NEIL ABERCROMBIE
GOVERNOR

CRAIG K. HIRAI
EXECUTIVE DIRECTOR

RECEIVED
'14 SEP 11 P3:13
OFC. OF ENVIRONMENTAL
QUALITY CONTROL

STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM
HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION
677 QUEEN STREET, SUITE 300
Honolulu, Hawaii 96813
FAX: (808) 587-0600

IN REPLY REFER TO:

14:PEO/61

September 10, 2014

Ms. Jessica Wooley, Director
Office of Environmental Quality Control
Department of Health
235 S. Beretania Street, Room 702
Honolulu, Hawai'i 96813

FILE COPY
SEP 23 2014

Dear Director Wooley:

On August 26, 2014, the Hawaii Housing Finance and Development Corporation (HHFDC) transmitted the Final Environmental Assessment and Finding of No Significant Impact (FEA-FONSI) for the Ola Ka'Ilima Artspace Lofts situated at (1) 2-3-003:040 in Honolulu on the island of Oahu for publication in the Environmental Notice. The FEA-FONSI was published in the September 8, 2014 edition of the Environmental Notice.

The draft environmental assessment was inadvertently not distributed to all affected agencies, officials, and citizen groups. As such, HHFDC hereby withdraws the FONSI and seeks public comment on the proposed action.

With this letter, the HHFDC hereby transmits the Draft Environmental Assessment and Anticipated Finding of No Significant Impact (DEA-AFONSI) for the Ola Ka'Ilima Artspace Lofts for publication in the next available edition of the Environmental Notice.

Enclosed is a completed OEQC Publication Form, two copies of the DEA-AFONSI, an Adobe Acrobat PDF file of the same, and an electronic copy of the publication form in MS Word. Simultaneous with this letter, we have submitted the summary of the action in a text file by electronic mail to your office.

If there are any questions, please contact Janice Takahashi at 587-0639.

Sincerely,

Craig K. Hirai
Executive Director

Enclosures

c: Greg Handberg, Artspace Projects, Inc.

FILE COPY
SEP 23 2014

NEPA Action EA/EIS
Publication Form

RECEIVED
'14 SEP 11 P3:11
OFC. OF ENVIRONMENTAL
QUALITY CONTROL

Project Name Ola Ka 'Ilima Artspace Lofts DEA (AFNSI)

Island: O'ahu
District: Honolulu
TMK: (1) 2-3-003: 040
Permits: Kaka'ako Mauka Area Development Permit, Variance from Pollution Controls (Noise Permit), Building Permits, Dewatering Permit, Grading, Grubbing, Stockpiling, Trenching, Construction Dewatering Permit, Sewer Connection Permit, Street Usage Permit.
Applicant: Artspace Projects, Inc., 250 Third Avenue North, Suite 400, Minneapolis, MN 55401. Contact: Greg Handberg, 612-333-9012
Approving Agency: Hawai'i Housing Finance and Development Corporation (HHFDC), 677 Queen Street, Honolulu, HI 96813.
Contact: Janice Takahashi, 808-587-0639
Consultant: Bureau Veritas North America, Inc., 841 Bishop Street, Suite 1100, Honolulu, HI 96813.
Contact: Lori Ford, 808-531-6708, fax 808-537-4084
Status: Statutory 30-day public review and comment period starts; comments are due by October 23, 2014. Please send comments to the applicant, approving agency and consultant.

The proposed action consists of an eight-level mixed-use property that will include residential, commercial, parking, and community use areas. This mixed-use development project is intended to serve the broader Hawaiian community by developing a traditional Hawaiian Cultural Center with classroom space, space for teaching and performing Hula, music and other traditional practices, as well as 84 units of affordable rental housing with preference for multi-ethnic artist housing for artists and their families.

Draft Environmental Assessment Report

Proposed Ola Ka `Ilima Artspace Lofts Project
1025 Waimanu Street
(TMK: [1] 2-3-003: Parcel 040)
Honolulu, Oahu, Hawaii 96814

September 10, 2014
Project No. 17012-012090.02

Prepared for:

ARTSPACE
847 Hiawatha Place South
Seattle, Washington 99144

Move Forward with Confidence

Prepared by:

BUREAU VERITAS NORTH AMERICA, INC.
Health, Safety, and Environmental Services
841 Bishop Street, Suite 1100
Honolulu, Oahu, Hawaii 96813
808.531.6708
www.us.bureauveritas.com

CONTENTS

Section Page

List of Acronyms ..... **vi**

1.0 INTRODUCTION **1**

2.0 SUBJECT PROPERTY DESCRIPTION **1**
2.1 LOCATION AND LEGAL DESCRIPTION 1
2.2 CURRENT USE OF SUBJECT PARCEL/PROPERTY 1

3.0 PROPOSED ACTION **2**
3.1 TECHNICAL CHARACTERISTICS 2
3.2 ENVIRONMENTAL CHARACTERISTICS 2
3.3 SCHEDULE 3
3.4 IDENTIFICATION OF ALTERNATIVES 3

4.0 COMMUNITY CONSULTATION **3**

5.0 AFFECTED ENVIRONMENT **4**
5.1 NATURAL RESOURCES ï PHYSICAL RESOURCES 4
5.1.1 Earth Resources 4
5.1.1.1 Baseline Conditions *4*
5.1.1.2 Proposed Action Impacts and Mitigation *5*
5.1.2 Water Resources 5
5.1.2.1 Baseline Conditions *5*
5.1.2.2 Proposed Action Impacts and Mitigation *5*
5.1.3 Hazardous Substances 6
5.1.3.1 Baseline Conditions *6*
5.1.3.2 Proposed Action Impacts and Mitigation *6*
5.2 NATURAL RESOURCES ï BIOLOGICAL RESOURCES 6
5.2.1 Wetlands 6
5.2.1.1 Baseline Conditions *6*
5.2.1.2 Proposed Action Impacts and Mitigation *7*
5.2.2 Wilderness Area 7
5.2.2.1 Baseline Conditions *7*
5.2.2.2 Proposed Action Impacts and Mitigation *7*
5.2.3 Wildlife Preserve 7
5.2.3.1 Baseline Conditions *7*
5.2.3.2 Proposed Action Impacts and Mitigation *8*
5.2.4 Listed or Proposed Threatened or Endangered Species and Designated or Proposed Critical Habitats 8
5.2.4.1 Baseline Conditions *8*
5.2.4.2 Proposed Action Impacts and Mitigation *8*
5.3 NOISE 8
5.3.1 Baseline Conditions 8
5.3.2 Proposed Action Impacts and Mitigation 9
5.4 VIEW AND VISUAL IMPACTS 9

