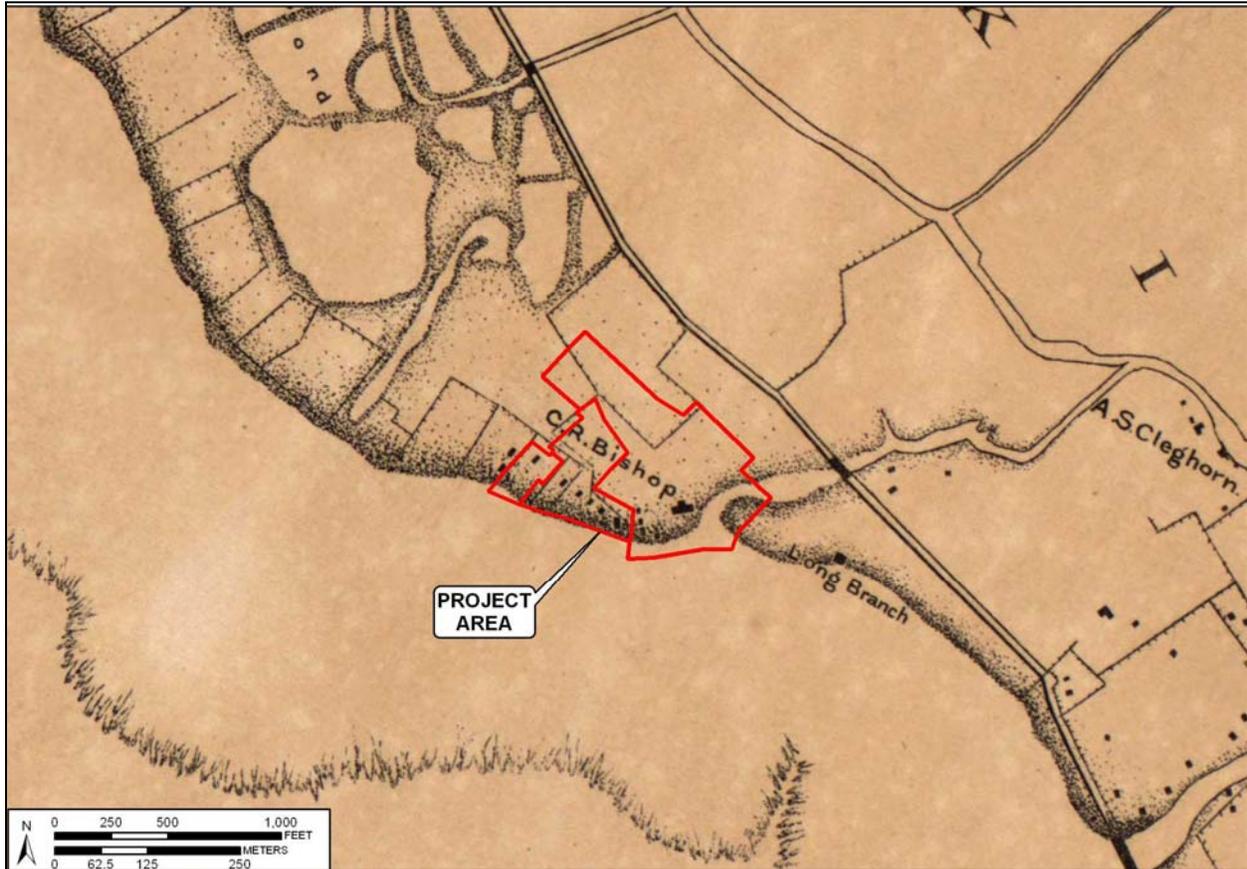


Figure 12. 1893 W.A. Wall map with overlay of the Sheraton Waikiki and Royal Hawaiian property, (note the outlet of ‘Āpuakēhau Stream)



Figure 13. Aerial Photograph of Waikīkī Before the Completion of the Ala Wai Drainage Canal with overlay of the Sheraton Waikiki and Royal Hawaiian property (Hawai'i State Archives)

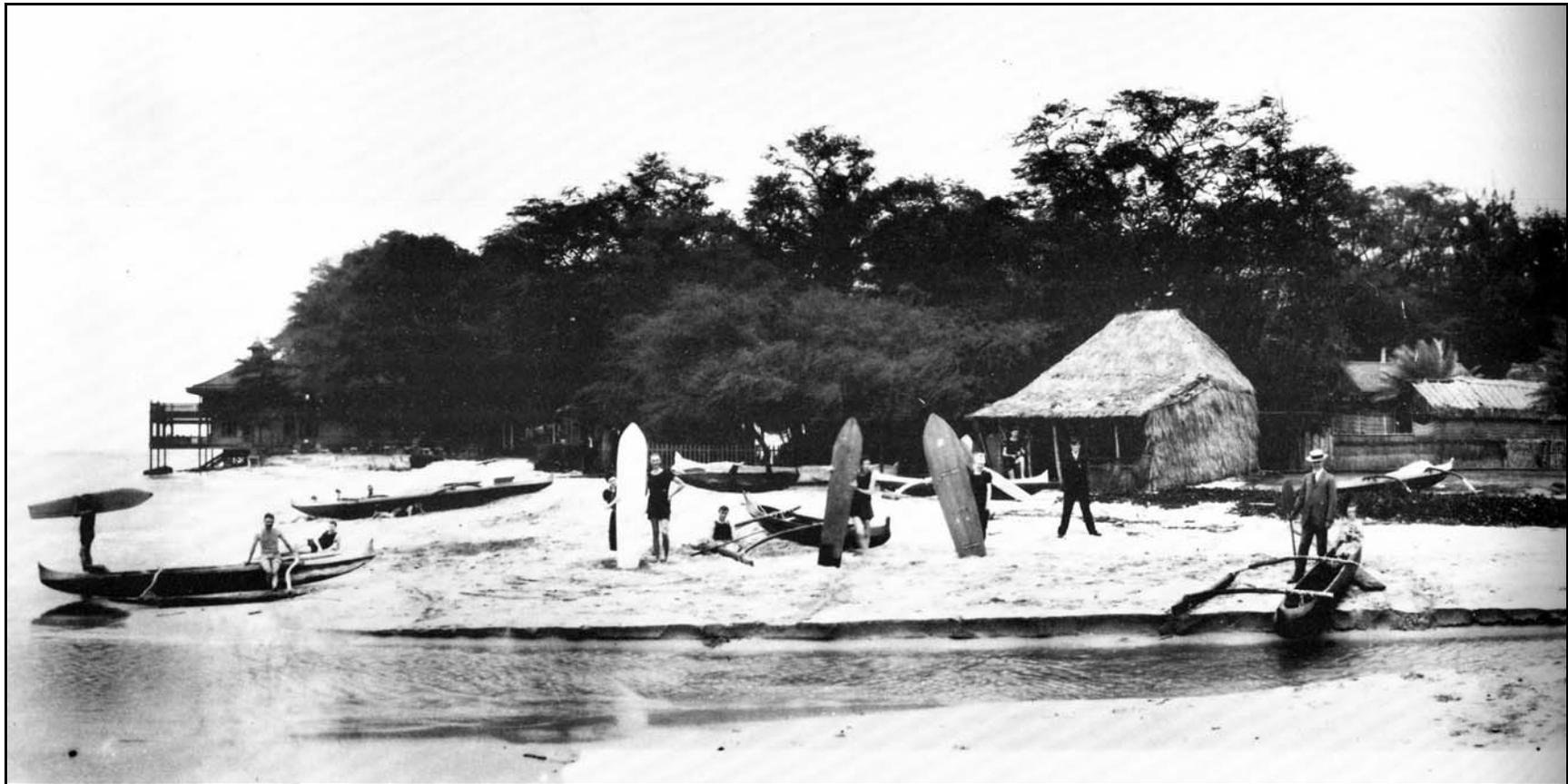


Figure 14. View of 'Āpuakēhau Stream *muliwai* or lagoonal backwater, circa 1909, the former Waikiki Villa or Hawaiian Annex (renamed the Honolulu Seaside in 1906) at extreme left, the “quaint” thatched houses of the Outrigger Canoe Club (former location) were not traditional habitations but had been imported from the defunct Kaimukī zoo (adapted from Hibbard and Franzen 1986:76)

2.4 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.

The Honolulu Seaside Hotel was opened in 1906 by George W. Macfarlane surrounded by ten acres of algarroba and cocconut palms incorporating the former Hawaiian Annex bathhouse (Hibbard and Franzen 1986:62). "The hotel was comprised of a number of cottages and tent houses which were scattered over the approximately ten-acre beach front site. The magnificent Hawaiian Annex bathhouse remained on the premises and was a favorite haunt of the hotel's guests. The Seaside advertised its beach as 'the finest part of the most delightful bathing beach in the world' and the management further proclaimed that it was 'strictly a high-class hotel in every respect' (Hibbard and Franzen 1986:62). In the mid 1920's the old Seaside Hotel, bathhouses and cottages were leveled to make way for the new Royal Hawaiian Hotel which opened on February 1, 1927 (Figure 15).

The Outrigger Canoe club web site offers the following history:

In May, 1908, the Outrigger Canoe Club came into being on an acre and a half of choice beachfront land located between the Moana and Seaside Hotels (site of the present Royal Hawaiian Hotel) leased from the Estate of Queen Emma for \$10 per year. On the land was a lagoon formed by 'Āpuakehau Stream which carried the waters of Mānoa, Pālolo and Makiki Streams into the ocean where some of the best surfing locations in the Islands could be found.

The first Clubhouse consisted of two grass houses purchased from a defunct Kaimuki zoo and transported to the grounds by Club members on a borrowed truck. One was used for storage of outrigger canoes; the other for dressing rooms. The broad lānais of both structures were used for social activities. Not long after, a grass-roofed pavilion was built over the lagoon for dances and larger social functions and a *hau* terrace became a family gathering place. After a fire in 1914

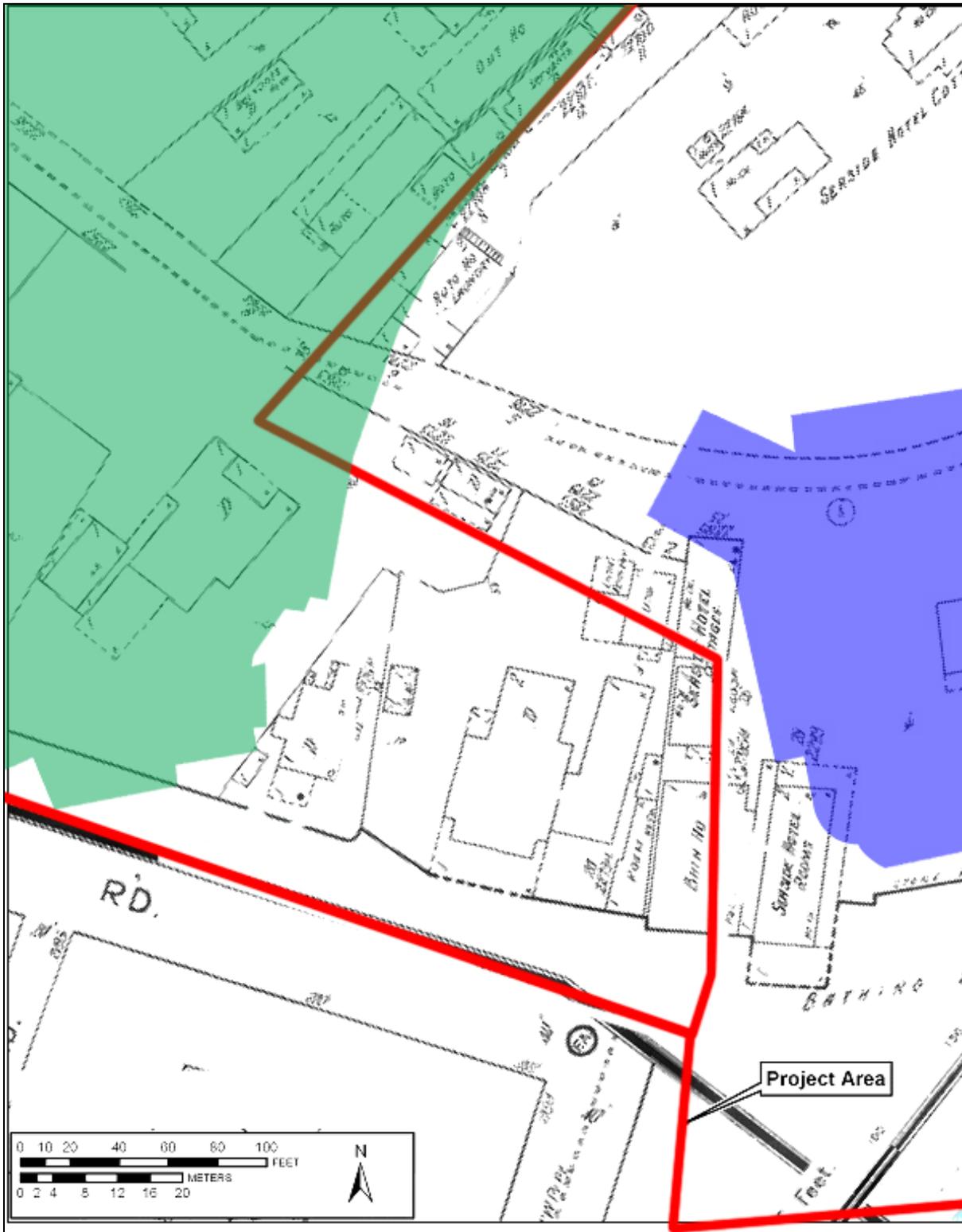


Figure 15. Portion of 1914 Sanborn Fire Insurance Map of Waikīkī, with the project area overlaid in red, notice the Honolulu Seaside building structures in the project area

destroyed the roof of the pavilion, the Club was rebuilt and the Hau Terrace enlarged.

Over the years, the clubhouse fell into disrepair until finally the termite eaten and dilapidated buildings were condemned by the Board of Health. ... Eventually the money was raised, the old buildings demolished, and the third Outrigger Canoe Club, designed by Vladimir Ossipoff, was erected in 1941. ...

The Club's favorable lease with Queen Emma Estate, renewed many times over the years, expired in 1963. A portion of the Elks Club property at Diamond Head was leased and a state of the art building was constructed. Also designed by Ossipoff, it opened in time for the 1963 Christmas Open House.

2.5 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 Waikīkī. The *muliwai* or lagoonal backwater of 'Āpuakēhau Stream that reached the sea between the present Royal Hawaiian and Moana Hotels was filled in between 1919 and 1927 (Figures 16 to 18). The filling in of 'Āpuakēhau Stream and the excavating of the Ala Wai canal were elements 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]

The Royal Hawaiian Hotel (Figure 19) was formally opened on February 1 1927 and with a maximum height of 150 feet was the tallest privately owned building in the Territory at that time (Hibbard and Franzen 1986:99).

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

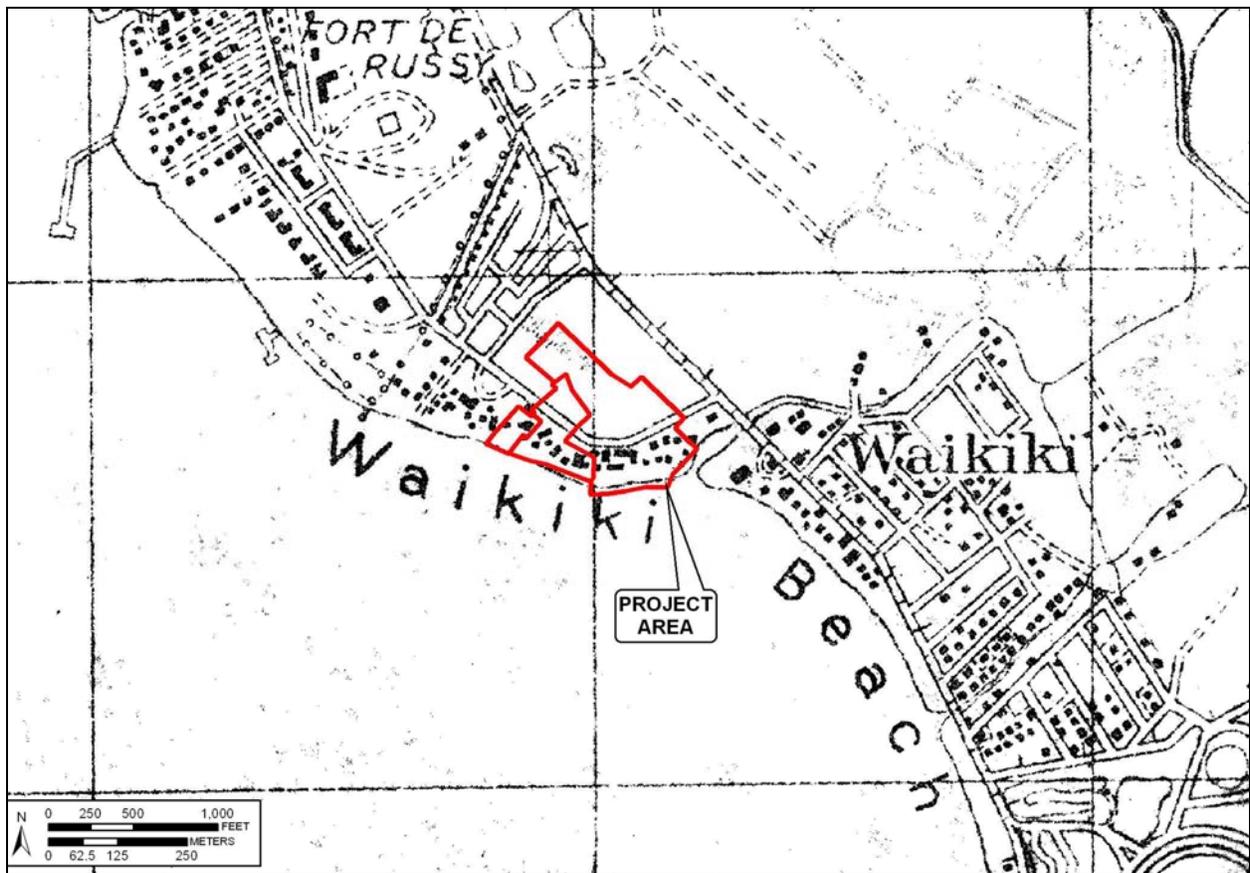


Figure 16. 1919 Fire control map with overlay of the Sheraton Waikiki and Royal Hawaiian property



Figure 17. View of the ‘Āpuakēhau *muliwai* or lagoonal backwater, Moana Hotel in background, view to northeast (adapted from Acson 1983:55)

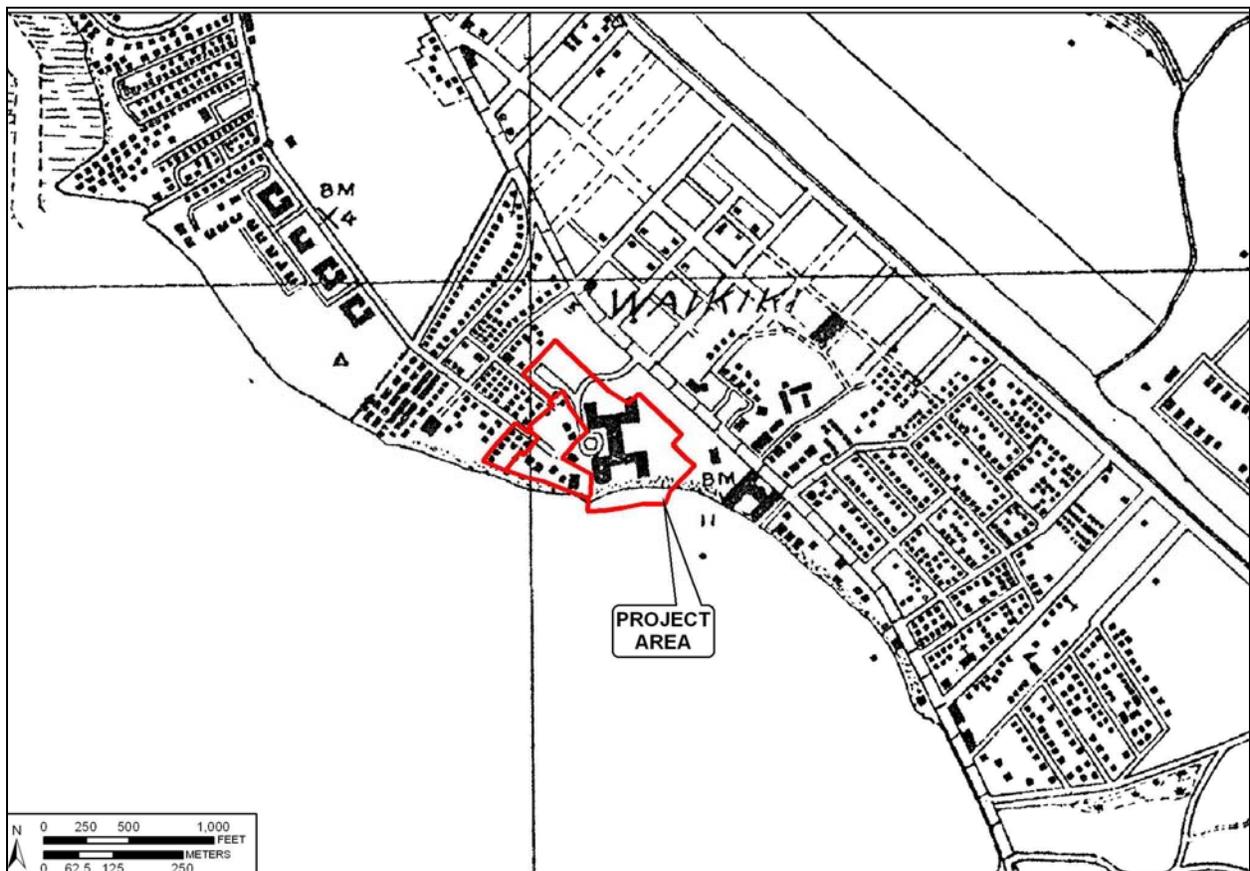


Figure 18. 1927 U.S. Geological Survey map with overlay of the Sheraton Waikiki and Royal Hawaiian property



Figure 19. 1929 aerial photo of Royal Hawaiian Hotel (E. B. Scott, 1968)

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.”

2.6 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]?"

2.7 Later Decades

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. A fire insurance map dating to 1951 indicates that, up to that time, no buildings were located between the Royal Hawaiian Hotel and Kalākaua Avenue. By the late 1950s, a row of retail shops had been constructed along Kalākaua Avenue. In the late 1970s, these shops were demolished and the present Royal Hawaiian Shopping Center was constructed on the present project area parcel.

The lands west of the Royal Hawaiian Hotel remained relatively undeveloped (Figure 20). The thirty-one story Sheraton Waikiki was completed in 1971 and with 1,904 rooms was the largest resort hotel in the world at that time (Hibbard and Franzen 1986:165).

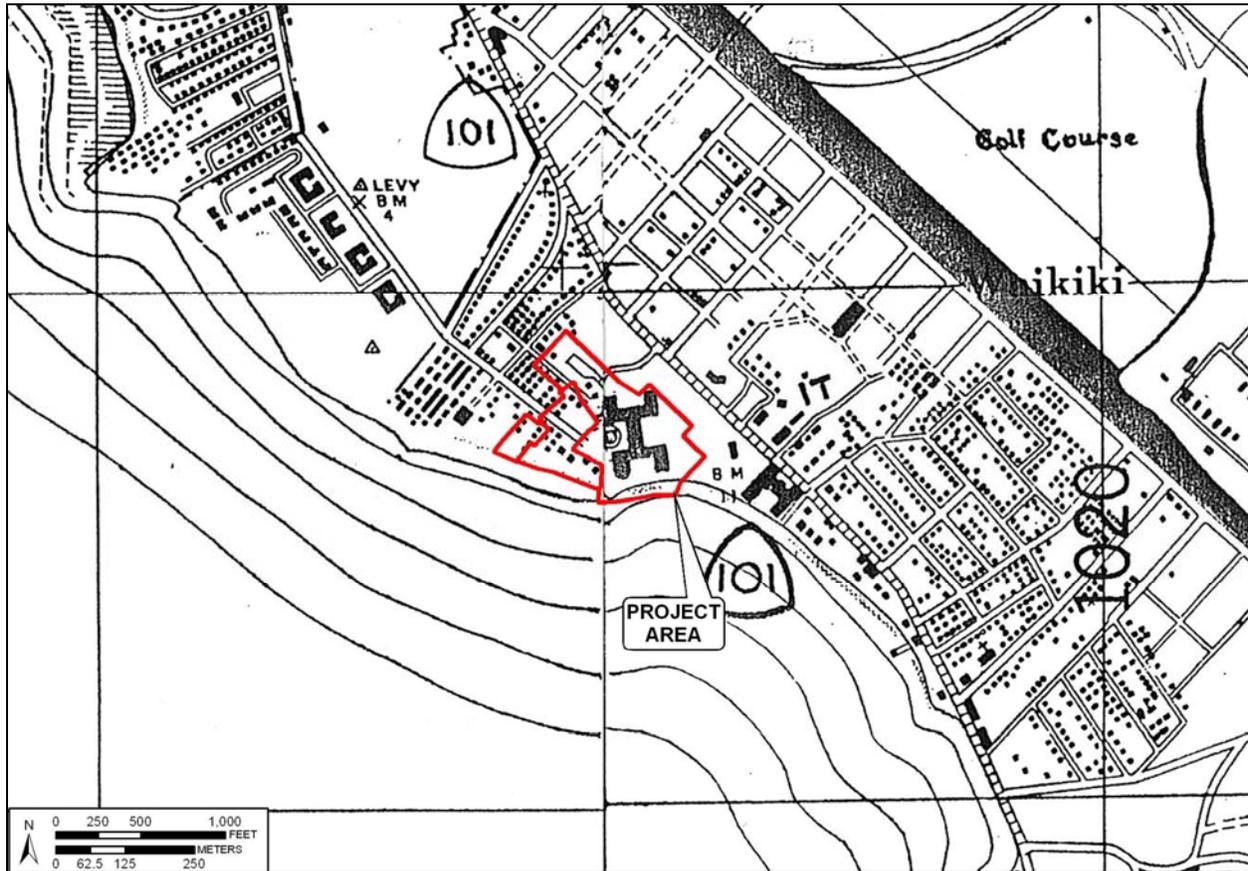


Figure 20. 1943 War Department Diamond Head and Honolulu quad maps with overlay of the Sheraton Waikiki and Royal Hawaiian property

Section 3 Data Pertaining to Human Burials in Waikīkī from Traditional Sources

Death at Waikīkī is documented in a number of traditional accounts including accounts of human sacrifice, accounts of fighting in Waikīkī in the wars of Kahekili and Kamehameha and from mid-nineteenth century Land Commission Award records.

3.1 Accounts of Human Sacrifice at Waikīkī

Hawaiian authors in the nineteenth and twentieth centuries have emphasized that victims for sacrifice were “criminals”, “wrongdoers,” or “individuals who had broken tabu, or rendered themselves obnoxious to the chiefs” (Kanahale 1986:116). Another major category of human sacrifice victims were the “*kauwā*.” Pukui (Pukui and Elbert, 1971: 128) translates *kauwā* as “Untouchable, outcast, pariah: a cast which lived apart and was drawn on for sacrificial victims.”

Waikīkī was famous for the drowning of *kauwā* with the same formulaic phrase ‘*Moe mālie i ke kai o ko haku*’ (‘Lie still in the waters of your superior’) used for *kauwā* drowning at Kawailumaluma‘i, Kewalo and Kualoa. An account of sacrificial drowning of *kauwā* at Waikīkī appeared in the Hawaiian language Newspaper *Ka Loea Kālai‘āina*:

A penei na‘e i kauwā loa [sic. “loa‘a”] ai. Aia a mana‘o ke Ali‘i Nui (Mō‘ī) e ‘au‘au kai i Waikīkī Eia ka nīnau a ke Ali‘i Nui i ke ali‘i ma lalo iho ona, “Pehea āu mau wahi lepo kanu o Pu‘u Ku‘ua? ‘A‘ole paha he mau wahi pōhuli?”

Eia ka pane a ke ali‘i ma lalo iho ona, “He Pōhuli nō. ‘O ke kauoha ia akula nō ia e ki‘i.

‘Oiai ko kāne me ka wahine e nanea ana me nā keiki, a hiki ‘ana ke ki‘i i mau keiki. ‘O ke kū a‘ela nō ia o ka makuakāne a lawe ‘ana i kāna mau keiki a hiki i Waikīkī.

Aia ho‘i a hiki i ka wā a ke Ali‘i e hele ai i ka ‘au‘au kai, a laila, hoouna ‘ia mai ke kahu e ki‘i mai i ua keiki a lawe aku ia ma kahi pāpa‘u o ke kai, ma kahi a ke Ali‘i nui e hele kū ‘ana, a laila kau nā lima o ka Mō‘ī i luna o kahi keiki a me kahi keiki, ma nā‘ā‘ī o nā keiki a pa‘a ai.

‘O ka hua ‘ōlelo ma ka waha o ke Ali‘i nui e ‘ōlelo ai, “‘A‘ole pau ku‘u loa! ‘A‘ole pau ku‘u loa!” ‘Oiai ‘o ia e ‘au ana me ka pa‘a nō o nā lima i nā keiki a hiki i ka umauma ke kai o ke ali‘i.

Ua lana a‘ela nā keiki i luna o ka ‘ilikai, aia ke alo i lalo. Eia ho‘i ka ‘ōlelo a ka makuakāne ma kula aku nei, “Moe mālie i ke kai o ko Haku,” a pēlā aku.

‘O ke kai o Waikīkī ke kai i ‘ōlelo ‘ia he kai lumaluma‘i kanaka o ka lua, aia i Kualoa.

Translation:

When the ruling chief wished to go to Waikīkī for sea bathing he asked the chief just below him in rank, "How are my planting places at Pu'u Ku'ua, [a place in the Wai'anae Range famous as a kauwā residence and place of mixed caste] have they not produced young suckers?" The chief next to him answered, "There are some suckers," and sent someone for them. When the men, women and children least expected it, the messenger came to get some of the children. The father stood up and took his sons to Waikīkī.

Then, when the ruling chief went sea bathing, he sent an attendant to get the boys and take them to a shallow place where the ruling chief would come. Then the ruler placed a hand on each of the boys, holding them by the necks. The words he uttered were, "My height has not been reached! My height has not been reached!" He advanced and held onto the boys until the sea was up to his chest. The boys floated on the water face down. The father on shore called out, "Lie still in the sea of your Lord," and so on.

The Sea of Waikīkī is said to have been used to kill men in and the other place is Kualoa.

No specific location at Waikīkī is indicated as the sacrificial site.

Regrettably much uncertainty also remains regarding the exact location of the four Waikīkī *heiau* associated with human sacrifice. Papa'ena'ena, certainly the most famous, 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 'Ī'ī, Kamehameha placed at Papa'ena'ena the remains of an adulterer - "all prepared in the customary manner of that time" ('Ī'ī 1959:50-51). This would have been one of the last human sacrifices in the kingdom.

Regarding the death of the famous prophet Ka'ōpuluhulu by Kahahana, Thrum writes: "After a while the body of the priest was placed on a double canoe and brought to Waikīkī and placed high in the cocoanut trees at Kukaeunahi [sic, Kukaunahi?] the place of the temple, for several ten-day periods (*he mau anahulu*) without decomposition and falling off of the flesh to the sands of Waikīkī." [Note: Kahahana's place of residence at Waikīkī was Ulukou, the present site of the Moana Hotel which was built in 1901. The closest and most likely heiau would appear to be the Helumoa Heiau formerly located on or very near the grounds of the Royal Hawaiian Hotel.

Numerous accounts of human sacrifice (or near sacrifice) at Waikīkī have a mythopoeic quality for which the historical basis is uncertain.

The *heiau* associated with sacrifice are listed below in Table 2.

Table 2. Sites Associated With Human Sacrifice in Waikīkī

Place Name	Location	Grounds for believing associated with human sacrifice	Source
Papaenaena Heiau (Le'ahi)	Waikīkī in the vicinity of La Pietra and the Hawai'i School for Girls	" <i>Heiau po 'okanaka</i> "	Thrum 1906:44
Kapua Heiau	Waikīkī in the vicinity of the Natatorium	" <i>Heiau po 'okanaka</i> ", place of sacrifice of Kaolohaka	Thrum 1906:44
Helumoa Heiau	'Āpuakēhau Waikīkī at or near the Royal Hawaiian Hotel	<i>Heiau po 'okanaka</i> , the place of sacrifice of Kauhi Kama" the defeated <i>mō 'ī</i> of Maui in his raid on O'ahu about 1610, in the reign of Kaihikapu	Thrum 1906:44
Shallow sea of Waikīkī	Waikīkī location uncertain	Account of <i>kauwā</i> drowning	<i>Ka Loea Kalaiaina</i> , 7/8/1899
Kūpalaha Heiau	Waikīkī in the vicinity of the zoo entrance	Account of near sacrifice of Kapo'i there	Kamakau 1991:23

Of particular concern for the present project is Helumoa Heiau which is unfortunately not well documented in the literature. We know of no maps showing the location of Helumoa Heiau. Thomas Thrum (1906:44) relates that it was a "place of sacrifice" going back at least as far as A.D. 1610. The Maui chief Kauhiakama was said to have been sacrificed by the O'ahu chief Ka'ihikapu there (Hibbard and Franzen 1986:5). Later Thomas Thrum (1927:34) would note: "This temple was long ago demolished, not a stone being left to mark the site, which was doubtlessly near, if not *the* [italics in original] actual spot now graced by the new Royal Hawaiian Hotel." Additional data supporting this site as a major place of human sacrifice is provided in Pukui et al.'s (1974:44) comments regarding the origin and meaning of the place name "Helumoa". They write: "Old land division near the Royal Hawaiian Hotel at Helu-moa Street, Waikīkī, and site of a *heiau* where Ka-hahana was sacrificed. Lit. chicken scratch. (Chickens scratched to find maggots in the victim's body.)" We conclude the former location of the *heiau* was quite close to the Royal Hawaiian Hotel. The prominent point just on the Sheraton side of the Royal Hawaiian Hotel in the vicinity of the southeast corner of the Southwest Royal Hawaiian Hotel proposed work area appears likely for its commanding position and view planes.

3.2 Accounts of Battles at Waikīkī

3.2.1 Kahekili's Invasion of O'ahu Circa 1783

In 1867, Samuel M. Kamakau wrote the following account of the invasion of the island of O'ahu by the Maui ruling chief, Kahekili:

I ka pae 'ana o Kahekili a me nā 'au wa'a kua o nā li'i o Maui, ma Waikīkī, e noho ana nō ka Mō'ī Kahahana ma Kawānanakoa, ma Nu'uānu, ma uka o Honolulu. I ka lohe 'ana o Kahahana, ua hiki mai 'o Kahekili me nā 'au wa'a i lako i nā mea kua. Ua piha ho'i mai Ka'alāwai a hiki i Kawehewehe ka pa'a i nā wa'a kua o Kahekili mai Maui, Moloka'i a me Lāna'i mai, no laila, maka'u honua 'ēwale ihola nō 'o Kahahana, a ho'ākoakoa a'ela i kona po'e ali'i a me nā koa . . . 'ewalu ko lākou nui i hele i ke kua. Ua komo loa kēia po'e 'ewalu i loko o 'Āpuakēhau, i laila kahi i kua ai me ke koa launa 'ole, a ua ho'opuni 'ia mai lākou a puni e nā koa o Maui, a laila, wāhi a'ela k'ia po'e 'ewalu i loko o ka puoko o ke kua, a nahā a'ela ka po'e i ho'opuni ai iā lākou nei. I ko lākou luli 'ana a'e na'e e ho'i mai, ua piha loa 'o mua i nā koa, 'a'ohe wahi ka'awale o Kawehewehe, e hiolo ana nā pololā e like me nā paka ua, akā, 'a'ohe na'e he wahi mea a pō'ino 'o kēia po'e 'ahi kananā, akā, 'o kēlā po'e koa o Maui ua pau i ka make. I ka hiki 'ana i kuāuna o Punalu'u, e iho mai ai i Luahinewai, e hiki mai ai i nā niu a Kuakuaaka . . . 'Ekolu ho'ouka kua 'ana o nā 'ao'ao 'elua, a ua make like nō.

I ka malama o Ianuari 1, o ka A. D. 1783, ua 'ākoakoa nā ali'i a me nā pūkua, nā pū'ali a me nā koa o Kahekili, a māhele 'ia ihola 'elua po'e kua. Māhele 1. 'O Kahekili ka pūkua. Māhele 2. 'O Hū'eu ka pūkua. 'O kā Hū'eu po'e kua, ma uka o Kānelā'au a me Kapapakōlea, ma uka o Pūowaina. 'O ka māhele mua, ma luna o Hekili a hiki i Kahēhuna a me 'Auwaiolimu. 'O Kaheiki ke kahua kua. . . Lilo ihola ke aupuni o O'ahu a me Moloka'i . . . (Kū'oko'a, 3/30/1867)

Kahahana, [ruling chief of O'ahu] who was then living at Kawānanakoa in Nu'uānu, back of Honolulu, was filled with consternation when he heard that Kahekili had come with a fleet of war canoes that reached from Ka'alāwai to Kawehewehe, and he rallied his warriors about him [but] eight of the warriors . . . went to 'Āpuakēhau and fought against the whole host, and when they found themselves surrounded by the Maui warriors they broke through the front lines, only to find their way of retreat bristling with more warriors and no way to turn in all of Kawehewehe. Spears fell upon them like rain, but it was they who slew the warriors of Maui. At the border of Punalu'u, on the way down to Luahinewai and the cocconut grove of Kuakuaaka [there was fighting] . . . Three times both sides attacked, and three times both were defeated. In January 1783, a decisive battle was fought with Kaheiki as the battlefield. Kahekili's forces were divided into two companies, one under Hū'eu's leadership stationed at Kānelā'au and Kapapakōlea back of Pūowaina and the other under his own command stationed

from above Hekili to Kahēhuna and ‘Auwaiolimu.... . . . thus O‘ahu and Molokai were taken . . . (Kamakau 1961:135-137)

The account makes reference to fighting at “Kawehewehe.” Kawehewehe is understood as the name of the beach on the ‘Ewa side of the Royal Hawaiian Hotel (adjacent to Helumoa), just east of the Halekūlani Hotel, Waikīkī. The sick were bathed here as treatment. The patient might wear a seaweed (*limu kala*) lei and leave it in the water as a request that his sins be forgiven hence the origin of the name (Lit., the removal Pukui et al. 1974:99).