CONTENTS
(Continued)

5.4.1 Baseline Conditions 9
5.4.2 Proposed Action Impacts and Mitigation 9
5.5 UTILITIES 10
5.5.1 Baseline Conditions 10
5.5.2 Proposed Action Impacts and Mitigation 10
5.6 HISTORIC AND CULTURAL RESOURCES 10
5.6.1 Baseline Conditions 10
5.6.2 Proposed Action Impacts and Mitigation 11
5.7 SOCIO-ECONOMICS 11
5.7.1 Baseline Conditions 11
5.7.2 Proposed Action Impacts and Mitigation 12
5.8 ENVIRONMENTAL JUSTICE 12
5.8.1 Baseline Conditions 13
5.8.2 Proposed Action Impacts and Mitigation 13
5.9 AIR QUALITY 14
5.9.1 Baseline Conditions 14
5.9.2 Proposed Action Impacts and Mitigation 14
5.10 PUBLIC ACCESS 15
5.10.1 Baseline Conditions 15
5.10.2 Proposed Action Impacts and Mitigation 15
5.11 TRAFFIC IMPACTS 15
5.11.1 Baseline Conditions 15
5.11.2 Proposed Action Impacts and Mitigation 15
5.12 LAND USE 16
5.12.1 Baseline Conditions 16
5.12.2 Proposed Action Impacts and Mitigation 16
5.13 ACCESS TO THE AREA 16
5.13.1 Baseline Conditions 16
5.13.2 Proposed Action Impacts and Mitigation 16
5.14 ENVIRONMENTAL CONDITIONS 17
5.14.1 Baseline Conditions 17
5.14.2 Proposed Action Impacts and Mitigation 17

6.0 201H APPLICATION AND EXEMPTIONS 18
6.1 INTRODUCTION 18
6.2 REQUESTED EXEMPTIONS 18
6.2.1 Zoning 18
6.2.2 Parking and Loading 19
6.2.3 Building Permit and Plan Review Fees 20
6.2.4 Public Works/ Infrastructure Fees 20
6.2.5 Public Facility Dedication Fees 20
6.3 SUMMARY OF REQUESTED EXEMPTIONS 21

7.0 PERMITS 23

8.0 COMPLIANCE WITH PLANS AND PROGRAMS 23
8.1 STATE LAND USE (CHAPTER 205, HAWAII REVISED STATUTES [HRS]) 23

CONTENTS
(Continued)

8.2 STATE PLANNING ACT 24
8.3 MAUKA AREA PLAN 24
8.4 CITY AND COUNTY OF HONOLULU GENERAL PLAN 25
8.5 PRIMARY URBAN CENTER DEVELOPMENT PLAN (PUCDP) 25

9.0 PUBLIC FUNDING AWARDS 26

10.0 FINDINGS 26

Figures

Photographs

CONTENTS
(Continued)

Appendices

A List of References
B Architectural Drawings
C Community Consultation Correspondence
D National Wetland Map and FEMA/FIRM Map
E Archaeological Inventory Survey
F Residential Rental Market Study
G Traffic Impact Report
H Agency Mailing List
I Public Funding Awards

List of Acronyms

AGL	Above Ground Level
AIS	Archaeological Inventory Survey
AMSL	Above Mean Sea Level
BWS	Board of Water Supply
CAA	Clean Air Act
CO	Carbon Monoxide
dBa	Decibel, A-weighted
DLNR	State of Hawaii, Department of Land and Natural Resources
DOH	State of Hawaii, Department of Health
DOT	Department of Transportation
DPP	City and County of Honolulu, Department of Planning and Permitting
DPW	Department of Public Works
EA	Environmental Assessment
EAL	Environmental Action Level
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GP	City and County of Honolulu General Plan
HAR	Hawaii Administrative Rules
HCDA	Hawaii Community Development Authority
HEER	Hazard Evaluation and Emergency Response
HECO	Hawaiian Electric Company, Inc.
HHFDC	Hawaii Housing Finance and Development Corporation
HR	House of Representatives
HRS	Hawaii Revised Statutes
HSPA	Hawaii State Planning Act
H_2S	Hydrogen Sulfide
HUD	United States Housing and Urban Development
KCDD	Kakaâko Community Development District
mg/L	Milligrams per liter
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_2	Nitrogen Dioxide
O_3	Ozone
OEQC	Office of Environmental Quality Control
Pb	Lead
PM_{10}	Particulate Matter, 10 micrometers in diameter and larger than 2.5 micrometers in diameter
$PM_{2.5}$	Particulate Matter, 2.5 micrometers in diameter and smaller
PUCDP	Primary Urban Center Development Plan
REC	Recognized Environmental Condition
RSL	Regional Screening Level
SF	Square Feet
SHPD	State Historic Preservation Division
SHPO	State Historic Preservation Officer

List of Acronyms
(Continued)

SO_2	Sulfur Dioxide
TMK	Tax Map Key
TPH-RRO	Total Petroleum Hydrocarbons as Residual Range Organics
UIC	Underground Injection Control
US	United States
USCB	United States Census Bureau
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Executive Summary for the Proposed Ola Ka `Ilima Artspace Lofts Project Draft EA
Located at 1025 Waimanu Street
Honolulu, Oahu, Hawaii

Purpose and Need

This Draft Environmental Assessment (EA) for the proposed Ola Ka`Ilima Artspace Lofts Project, located at 1025 Waimanu Street (Tax Map Key [TMK] No. [1] 2-3-003: Parcel 040), Honolulu, Oahu, Hawaii, has been prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS); and Hawaii Administrative Rules (HAR) Title 11, State of Hawaii, Department of Health (DOH), Chapter 200, Environmental Impact Rules. This Draft EA is issued for a 30-day public review and comment period. Comments made during this period will be included in the Final EA. These comments, in addition to the EA analyses, will be considered in decision-making regarding the building proposed.

In addition, the Draft EA contains the Chapter 201H, HRS application (201H application) agency/ public comment document. The complete 201H application is on file with the Hawaii Housing and Finance Development Corporation (HHFDC).

Proposed Action

The site is the proposed, future location of an eight-level mixed-use property that will include residential, commercial, parking, and community use areas. This mixed-use development project is intended to serve the broader Hawaiian community by developing a traditional Hawaiian Cultural Center with classroom space, space for teaching and performing Hula, music and other traditional practices, as well as 84 units of affordable housing with preference for multi-ethnic artists and their families.

Housing Qualifications

Anyone who qualifies for affordable housing may apply for residency at the Ola Ka `Ilima Artspace Lofts project, though preference will be given to artists. The percentage of Oahu residents that self-identify as artists are unavailable, however, given the overwhelming demand for affordable rentals (Residential Rental Market Study, 2013), any units unfilled by artists will be offered to the general population.

An artist is defined as a person who has a commitment to and/or participation in the arts and not just as a hobby. This does not mean that the art the artist creates generates any or the artistõs entire source of income. The term ñartistò is broadly defined to encompass a wide variety of pursuits, including traditional art forms such as painting, music and dance and as diverse as clothing design, weaving and even canoe making.

The project complies with all fair housing laws (Housing and Economic Recovery Act of 2008 (One Hundred and Tenth Congress, Second Session).

Environmental Consequences

The Proposed Action is not expected to have significant adverse effects on the environment. The Ola Ka `Ilima Artspace Lofts project currently involves constructing an eight-level, mixed-use building, 99 feet in height, which will include residential and commercial space, parking, and community use areas.

Grading and excavation activities required for the proposed project are limited to the immediate vicinity of the subject property. No significant impact to the land is anticipated since previous grubbing and grading have been conducted at the site from past activities. Specific environmental resources with the potential for environmental consequences include natural physical and biological resources, noise, view

and visual impacts, utilities, cultural resources, socioeconomics, environmental justice, air quality, public access, traffic impacts, land use, access to the area, and environmental conditions.

The Proposed Action is not expected to impact views and visual impacts, utilities, historic and cultural resources and traffic impacts, and will not impact natural physical and biological resources, public access, land use, access to the area or environmental conditions. The Proposed Action is expected to have positive impacts on socioeconomics and environmental justice.

Noise levels are anticipated to slightly increase during construction. The emergency generator will increase noise levels during power outages and maintenance activities; however, it will be minimal and occur infrequently.

Air quality may decrease during construction due to a slight increase in particulate matter in the form of dust. However, due to the restricted access and protective measures, public health will not likely be affected.

PROJECT SUMMARY

Applicant:	Artspace Projects, Inc. 250 Third Avenue North, Suite 400 Minneapolis, MN 55401
Approving Agency:	Hawai`i Housing Finance and Development Corporation (HHFDC)
Project Name:	Ola Ka ʻOlima Artspace Lofts
Project Location:	The project is located mid-block at 1025 Waimanu Street in Kaka`ako, Honolulu, Oahu, HI
Tax Map Key (TMK):	(1) 2-3-003: Parcel 040
Ownership:	Hawai`i Community Development Authority, and Oliver McMillan Pacifica LLC
Lot Area:	Approximately 30,000 SF
Zoning:	
Special District:	Kaka`ako Community Development District (KCDD) Mauka Area
State Land Use:	Urban
Existing Land Use:	The project site is located on the consolidated block within KCDD Mauka Area bounded by Waimanu Street to the east and Kawaiahao Street to the west, Kamakee Street to the southeast and Cummins Street to the northwest. Presently the project area is used for parking. Beyond Waimanu Street is the Pacifica Condominium and Public Storage. Beyond Kawaiahao Street are Hawaiian Telcom, and Muriel pre-school. Kaka`ako Business Center is located to the north adjacent, and Servco Lexus Service Center is located to the south adjacent to the site.
Nature of Development:	Artspace is a nonprofit real estate development organization. Our mission is to create, foster and preserve affordable space for artists and arts organizations. Artspace has completed 26 low-income housing projects in 15 states using the low-income housing tax credit program. Artspace secured site control for 1025 Waimanu Street from the Hawai`i Community Development Authority (HCDA) to develop an

affordable housing project.

The project will consist of a residential condominium comprising 84 1-bedroom, 2-bedroom and 3-bedroom units configured in two 8-story buildings around a green courtyard. Units will be affordable to household earning 30%-60% of the area median income level as per HUD income guidelines. A second commercial condominium includes two floors of 96 parking stalls and 6,000 SF of commercial space on the ground floor.

The first floor of the structure will include a common lobby area for the residential portion of the building, a resident manager's office and appurtenant service and maintenance areas.

Artspace, in partnership with the Ford Foundation, has worked with the PA`I Foundation, organized in 2001, is a 501 c 3 organization whose mission is to preserve and perpetuate Hawaiian cultural traditions for future generations, to provide affordable space for the PA`I Arts & Culture Center. The goal of PA`I Foundation is to establish a cultural center on O`ahu to better serve the broader Hawaiian community. The Arts & Culture will lease 4,000 SF of ground floor commercial space.

The remaining 2,000 SF of commercial space on Waimanu Street will be leased to arts-related organizations and businesses that serve the community.