Fornander’s (1919 Volume VI, part 2; page 289) account of “The Story of Kahahana” provides the detail that the army of the Maui chief Kahekili was encamped at ‘Āpuakēhau, where they were organizing and preparing to march inland, and it was there the O‘ahu forces first attacked “the Maui troops collected at the *heiau*.” There “a fight commenced to which Hawaiian legends record no parallel”. (Fornander 1919 Volume VI, part 2; page 289) A reconstruction of Kamakau’s account of Kahekili’s attack (Figure 21) definitely suggests battle casualties in Waikīkī although most of these likely occurred just northwest of the present project area. Intense fighting and mortality are indicated in the immediate vicinity of the Royal Hawaiian and Sheraton Waikiki resorts.

3.2.2 Account of the Invasion of Kamehameha Circa 1795

In 1867, Samuel M. Kamakau wrote the following account of the invasion of the island of O‘ahu by the ruling chief, Kamehameha:

Holo akula ho‘i ka ‘au wa‘a kaula o Kamehameha a pae i Waikīkī, a ua pani ‘ia mai Wai‘alaie a Waikīkī e nā ‘au wa‘a kaula o Kamehameha.

‘O Kalanikūpule ho‘i a me kona mau ali‘i, e noho ana lākou ma Nu‘uanu, Kanoneakapueo, Kahapa‘akai, Luakaha, Kawānakoā, Kaukahōkū, Kapaeli, Kaumuohena a me Pū‘iwa nā kahua kaula. (Kū‘oko‘a, 6/8/1867)

Translation:

Kamehameha’s war fleet sailed to Waikīkī where it landed and the beaches from Wai‘alaie to Waikīkī were covered with the war canoes of Kamehameha.

Kalanikūpule and his chiefs were stationed at Nu‘uanu, Kanoneakapueo, Kahapa‘akai, Luakaha, Kawānakoā, Kaukahōkū, Kapaeli, Kaumuohena and Pū‘iwa, the battlefields (where the main fighting took place).

This account emphasizes that the main fighting started in the uplands but fighting at Waikīkī is probable.

Another historical account depicting the famous battle of Nu‘uanu in which Kamehameha I unifies the islands, is given in *He Buke ‘Oia‘I‘o Kū‘auhau Ali‘i*, page 131. The “Battle of Nu‘uanu” chant was examined in the hopes it would provide clues to where fighting occurred and possible burials as a result of the battle.

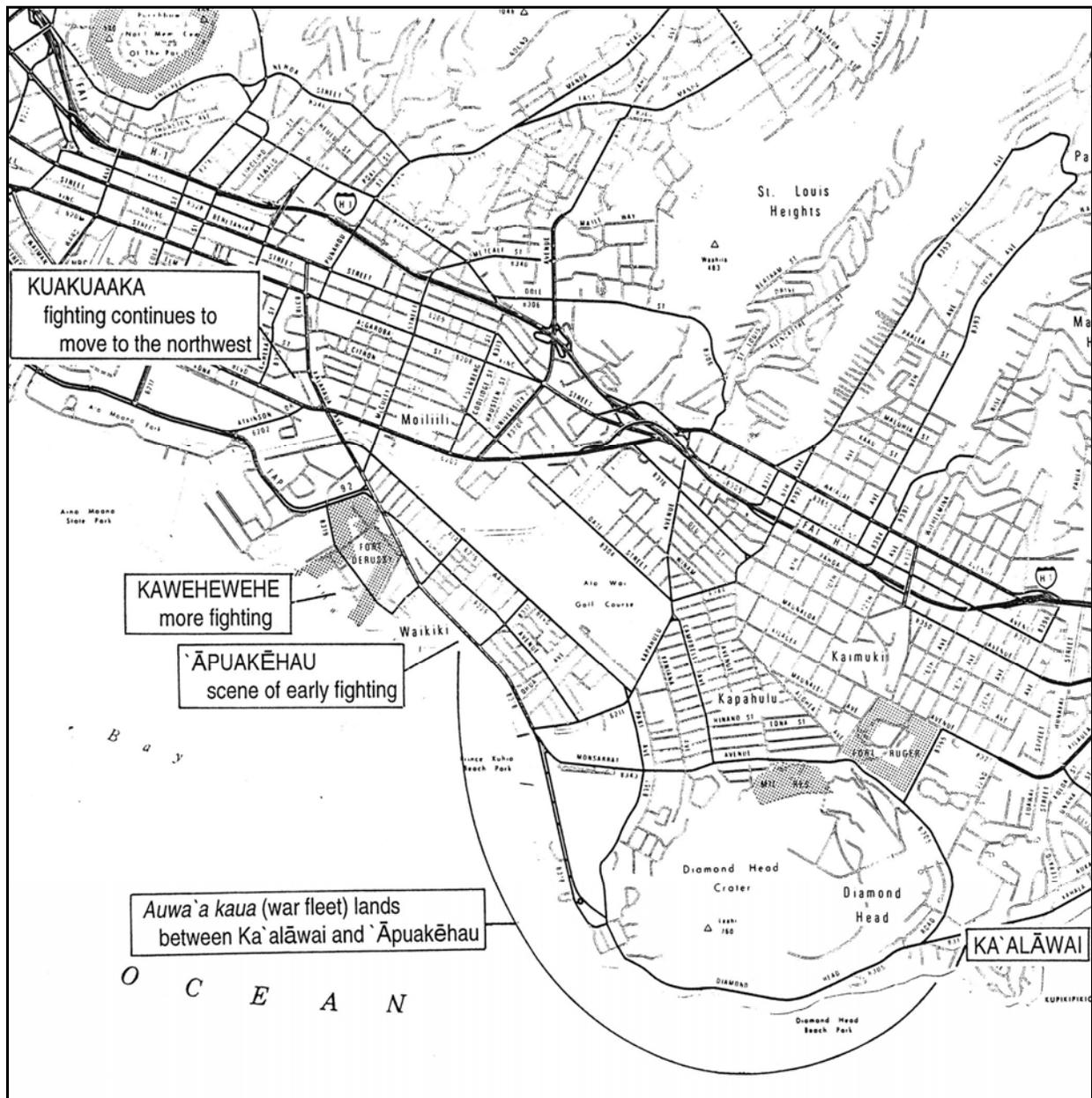


Figure 21. Reconstruction of Kahekili's Invasion of O'ahu Circa 1783

The chant is prefaced by the following explanation: [This is] “A chant of the battle of Nu‘uanu waged by Kamehameha the Great in the month of April, 1795. Composed by Kala‘ikūahulu and transcribed by G. M. Keola, Dec. 15, 1880.

Kala‘ikūahulu, was a skilled orator, genealogist and kahuna (priest) during the time of Kamehameha. He was also selected to be a member of Kamehameha’s advisory counsel (Kamakau 1992:173, 175). Samuel Kamakau (1992:394), noted historian, writes “Kala‘ikūahulu was the composer who glorified the names of the chiefs of Hawai‘i in chant.”

A very brief analysis of the chant is provided here. The chant is divided into two parts, Māhele 1 and Māhele 2. The chant basically sets up the sequence of the Nu‘uanu Battle and gives a vivid description of the intensity of the fighting that occurred. Part 2 of the chant basically chronicles the story from the time Kamehameha’s war fleet leaves the shores of Moloka‘i (after its conquest), crosses the Moloka‘i Channel and enters the *papa* (reef flats) off of O‘ahu. From the chant, we know that Lopakapū, Kamehameha’s cannon is on board one of the canoes, as well as his war god, Kūka‘ilimoku. Poetic references are made to Kamehameha, comparing him to the long, sharp spines of the *wana*, the *nohu* — a poisonous fish, the *palani* known for its sharp barb which snags and the *kōkala kū* — the porcupine fish whose body is covered with long spines that inflict pain. In the chant, Kamehameha is declared the victor even before he has landed on the sands of Kākūhihewa, at Hononunu (the site of the War Memorial) in Waikīkī.

From the locations of the place names listed in the chant, it seems that indeed, as Kamakau wrote (*Kū‘oko‘a*, 6/8/1867), the coastline was covered with Kamehameha’s war fleet from Wai‘alae Bay to Waikīkī and on to Kou (Honolulu Harbor). Very quickly, the battle moves out of Waikīkī toward Kou (downtown Honolulu) and up toward Pūowaina (Punchbowl). Kamehameha splits his troops into two divisions. One moving up toward Pūowaina and Nu‘uanu and the other going through Makiki and coming around the back side of Pūowaina. The chant creates a vivid picture of the intensity and fierceness of the fighting which occurred. A description is given of the general populace fleeing wildly through the taro fields in Makiki. The battle intensifies at Kānelā‘au on the east slopes of Punchbowl, where Kalanikūpule’s forces are trapped and surrounded. Kamehameha has the advantage of his canon, Lopaka, commanded by Hū‘eo (Isaac Davis). The O‘ahu battalions are forced to flee. Some, escape the heat of the battle and try to make their way back toward Waikīkī, probably in a last ditch effort to escape via canoe, while others flee toward ‘Ewa. However, the majority of the forces head toward Nu‘uanu and the *pali* with Kamehameha’s men in fast pursuit.

Line 94 of the chant is perplexing in that it makes mention of “numerous [people] being killed at Kuamo‘o” (*make lehulehu i Kuamo‘o*). It is not clear whether this is a reference to Kuamo‘o, O‘ahu, Kuamo‘o on Hawai‘i or possibly an obscure reference to a different Kuamo‘o location in close proximity to the place names mentioned in the chant. The locality of Kuamo‘o on O‘ahu is spoken of by Kamakau in relation to the 1794 battle of Kuki‘iahu, between Ka‘eokūlani of Maui and Kalanikūpule of O‘ahu. Mention is made of “The heights of Kuamo‘o, Kalauao, and Aiea” and that Ka‘eo’s men were “cut off . . . between Kalauao and Kuamo‘o (Kamakau 1992:169). This Kuamo‘o is clearly the one located in the ‘Ewa District, far outside the boundaries where the Nu‘uanu battle took place. The famous battle of Kuamo‘o at Kailua, Kona took place in 1819, after Kamehameha’s death, over the upheaval of the *‘ai kapu* (the

religious taboo system). It seems odd that a chant written to commemorate Kamehameha and the Nu‘uanu battle would make reference to a battle which occurred 24 years later and after the death of Kamehameha. It is even more odd to find a reference to either of the Kuamo‘o battles within the sequence of Waikīkī place names given. The chant is clearly recounting the various place names in their order along the coast of Waikīkī. Regardless, both known Kuamo‘o locations are nowhere near the vicinity of Waikīkī or the Punchbowl-Nu‘uanu areas. The present day Kuamo‘o Street in Waikīkī, situated between Kūhiō Avenue and Ala Wai Boulevard, is said to have been named for Mary Kuamo‘o Ka‘oana‘ena, the sister of Kekuaoakalani who was killed at the Kuamo‘o battle of 1819 (PN:119).

Line 144 once again mentions the place name Kuamo‘o and is prefaced by the preceding line: “The people of O‘ahu ask, who is this facing us? Who is the warrior at Kuamo‘o?” The chant seems to be referring to a specific place name within the area of the battle zone but, this cannot be for certain. Research into place names and 19th century maps did not reveal any additional information regarding another “Kuamo‘o location” on O‘ahu .

In summary, the main reason for studying this Nu‘uanu Battle chant was to get an idea of where the fighting occurred and to determine areas of density for possible burials related to this particular war. From the chant, it is clear that the battle moved out of Waikīkī proper very quickly. Granted, there were skirmishes along the way, but the main fighting and loss of life occurred near the eastern slopes of Punchbowl and ended at Nu‘uanu Pali.

3.3 Land Commission Award Testimony

There are approximately 14,500 records associated with Land Commission Award (LCA) claims during the Māhele of 1847-1853. Of these records, 428 are for claims awarded and unawarded in Waikīkī. Among these 428 claims there is only one mention of a graveyard or burial place and it is in claim 613 (to Kuluwailehua) which is not awarded. This appears to be completely different than Kuluwailehua’s claim for LCA 1281 within the present project lands. The land is described in a deed transfer of November 21, 1841 from Kalua to Kuluwailehua. as “my house site” and it is “a separate place and is a burial ground.” In this same document (*Native Testimony* 384-385 volume 2; probably 1848 or 1849) the boundaries given as “Mainunu’s lot on the Waikiki side; Chapel St, *mauka*; Kauwaina’s lot, ‘Ewa; and Kaupena’s lot, *makai*.” In an earlier document (July 1, 1847) for claim 613 the boundaries are given as: “North, house lot of Kauwaina; east, Church Street and the lot of Mainunu; south, house lots of Mainunu and Hakau; west, house lot of Kaupena” (*Native Register*, 299-300 volume 2).

Kuluwailehua is awarded the land under No. 637, which does not mention the burial ground. Kuluwailehua holds many awarded claims in Waikīkī, as well as others on O‘ahu and other islands (Māhele database 1998, waihona.com). It is uncertain at this point where the reported burial ground is located. Possibly “Church Street” was adjacent to the church shown on nineteenth century maps northwest of the present Ka‘iulani Avenue, well away from the present project area.

3.4 Previous Archaeological Research

The *ahupua'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 the twentieth 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 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.

Historic cultural deposits have been found in the general area of the project area. During construction of the Halekulani Hotel, just west of the project area, 48 historic and prehistoric features were excavated with six human burials reported. An extensive artifact analysis of historic materials was conducted. It was found areas in the near vicinity in this beach environment were used for fishing, gathering shellfish, raising animals, cooking food in earth ovens with basalt lines stones, and as a place to bury their dead (Davis 1984: 87).

A list of projects conducted in the Waikīkī area is presented in Table 3. A supplementary listing of burial finds from Waikīkī that ended up in the osteological collections of the Bernice Pauahi Bishop Museum is presented in Table 4. A discussion of projects focusing on burials (Figure 22) 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 *nihopalaoa*, 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).

Table 3. Previous Archaeological Investigations in Waikīkī Ahupua'a

Reference	Type of Investigation	General Location	Findings
Emerson 1902	Burial recovery account	Present Elks Club	At least four individuals, all presumed to be Hawaiian and associated burial goods
McAllister 1933	Island-wide survey	All of O'ahu	Waikīkī listed as Site 60.
1963 Bishop Museum (cited in Neller 1984)	Bishop Museum burial recovery	2431 Prince Edward Street	Two + individuals from a construction trench
Honolulu Star-Bulletin; 1963; Yost 1971	Burial recovery account	Present Outrigger Canoe Club	27 Burials
1964 Bishop Museum Site Files	Burial recovery account	Fronting the Surfrider Hotel	4 burials?
1976 Bishop Museum Site Files	Burial recovery account	Hale Koa Hotel	Six burials
Nakamura 1979	History Graduate Thesis	Waikīkī	History of Waikīkī with focus on the radical changes in land use that occurred in the early 20th century.
Neller 1980	Monitoring Report	Kālia Burial Site: Hilton Hawaiian Village	Brief field inspection: partial recovery of 3 historic Hawaiian burials, trash pit from 1890's, no prehistoric Hawaiian sites.
Bishop Museum 1981	Testing, Excavations, & Monitoring	Halekulani Hotel	Intact cultural deposits found.
Neller 1981	Reconnaissance Survey	Halekulani Hotel	Limited background research on area
Acson 1983	Historical Research	'Ewa to Diamond Head	Nine walks through Waikīkī, photos, maps and historical info.
Davis 1984	Archaeological and Historical Investigation	Halekulani Hotel	48 historic and prehistoric features excavated with six human burials reported.
Neller 1984	Informal Narrative Report	Paoakalani Street	Recovery of seven human skeletons at construction site

Reference	Type of Investigation	General Location	Findings
Center for Oral History 1985	Oral Histories, Volumes I-IV	Waikīkī	Oral Histories of Waikīkī, 1900-1985, Volumes I-IV
1985 IARII(Beardsley and Kaschko 1997)	Archaeological monitoring and data recovery	Pacific Beach Hotel Office Annex	2 burials and cultural deposits
Griffin 1987	Burial Recovery Report	Along Kalākaua Ave. near corner of Kai'ulani St.	Bones removed and bagged by construction crew, burial found in makai wall of gas pipe excavation.
SHPD 1987	Burial, Recovery Report	Kalākaua Ave. and Kai'ulani Street	From excavation adjacent to Moana Hotel (site -9901).
Bath & Kawachi 1989	Burial, Recovery Report	Ala Wai golf Course	2 burials
Davis 1989	Reconnaissance Survey & Historical Research	Fort DeRussy	Fishponds and other features are buried in this area. Sites -4573 thru -4577 are fishponds, 4570 is a remnant cultural deposit.
Riford 1989	Background Literature Search	TMK: 2-6-014:039	List of literature pertaining to Waikīkī area.
Rosendahl 1989	Inventory Survey, Prelim. Report	Fort DeRussy	Historic artifacts, no human remains
Athens 1990	Letter	TMK: 2-6-023:025	Letter to SHPD listing human remains at IARII lab from Pacific Beach Hotel, and Barbers Point Generating Station.
Hurst 1990	Historical Literature Search	Waikikian Hotel	Background and planning document. No fieldwork was done.
Chigioji 1991	Assessment	2 parcels, TMK 2-6-24:65-68 and 80-83, TMK 2-6-24:34-40 & 42-45	Formerly a corner of the 'Āinahau estate; remainder of parcels, former 'auwai, kalo and rice fields; test excavations and specific sampling strategy recommended.
Davis 1991	Monitoring Report	Fort DeRussy	See also Davis 1989. Subsurface features and material remains date to early post-contact times (c. 1780s to 1790s) through the mid-19th century.

Reference	Type of Investigation	General Location	Findings
Kennedy 1991	Monitoring Report	TMK: 2-6-022:014 IMAX theatre location	Pollen and bulk-sediment ¹⁴ C samples from ponded sediments were recovered. The three ¹⁴ C dates and pollen sequence were inverted.
SHPD 1991	Public Inquiry	TMK: 2-6-024:036	Bones were determined to be non-human and part of the extensive fill material present
Simons et al. 1991	Interim Field Study, Monitoring & Data Recovery	Moana Hotel Area	8 burials, preliminary osteological analysis indicates pre-contact type; pre- and post artifactual material recovered.
Hurlbett 1992	Monitoring Report	TMK: 2-6-008:001	Site -2870 (3 burials) found by Neller in 1980. This report is on testing and monitoring in same area.
Pietrusewsky 1992a	PA Report	Moana Hotel	Right half of human mandible found by hotel guest.
Pietrusewsky 1992b	PA Report	Lili'uokalani Gardens Site, Hamohamo	Human Remains from the Lili'uokalani Gardens Site, Hamohamo, Waikīkī, O'ahu
Rosendahl 1992	Monitoring Report	Hilton Hawaiian Village	Identified 12 historic refuse pits, 3 historic to modern trenches.
Streck 1992	Memorandum for Record	Fort DeRussy	Human burial discovery (believed to be late prehistoric Hawaiian) during data recovery excavations, May, 20, 1992.
Cleghorn 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Remains of one human individual, mandible identified.
Dagher 1993	Inadvertent Discovery of Human Remains	Waikīkī Aquarium	Human remains of at least one person identified, excavation recommended.
Dega & Kennedy 1993	Inadvertent Discovery of Remains	Waikīkī Aquarium	Discovery of unidentified bone fragments, all remains turned over to SHPD.
Hammatt & Chiogioji 1993	Archaeological Assessment	16-Acre Portion of the Ala Wai Golf Course	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.