Project Cost:	Approximately $38,000,000
Project Schedule:	Anticipated to be completed in 2017
Development Triggers:	Artspace will enter into a 65-year lease with HCDA. Funds will be used to design and build low-income housing. The Ola Ka `Ilima project will be financed through a variety of public and private resources including federal and state low-income housing tax credits, affordable housing loan funds through the City of Honolulu and HHFDC, Affordable Housing Program funds through the Federal Home Loan Bank, private sector philanthropic grants, conventional bank loans, and developer equity in the form of contributed developer fee. To date, the project has received $1,850,000 in state Grant in Aid funds.

Agencies Consulted:	Hawaii Community Development Authority (HCDA) Hawaii Housing Finance & Development Corporation (HHFDC) State Historic Preservation Division (SHPD) Department of Health (DOH) Hawaii Community Reinvestment Corporation (HCRC) City of Honolulu Department of Community Services Office of Housing Office of Economic Development Office of Culture and the Arts Kakaáko Neighborhood Board Oahu Burial Council City and County of Honolulu Department of Planning and Permitting City and County of Honolulu Department of Environmental Services Department of Transportation Board of Water Supply Honolulu City Council

1.0 INTRODUCTION

This Draft Environmental Assessment (EA) for the proposed Ola Ka `Ilima Artspace Lofts Project, located at 1025 Waimanu Street (Tax Map Key [TMK] No. [1] 2-3-003: Parcel 040), Honolulu, Oahu, Hawaii 96814 (the ñsubject propertyò), has been prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS); and Hawaii Administrative Rules (HAR) Title 11, State of Hawaii, Department of Health (DOH), Chapter 200, Environmental Impact Rules.

This EA was conducted to comply with the DOH - Office of Environmental Quality Control (OEQC) requirements. The Hawaii Housing Finance and Development Corporation (HHFDC) is the approving agency. It is expected that the outcome of this EA will be a Finding of No Significant Impact (FONSI) for the proposed Ola Ka `Ilima Artspace Lofts Project.

2.0 SUBJECT PROPERTY DESCRIPTION

2.1 LOCATION AND LEGAL DESCRIPTION

The proposed Ola Ka `Ilima Artspace Lofts site consists of a 30,000 square foot rectangular parcel of land located at 1025 Waimanu Street, in Honolulu, Oahu, Hawaii, in an industrial business district (Figures 1 and 2, Figures Tab). The site is further described as the parcel of land designated as TMK Number: (1) 2-3-003: Parcel 040. According to the City and County of Honolulu Department of Planning and Permitting (DPP), the site is located within the ñKaka`ako Community Development Districtò and is administered by the HCDA. The State Land Use designation is ñUrbanò.

The subject property, currently owned by HCDA and Oliver McMillan Pacifica LLC, and leased to District Parking, encompasses a rectangular-shaped, 30,000 square feet parcel of land located in the Kaka`ako neighborhood, Honolulu, Hawaii.

The proposed Ola Ka `Ilima Artspace Lofts site is located between Waimanu Street to the east and Kawaiahao Street to the west. Beyond Waimanu Street is the Pacifica condominium, and Public Storage. Beyond Kawaiahao Street are Hawaiian Telcom, and Muriel pre-school. Kaka`ako Business Center is located to the north adjacent, and Servco Lexus Service Center is located to the south adjacent to the site.

Site photographs are included behind the Photographs Tab.

2.2 CURRENT USE OF SUBJECT PROPERTY

The proposed Ola Ka `Ilima Artspace Lofts site is currently leased to District Parking, and the site is asphalt-paved that is demarcated with parking spaces. The subject property is enclosed by a chain-link fence and gate which is locked to prevent public access. The planned long-term use for the subject property is to construct a mixed-use building (the proposed Ola Ka `Ilima Artspace Lofts Project) on the subject property.

The following information was ascertained for the site:

- Wastewater is not currently generated onsite. The storm water runoff from the subject property flows via sheet flow to the southwest, towards Kawaiahao Street. The storm water then discharges into the City and County of Honolulu storm drain system.

- Electricity is provided by Hawaiian Electric Company, Inc. (HECO).
- The subject property does not currently utilize water services.
- Evidence of discharge sources was not observed at the site.

3.0 PROPOSED ACTION

3.1 TECHNICAL CHARACTERISTICS

Ola Ka `Ilima Artspace Lofts project currently involves constructing an eight-level, mixed-use building, 99 feet in height, which will include commercial and residential space, parking, and community use areas (Figures 3 and 4, Figures Tab). An artist rendering of the Ola Ka `Ilima Artspace Lofts is shown in Figure 5 (behind Figures Tab).

The first two levels will provide parking stalls, as well as a retail space and cultural center. The third level will include a courtyard/garden, community areas, and 2- and 3-bedroom residential lofts. The fourth through eighth levels will include residential lofts.

The courtyard/garden and community areas will encompass more than 20,000 square feet, and will be available to residents, partnering non-profit organizations, and the surrounding community for rehearsal, exhibitions, performances and events.

Approximately 4,000 square feet will be reserved for PAõ Arts & Culture Center, for Native Hawaiian dancers, musicians, visual artists, cultural practitioners and others who are interested in experiencing Native Hawaiian cultural traditions. The cultural center will combine classroom space and flexible space for teaching and performing Hula, music, and other traditional practices. Through distance learning technology, the cultural center will be networked to audiences and artistic partners both across the Islands and around the world.

Like all Artspace projects, this building will be multi-ethnic, multi-generational, and multi-disciplinary. This mixed-use development project is intended to serve the broader Hawaiian community by developing a traditional Hawaiian cultural center with classroom space and space for teaching and performing Hula, music and other traditional practices, as well as 84 units of affordable housing with preference for multi-ethnic artists and their families.

Architectural drawings for the Ola Ka `Ilima Artspace Lofts is included in Appendix B.

3.2 ENVIRONMENTAL CHARACTERISTICS

The subject property is located in the Kaka`ako neighborhood of Honolulu, which is characterized by light industrial property. Kaka`ako is situated between the downtown business district and Waikiki.

One hundred percent of the Ola Ka `Ilima Artspace Lofts units will meet the affordability requirements of the 201H program in that they will be priced to be affordable to households earning 60 percent or less of the United States (US) Housing and Urban Development (HUD) median income for Honolulu.

Artspace will be processing approvals for Ola Ka `Ilima Artspace Lofts under Chapter 201H, HRS, which allows for greater design flexibility and cost savings to facilitate the development of affordable housing. This is achieved by allowing exemptions from certain statutes, ordinances, charter provisions, and rules related to planning, zoning and construction.

3.3 SCHEDULE

The project is anticipated to proceed when all approvals are received, including a FONSI determination by the approving authority, HCDA. The estimated construction start date is March 2015. The projected end date is March 2017.

3.4 IDENTIFICATION OF ALTERNATIVES

The no action alternative would keep the site in its present condition, which is an asphalt-paved parking lot. However, this alternative is not considered desirable based on land values and location, as well as meeting the objectives of the Mauka Area Plan (September 2011).

No other major alternative design concepts/configurations were considered for the site.

Four other alternative sites considered for the development of the proposed Ola Ka `Ilima Artspace Lofts, and the reasons they were rejected are discussed below:

- Bandar Building, 904 Kohou Street: Acquisition costs high, as well as demolition of existing structures costs high. In addition, the location is less desirable for artist housing.

- River Street Site: Lengthy Request for Proposal (RFP) process. In addition, there are elevated neighborhood concerns, the relocation of existing tenants may be problematic, demolition of existing structures costs high, and the number of units and square footage of the commercial space is limited.

- Chaney Brooks Site, 606 Coral Street: Acquisition costs high, as well as demolition of existing structures costs high. Additionally, relocation of existing tenants may be problematic, no on-site parking is possible, and the number of units and square footage of the commercial space is limited.

- Alley Site, S.E. Corner of Auahi and Keawe Streets: Extremely limited parcel size, and the number of units and square footage of the commercial space is extremely limited.

4.0 COMMUNITY CONSULTATION

Artspace has initiated public and agency comment to the proposed Ola Ka `Ilima Artspace Lofts project through meetings and letters. Copies of meeting minutes, meeting agendas, sign-in sheets and/or other pertinent meeting documentation materials are included in Appendix C.

Ala Moana/ Kaka`ako Neighborhood Board No. 11

On February 28, 2012 and July 24, 2012, presentations were made by Artspace to the Ala Moana/ Kaka`ako Neighborhood Board No.11. In addition, on July 24, 2013, the neighborhood board voted in support of the Ola Ka `Ilima Artspace Lofts project.

The February 28, 2012 presentation provided background information and description of the project, as well as the project goals. The July 24, 2012 presentation reiterated the information from the previous presentation, as well as provided an update on the status of the project.

Oahu Island Burial Council

On November 14, 2012, a presentation of the Artspace project was given to the Oahu Island Burial Council.

On April 10, 2013, an update and discussion of the Artspace project was presented to the Oahu Island Burial Council.

On December 11, 2013, an informational update on the archaeological field excavation work was presented to the Oahu Island Burial Council.

Artist Community

An artist community informational meeting was held on May 22, 2013 regarding the Artspace project. The artist community consisted of members of Hawaii Arts Alliance, ARTS at Markôs Garage, and PAî. Artspace provided background information and details relating to qualifications for housing for the Artspace project.

Descendent Families

On June 18, 2013, an informational meeting with the descendent families was held. The meeting discussed background information and a description of the project, details of the project design, and methodology in handling possible concerns and issues.

5.0 AFFECTED ENVIRONMENT

5.1 NATURAL RESOURCES – PHYSICAL RESOURCES

Discussions of physical resources of the natural environment include descriptions of earth and water resources, as well as hazardous materials. Components of the earth include topography, geology, and soil. Topography describes the earthôs surface features, including terrain and land forms. Geology studies the solid matter from which the earth is made and includes the history and processes that helped to shape it. Soil is the segment of the earthôs surface particulates formed from a parent material when various environmental conditions cause the breakdown of that material. Water resources include surface water and groundwater.

5.1.1 Earth Resources

5.1.1.1 Baseline Conditions

The subject property lies in the western portion of the Honolulu Plain physiographic division, on the central southern coast of the island of Oahu. The approximate latitude and longitude of the subject property are 21° 17ô45.86òN and 157° 51ô06.12òW, respectively.

According to the United States Geological Survey (USGS) 7.5-Minute Honolulu, Oahu, Topographic Quadrangle Map (1998), the elevation at the subject property is between 5 and 10 feet above mean sea level (amsl). The general topography of the subject property and surrounding region slopes down to the south, toward Kewalo Basin and the Pacific Ocean.

According to the *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai (*Foote, D.E. et al., 1972), the soil in the vicinity of the subject property is classified as Fill Land (mapping unit *FL*). The Fill

Land Series consists of areas filled with material from dredging, excavation from adjacent uplands, garbage, and bagasse and slurry from sugar mills.

5.1.1.2 Proposed Action Impacts and Mitigation

The subject property does not contain soils of agricultural value and will not impact agricultural productivity (existing or potential). The subject property has been extensively modified for urban development, and grading for the proposed action is not expected to be significant.

All grading operations will be conducted in full compliance with dust, erosion control, and other requirements of the City Grading Ordinance, as well as provisions of HAR Section 11-60.1-33 on fugitive dust. In addition, best management practices will be included in construction plans to mitigate dust and/or silt emissions. Best management practices include installation of silt fencing around the construction site and sediment filters at existing downstream catch basins.