Reference	Type of Investigation	General Location	Findings
Carlson et al. 1994	Report of Human Remains	Realignment of Kālia Road, Fort DeRussy	Approximately 40 human burials (the majority were recovered in a large communal burial feature & a cultural enriched layer that contained postholes.
Maly et al. 1994	Archaeological and Historical Assessment Study	Convention Center Project Area	Recommend subsurface testing to determine presence or absence of cultural deposits and features.
McMahon 1994	SHPD Burial Report	Intersection of Kalākaua and Kuamo'ō Streets	Inadvertent Burial Discovery: misc. bones uncovered in back dirt pile during construction. Follow up by CSH.
Hammatt & Shideler 1995	Sub-surface Inventory Surface	Hawai'i Convention Center Site, 1777 Kalākaua Ave.	No further work recommended.
Jourdane 1995	Inadvertent Discovery of Human Remains	Paoakalani Avenue	Human skeletal remains discovered in planted strip between street and sidewalk fronting hotel.
Simons et al. 1995	Data Recovery Excavations	Fort DeRussy	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.
Cleghorn 1996	Inventory Survey	TMK: 2-6-016:23, 25, 26, 28, 61, 69	7 backhoe trenches excavated, no sites located.
Grant 1996	Historical Reference	Waikīkī	Historical information about Waikīkī prior to 1900.
Hammatt & Shideler 1996	Data Recovery	Hawai'i Convention Center Site	No clear evidence that Kuwili Pond sediments present in project area; no further work recommended.
McDermott et al. 1996	Inventory Survey	'Āinahau Estate	Buried remnants of 'auwai and lo'i and human burial found. ¹⁴ C dates
Denham et al. 1997	Data Recovery Report	Fort DeRussy	Excavations conducted at fishponds, ¹⁴ C dates mid-17th C.
Denham & Pantaleo 1997	Monitoring and Excavations Report	Fort DeRussy	Final Report does not include SHPD recommendations. 10 subsurface features and 9 burial locations found. ¹⁴ C dates

Reference	Type of Investigation	General Location	Findings
Beardsley & Kaschko 1997	Monitoring and Data Recovery Report	Pacific Beach Hotel Office Annex	Traditional Hawaiian cultural deposits and 2 human burials. 3 ¹⁴ C dates
Hammatt & Chiogioji. 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 & 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., Ala Moana Blvd., & 'Ena 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.
Hammatt & Chiogioji 2000	Archaeological Assessment	Honolulu Zoo Parcel	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.
LeSuer et al. 2000	Inventory Survey	King Kalākaua Plaza Phase II	Site -5796 has been adversely affected by land alteration of the project area. Site -4970, has been adequately documented.
Perzinski et al. 2000	Burial Findings	Kalākaua Ave. between Kai'ulani & Monsarrat Avenues	44 sets of human remains; 37 disinterred, 7 left in place; believed to be Native Hawaiian, interred prior to 1820.
Cleghorn 2001 a & b	Mitigation	Burger King Construction Site	Concerning three incidents of uncovered human remains while locating a buried sewer-line for the ABC's store.
Corbin 2001	Inventory Survey	Hilton Waikikian Property	No arch. sites were found during excavations of the area

Reference	Type of Investigation	General Location	Findings
Elmore & Kennedy 2001	Burial Report	Royal Hawaiian Hotel	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.
McGuire & Hammatt 2001	Cultural Assessment for Waikīkī Beach Walk Project	Along Lewers St., Beach Walk, Kālia Rd. & Saratoga Rd.	Primary cultural concern identified as inadvertent burial discovery. Cultural monitoring recommended for all subsurface work within project area.
Perzinski & Hammatt 2001a	Monitoring Report	Kapi'olani Bandstand	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.
Perzinski & Hammatt 2001b	Monitoring Report	Kapi'olani Park	No cultural layer, artifacts, midden or human burials were encountered during the excavations.
Perzinski & Hammatt 2001c	Monitoring Report	Kalākaua Avenue from the Natatorium to Poni Mo'i Road	No cultural layer, artifacts, midden or human burials were encountered during the excavations.
Rosendahl 2001	Assessment Study	Outrigger Beach Walk	Assessment of previous archaeology and historical literature.
Winieski & Hammatt 2001	Monitoring Report	TMK: 1-2-6-025:000	There is a possibility that Hawaiian or Historic materials as well as human burials may still be present within the project area.
Borthwick et al. 2002	Inventory Survey	71,000 sq. ft. parcel, TMK: 2-6-016:002	No burials were found during testing; absence of dry jaucas sand deposits indicate that burial finds are unlikely in project area.
Bush et al. 2002	Monitoring Report	Kalākaua Avenue, between Ala Moana Blvd. and Kapahulu Ave.	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.
Calis 2002	Monitoring Report	Lemon Road	No historic deposits, major previous disturbance
Elmore & Kennedy 2002	Monitoring Report	Fort DeRussy	No findings.

Reference	Type of Investigation	General Location	Findings
Mann & Hammatt 2002	Monitoring Report	Lili'uokalani Avenue and Uluniu Avenue	5 burial finds of 6 individuals; two historic trash pits.
Putzi & Cleghorn 2002	Monitoring Report	Hilton Hawaiian Village	No findings during monitoring of trench excavations for sewer connections.
Winieski, Perzinski, Shideler et al. 2002	Monitoring Report	Kalākaua Ave. between Ka'ulani and Monsarrat Avenues.	44 human burials encountered, 37 disinterred; buried habitation layer identified, with traditional Hawaiian artifacts, midden, firepits, & charcoal; fragment of light gauge rail, remnant of Honolulu Transit trolley system, observed; low energy alluvial sediments associated with the now channelized muliwai Kukaunahi also observed.
Winieski, Perzinski, Souza et al. 2002	Monitoring Report	Kūhiō Beach	Skeletal remains of 10 individuals, six disinterred, only 2 in situ. 4 indigenous artifacts, none in situ. Discontinuous cultural layer, historic seawall.
Bush et al. 2003	Monitoring Report	International Marketplace	Historic trash found.
Tome & Dega 2003	Monitoring Report	Waikīkī Marriot	One isolated not in situ possible human bone fragment found. Recommends monitoring during future work.
Tulchin & Hammatt 2003	Archaeological & Cultural Impact Assessment	2284 Kalākaua Ave.	Notes possibility of burials in the project area; recommends an inventory survey with subsurface testing.
Chiogioji, et al. 2004	Archaeological Inventory Survey	Tusitala Vista Elderly Apartment	SIHP sites -6682, -6705, -6706, and -6707 including human remains, remnants of the Ainahau Estate and agricultural sites
Freeman et al. 2005	Archaeological Inventory Survey	Hobron Lane	Four sites identified during subsurface testing; 1 disturbed burial; 1 coffin burial with two individuals; 1 cultural deposit; and, 1 fishpond sediment
O'Hare, Shideler & Hammatt 2005	Archaeological Inventory Survey	Kaio'o Drive	Site 50-80-14-6848, a pre-contact fire pit radiocarbon dated to AD 1470-1660, was recorded.

Reference	Type of Investigation	General Location	Findings
O'Leary, et al. 2005	Archaeological Inventory Survey	1-Acre Parcel, 2284 Kalākaua Avenue (former Waikiki 3 Theater)	1 burial encountered
O'Leary, et al. 2005	Archaeological Assessment	0.5-Acre Royal Kāhili Condo	No significant finds
Bell, and McDermott 2006	Archaeological Inventory Survey	Allure Waikīkī Development (former Wave Waikiki location),	2 human burials and a cultural deposit
Hammatt, and Shideler 2006a Archa eological Assessment for Two Parcels at the Corner of Kūhiō and Kapahulu Avenues	Archaeological Assessment	Two Parcels at the Corner of Kūhiō and Kapahulu Avenues	No significant finds, study area abuts former Ku'ekaunahi Stream (now overlain by Kapahulu Avenue)
Hammatt, and Shideler 2006b	Archaeological Assessment	0.015-Acre Parcel at the Corner of Kūhiō and Kapahulu TMK: 2-6-027:052	No significant finds, study area abuts former Ku'ekaunahi Stream (now overlain by Kapahulu Avenue)
Hammatt, and Shideler 2007	Monitoring Report for Geotechnical Testing	Royal Hawaiian and Sheraton Waikiki	Documents 5 bore holes

Table 4. References to Burial finds in Waikīkī from the Bishop Museum NAGPRA Inventory

Date	Account	Source
1913	...two individuals from Waikīkī...	FR* page 1; BPBM records indicate this was ID No OA0002 & 0003 from the Sacred Hearts Convent, Waikīkī
1916	...one individual from Waikīkī...	FR* page 2; BPBM records indicate this was ID No OA009 a “sand burial”
1917	“from unknown location in Waikiki”	BPBM records indicate this was ID No OA0012 (no details)
1923	...one individual from the ‘Āinahau district, Waikīkī...	FR* page 2; BPBM records indicate this was ID No OA0018 “found by Hawaiian Dredging Company by dredge Kewalo”
1923	...five individuals from Helumoa, Waikīkī, O‘ahu were collected by Kenneth P. Emory. Museum information indicates they were victims of the 1853 smallpox epidemic...	FR* page 2; BPBM records indicate this was ID No.'s OA0019 – OA0023 logged in on October 1923
1926	...one individual from Waikīkī... found during house construction	FR* page 3; BPBM records indicate this was ID No OA0087 from a residence in Waikīkī
1927	...one individual from Waikīkī...	FR* page 3
1950	3207 Noela Drive “Found at rear of donor’s property during excavation	BPBM records indicate this was ID No OA0211 and OA0212
1955	...two individuals from Waikīkī...	FR* page 7; BPBM records indicate this was ID No OA 0315 discovered at the Reef Hotel Waikiki
1957	...nine individuals from Waikīkī...	FR* page 8; BPBM records indicate this was ID No. 's OA0391 to OA0402 from Dad Center located along Kalākaua Avenue
1961	...one individual from Waikīkī...	FR* page 8; BPBM records indicate this was ID No OA0419 from 331 Saratoga Avenue
1962	...one individual from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0421 “from sand burial near Reef Hotel”
1963	...five individuals from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0424 “found on Edgewater Drive near Reef Hotel” [it would be atypical for the BPBM to assign one ID No. to 5 burials]

Date	Account	Source
1963	...96 individuals from Waikīkī...[donated by Bowen]	FR* page 9; BPBM records indicate this was ID No.'s OA0425 to OA0455 "from Old Outrigger Canoe Club Premises" Note: Bishop Museum records from 1963 specify the finds donated by Robert N. Bowen on January 22, 1963 were from "the <u>Old</u> Outrigger Canoe Club Premises" However the 1/24/63 <i>Honolulu Advertiser</i> article concerns burial finds at the present club location by the Elk's Club.
1964	...four individuals from Waikīkī...	FR* page 9; BPBM records indicate this was ID No OA0464 "from site on beach in front of old Outrigger Canoe Club" [it would be atypical for the BPBM to assign one ID No. to 4 burials]
1965	"Human remains collected from San Souci Beach, Waikiki"	BPBM records indicate this was ID No OA0633
1966	Two accessions from 2431 Prince Edward Street	BPBM records indicate this was ID No OA0462 & OA0467 from 'ewa side of lot <i>makai</i> of Prince Edward Street
1967	...one individual from Waikīkī...	FR* page 11; BPBM records indicate this was ID No OA0516 from the "Tahiti by Six" at the International Market Place
1970	...eight individuals from Waikīkī...[donated] by the Sheraton Hawai'i Corp....recovered during excavations for tank construction...	FR* page 11; BPBM records indicate this was ID No OA0522 on Sheraton Hawai'i Corp Property logged in on 3/6/1970
1981	...eight individuals from Waikīkī...[donated] by Bertell Davis	FR* page 12; BPBM records indicate this was ID No.'s OA0565 to OA0571 "from unknown location in Waikiki; also OA0572 "recovered through archaeological excavation at the Halekulani hotel, Waikiki
1996	...one individual from Waikīkī...acquired during the early 1900s	FR* page 14

FR* = Federal Register January 28, 1998 (Volume 63, Number 18)

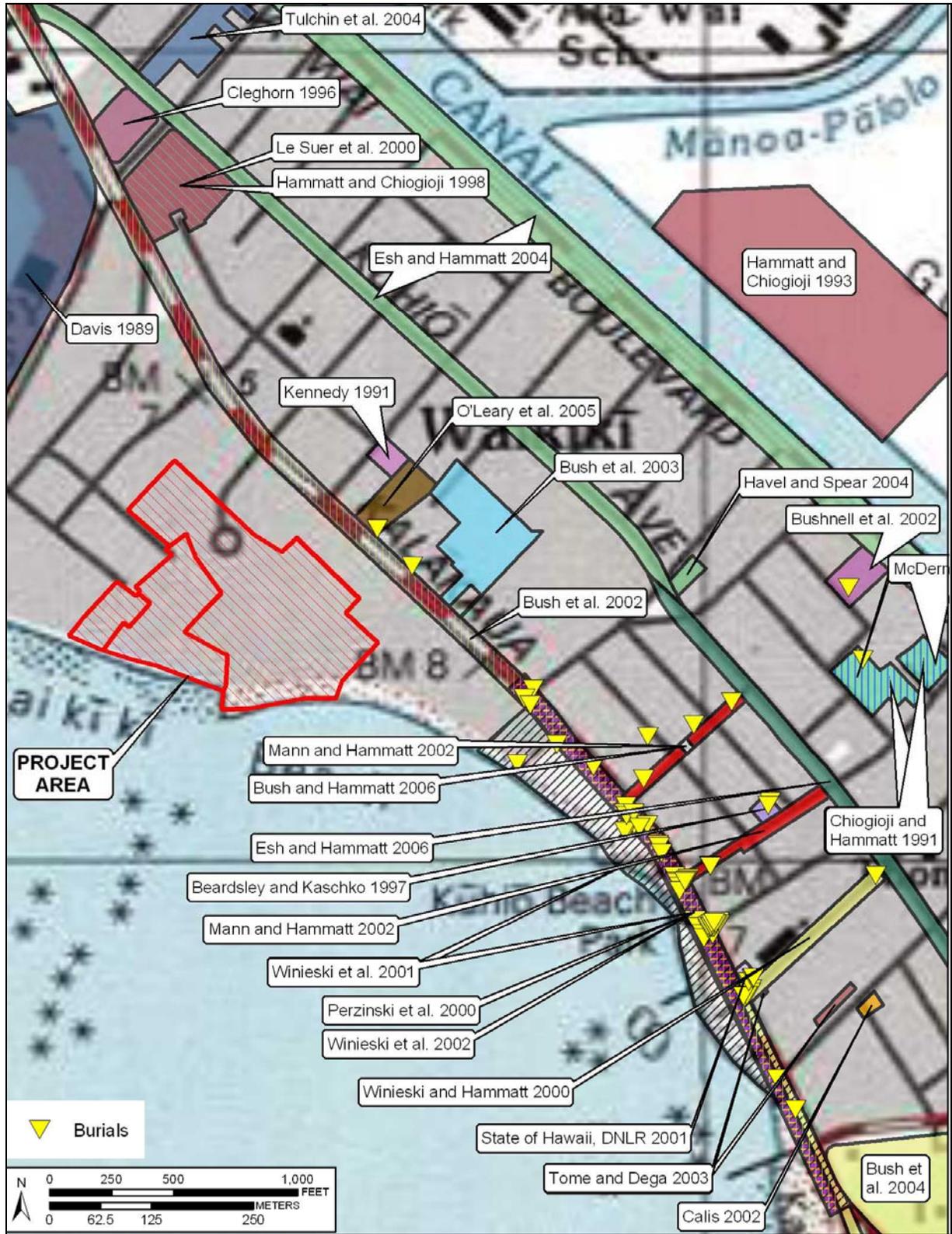


Figure 22. Previous Archaeological Work in Waikīkī, focusing on locations of burials

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 'Ī'ī, Kamehameha placed at Papa'ena'ena the remains of an adulterer - "all prepared in the customary manner of that time" ('Ī'ī 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 hoolewa 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 according to Yost (1971: 28). Apparently, no formal archaeological report on the burials was produced.

BPBM records show thirty-one accessions of human remains (ID No.'s OA0425 to OA0455) donated by Robert N. Bowen on January 22, 1963 stating that they were all from "the Old Outrigger Canoe Club Premises" which suggests the former location by the Royal Hawaiian Hotel. However the 1/24/63 *Honolulu Advertiser* article concerns burial finds at the present club location by the Elk's Club. The *Federal Register* of January 28, 1998 (Volume 63, Number 18 page 4281) asserts that: "In 1963, human remains representing 96 individuals from Waikiki O'ahu were collected and donated to the Bishop Museum by Robert N. Bowen. There is a mystery here. The *Honolulu Star-Bulletin* and Yost accounts speak only of mass burials at the present Outrigger Canoe Club Premises (by the Elks Club) while the Bishop Museum records speak only of mass burials at the old Outrigger Canoe Club Premises (by the Royal Hawaiian) and the Federal Register provides no location data within Waikiki but gives a significantly

greater number of individuals (96) than suggested in the Yost history of the Outrigger (which specifies 27 burials). Given the close relationships of the dates of the report of Bowen's work on multiple burials at the present Outrigger Canoe Club (Jan. 24, 1963) and the date of accession of remains at Bishop Museum (Jan. 22, 1963), and noting that there is no account in the Bishop museum records of remains from the "new: Outrigger Canoe Club location. it appears most likely to us that all of the burials reported were actually from the present "new" Outrigger Canoe Club location. This remains uncertain.

In 1964, sand dune burials, a traditional Hawaiian mortuary practice, were revealed as beach sand eroded fronting the Surf Rider 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 that contained "a large percentage of luxury items, including porcelain table wares 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:i). 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 beachfront 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, Hurlbett 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 postholes.

In 1993, during construction activities at the Waikīkī Aquarium, directly adjacent to the present project area, 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'ō 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 Kālainmoku 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 'Ōhua 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). These discoveries were the closest to the current project area on the *makai* side of Kalakaua 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 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 Ka'iulani and 'Ōhua Avenues (Winieski 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 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 'Ōhūa Avenues.

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 'Ōhūa Street and Kalākāua Avenue (Cleghorn 2001a and 2001b). Because of their proximity to five burials encountered during the Kalākāua 16" Water Main Installation (Winieski 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 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 State Site number(s) be assigned to these three previously disturbed burials. The only primary in situ burial encountered on Uluniu Avenue was assigned State Site #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 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 including human remains a cultural layer and a fishpond remnant.

In 2005 Cultural Surveys Hawai'i conducted an archaeological inventory survey of a 72,135 square foot (1.67 acre) project area on Kaio'o Drive (TMK: [1] 2-6-012: 37, 38, 39, 40, 41, 42, 43, 44, 55, 56, 57) (O'Hare et al. 2005). One. Site 50-80-14-6848, a pre-contact fire pit radiocarbon dated to AD 1470-1660, was recorded.

In summary, past archaeological research, from the beginning of the twentieth century to the present has produced evidence that traditional Hawaiian cultural deposits, historic trash deposits, and, most notably, human burials, do exist throughout the breadth of the Waikīkī area.

Burials reported from outside the present project area but in the immediate vicinity include: 4 individuals "from site on beach in front of old Outrigger Canoe Club" *Federal Register* January 28, 1998 Volume 63, Number 18 page 9; BPBM records indicate this was ID No OA0464), 8 sets of human remains from Moana Hotel renovations (Simons et al. 1991), human remains from near the International Market Place (Bishop Museum records for 1967, Bush et al. 2003), and human remains at the former Waikiki 3 Theater location (O'Leary, et al. 2005).