5.1.2 Water Resources

5.1.2.1 Baseline Conditions

The Aquifer Identification and Classification Technical Report No. 179, published by the Water Resources Research Center at the University of Hawaii, describe the aquifer below the subject property as part of the Nuuanu aquifer system in the Honolulu sector. The groundwater system below the subject property consists of an upper and lower aquifer.

The upper aquifer is an unconfined, basal aquifer of the sedimentary type, occurring in non-volcanic lithology. It is described as currently used, but it is not considered a drinking water source nor is it ecologically important. This aquifer is further described as replaceable with moderate salinity (<1,000 to 5,000 milligrams per liter [mg/L] chloride). This aquifer has a high vulnerability to contamination.

The lower aquifer is a confined, basal aquifer of the flank type, occurring in horizontally extensive lavas. It is described as a currently used, irreplaceable drinking water source with fresh salinity (<250 mg/L chloride). This aquifer has a low vulnerability to contamination. However, because the subject property is located below the designated underground injection control (UIC) line, the underlying groundwater would not be used as a drinking water source. This aquifer has a low vulnerability to contamination.

The depth to groundwater is estimated to be approximately 5 to 10 feet below ground surface (bgs), based on topography. The regional groundwater flow direction is generally inferred to flow in a southwesterly direction towards Kewalo Basin. However, the local gradient and flow direction under the property may be influenced naturally by zones of higher or lower permeability, tidal changes, or by nearby pumping or recharge, and may deviate from the regional trend.

5.1.2.2 Proposed Action Impacts and Mitigation

The subject property is located below the DOH-defined UIC line. Areas above the UIC line denote potential underground drinking water sources. Areas below the UIC line generally denote groundwater that is unsuitable for drinking water purposes. Consequently, the groundwater below the subject property is considered unsuitable for drinking water purposes. Therefore, mitigation measures are not necessary.

5.1.3 Hazardous Substances

5.1.3.1 Baseline Conditions

A database review of the DOH, Hazard Evaluation and Emergency Response (HEER) Office records was conducted regarding environmental concerns or violations at the subject property. The subject property was not listed on the HEER Site list or HEER Releases databases (2012).

5.1.3.2 Proposed Action Impacts and Mitigation

The subject property was assessed for signs of storage, use, or disposal of hazardous materials. The assessment consisted of noting evidence (e.g., drums, unusual vegetation patterns, staining) indicating that hazardous materials are currently or were previously located on the subject property. Potentially hazardous materials are currently not used or stored onsite.

The historical research conducted for this assessment did not reveal evidence of hazardous materials/waste on the subject parcel/property. Also, the Proposed Action will not involve the use or creation of hazardous substances during the construction or the operation phases. Since no impacts are anticipated, no mitigation measures are necessary.

5.2 NATURAL RESOURCES – BIOLOGICAL RESOURCES

Biological resources of the natural environment include wild plants and animals, both native and alien, which may be affected by the Proposed Action. These species live in an ecological community, or specific habitat, and interact with each other within that community. Ecological communities may include wetlands, oceans, shorelines, mountains, etc.

5.2.1 Wetlands

5.2.1.1 Baseline Conditions

The subject property was inspected for the presence of sensitive ecological areas by noting environmental indicators (e.g., wetlands vegetation, floodplains) located on or immediately adjoining the subject property.

No sensitive ecological areas were observed on the subject property. The USGS 7.5-Minute Topographic Map Honolulu Quadrangle (1998), which includes the subject and adjoining properties, does not depict creeks or delineated wetlands located on the subject or adjoining properties. According to the United States Fish and Wildlife Service (USFWS) National Wetland Map, no wetlands are depicted on or near the subject property.

The Federal Emergency Management Agency Flood Insurance Rate Map (FEMA/FIRM Panel No. 15003C-0362G, Revised January 19, 2011) was reviewed to determine if the subject property was located in a flood hazard area. According to the map, the subject and adjoining properties are located in Zone X, which denotes areas determined to be outside the 0.2 percent annual chance floodplain.

Copies of the National Wetland Map and the FEMA/FIRM Map are included in Appendix D.

5.2.1.2 Proposed Action Impacts and Mitigation

According to the baseline conditions described in the previous section, the subject property is not located in a designated Wetland; therefore, the Proposed Action will have no effects on wetlands. No mitigation measures are necessary, since there will no impact to this resource.

5.2.2 Wilderness Area

5.2.2.1 Baseline Conditions

The subject property is paved with asphalt demarcated with parking spaces. It is currently unoccupied and is enclosed by a chain-link fence and gate which is locked to prevent public access.

The National Wilderness Preservation System website, http://www.wilderness.net, was reviewed for information on whether the proposed project site is located within an officially designated wilderness area. According to this website, four federal agencies (the National Park Service, Forest Service, Fish and Wildlife Service, and Bureau of Land Management) manage a total of 757 designated wilderness areas in the US. Two of these wilderness areas are located in the state of Hawaii, including Hawaii Volcanoes Wilderness on the island of Hawaii and Haleakala Wilderness on the island of Maui, which are managed by the National Park Service. Neither area encompasses the subject property.

5.2.2.2 Proposed Action Impacts and Mitigation

According to the baseline conditions, the project is not located in a wilderness area. Therefore, there will be no impacts and therefore, no mitigation measures are necessary.

5.2.3 Wildlife Preserve

5.2.3.1 Baseline Conditions

The website http://www.fws.gov/refuges/refugeLocatorMaps/Hawaii.html, maintained by USFWS, was reviewed for information on whether the proposed project site is located within a designated wildlife preserve. According to this website, there are a total of nine wildlife preserves located within the Hawaiian Islands, including:

1. Hakalau Forest National Wildlife Refuge
2. Hanalei National Wildlife Refuge
3. Huleia National Wildlife Refuge
4. James Campbell National Wildlife Refuge
5. Kakahaia National Wildlife Refuge
6. Kilauea Point National Wildlife Refuge
7. Kealia Pond National Wildlife Refuge
8. Oahu Forest National Wildlife Refuge
9. Pearl Harbor National Wildlife Refuge

None of the nine listed wildlife preserves identified encompasses the subject property.

5.2.3.2 Proposed Action Impacts and Mitigation

According to the baseline conditions, the project is not located in a wildlife refuge. Therefore, there will be no impacts and no mitigation measures related to this resource.

5.2.4 Listed or Proposed Threatened or Endangered Species and Designated or Proposed Critical Habitats

5.2.4.1 Baseline Conditions

The subject property has been previously graded, and is currently an asphalt-paved lot that is demarcated with parking spaces. The subject property is enclosed by a chain-link fence and gates which are locked to prevent public access. The subject property is located in a highly urbanized setting. No listed or proposed threatened or endangered species have been observed and are known to exist at the site. In addition, the subject property is not located within or near a designated or proposed critical habitat.

5.2.4.2 Proposed Action Impacts and Mitigation

According to the baseline conditions, the project will not affect listed or proposed threatened or endangered species and is not located in a designated or proposed critical habitat. Therefore, there will be no impacts and no mitigation measures are necessary.

5.3 NOISE

Noise is generally regarded as unwelcome sound that can distract from normal activities. The negative impacts of noise on the environment are collectively known as noise pollution. Noise pollution is usually generated from cars, aircrafts, humans, animals, and industrial sites. Areas with an excess of noise pollution are generally caused by poor planning. Projects should be analyzed for potential noise pollution so that good planning and mitigation takes place before they are implemented.

Depending on the level and duration of the noise pollution, it may have a harmful effect on human health. Minor levels of noise pollution can cause agitation or annoyance, while significant levels may cause hearing loss. The DOH, under Title 11, Chapter 46 of the HAR, sets the maximum permissible sounds level for a Class B zone, which includes õmulti-family dwellings, apartment, business, commercial, hotel, resort, or similar typeòzones at 60 A-weighted decibels (dBa) for daytime (7 a.m. to 10 p.m.) and 50 dBa for nighttime (10 p.m. to 7 a.m.). This standard does not apply to emergency generators. If noise is to be emitted above the permissible sound level, then a permit must be obtained prior to the related activities.

5.3.1 Baseline Conditions

Activities that may produce noise include traffic from cars on the road, overhead aircraft activities, and neighboring business activities. Based on the State of Hawaii Department of Transportation (DOT), Airports Division noise exposure maps, the proposed Ola Ka `Ilima Artspace Lofts project is situated between the 55 and 60 dBA contours. Therefore, the noise levels are below the maximum acceptable noise level for the project site.

5.3.2 Proposed Action Impacts and Mitigation

Short-term noise impacts from construction activities are expected during the construction period. This construction related noise will have an impact on nearby residents although construction will occur during daylight hours when most adult residents are at work and children are at school. However, this noise impact will be temporary and last only until project completion.

Construction noise will be short-term and limited to daylight hours. Proper mitigation measures will be implemented to minimize noise impacts, and all work will comply with the DOH noise limits.

All construction activities will be monitored to ensure compliance with the DOH Title 11, Chapter 46 of the HAR.

After construction, long-term noise impacts will be from traffic and associated noise conditions in the general vicinity of the project site. However, there will be no adverse impacts because traffic operations in the vicinity of the project site are expected to remain similar without project traffic conditions (see Section 5.11, Traffic Impacts). Therefore, no mitigation measures are necessary.

5.4 VIEW AND VISUAL IMPACTS

5.4.1 Baseline Conditions

The Proposed Action is to take place in the ñKaka`ako Community Development Districtò, which is administered by the HCDA. Based on the Mauka Area Plan (September 2011), there are panoramic Mauka views from Kaka`ako Waterfront Park and Kewalo Peninsula (Figure 6, Figures Tab). These vantage points and associated view planes for these panoramic views represent an attenuated view where taller buildings should be placed farther from the shoreline so that their visibility recedes and their perceived height diminishes in relation to the mountains in the distance. Based on these vantage points and associated view planes from the Mauka Area Plan, the Proposed Action is located outside of the panoramic views (Figure 6, Figures Tab). In addition, view corridors have been identified (Mauka Area Plan, 2011) to preserve the Mauka-Makai views (Figure 7, Figures Tab). By requiring an upper level setback of building away from the street, these view corridors provide light and air at the street level. The Proposed Action is located between the Ward and Kamakee view corridors, and will not affect view corridors (Figure 7, Figures Tab).

The proposed Ola Ka `Ilima Artspace Lofts site is bordered by Waimanu Street to the east (beyond which is the Pacifica condominium, and Public Storage); Servco Lexus Service Center to the south; Kawaiahao Street to the west (beyond which are Hawaiian Telcom, and Muriel pre-school); and Kaka`ako Business Center to the north. Photographs of the subject site are included behind the *Photos* tab.

5.4.2 Proposed Action Impacts and Mitigation

The Proposed Action involves constructing a building approximately 99 feet in height, which is within the 100-foot height limit for the Kaka`ako area.

The Pacifica condominium is approximately 427 feet in height and is located east of the subject property. Nearby buildings that are proposed or under construction are: (1) 690 Pohukaina (650 feet in height), (2) Symphony Honolulu (400 feet in height), and Waihonua at Kewalo (426 feet in height). The proposed Ola Ka `Ilima Artspace Lofts is well below the building height of the Pacifica, as well as the future 690 Pohukaina, Symphony Honolulu, and Waihonua at Kewalo (Figures 8 and 9, Figures Tab).

The view from Makai to Mauka (panoramic views) indicates the taller Pacifica building directly mauka will serve as a backdrop to the proposed Ola Ka `Ilima Artspace Lofts project. In addition, the taller Symphony Honolulu building is also located mauka of the proposed Ola Ka `Ilima Artspace Lofts project. Therefore, the makai to mauka view will not be impacted by the project.

The view from Diamond Head to Ewa (view looking east-west across the panoramic views) indicates the Waihonua at Kewalo and 690 Pohukaina buildings are taller than the proposed Ola Ka `Ilima Artspace Lofts project by over 315 feet.