Three areas of very high densities of burials have been previously reported from Waikīkī: in 1963 from the present Outrigger Canoe Club (apparently 96 burials – but see discussions above), in 1993 in a large communal burial feature uncovered during the realignment of Kālia Road at Fort DeRussy (approximately 40 human burials, Carlson et. al. 1994) and during a Kalākaua Avenue water line project near the intersection with Kealohilani Avenue (18 burials; Perzinski et al. 2000). It seems probable that additional areas with a high density of burials will be encountered in the future.

3.5 The Present Project Area

3.5.1 Finds During the Construction of the Royal Hawaiian Hotel 1923

It is widely assumed that at the time of the construction of the Royal Hawaiian Hotel that many human burials and other archaeological finds were encountered. Kanahale (1995:99) writes of an “*‘ulu maika* course was part of the royal sports complex of Kahuamokomoko in Helumoa” and states that: “When excavations for the Royal Hawaiian Hotel were made in the early 1920s many *‘ulu maika* discs were found.”

It seems highly probable that the “five individuals from Helumoa, Waikīkī, O‘ahu” that were collected by Kenneth P. Emory of the Bishop Museum in October of 1923 and reported as “victims of the 1853 smallpox epidemic” came from construction related to the Royal Hawaiian Hotel. (*Federal Register* January 28, 1998 Volume 63, Number 18 page 2; BPBM records indicate this was ID No.’s OA0019 – OA0023)

3.5.2 Finds During the Construction of the Sheraton 1970

It seems highly probable that “...eight individuals from Waikīkī...[donated] by the Sheraton Hawai‘i Corp.... recovered during excavations for tank construction... in March 1970 were indeed associated with the initial construction of the hotel (*Federal Register* January 28, 1998 Volume 63, Number 18 page 11; BPBM records indicate this was ID No OA0522 found on Sheraton Hawai‘i Corp Property logged in on 3/6/1970)

3.5.3 Discovery of Human Remains at the Sheraton Waikiki Basement (Accounting Department) C. 1993

Consultation with various parties confirms a previous discovery of human remains in the southeast corner of the Sheraton Waikiki building, c. 1993, during work on a sewer line in the basement of the accounting department. The discovery of human remains is understood as involving only one human female forearm. It appears that the bone was found within approximately 6” of the sewer pipe and had been disturbed during initial construction of the Sheraton. We understand the bone was re-interred on the east side of the Sheraton Waikiki building near the Grand Staircase and that a prominent reddish colored basalt boulder marker observed present there denotes the re-interment location. The remains will be protected from any disturbance during the construction. Reasonable and appropriate buffer zones will be designated around the re-interment location to ensure protection of the remains.

3.5.4 Elmore and Kennedy 2001 Burial

In April 2001 human remains were inadvertently disturbed during excavations associated with the construction of a spa at the Royal Hawaiian Hotel (Elmore and Kennedy 2001; Figures 23 & 24). 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 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 artefacts associated with it. The associated artefacts included one shell button found in-situ and three more shell buttons found in the disturbed material. A single drilled dogtooth was also found during excavation but could not be positively associated with the burial site.

The Elmore and Kennedy (2001:9) study relates:

One of the landscaping employees reported having encountered human remains in a nearby location twenty years ago while digging a hole to plant a tree. He indicated that upon encountering the remains, he dug the hole much deeper, and placed the remains at the base of the pit before planting the tree. The tree is no longer extant, though its roots could be seen at the time of the current [2001] investigation.

No further information has been identified regarding these additional remains “in a nearby location”. As a generalization, there is a higher likelihood of additional burials in the vicinity of post-contact burials (as in the case of Site 50-80-14-5937) than in the vicinity of pre-contact burials. The remains will be protected from any disturbance during the construction. Reasonable and appropriate buffer zones will be designated around the site to ensure protection of the remains.

3.5.5 Recent Royal Hawaiian Hotel Vicinity Finds

A recent OHA letter (Nāmu‘o September 15, 2004) has noted that subsequent to that discovery a human skull was turned in to the Burial Sites Program of the State Historic Preservation Division by an anonymous donor. The OHA letter (Nāmu‘o September 15, 2004) recommended that the question of the provenience of these *iwi* should be pursued. To address this directive, Cultural Surveys Hawai'i researched the prior holdings of human remains in Bishop Museum osteological catalogs and met (on 2/17/05) with Ms. Lurline Salvadore formerly of the Kamehameha Schools' staff and a former representative to the O'ahu Island Burial Council. Ms. Salvadore did confirm that it was also her understanding that several sets of remains discovered during the prior re-development of the Royal Hawaiian Shopping Center (perhaps c. 1979) were indeed re-interred in the Hali'a Aloha Kūpuna re-interment facility constructed near the entrance to the Honolulu Zoo. Study of Bishop Museum records, however, did not reveal any accession numbers relating to this location and time frame. Thus the history of previous discoveries of human remains within the area remains something of a mystery.

3.5.6 Monitoring of Geotechnical Testing

A monitoring program was prepared to attend certain geotechnical testing. Five holes were monitored and data was developed on stratigraphy but there were no significant finds. (Hammatt and Shideler 2007 in progress).

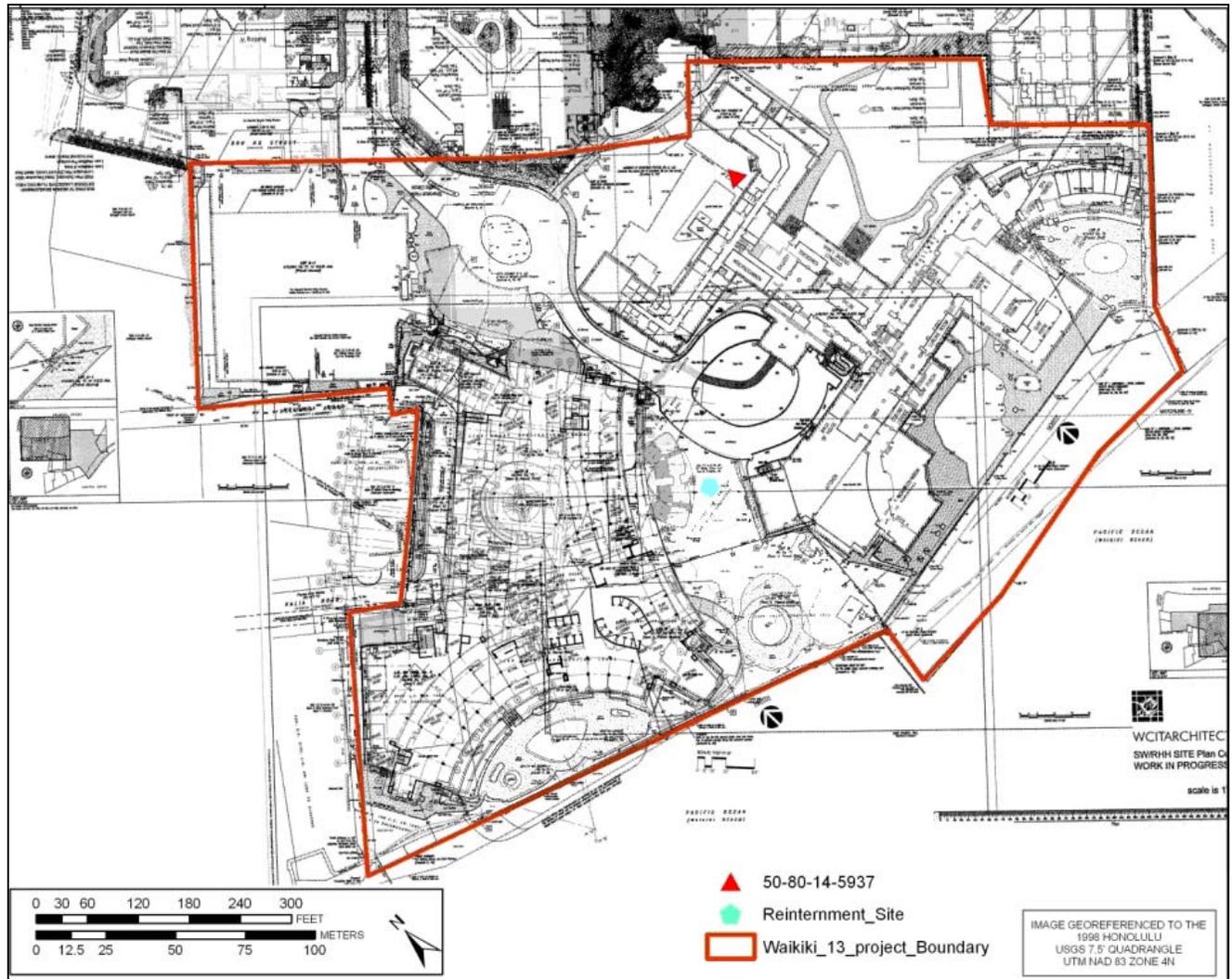


Figure 23. Site plan showing the approximate location of SIHP # 50-80-14-5937 (human remains) within the Sheraton Waikiki/Royal Hawaiian Hotel property

3.6 Results of Archaeological Subsurface Survey Fieldwork

3.6.1 Project Background

The archaeological subsurface survey for the Royal Hawaiian and Sheraton Waikiki renovation project followed an archaeological inventory survey plan (Hammatt and Shideler May 2007) reviewed and accepted by the State Historic Preservation Division (Section 6E-42 review letter dated July 31, 2007; Log No. 2007.2122, Doc No. 0707ED30). The project was initiated as an "Archaeological Inventory Survey" but in the absence of any identified new sites the project report is entitled an "Archaeological Assessment" as per HAR 13-275-5 (b) 5 (A). The subsurface survey fieldwork was divided into two phases. The first phase involved post-hole excavations in locations where project construction was believed to potentially impact cultural resources. The purpose of Phase I testing was to estimate the presence or absence of cultural features and deposits within the project area as well as provide stratigraphic information including depths of imported fill material. The second phase involved using the information from Phase I fieldwork to situate two 2 m by 2 m square test units (each including 4 m²) in locations specifically indicated to possibly contain cultural resources that might be impacted by the proposed construction. Geotechnical work in the area was not completed before the archaeological subsurface testing survey fieldwork and therefore not all that information was able to be taken into consideration for specific locating of the test excavations.

In the archaeological inventory survey plan (Hammatt and Shideler May 2007) there are five specific areas proposed for renovation that may involve subsurface impacts. Two of these areas (South Sheraton and East Royal Hawaiian Hotel) were not suggested in the plan for testing during the archaeological sub-surface survey. In the case of the East Royal Hawaiian Hotel area, this is believed to have been very close to the mouth of the 'Āpuakēhau Stream *muliwai* or lagoonal backwater and is thought to be the least sensitive of the five proposed renovation areas. This area is thought to have been open water or a shifting sand bar into the 20th century. Both the South Sheraton and East Royal Hawaiian Hotel renovation areas are quite developed with actively used swimming pools, paved decks and amenities. Any attempt at excavation in these areas under present conditions would be problematic both in terms of impact to on-going hotel operations and because of physical impediments to the excavation work. A fifth area in the southwest corner of the project lands had been proposed for the installation of a grease trap interceptor. The grease trap interceptor installation part of the project was relocated to an area not requiring any excavation work. In the absence of any planned work and given the intrinsic difficulty of testing in this busy, paved area no archaeological work was attempted there as part of this study. The SW Royal Hawaiian Hotel Pool area of work and the North Sheraton Traffic Island were tested during this sub-surface survey.

3.6.2 Archaeological Assessment Survey, Phase I

The SW Royal Hawaiian Hotel area of work consists of a swimming pool and paved deck on the seaward end and an adjacent large lawn extending inland. This is understood as the locus of Land Commission Awards (LCA) 1782 to Kahope, LCA 1281 to Kuluwailehua owned by Mr. and Mrs. Macfarlane, and LCA 228 to Kaleiheana with many houses located in the immediate vicinity circa 1846 and probably for some time before that. The Helumoa Heiau may have been

located close by. Ten to eleven post-holes were proposed for this area during Phase I archaeological sub-surface survey testing.

The North Sheraton area of work consists primarily of asphalt-paved roads, a portion of the Sheraton Waikiki reception area, and a small circular landscaped median. This area is understood to have been part of Land Commission Award 228 to Kalaiheana (Kaleiheana), that has been suggested to have included certain royal residences. Three post-holes were proposed for this area during Phase I archaeological sub-surface survey testing.

3.6.3 Phase I Testing

Phase I included twelve successful post-hole excavations in two separate areas in the vicinity of the Royal Hawaiian and the Sheraton Waikiki Hotels in downtown Waikiki.

Archaeological survey work was intermittently conducted from October 1, 2007 to October 16, 2007 by several CSH archaeologists. The initial testing began in the SW Royal Hawaiian Hotel Pool area and found a high density of subsurface utilities present impeding progress. Archaeological survey fieldwork began in the North Sheraton Traffic Island project area on October 16, 2007. Three test units were planned for this area, focusing on the *mauka* portion of the traffic island. One test unit was attempted and was successful. The test unit provided adequate information as to not require the need for further post-hole testing in the North Royal Hawaiian Hotel Traffic Island area of work.

3.6.4 General Stratigraphy found throughout the Phase I archaeological survey fieldwork

Stratum I	<p>Fill Horizon; 10 YR 3/2, very dark greyish brown; clay loam, weak fine to medium crumb structure, friable moist consistency, slightly plastic, terrestrial fill sediment</p> <p>The fill layer contains a high volume of historic debris.</p>
Stratum II	<p>Disturbed Sand; 10 YR 3/4, dark yellowish brown; medium grain sand, structureless, single grain, loose dry consistency, non-plastic</p> <p>This layer contains historic debris and is possibly mixed with a buried A-Horizon.</p>
Stratum III	<p>Jaucus Sand; 10 YR 7/3, very pale brown; fine sand, structureless, loose dry consistency, non-plastic</p> <p>This layer is marine deposited sediment.</p>
Stratum IV	<p>Disturbed Sand Fill; 10 YR 3/4, dark yellowish brown; medium grain sand, structureless, single grain, loose dry consistency, non-plastic</p> <p>The fill layer contains a high volume of historic debris.</p>

CSH attempted eighteen test unit locations in the project area, a total of twelve test units were considered successful. From the information gathered from these twelve test units the depth of fill deposits and location of jaucas sand deposits were determined. The entire project area including the SW Royal Hawaiian Hotel Pool Area and the North Sheraton Traffic Island, contained thick imported fill deposits and was highly disturbed by utilities and prior building construction activities. Recent information informing CSH of subsurface storage and locker rooms underneath the majority of the northern portion of the SW Royal Hawaiian Hotel Pool project area indicates that this area is highly disturbed and contains more than 270 cm of imported fill material in some locations, as indicated by T.U. 5. Fieldwork in the North Sheraton Traffic Island found this area to contain more than 240 cm of imported fill material. Only one test unit was required in this area due to the depth of fill materials. The proposed construction of an asphalt roadway in this area would not impact any sediments other than fill material.

Phase I post-hole testing indicated Jaucas sand deposits, commonly known to contain significant archaeological materials and human burials, were found within the project area. Jaucas sand was only observed in the *makai* portion of the SW Royal Hawaiian Hotel Pool Area from approximately 170-220 cm below the ground surface. The undisturbed jaucas sand sediment could be impacted by the resort pool development. For Phase II work in this project area it was determined that test units be located in the SW Royal Hawaiian Hotel Pool area. No culturally significant artifacts, features, or historic properties were observed during Phase I archaeological survey fieldwork. This was not unexpected given the heavy fill deposits, the extensive prior disturbance and the relatively small diameter of the test holes.

3.6.5 Archaeological Survey, Phase II

It was determined from Phase I of this archaeological survey testing that the SW Royal Hawaiian Hotel Pool area was the location of highest probability for finding cultural deposits and/or burials. The SW Royal Hawaiian Hotel Pool area was the only area tested during Phase I to contain natural jaucas sand sediments at a depth which could be impacted by the proposed renovation work. Therefore, Phase II test units were situated in this portion of the project area. In consultation with SHPD, two 2 m x 2 m test units (T.U. 12 and T.U. 13) were deemed appropriate in this location. T.U. 12 contained several significant cultural materials and two isolated human bone fragments within a disturbed sand stratum. As per SHPD determination (letter of December 12, 2007; Log no 2007.4127, Doc No. 0712LM02) the remains were re-interred at an existing re-interment location in close proximity to where the remains were found. T.U. 13 contained disturbed sand and jaucas sand strata. Several features were identified in the jaucas sand stratum however none contained any significant cultural materials or remains.

3.6.6 Phase II Testing

Backhoe excavation was necessary to remove upper fill sediment (Strata Ia-Ic) from the Phase II test unit locations. Sediment was removed down to the existing disturbed sand stratum (Stratum IIa). Two test units, T.U. 12 and T.U. 13, were excavated on the *makai* end of the SW Royal Hawaiian Hotel Pool Area. T.U. 12 was centered between the Royal Hawaiian Hotel and the existing pool. T.U. 13 was located between T.U. 12 and the existing pool. The test units were divided into four one-meter portions, all sediment was consistently kept in separate portions during removal, screening, and artifact collecting.

3.6.7 Phase II Results

T.U. 12

Once the upper fill sediment was removed with a backhoe, a 2 m x 2 m test unit (T.U. 12) was laid out (Figure 25). Sediment was removed using shovel, trowel, and buckets. T.U. 12 contained disturbed sand sediment (Stratum IIa-IIc) and was excavated to approximately 2.25m in depth (approximately seven and a half feet). The disturbed sand sediment included many basalt cobbles and boulders and an abundance of cultural material (bottles, ceramics, metal, brick, faunal bone, marine shell, etc.).

Several notable cultural finds and isolated human bones were recovered from test unit 12. At approximately 147 cm below surface (cmbs) a coral file was found. A human distal hand phalange (thumb) was recovered in the screen from the NE portion of the test unit. The phalange was found approximately 70 cmbd (145 cmbs) in Stratum II disturbed sand. A left lateral cuniform metatarsal (foot bone) was found in the SW portion of T.U. 1 in Stratum II disturbed sand at approximately 117 cmbd (192 cmbs). As per SHPD determination (letter of December 12, 2007; Log no 2007.4127, Doc No. 0712LM02) the remains were re-interred at an existing re-interment location in close proximity to where the remains were found.

T.U. 13

Archaeological observation was conducted by CSH while fill sediments were removed with a backhoe down to the disturbed sand stratum (Stratum II). Once the disturbed sand stratum was observed the base of the excavation was leveled and a 2m x 2m test unit (T.U. 13) was laid out. The sediment was removed using shovel, trowel, and buckets. T.U. 13 contained a Stratum II disturbed sand layer and an undisturbed Stratum III jaucas sand layer (Figure 26).

Stratum II contained very little cultural material. Once Stratum III jaucas sand sediments were observed, the base of excavation was leveled and new artifact bags were assigned. The leveled surface of Stratum III indicated several possible feature outlines. Fourteen features were recorded in T.U. 13. Each possible feature was bisected in order to observe its shape and get beginning and ending elevations. Sediment from each feature was kept separate and screened in a 1/8 inch screen. All materials from each feature were collected.

The features were defined as either trash pits, possible post-molds, or undefinable. Features 1, 4, 6, 8, 9, and 11 are defined as possible post-molds. Features 1, 4, 8 and 9 appear to be somewhat aligned and at approximately similar depths. It is not clear whether these post-molds are pre-Contact or post-Contact, however several of the possible post-mold features are seen in profile walls and appear to originate from the disturbed sand stratum, indicating a later age of construction.

None of the features contained substantial burnt bone or definite midden material. Feature 2 contained a large amount of faunal bone (fish, small to medium mammal bone) and charcoal, yet the feature appeared to have been previously disturbed as the faunal material was found inside the feature as well as scattered around the feature.

Virtually all of the finds made during archaeological survey work were from a disturbed context. Finds did however include a pre-contact fishhook fragment, coral file, worked bone and



Figure 25. Photo showing T.U. 12 after removal of fill sediments to the disturbed sand stratum (Stratum II) illustrating the depth of the fill



Figure 26. Photo showing T.U. 13 base of excavation illustrating the depth of the disturbed deposit overlying jaucas sands

worked shell (Figure 27). Post-Contact artifacts included a good percentage of artifacts from the mid to late 1800s such as bottles (Figure 28)

3.7 Background Summary and Predictive Model

This study has served to highlight a dozen or more concerns for possible cultural resources within the areas in which renovation work may potentially adversely impact cultural resources. Indications of possible cultural resources identified in the historic record include the following:

- The common place name for this area “Helumoa” is translated as “chicken scratch” with the provided explanation that “Chickens scratched to find maggots in the victim’s body” in reference to the remains of human sacrifices at the Helumoa Heiau (Pukui et al. 1974:44). We know of no maps showing the precise location of Helumoa Heiau. Thomas Thrum (1906:44) relates that it was a “place of sacrifice” going back at least as far as A.D. 1610. Later Thomas Thrum (1927:34) would note: “This temple was long ago demolished, not a stone being left to mark the site, which was doubtlessly near, if not *the* [italics in original] actual spot now graced by the new Royal Hawaiian Hotel.” It seems most likely to us that the Helumoa Heiau was located on the prominent point between the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work. This suggests a heightened probability of human remains in all the proposed areas of work but in particular in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of renovation work.
- Assertions that the royal residence of the ruling chiefs Kahekili and Kahahana before him, and perhaps previous O‘ahu ruling chiefs were located between the Royal Hawaiian Shopping Center and the Royal Hawaiian Hotel. (‘I‘i 1959:17; Kanahale 1995:134). This area includes the North Sheraton proposed area of renovation work.
- Fornander’s (1919 Volume VI, part 2; page 289) account of “The Story of Kahahana” provides the detail that (circa 1785) the massive invasion force of the Maui chief Kahekili was encamped at ‘Āpuakēhau, where they were organizing and preparing to march inland. Furthermore, it was there at ‘Āpuakēhau that the O‘ahu forces first attacked “the Maui troops collected at the *heiau*.” There “a fight commenced to which Hawaiian legends record no parallel”. (Fornander 1919 Volume VI, part 2; page 289). It appears clear that the fighting referred to began in close proximity to Helumoa Heiau. It seems most likely to us that the Helumoa Heiau was located on the prominent point between the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work. This suggests a heightened probability of human remains in all the proposed areas of work but in particular in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work
- ‘I‘i provides more specific data in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 declaring that “Kamehameha himself lived on this land.” [between the Royal Hawaiian Shopping Center and the Royal Hawaiian Hotel] (Appendix A-2). This LCA 228 area includes the North Sheraton proposed area of work.
- ‘I‘i comments in his supportive testimony for LCA 228 awarded to Kaleiheana in 1847 that relatively high status attendants of Kamehameha 1 (“Their work was taking



Figure 27. Photo of traditional Hawaiian artifacts found in T.U. 12, side 1, from left to right: worked bone, fishhook head fragment, coral file, 3 pcs. of worked shell



Figure 28. Photo of two whole bottles found in T.U. 12, the bottles are embossed “Mellins Infant Food Doliber-Goodale Co., Boston, Small Size” and “Hollister & Co. Honolulu, H.I.”

care of the house and preparing the food. These people were in constant contact with the chiefs and were close to each and every chief”) continued to live on the property when Kamehameha I died. (‘Ī‘ī, Appendix A-2)

Kanahele (1995:99) writes of an “*‘ulu maika* course that was part of the royal sports complex of Kahuamokomoko in Helumoa” and states that: “When excavations for the Royal Hawaiian Hotel were made in the early 1920s many *‘ulu maika* discs were found.” indicating the prospect for further finds in the general vicinity.

- Land Commission Awards (summarized in Table 1) indicate a pattern of relatively dense, relatively high status habitation within the project area lands particularly in the Southwest Royal Hawaiian Hotel and South Sheraton proposed areas of work but also in the West Sheraton (grease interceptor) and North Sheraton proposed areas of work
- Reference in the October 1923 records of the Bernice Pauahi Bishop Museum that “...five individuals from Helumoa, Waikīkī, O‘ahu were collected by Kenneth P. Emory. Museum information indicates they were victims of the 1853 smallpox epidemic...” (*Federal Register* January 28, 1998 Volume 63, Number 18). Given that the Royal Hawaiian was not opened until February 1 1927 it is not clear to us that these remains were from construction of the Royal Hawaiian. Regardless the Helumoa remains could not have been recovered from very far away. The rationale for Emory’s association of the remains with the smallpox epidemic is not known to us at this time. Because of the nature of the disease small pox burial grounds could include many sets of remains indicating the prospect for further finds in the general vicinity.
- Reference in the 1970 records of the Bernice Pauahi Bishop Museum that: “...eight individuals from Waikīkī...[donated] by the Sheraton Hawai‘i Corp....recovered during excavations for tank construction...”. This would appear to relate to the original work at the Sheraton Waikiki that was completed in 1971. This suggests a heightened concern for the North Sheraton and South Sheraton proposed areas of work but also indicates the prospect for further finds in the general vicinity.
- The understanding that several sets of remains were discovered during the prior re-development of the Royal Hawaiian Shopping Center (perhaps c. 1979) (personal communication from Ms. Lurline Salvadore formerly of the Kamehameha Schools’ staff).
- The apparent discovery of human remains c. 1993 (personal communication from Mr. David Lee) during work on a sewer line in the basement of the accounting department of the Sheraton Waikiki just northwest of the South Sheraton area of proposed work indicating a heightened probability of finds in this area. We believe these remains were relocated to the Southwest Royal Hawaiian area of proposed work.
- This discovery of human remains (that still remain in place in the North Royal Hawaiian Hotel proposed area of work (SIHP # 50-80-14-5937) in April 2001 during excavations associated with the construction of the Abhasa Spa at the Royal Hawaiian Hotel (Elmore and Kennedy 2001). The Elmore and Kennedy (2001:9) study relates an anecdotal account of additional remains “in a nearby location”. As a generalization,

there is a higher likelihood of additional burials in the vicinity of post-contact burials (as in the case of Site 50-80-14-5937) than in the vicinity of pre-contact burials.

- The substantial history of archaeological work in Waikīkī has indicated a relatively high density of burials within Beach sand and Jaucas sand deposits such as constitute the soils in the entire project area. Much of Waikīkī was formerly quite low-lying, at or close to the water table. Lands that were slightly higher, such as the present project area were preferentially chosen for interment of the dead.

In view of the twelve points enumerated above and the identification previously of human remains , pre-Contact artifacts and artifacts from the mid to late 1800s that on-site archaeological monitoring of renovation related excavations into natural deposits (both previously disturbed and not previously disturbed is warranted)

Section 4 Archaeological Monitoring Plan Provisions

In consultation with SHPD, it was determined that a monitoring program was warranted as an historic preservation mitigation measure for the proposed Royal Hawaiian and Sheraton Waikiki renovation projects. The following discussion outlines the provisions and procedures that will govern the project's archaeological monitoring program.

Under Hawai'i State historic preservation legislation, "Archaeological monitoring may be an identification, mitigation, or post-mitigation contingency measure. Monitoring shall entail the archaeological observation of, and possible intervention with, on-going activities which may adversely affect historic properties" (HAR Chapter 13-279-3). For this project, the proposed monitoring program will serve as a mitigation measure that insures proper documentation should historic properties be encountered during water main work.

Hawai'i State historic preservation legislation governing archeological monitoring programs requires that each monitoring plan discuss eight specific items (HAR Chapter 13-279-4). The monitoring provisions below address those eight requirements in terms of the archaeological monitoring for the construction within the project area.

1. Anticipated Historic Properties:

The project area has the potential for pre-contact and historic cultural deposits as well as human burials both in a disturbed context within previously disturbed native sediments and in situ within underlying undisturbed deposits.

2. Locations of Historic Properties:

Historic properties may be encountered anywhere within the project area within undisturbed deposits. Previously disturbed, but still significant finds may be present within previously disturbed deposits..

3. Fieldwork:

On-site monitoring is recommended for all ground disturbance activities below modern fill layers of terrestrial origin. A qualified archaeologist will monitor all ground disturbance associated with the project's construction. Any departure from this will only follow consultation with, and written concurrence from, SHPD/DLNR.

The monitoring fieldwork will likely encompass the documentation of subsurface archaeological deposits (e.g, trash pits and structural remnants) and will employ current standard archaeological recording techniques. This will include drawing and recording the stratigraphy of excavation profiles where cultural features or artifacts are exposed as well as representative profiles. These exposures will be photographed, located on project area maps, and sampled. Photographs and representative profiles of excavations will be taken even if no historically-significant sites are documented. As appropriate, sampling will include the collection of representative artifacts, bulk sediment samples, and/or the on-site screening of measured volumes of feature fill to determine feature contents.

If human remains are identified, no further work will take place, including no screening of back dirt, no cleaning and/or excavation of the burial area, and no exploratory work of any kind unless specifically requested by the SHPD. All human skeletal remains that are encountered during construction will be handled in compliance with HRS Chapter 6E-7 and 6E-8 and HAR Chapter 13-300 and in consultation with SHPD/DLNR.

4. Archaeologist's Role:

The on-site archaeologist will have the authority to stop work immediately in the area of any findings so that documentation can proceed and appropriate treatment can be determined. In addition, the archaeologist will have the authority to slow and/or suspend construction activities in order to insure that the necessary archaeological sampling and recording can take place.

5. Coordination Meeting:

Before work commences on the project, the on-site archaeologist shall hold a coordination meeting to orient the construction crew to the requirements of the archaeological monitoring program. At this meeting the monitor will emphasize his or her authority to temporarily halt construction and that all historic finds, including objects such as bottles, are the property of the landowner and may not be removed from the construction site. At this time it will be made clear that the archaeologist must be on site during all subsurface excavations.

6. Laboratory work:

Laboratory analysis of non-burial related finds will include standard artifact and midden recording, as follows: Artifacts will be documented as to provenience, weight, length, width, type of material, and presumed function. Bone and shell midden materials will be sorted down to species, when possible, then tabulated by provenience, and presented in table form.

7. Report Preparation:

One of the primary objectives of the report will be to present a stratigraphic overview of the project area which will allow for predictive assessments of adjacent properties, which may be the subject of future development. The report will contain a section on stratigraphy, description of archaeological findings, monitoring methods, and results of laboratory analyses. The report will address the requirements of a monitoring report (HAR section 13-279-5). Photographs of excavations will be included in the monitoring report even if no historically-significant sites are documented. Should burial treatment be completed as part of the monitoring effort, a summary of this treatment will be included in the monitoring report. Should burials and/or human remains be identified, then other letters, memos, and/or reports may be requested by the Burial Sites Program.

8. Archiving Materials:

Materials not associated with burials will be temporarily stored at the contracted archaeologist's facilities until an appropriate curation facility is selected, in consultation with the landowner and SHPD. In the event that human remains are encountered and relocation is deemed appropriate by the SHPD then any interim curation of human remains and any associated grave goods will be at the direction of the SHPD.

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2002 *Archaeological Monitoring Report, The Kuhio Beach Extension/Kalākaua Promenade Project, Waikīkī Ahupua'a, Kona District, Island of O'ahu (TMK 2-6-1-, 2-6-22, 2-6-23, 2-6-26, 2-6-27, 3-1-43)*, Cultural Surveys Hawai'i, Kailua, HI.

Yost, Harold

1971 The Outrigger Canoe Club of Honolulu, Hawaii. Outrigger Canoe Club, Inc., Honolulu, HI

Appendix A Exhibit "A" Land Interests

EXHIBIT "A" Land Interests for TMK [1] 2-6-002: 5 (10.3 Acres), TMK [1] 2-6-002: 006 (3.5 Acres) and TMK [1] 2-6-002: 026 (0.9 Acres)

The Land Interests held for the Royal Hawaiian and Sheraton Waikiki hotel parcels are as follows:

Land Interests for TMK [1] 2-6-002: 005 (10.3 Acres)

Kyo-ya Hotels & Resorts LP
BP Bishop Trust Estate

Land Interests for TMK [1] 2-6-002: 006 (3.5 Acres)

Kyo-ya Hotels & Resorts LP

Land Interests for TMK [1] 2-6-002: 026 (0.9 Acres)

WENDY BRANDT JOHNSON,
Trustee of that certain unrecorded Wendy Brandt Johnson Declaration of Trust dated December 16, 1987, a Short Form of which is recorded in Liber 21484 at Page 769, with powers to sell, mortgage, lease, etc., as to an undivided 0.009039215 interest,

SUSAN BRANDT, Trustee of that certain unrecorded Susan Brandt Declaration of Trust dated December 16, 1987, a Short Form of which is recorded in Liber 21484 at Page 741, with powers to sell, mortgage, lease, etc., as to an undivided 0.009039215 interest,

REX BRANDT, Trustee of that certain unrecorded Rex Brandt Declaration of Trust dated December 16, 1987, a Short Form of which is recorded in Liber 21484 at Page 756, with powers to sell, mortgage, lease, etc., as to an undivided 0.009039215 interest,

EDITH BETSY LEE, Trustee under Declaration of Trust dated October 1, 1991, with powers to sell, mortgage, lease, etc., as to an undivided 0.028238235 interest,

HARVEY PARTICK LEE, Trustee under Declaration of Trust dated October 1, 1991, with powers to sell, mortgage, lease, etc., as to an undivided 0.028238235 interest,

DIANA WORTHINGTON KRIEG and JAN KRIEG, Trustees of the Diana and Jan Krieg 1993 Trust dated May 7, 1993, with powers to sell, mortgage, lease, etc., as to an undivided 0.0159289567 interest,

CYNTHIA BANNING WORTHINGTON, wife of James Gilbert Cliff, as to an undivided 0.0159289567 interest,

WILLIAM JOHN WORTHINGTON and DE NIECE WALLACE WORTHINGTON, Trustees of the William John Wallace Worthington Revocable Trust with powers to sell, mortgage, lease, etc., as to an undivided 0.0159289566 interest,

MARY ELIZABETH SMART REYNOLDS, wife of Arthur McKinley Reynolds, III, as to an undivided 0.013155795 interest,

LIVING DESERT RESERVE, a California non-profit corporation, as to an undivided 0.013155795 interest,

THE HEIRS AND DEVISEES OF PAMELA GARWOOD, as to an undivided 0.026311600 interest,

SAMUEL A. KUHN and EDWIN R. KUHN, Successor Trustees of The Paloma J. Kuhn Hawaiian Trust dated February 22, 1990, executed by Paloma Jaeger Kuhn, as Trustor, with powers to sell, mortgage, lease, etc., as to an undivided 0.005423525 interest,

CYNTHIA N. ANAMIZU, Trustee of the Cynthia N. Anamizu Revocable Trust dated September 21, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.00436405335 interest,

CAROLE ANAMIZU, Trustee of the Carole Anamizu Revocable Trust dated September 21, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.00436405335 interest,

LOUISE S. HO, Trustee of the Louise S. Ho-McWayne Revocable Living Trust dated November 9, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.0174562133 interest,

JAYNE H. ABE, Trustee of the Jayne H. Abe Revocable Trust dated November 6, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.00218202668 interest,

CALVIN K. ABE, Trustee of The Calvin K. Abe Revocable Trust dated November 6, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.00218202667 interest,

CLYDE T. ANAMIZU, Trustee under that certain unrecorded Living Trust dated May 23, 2001, with powers to sell, mortgage, lease, etc., as to an undivided 0.00436405335 interest,

REVONDALEI YUKA BORGERDING, wife of Jeffry John Borgerding, as to an undivided 0.00872810665 interest,

JOHN ANTHONY FUJITO SAKURAI, husband of Laurene Mamokuipoaloha Sakurai, as to an undivided 0.00872810665 interest,

LUCILLE ELAINE ROBINSON, as to an undivided 0.002150000 interest,

DAVID N. ROBINSON, Trustee of the David N. Robinson Trust U.T.A. restated January 12, 2005, with powers to sell, mortgage, lease, etc., as to an undivided 0.007964478 interest,

JANET L. ROBINSON, Trustee of the Nancy A. Robinson Living Trust dated May 30, 1997, with powers to sell, mortgage, lease, etc., as to an undivided 0.007964478 interest,

MICHAEL A. ROBINSON, Trustee of the Michael A. Robinson Living Trust dated April 7, 1999, with powers to sell, mortgage, lease, etc., as to an undivided 0.007964479 interest,

J.L.P. ROBINSON LIMITED PARTNERSHIP, a registered Hawaii limited partnership, as to an undivided 0.192962490 interest,

WILLIAM RHETT TABER, ALLAN ZAWTOCKI, and WILLIAM W. PATY, Trustees under the Will and of the Estate of Mark Alexander Robinson, deceased in Trust, with powers to sell, mortgage, lease, etc., as to an undivided 0.390361675 interest,

WILLIAM RHETT TABER, ALLAN ZAWTOCKI, and WILLIAM W. PATY, Trustees under that certain Deed of Trust executed by Mark Alexander Robinson and Mary Kapuahaulani Hart Robinson, husband and wife, as Settlers, dated July 30, 1953, filed as Land Court Document No. 151326, recorded in Liber 2720 at Page 352, with powers to sell, mortgage, lease, etc., as to an undivided 0.14883606 interest, as Fee Owner

Appendix B Land Commission Awards

B-1 LCA 104 F.L., Kekuaanoa

Kekuaanoa, Haliimaile, 3 December 1851 N.R. 765-766v3

The Honorable William L. Lee, Greetings: I hereby present my claim in some 'Ili in Honolulu and in Waikiki in the lands of the Fort which I am caring for. Here are the names:

[Following discussion of Honolulu 'Ili lands omitted]

Here are my claims at Waikiki:

2 lo`i at Kalia, `Ili in Waikiki.

5 fish ponds at Kalia in Waikiki.

1 muliwai of Piinaio, in Waikiki.

Those are my claims which I have thought of. There is one cocoanut grove. Makalii, also at Kalia. That is what I state to you. Farewell to you. M. KEKUANA OA

N.T. 390v10 No. 104 F.L. M. Kekuaanoa (from page 320) for 17 August 1854, Victoria Kamamalu L. Kukoa, sworn, I have seen his house site in Kapuni, Waikiki, Kona, Oahu.

Mauka, Road

Waiialae, Hamohamo boundary

Makai, beach

Honolulu, a meeting house.

This place was received from Kinau in 1839. She had received it from her mother.

Mahuka, sworn, the statements above are correct and I have seen his other claims. 2 ponds named Paweo, also Kaipuni, Pau, Kaihikapu, Manolepa and Kaohai in Waikiki, Kona, Oahu.

He had received the land from Kinau in 1839. She had received it from Kaahumanu in 1832. No objections.

[Award 104 F.L.; R.P. 4492 (Kaihikapu Puuiki)& 4493; Kalia Waikiki Kona; 1 ap.; 1.49 Acs; Kuhimana Honolulu Kona; 1 ap.; 2 Acs; no R.P. ; Kamanolepa Waikiki Kona; 1 ap.; 2.06 Acs; R.P. 4492; Kapuni Waikiki Kona; 1 ap.; 31 Acs; R.P. 4492; Uluniu Waikiki Kona; 1 ap.; 31 Acs; R.P. 4493; Uluniu Waikiki Kona; 1 ap.; 71.7 Acs]

B-2 LCA 228 , Kalaiheana

[Kalaiheana], Ii, claimant F.R. 150v1

No. 228 1 document in Native Register, page 1, volume 2

N.R. 1-3v2 No. 228, [Kalaiheana], John Ii for Kalaiheana

Greetings to the Commissioners whom the Moi has appointed to quiet land titles: I, the undersigned hereby state that Kalaiheana's land, called Kanewai, is at Waikiki. It has some leles in Manoa - Keapuapu, Holoawalu /Kaloalu in N.T./, Pakui, and the lele of Pahoa at Waikiki; and the sea of Kahala. That was the land of Keeaumoku at Waikiki, adjoining the north side of Kalaepohaku. This land became his upon the victory of Kamehameha I at the Battle of Nuuanu, also Waialua, as was the custom of granting land to chiefs at that time. When the peleleu /fleet of large canoes/ came, the land passed from Keeaumoku to Papa and Kalaiheana, and all the leles were also conveyed. From thence came this acquisition and there was no deterrent until the year 1841. For the first time, an edge of Kahala as taken for Waialae. And in the year 1846 another portion was taken for Kalaepohaku, in the month of May, or perhaps June. The witnesses are Keheana and Eleele. This is ended.

Also, there is the cocoanut grove of Heleumoa at Waikiki. It is said that perhaps two years after /the Battle of/ Nuuanu, it went to some of us, to Kalaiheana, from Kamehameha I. No one objected until the year 1846, in the month of May or June, when it as taken for the first time. The witnesses are Kapuakaona and Ku.

Since Kalaiheana has chosen me has his representative, therefore I am making this request to you, the Land Commissioners.

I am, your servant,

John Ii

To: W. R., J. R., Y. K., K, Royal School, August 14, 1846

F.T. 162-163v1

Claim No. 228, John Ii, attorney, Kalaiheana, claimant, August 30 [1847]

Ku testified on oath, He knows the land in this case. It is at Waititi, its name is Helumoa. It is cocoanut land. Witness knows the boundaries.

Kalaukau is the name of the land, east

Keamoku that on the North

On the West is the old road leading from Honolulu

On the South is a stream called Apukokohau.

Claimant holds the land from Kamehameha I who gave it to Kaileo, he gave it to Papa, he willed it when he died to Keawikalohi, and he gave it to the claimant.

No person has claimed the land from the first-named person down until 1846. It came into claimant's hands in tie time of Rihoriho. Kuluwilehua is the counter claimant.

John Ii, testified on oath, that he knows the place, and that the persons already named were those who were living under Kamehameha, who had particular care of his household property and were known by the chiefs as such. Kamehameha himself lived on this land; & when he died, he left them in possession.

The chiefs went with Kamehameha to Hawaii & were there when he died, but their families remained. When Rihoriho came to the government he allowed them to remain.

After Kamehameha's death, the chiefs returned. Rihoriho fixed his residence on the same spot. So it has been through the reign of Kamehameha II & Kaahumanu, and has been left all along in possession of this class of people. Those living on the land are under claimant; six in number with own houses.

Kuluwailehua, stated that he founds his claim on his mother, a regular claim from Kamehameha, Rihoriho, Kaahumanu &c, through his mother's ancestors to himself. In 1842 he was living under Kekuanaoa, then the land became Kekuanaoa's and witness lived on it. It became Kekuanaoa's from Kekauluohi who had it from the King. In 1842 and 1843 this land was returned to witness and he lived under the King on it.

Witness relies on 7 Sec. 3 Chapter of laws of 1839, page 27. There are two divisions of this land; one of cocoanut trees & the other of kalo. The former piece has been taken off and constitutes the claim of Kalaiheana, and ought to be returned, according to the law cited. It was one land formerly, but Kamehameha 1 divided it, and gave it to Kalaiheana's ancestors.

Note. In another clause of those laws cited, the one referred to is restricted in its operation to the space of 6 months from the time of enactment.

The Board voted unanimously a freehold less than allodial to Kalaiheana for the part claimed and occupied by him and rejected the counter claim of Kuluwailehua.

Resumed page 164

F.T. 164-165v1

Claim No. 228, John Ii for Kalaiheana from page 162. September 1847

Claim No. 2 under 228. Eleele testified on oath that he knows the place which is at Waikiki. Kanawai is its name. It borders on the sea, which enters part of it.

On South & East is land of Kalaipohaku

On Northeast & North is land of Waihi

From Northwest & West round is Piliamo

On West Keokapu has land.

This land belonged to Keaumoku, father of Kaahumanu. The land was taken in possession by him under Kamehameha I when the last battle was found in Nuuanu. Another land at Waialua was also given him at the same time. When Kaumoku obtained it was in 1804. Claimant is his descendant. At that time it extended farther in the sea than now. The family has been in constant possession ever since & have never lived away from it since 1804. Witness is not related to the family.

Kaeana, testified on oath, that he knows the land & confirmed the general deposition of the former witness. He stated that Keapuapu, Pakui, Koloahu, Kaiokahala, Komolipo, Papaa were all living on the land or outside of it, and are members of the family, and live under claimant.

A freehold title less than allodial was voted by the Board to Kalaiheana.

N.T. 268v2 No. 228, John li [for Kalaiheana], Honolulu, August 30, 1847

Ku, sworn by the Word of God and stated. I have seen the property of Kalaiheana named Helumoa, it is a cocoanut grove and the boundaries are Keonuku on the right, Kaluaohau on the east, the river Apuakohau on the south and the old road to Honolulu here is on the west side. Kailio had received his interest from Kamehameha I; from Kailio to Papa; Papa to Keawekalohe and from Keawekalohe to Kalaiheana. Kalaiheana has lived there from the long ago to the year 1846 when Kuluwailehua had objected to him.

John Ii, sworn by the Word of God and stated, I have seen this land and these names which are written in this claim document are the attendants of Kamehameha 1. Their work was taking care of the house and preparing the food. These people were in constant contact with the chiefs and were close to each and every chief. When Kamehameha I died, they continued to live on the property and when the chief returned from Hawaii Kalaiheana went to live there. These people have lived there since Kamehameha II to Kaahumanu's reign, and to the year 1846 when Kuluwailehua had raised objections.

See page 271

Kuluwailehua's statement of objection to Kalaiheana. The interest to this land is for my parents who had lived (there) from Kamehameha I to Kaahumanu's reign. When my parents died in the year 1842, the land was taken by M. Kekuanaoa and I lived under him. Kekuanaoa had received his interest from Kekauluohi and Kekauluohi had received her interest from the king. In the year 1843 the land had become mine thro' the king and when I had looked (read) the Kuluwailehua's statement concerning borders, I realized that a border of my land had become Kalaiheana's property so I took that cocoanut grove because that is a border for Pahoa.

N.T. 271v2

No. 228, John Ii, [for Kalaiheana], From page 267

Eleele, sworn by the Word of God and stated, I have seen this land Kanewai by name in Waikiki, also the taro and the sea of Kahala. The boundaries are Waihi from the north to the east, Kalaepohaku on the east and the south sides and Palimoo and Kiokapu on the west side. That land is for Keeumoku I. He is the father of Kaahumanu and Keeumoku had received that land at the time of the battle of Nuuanu. Waihi at Waialua is another land. During the expansion, this land was given to Kalaiheana in the year 1804 and he has lived there since that time to this, no one has objected.

Kaheana, sworn by the Word of God and stated, I have seen this land, as has been mentioned by Eleele; however, there are other lands which I have seen (1) Keapuapu, (2) Kaloalu, (3) Kamoolepo of "Pakui." Kahala is the sea of these lands and the sea [name]. These are leles' for Kanewai and living there is through Keeumoku.

Pahoa, Kahala and Panewai are outside of the boundaries of Pahoa Ie. The land Pahoa is on the east, Nanaikola and Kamoku are on the west side. During the expansion these lands were taken by Kalaiheana but Pahoa was acquired by Keopulani through Kamehameha and in the year 1835, that land was returned again to Kalaiheana.

[Award 228; R.P. 7722; Pahoa Waikiki; 1 ap.; 1.11 Acs; no R.P.; Kanewai Manoa Kona; 1 ap.; 66.59 Acs; R.P. 8823; Helumoa Waikiki Kona; 3 ap.; 4.93 Acs; R.P. 7720; Kanewai Manoa Kona, 27 Acs 115 Anana 19 Kapuai; R.P. 7721; Kanewai Kahala Kona; 1 ap.; 173 Acs 54 lq[?] fathoms]

B-3 LCA 822, Okuu

**No. 922, Okuu, Helumoa, Waikiki, Honolulu, Oahu, October 1847
N.R. 536v2**

To the President of the Land Commissioners, William L. Lee, and J. H. Smith, Z. Kaauwai, John Ii. N. Namauu, being the commissioners to weigh the truth of the claims, in accordance with your directions, therefore, I hereby petition for the house lot claim at Helumoa in Waikiki. It was agreed by us that I would petition to you, the com-missioners who strip off the claims which are invalid and select the right claims when you know the truth, as in my claim of which I am telling you correctly. The circumference outside of this house is 104 fathoms 4 feet 9 inches. There are witnesses there who will testify truthfully as to my claim to you, the ones who act justly and correctly.

I am, with thanks, your obedient servant.
OKUU

F.T. 262v2

Claim 922, Okuu, April 3 [1848]

Kupanihi, sworn, I know this place. It is a house lot in Waititi, bounded:

Ewa by Kukiiuhi's
Mauka by John Ii's
Waititi by Nuu's and Hope's
Makai by the sea.

It has an adobie fence and five houses, one belonging to Ku, one to myself, 1 to Kini and two to claimant, who got the place from Kamaukoli, who had it from Kaahumanu in whose time Okuu came by it (about 1822). I know of no other person claimant it but him.

Kini, sworn, and confirmed all the previous particulars.

N.T. 602,604v2

No. 922, Okuu, wahine, 922 [note: no page 603]

Kupanihi, sworn and stated, "I have seen house lot which is at Waikiki. Thus, the boundaries are:

Kalaiheana's land, towa-rd the mountain
Nu's land and Kahope's lot, Waikiki and
the beach is toward the sea.

This place has a mud enclosure and there are five houses in there. Three of us are house owners. One house is mine, another is for Kini and the other is for Ku. Okuu had received this from Kamaukoli who had his interest from Kaahumanu, but Kamaukoli is the interest for life there. This land had been for Okuu's older brother and upon his death, Okuu had inherited it. I have not known that anyone has objected."

Kini, sworn and stated, "I have seen this place. Everything about it is just as Kupanihi has related here."

[Award 922; R.P. 4463; Helumoa Waikiki Kona; 1 ap.; .32 Ac.]

B-4 LCA 1281, Kuluwailehua

Kuluwailehua, Honolulu, 6 December 1847

N.R. 54v3

To the Land Commissioners, Greetings: I hereby tell you of my claims at Waikiki in the `ili of Kamoku, which was from the Mo`i; I live there under his protection, and the ko`eles and po`alimas, and the genuine land* and the cocconut grove and the fishery and the benefits of the land are mine under the Mo`i.

My own claims are a house lot and three lo`i which are my very own, from my makuahine.

I also tell you of Kamoku Two, the `ili of William Lunalilo which I have. The po`ailimas and the ko`eles are for William Lunalilo. I hold it as was the custom of the makuas.

Here is my own claim, for a house lot and five lo`i which is held by my kaikuahine who is over me, but I have the administration of it, this was the own property of our makuakane; three are her own and two are mine, a total of five lo`i.

There is also a claim for a small single lo`i in Kuilei; this single claim is held by me.

These are my claims which I tell you of.

Farewell to you all, L. KULUWAILEHUA

/*Translator's note: refers to land long developed and held under a konohiki./

F.T. 458v2

Cl. 1281, Kuluwailehua, September 4, 1848

[margin note: See Native Register page 242, volume III] [should say Native Testimony]

Kahiaweawa, sworn, I know these lands. They are an ili in Waititi called Kamokuakahi, Oahu. Claimant presented a paper from the Minister of Finance showing the land Kamoku was set aside to claimant in the division of lands, stating there were 8 natives & Hoaina) living on the land as his tenants, whose names are: 1. Kahiawaawa; 2. Anee; 3. Malo; 4. Keaka; 5. Haole; 6. Kaeina; 7. Kalione; 8. Kahiamoe; 9. Kawelohoalii, 10, Kaua.

These men are not counter claimants and claimant says he dos not wish to disturb the rights of these tenants.

2. Claimant has 5 kalo patches and a house lot in Kamoku elua which is Kanaina's or William Lunalilo's land (Postponed till 6th Instant)

3. I know the kalo patch claimant has in "Kuilai. It is bounded:

By Hao's land Mauka

Waimanalo by Namekanu's

Makai by a small road

Waititi by an auwai and the land of Kaaha.

Claimant had this land from Maka in 1847. Maka received it from Kealoaloa in 1831 and held it in peace until he gave it to Kuluwailehua, who now owns and cultivates it.

Ana, sworn, Knew these lands and confirmed the previous testimony.

N.T. 242-234v3

No. 1281, Kuluwailehua, September 4, 1848

Kahiaweawe, sworn and stated, "I have seen this land named Kamoku. It is an ili land in Waikiki and there are five patches and a house on Kamoku II.

Here is the number of people who are all living there, for they do have interest: 1) myself, 2) Anee, 3) Malo, 4) Keaka, 5) Haole, 6) Kaina, 7) Kalaeone, 8) Kahiamoe, 9) Kawelohelii, 10) Kaua. This is a division of Kuluwailehua from the King. To page 738

Kamaku is for Samuel Kuluwailehua. It is an ili at Waikiki in Kona, Oahu. This distribution is good and I am approving it. The land which is mentioned in writing above is for S. Kuluwailehua. It has been approved and may be taken to the land officers who quiet titles. (Signed) Kamehameha 3 Royal Residence January 31, 1848

I am announcing that this is a certified copy from the Book of Land Distribution. Office of the Minister of Interior, G. M. Robertson, Secretary

September 4, 1848

2. Parcel - This claim has been postponed to Wednesday. These are the patches and house lot at Kamoku II.

3. One patch is at Kuilei in Waikiki.

Hao's land is mauka

Nameakami's land, Waimanalo

a small street, makai

Kaaha's land, Honolulu.

Kuluwailehua's land is from Maka given in the year 1847. Maka had received this land in 1831 from Keolaloa. It had been acquired without cost because Kuluwailehua is Maka's nephew.

Anee, sworn and stated, "I have seen this land just as Kahiaweawe had seen it; no one had objected to Kuluwailehua."

N.T. 738v3

No. 1281, Samuel Kuluwailehua, from page 242

Land Division from the king of the ahupuaa land, county and island, Kamoku ili in Waikiki, Kona, Oahu.

This is to certify this grant; it is good. The land written above is for S. Kuluwailehua. It has been approved and it may be presented before the land commissioners.

Signed, Kamehameha

Royal Palace, January 31, 1848

This is a certified copy from the Award Book, W. Goodale

N.T. 738-739v3

No. 1281, S. Kuluwailehua

February 23, 1851, from page 242, No. 1281, S. Kuluwailehua

Kahiaweawe, sworn, I have see Kuluwailehua's parcels of land at Kamoku I in Waikiki - 5 parcels of land, Keomuku and Pau.

1 cocoanut grove and Keomuku sea; the boundaries are:

Mauka, land of Kekuanaoa

Waikiki, land of Keohokalole named Hamohamo

Makai, the surf's breaking point

Ewa, land of Kekuanaoa.

3 patches; the boundaries are:

Mauka, land of Haumea

Waialae, land of John Young, called Pahoa

Makai, land of M. Kekuanaoa

Ewa, land of C. Kanaina.

6 patches and a pasture, and the boundaries are:

Mauka, land of Uma

Waialae, land of M. Kekuaanoa, Pahupahuapuaa

Makai, land of Kekuaanoa Kalia

Ewa, land.

House lot and 13 taro patches:

Mauka, Kalia stream

Waialae, land of Kekuaanoa named Waiaka

Makai, land of Kekuaanoa Ewa, land of C. Kanaina.

1 taro patch at Pa`u:

Mauka, land of M. Kekuaanoa

Waikiki and Makai, land of C. Kanaina

Ewa, land of Kekuaanoa by the stream.

Kanekoa, Kuluwailehu's mother, had given him these sections of land in 1840 and she had received this land from Keopulani during the time of Kamehameha I where she has lived to 1848, at which time King Kamehameha III gave her a grant by the Mahele. No one had objected. The natives have retained their interests.

[Award 1281; R.P. 166; Kamoku Waikiki (Ap. 1); 1 ap.; 6.35 Acs; R.P. 7428; Waikiki Kona; (Ap. 2); 1 ap.; .92 Ac.; R.P. 403; Kamoku 2 Waikiki Kona; 2 ap.; 15.89 Acs; Land Patent 8102; Waikiki Kona; (Ap. 3); 1 ap.; 4.55 Acs]

B-5 LCA 1379 Kapule II

N.R. 93v3

To the Land Commissioners, Greetings: s: I, the undersigned, hereby tell of my claim for two lo'i at Auaukai, two rows /of taro/* at Hohe, one irrigation ditch, the pond named Kalokomoo, also a house lot at Keomuku in Waikiki, Island of Oahu.

KAPULE X

Residence: Keomuku

/*A communal taro patch at Waikiki./

F.T. 507v2

No. 1379, Kapule II, September 29, 1848

Wailehua, sworn, This land is in the ili of Auaukai, Waititi, claimant has a house lot in the next ili of Keaumoku, of several pieces.

1. House lot:

Mauka is Auwa's land

Waialae, Oku's

Makai, Kaelemakule's

Honolulu, Government land (nahelehele).

It is fenced and claimant has 1 large and 1 small house on it.

2. Two kalo patches.

Mauka is Keohokalele's, Waialae and Makai also

Honoluu, Peleuli's.

3. Part of a kalo patch:

Mauka is a large kalo patch of many owners

Waialae, Paku's

Makai, Keohokalole's

Honolulu, Kaluahinenui's.

Claimant had this land from Kamaukole, lord of it in Kaahumanu 1 time, and has ever since held it without dispute. He does poalima work. Kamaukole is his konohiki.

N.T. 315v3

No. 1379, Kapule II, September 29, 1848

Wailehua, sworn, I have seen his place in the ili of Auaukai in Waikiki. The house lot is at Keomuku

1. 1 house lot:

Mauka is Ana's land

Waialae, Okuu's place

Makai, Kaelemakule's place

Honolulu, a government land.

There is a large house, one little house, there is a fence.

2. 2 taro patches:

Mauka, Waialae and Makai is Keohokalole's land

Honolulu, Peleuli's land.

3. 2 rows of taro:

Mauka for people

Waialae, Paka's land

Makai, Keohoka lolo's place

Honolulu here, Kaluahinenui's place.

Kapule II had received his land from Kamaukoli at the time of Kaahumanu I and he has lived peacefully to the present time; no one has objected. He had gone to do Friday detail regularly. Kamaukoli was his konohiki.

[Award 1379; R.P. 2824; Auaukai Waikiki Kona; 2 ap.; .25 Ac.]

B-6 LCA 1385, Kaelemakule

N.R. 94-95v3

To the Land Commissioners, Greetings and the peace of God: I, the undersigned, hereby tell of my claim for one *lo'i* at Auaukai, one row at Hohe /of taro/, also a house lot at Keomuku in Waikiki, Island of Oahu

KAELEMAKULE

Residence: Keomuku

F.T. 8v3-4

Cl. 1385, Kaelemakule, October 9, 1848

Kokomo, sworn, This place is in Auaukai, Waititi. It is kalo land, consisting of

1. House lot, fenced and claimant owns one house on it, bounded:
 Mauka by Kapule's land, Waialae also
 Makai by sea
 Honolulu by Kuapaiea's.

2. One kalo patch:
 Mauka is Kapule's
 Waialae is Nuuanu's
 Makai is Nui
 Honolulu is Opupahoa's.

One row of kalo in a large patch, which is bounded as a whole: Mauka by Palupalu
 Waialae by Paku's (teacher)
 Makai by Kukealiieau's
 Honolulu by Kanai's (land).

Claimant had these lots from Kamaukule [Kamaukoli?] in time of Kaahumanu I. Kamaukule was and is konohiki under Kekuanaoa, who owns the land and has been held undisputed to the present time.

N.T. 327-328v3

No. 1385, Kaelemakule, From pg. 142, Vol. X, October 9, 1848

Kokomo, sworn, I have seen his place at Auaukai in Waikiki of 1 taro patch and 1 row of taro.

1. 1 house lot:
 Mauka is Kapule's place, also Waialae
 Makai, the sea;
 Honolulu, Kuapaia's place.

2. 1 taro patch:
 Mauka is Kapule's place
 Waialae, Nuuanu's place
 Makai, Nu's place
 Honolulu, Opupahoa's place.

1 row of taro in the big patch:
 Mauka is Palupalu's place
 Waialae, Paku's place
 Makai, Kultiaiau's place
 Honolulu, Kanae's pasture.

Kamaukoli had given him his land at the time of Kaahumanu I. Kamaukoli is the konohiki under Kekuanaoa and he has always lived there to this time; no one has objected. Postponed until

Kamaukoli shall come also.

N.T. 142v10

No. 1385, Kaelemakule (from page 327, volume 3), Claim Settlement Building, 16 April 1852

Objection by konohiki, Kamehameha III

Kelemakule, sworn, I have been in error in the filing of my single row claim in the koele patch of the konohiki called "Hohe" in Waikiki, Oahu. I hereby reject my interest in that patch. It shall be fore the konohiki forever without opposition and I shall live under the konohiki similarly to the old ways of this land.

[Award 1385; R.P. 2829; Auaukai Waikiki Kona; 1 ap.; .17 Ac.]

B-7 LCA 1445 , Kanemakua

Kanemakua, Waikiki, Oahu, December 9, 1847N.R. 114v3

Greetings to the Land Commissioners: I hereby tell of my land claim for my five lo`i in Mooiki in Waikiki. I got these places in the time of Kamehameha and have held them under the konohiki with no objections from anyone.

I have also two other lo`i at Mookahi in Waikiki which I got in the time of Kaahumanu I and which I have held peacefully with no objections.

I also have a house lot at Waikiki which I got in the time of Kameham-eha II and have held peacefully with no objections. There are seven houses there which are mine alone. Also, I have three irrigation ditches.

KANEMAKUA X

F.T. 39-40v3

Cl. 1445, Kanemakua, December 11, 1848

No. 1, Ku, sworn, I know this place. It is in Waititi in the ili of Mooiki, consisting of kalo land having 4 patches and 1 house of claimants.

It is bounded:

Mauka by Kamakahonu's

Waialae by Kauhao's land (konohiki)

Makai by Kahanaumaikai's

Honolulu lby Paki's.

Claimant had this lot from Kamakahonu in time of Boki as a gift from his chief, and he has lived there and cultivated the land ever since without any dispute, there has never been any counter claimant to this time.

No. 2. Second land is in Mookai, consisting of 2 patches standing apart.

1st is bounded by Kaniho's land Mauka

Waialae by Paki's

Makai by Laimakahi's

Honolulu by Aumea's.

2d patch, Kaniho's is mauka

Paki's is Waialae

Keaweleikini's is makai

Aumoe is Honolulu.

Claimant has these two patches from Kailiuli in time of Kaahumanu. He was konohiki, now dead, and has held them like the others to the present time undisputed, and cultivated them.

No. 3. House lot, situated in Helamoa, Waititi and bounded:

Mauka by Kekuanaoa's land

Waialae by an arm of the sea

Makai, the sea

Honolulu by Kaluahinenui's.

There are 8 houses on it. Claimant owns two; Kahanaumaikai, one; Kalaauli, one; Kaaia, one; Kahui, two; and I own two. These all live under claimant and he under Kalaiheana. They came under permission of claimant who lives on it.

Claimant had this land from Kalaiheana in time of Boki and has lived there in peace to the present time. The land is fenced. Three streams are included in the preceding bounds given, which are separately mentioned in the claim.

Kaanana, sworn, stated he knew the above testimony to be true.

Kalanikua, said this land had been surveyed by John Richardson and after by himself as part of Kalaiheana's claim.

Kalaiheana's testimony wanting. See page 427.

F.T. 427v3

No. 1445, Kanemakua, February 23, 1853, from page 39

Counter Susan (Naki)

Kalaiheana, sworn, says he knows the house lot of claimant in "Helamoa," Waikiki. It belonged to witness from the time of Kamehameha I until he gave it to claimant about the year

1825. I never gave any part of that place to Kahue. Kanemakua has held the land in question ever since.

N.T. 362-363v3

No. 1445, Kanemakua, October 11, 1848

Ku, sworn, I have seen his place at Mooiki ili land in Waikiki. There are four patches and Ku's own house which has not been enclosed.

1. 4 taro patches:

Mauka is Kamakahonu

Waiialae, Kauhao's place

Makai, Kahanaumaikai

Honolulu, Paki's land.

Kaiakoili had given Ku this interest at the time of Poki, while he /Ku/ was living as a servant and he has continued to live there to the present time with no objections from anyone.

2. 1 taro patch is at Mookahi in Waikiki in two sections.

Mauka is Kaniho's land

Waiialae, Paki's land

Makai, Kalimakuhi's land

Honolulu, Haumea's place.

3. 1 taro patch:

Mauka is Kaniho's land

Waiialae, Paki's land

Makai, Keaweileikini's place

Honolulu, Haumea's place.

Ku had received this interest from Kailiuli during the time of Kaahumanu. Kailiuli had been a konohiki and is now dead. Ku has lived there to the present; no one has objected.

4. 1 house lot at Helumoa in Waikiki where:

Mauka is Kekuaanaoa's place

Waiialae, a river

Makai, the sea

Honolulu, Kaluahinenui's place.

Kaluahinenui has 2 houses, Kahanaumaikai 1, Kailiuli 1, Kaia 1, Kahue 2, and Ku, 2 houses and all of these People live under Kanemakua because this is his place received from Kalaiheana during the time of Poki and he has lived there to the present; no one has objected. This place has been completely enclosed around the property.

Kaanaana, sworn, Our testimonies are similar.

Postponed until Kalaiheana can be heard.

[Award 1445; R.P. 2560; Helumoa Waikiki Kona; 1 ap.; 1.6 Acs; Kamooiki Waikiki Kona; 1 ap.; .75 Ac.; Kamookahi Waikiki Kona; 2 ap.; .43 Ac.]

B-8 LCA 1463, Wahahee

No. 1463, Wahahee, Waikiki, Oahu, December 9, 1847

N.R. 121v3

Greetings to the Land Commissioners: I hereby tell of my land claim at Kaluakau in Waikiki. I have two lo`i there. I also have a house claim at Waikiki with one house there. –

I got this place in the time of Kamehameha I and hare held it peace-fully with no objections. I have three other lo`is at Nukuaua in Waikiki which were given me by Nalaweha in the year 1846 which I have held in peace with no objections.

WAHAHEE X

F.T. 54-55v3

Cl. 1463, Wahahee, December 18, 1848

Opio, sworn, I know this land. It is in Waititi, district of Kaluakau and Kanukuaua, consisting of kalo land kula, and a house lot in Helumoa.

House lot, claimant has one household. It is fenced.

Mauka is Kekuanaoa's,

Waialae also

Makai, Kuluwailehua's

Honolulu, Kekuanaoa.

2. Kaluakau two kalo patches:

Mauka is Male's

Waialae, Palupalu's

Makai, Kekuhuna's

Honolulu is Kanapuni's.

3. Kanukuaua, One kalo patch and auwai:

Mauka is Kuahuia's

Waialae, Kawai's

Makai is Nahoo's

Honolulu, Haaeo's.

4. One kalo patch.

Mauka is Haaeo's

Waialae, Kaaipua's

Makai is Government kalo patch

Honolulu is Naoho's.

Claimant had the house lot No. 1 from Kulaiheana in time of Kaahumanu I and has ever since lived in it without any dispute. He had No. 2 kalo patch from Pakanaka same time as No. 1, and has held it in peace also.

He had No. 3 and 4 from Nalaweha, konohiki, about 1845 and has never been disturbed in the right.

Kahiuka, sworn, and confirmed the above testimony.

Nalaweha wanted.

N.T. 377-378v3

No. 1463, Wahahee, December 18, 1848

Opio, sworn, I have seen his place at Kaluaokau with 2 patches; Kanukuaua in Waikiki, 2 patches and 1 ditch; Helumoa, 1 house lot and these places are all in Waikiki.

1. 1 house-lot with one house and there is a fence.

Mauka and Waialae is Kekuaaoa

Makai, Kuluwailehua

Honolulu, Kekuaaoa.

2. 2 patches at Kaluaokau where:

Mauka is Male

Waialae, Palupalu

Makai, Kekahuna

Honolulu, Kanapuni.

3. 1 patch, 1 ditch at Kanukuaua:

Mauka is Kuahina

Waialae, Kawai

Makai, Naohi

Honolulu, Haaheo.

4. 1 patch at Kanukuaua:

Mauka is Haaheo

Waialae, Kaaipuaa

Makai, a government patch

Honolulu, Naoho.

Kalaiheana had given Wahahee the house lot during the time of Kaahumanu I, which is Section I and he has lived there since that time to the present; no one has objected.

Pakanaka had given section II at the time of Kaahumanu I and he /Wahahee/ has always lived there without any objections.

Sections III and IV are from Nalaweha at the time M. Kekuanaoa was touring on Oahu here probably in the year 1846 and life has always been the same to the present time without any objections. Kahiuka, sworn, Our testimonies are similar /the hearing for/ sections 3 and 4 have been postponed till Nalaweha is available.

[Award 1463; R.P. 715; Helumoa Waikiki Kona; 1 ap.; .14 Ac.; R.P. 4247; Kanukuaula Waikiki Kona; 2 ap.; .97 Ac.]

B-9 LCA 1508 Kahoouluulu

No. 1508, Kahoouluulu

N.R. 139v3

To the Land Commissioners, Greetings: I hereby tell you of my land claim for one lo'i, one kula, one section of irrigation ditch and one house lot, in the `ili of Pahupahuapuaa in Waikiki, Island of Oahu. That is that I am telling you.

KAHOULUULU X

Keawamuku at Waikiki, December 4, 1847

F.T. 68v3

Cl. 1508, Kahoouhuluhulu, December 27, 1848

Wailehua, This land is in Pahupahuapuaa in Waititi, consisting of kalo & kula and a house lot in Waititi kai.

1. House lot in Waititi kai:

Mauka, Popoki

Waialae, Kapule

Makai Kaina

Honolulu, Kauhau.

Claimant has 1 house, partly fenced.

2. Kalo, 2 patches:

Mauka, Kaleiwakalei

Waialae, my land

Makai, Kamaukole

Honolulu, Kukuapoi.

3. Kula and a kalo stream, in part.

Mauka is Kukui

Waialae, Keohokalole

Makai, Kaleimakalii

Honolulu, Kekuanaoa.

Kaahumanu I gave all this [these] lots to Claimant, who now holds them under me as agent for Victoria.

N.T. 394v3

No. 1508, Kahoouluulu

Wailehua, sworn, I have seen Kahoouluulu's land at Pahupahuapua in Waikiki

1. House lot:

Mauka is Opoki's lot

Waialae, Kapule's lot

Makai, Kaena's lot

Honolulu, Kaauhau.

There is a house and a fence.

2. Two patches at Pahupahuapua:

Mauka is Kaleimakalii's lot

Waialae, my land

Makai, Kamaukoli's land

Honolulu, Kekuapoi's place.

3. Pasture and a ditch:

Mauka is Kukue's land

Waialae, Keohokalole's place

Makai, Kaleimakalii's lot

Honolulu, Kekuanaoa's place.

I had given Kahoouluulu land at the time of Kaahumanu, now it is under Kamamalu.

[Award 1508; R.P. 5945; Pahupahuapua Waikiki Kona; 3 ap.; 1.13 Acs]

B-10 LCA No. 1511, Kanae

N.R. 140v3

To the Land Commissioners, Greetings: I, the undersigned, hereby tell of my land claim for one row of /taro/ hllls, in the lo`i of Hohe in Waikiki, one irrigation ditch in the `ili of Kanukuaula, one small kula, one house lot, one pond; that is what I have to tell you.

KANAE X

Keawamuku at Waikiki, December 4, 1847

F.T. 69v3

Cl. 1511, Kanae, December 27, 1848

Kamanonui, sworn, I know these lands, all in Waititi, consisting of:

1 House lot near the sea, 1 house and fenced:

Mauka is Auwa's

Waialae, Keoho

Makai, sea

Honolulu, Kapule.

2. Hog pond, unknown.

3. Kula land in Hohe:

Mauka is Panelua

Waialae, Paku

Makai, Kauiki

Honolulu, Kaluahinenui.

5. One line of kalo in a general kalo patch, is included in No. 3.

Kaahumanu gave these lots to claimant and he has held them undisputed to the present time.
Kekuanaoa is konohiki.

Kauiki, sworn, confirmed the testimony as above.

N.T. 395-396v3

No. 1511, Kanae, From page 142, Vol. 10

Kamanonui, sworn, I have seen Kanae's land at Hohe, the stream in Waikiki and the house lot at Keonuku.

One house has been enclosed.
Mauka is Ana's place
Waialae, Keoho's place
Makai, the sea
Honolulu, Kapule's place.

Witnesses for the ponds have failed to be present.

There is also a pasture at Hohe.
Mauka is Paelua's place
Waialae, Pehu's place
Makai, Kauiki's place
Honolulu, Kiluahinenui's place.

This is from Kaahumanu to Kekuaaoa and to Kamamalu at this time.

Kauiki, sworn, I have seen Kanae's land just as Kamananui has stated here.

N.T. 142v10

No. 1511, Kanae (from page 395, Volume 3) Claims Building, 16 April 1852

Objections by konohiki, Kamehameha III.

Kanae, sworn, I have been in error in the filing of my single row claim in the koele patch of the konohiki called "Hohe" in Waikiki. Oahu. I hereby reject my interest in that patch. It shall be fore the konohiki forever without opposition and I shall live under the konohiki similarly to the old ways of this land.

[Award 1511; R.P. 2821; Kanukuaua Waikiki Kona; 2 ap.; 1.59 Acs]

B-11 LCA 1782 Kahope

No. 1782, Kahope
N.R. 252v3

To the Land Commissioners, Greetings: I hereby state my claim for one small lo'i and one section of irrigation ditch, at the 'ili of Niukukahi in Waikiki. This is my claim to you. I am, with thanks.
 KAHOPE X, his mark
 Waikiki, Oahu, 16 December 1847

F.T. 491v14
 No. 1782, Kahope, claimant

Kanemakua, sworn say, the portion of the claim of Kahope is Apana hale in Helumoa, Waikiki, Oahu.

It is bounded:
 Mauka by the cocoanuts of Helumoa
 Kekaha by the pahale belonging to me
 Makai by the sea shore
 Honolulu by the pahale of Okuu.

Claimant received the house lot from Kaahumanu in the time of Kaumualii and has held the same in undisputed possession ever since.

Kaia, sworn says, the above testimony is true & is also his own.

N.T. 512v3
 No. 1782, Kahope, October 30, 1849

Kauhao, sworn, I have seen his place at Niukukahi in Waikiki - 1 section.

1 taro patch
 Mauka, Kahehi
 Waialae, Kaiahopuwale
 Makai, Koa
 Honolulu, Kaia.

I had given him his land in the year 1843 and he has lived comfortably to the present time; no one has objected.
 [Award 1782; R.P. 4249; Helumoa Waikiki Kona; 1 ap.; .31 Ac.; Kanuikukahi Waikiki Kona; 1 ap.; .2 Ac.]

B-12 LCA 2126 Keoho (Keaho)

No. 2126, Keoho, Waikiki, Oahu, December 23, 1847
N.R. 365v3

Greetings to the Land Commissioners: I hereby state my claim for land consisting of a house lot, a pond, two rows of taro, a section of irri-gation ditch and some hills of taro /or sweet potato/, which are on the stream /side/ of Kalia. I got this place in the time of Kaahumanu I and have held them in peace, with no objections. There is also a kula at Kawelulua.

KEOHO X

F.T. 483v14

No. 2126, Keaho, claimant

Makapo, sworn say, the land of claimants contains 2 puepue, a kula & pahale in one piece in the ili of Kuwelulua, Waikiki & is bounded:

Mauka by land of Kalawaia
 Kekaha by the ili of Hamohamo
 Makai by land of Nahuna
 Honolulu by a loi Kahuelua.

Claimant received the land from Kaahumanu & has held the same in quiet until the present time.

Aua, sworn says the above testimony is true & is also his own.

[Award 2126; R.P. 2577; Keomukukai Waikiki Kona; 1 ap.; .71 Ac.]

B-13 LCA 8023 Aua

No. 8023, Aua, Waikiki, 12 February 1848

N.R. 478v5

The Esteemed Land Commissioners, Hale Kauila, Honolulu, Oahu. Greetings to you all: I, the one whose name is below, hereby state my claim for land, in the `Ili of Auaukai in the Ahupua`a of Waikiki. One lo`i is in Kalia `Ili, One pauku of taro is in the stream water course and there is another pauku of stream. There is one row of taro in Hohe, and another pauku also in Hohe. There is one house lot, one kula planted in sweet potatoes and gourd.

These claims which have been explained above were from Kamaukoli, given in the time when Kaahumanu I was living, when Kaahumanu and Kamehameha III returned from the circuit of Hawaii. I am, respectfully,

AUA

F.T. 475v14

No. 8023, Aua, claimant

Kuine, sworn say, he knows the land of Aua. It consists of 3 pieces.

Apana 1. A loi in Auaukai, Waikiki, Oahu is bounded:

Mauka by the land of Ohuu

Kekaha by the land of Maukoli

Makai by the land of Manamana

Honolulu by the land of Oahuu.

Apana 2. A kahawai & kula in Kalia, Waikiki. It is bounded:

Mauka by the land of Kalamanamana

Kekaha by the land of Kualulua a kahawai

Makai by the land of Hamohamo no konohiki

Honolulu by the land of Kaia in Kalia.

Apana 3. A house lot yard in Keomuku, Waikiki, bounded:

Mauka by the loko of Helumoa of Ii

Kekaha by the kula nui of Helumoa

Makai by the house lot of Kapule

Honolulu by the house lot of Puepue.

Claimant received the land from his father-in-law, Kamaukoli in the time of Kaahumanu & has held the same in quiet ever since.

Kahonu, sworn, confirms the above as true, his [and] also his own.

[Award 8023; R.P. 5943; Auaukai Waikiki Kona; 1 ap.; .05 Ac.; Kalia Waikiki Kona; 2 ap.; .64 Ac.; Keomuku Waikiki Kona; 1 ap.; 1 Ac. 1.18 chains]