Therefore, the Proposed Action will not have a significant visual impact and no mitigation measures are necessary.

5.5 UTILITIES

5.5.1 Baseline Conditions

There are no structures on the subject property, and county water and sewer services are not currently utilized at the subject property. Storm water runoff from the subject property flows via sheet flow to the southwest, towards Kawaiahao Street. The storm water then discharges into the City and County of Honolulu storm drain system. HECO has existing overhead power lines along Waimanu and Kawaihao Streets, immediately to the north-northeast and south-southwest of the subject property. The Board of Water Supply (BWS) owns and maintains the water system that serves the area.

5.5.2 Proposed Action Impacts and Mitigation

Effects to utilities from the Proposed Action are expected to be insignificant. Artspace will coordinate with the various utility companies in support of the proposed Ola Ka `Ilima Artspace Lofts.

5.6 HISTORIC AND CULTURAL RESOURCES

Historic and cultural resources include districts, sites, buildings, structures, or objects significant in Hawaiian and American history, architecture, archaeology, engineering, or culture that are listed, or are eligible for listing, in the National and/or State Register of Historic Places, which may be directly impacted by the Proposed Action. (Direct impact is defined as the area of potential ground disturbance and any property, or any portion thereof, that will be physically altered or destroyed by the Proposed Action.)

5.6.1 Baseline Conditions

Based on archaeological monitoring of geotechnical soil borings conducted at the project site in 2012, the presence of a sand layer throughout the property was revealed which potentially may contain *iwi kupuna*. Therefore, an archaeological inventory survey (AIS) was conducted by T.S. Dye & Colleagues, Archaeologists, Inc. on December 2013 at the subject property that will be disturbed by construction activities. The AIS resulted in the excavation and analysis of six test trenches on site. The test trenches were oriented in the *mauka-makai* direction across the subject property and throughout the entire foundation of the proposed project where ground disturbance is expected. In addition, the AIS involved background research including review of historic documents, maps, and archaeological reports on file at the Hawaii State Historic Preservation Division, Hawaii State Library, and the State Bureau of Conveyances.

No traditional Hawaiian cultural deposits were found during excavation of the test trenches; however, late 19th century ceramic fragments and other similarly dated material, as well as some mammal bone

fragments were found. Remnants from an early 20th century lumber yard were also found. In addition, remnants of a wetland were found.

A sand layer was revealed at the site at approximately 5 to 6 feet below ground level (bgl). This depth is near the level of the water table and the bluish color of the sand indicates that it is intermittently saturated with water. Since the sea level has not significantly changed since traditional Hawaiian times, it is likely that the sand was also intermittently saturated in traditional Hawaiian times, thus making it less suitable for human burials. It is therefore unlikely that the sand would contain *iwi kupuna*. In addition, the proposed building footprint would penetrate subsurface material to a maximum depth of 3.33 feet, which would impact only fill material at the site.

A copy of the AIS report is included in Appendix E.

5.6.2 Proposed Action Impacts and Mitigation

Based on the results of the AIS and the anticipated clearance from the SHPO, the proposed project is not expected to impact historic and cultural resources. However, in the case that historic and/or cultural resources are found during construction activities, effects will be mitigated by ceasing work and notifying the DLNR-SHPD. Therefore, should historic resources, including human skeletal remains, be identified during construction activities associated with the Proposed Action, all work will cease in the immediate vicinity of the find until additional consultation with the DLNR-SHPD is conducted and appropriate evaluation of the resources has been completed.

5.7 SOCIO-ECONOMICS

Socioeconomics describes the link between economic activity and social life, where one has an effect on the other. Many things can affect socioeconomic activities such as new technology, a change in the environment, and development. Effects of economics on social life can include redistribution of wealth and an alteration in quality of life.

5.7.1 Baseline Conditions

The Kaka`ako Community Development District is bounded by Beretania Street (between South Street and Ward Avenue), Ward Avenue (between Beretania Street and King Street), King Street (between Ward Avenue and Kalakaua Avenue), Kalakaua Avenue (between King Street and the Ala Wai Canal), the shoreline (around Magic Island to Keawe Street), Keawe Street (between the shoreline and Ala Moana Boulevard), Ala Moana Boulevard (between Keawe Street and South Street), and South Street (between Ala Moana Boulevard and Beretania Street). It includes the proposed Ola Ka `Ilima Artspace Lofts site.

The Ala Moana/Kaka`ako neighborhood is a mixed-use community of residential, commercial, and light industrial properties. Residential properties consist primarily of multi-unit, mid-rise and high-rise structures. Commercial properties include Ala Moana Shopping Center, the Ward Centers, and other stores, office space, restaurants, and other facilities, such as the Neal Blaisdell Center. Light industrial facilities, such as car service and repair, round out the mixed-use community.

According to the United States Census Bureau (USCB) website, the Urban Honolulu area (which includes the subject property) had a population of 337,256 during the 2010 census. There were approximately 143,173 housing units, and 66.1 percent were multi-unit structures. The median household income was $56,939; and 11.6 percent of individuals were living below the poverty line.

A residential rental market study was prepared by Colliers International-Hawaii for the proposed project, and details affordable housing inventory, median rental costs, as well as market demand which is summarized below:

There is an inventory of 14,400 affordable housing units on Oahu, which consists of elderly, family-government assisted, and family-public housing units. Since 2007, more than 3,800 affordable rental housing units were constructed.

The average rents for apartments on Oahu range from $1,400 to $1,600 a month, with current market rents of $1,400 to $2,700 a month for the Kapiolani/ Kaka`ako area.

Though there is no publicly available information on vacancy and turnover rates of affordable housing units, it is assumed that the overall residential rental market is less than 5 percent. The high demand and low inventory for rental units has enabled new projects to be quickly filled, therefore, the units at the Ola Ka `Ilima Artspace Lofts is projected to be filled quickly.

Factors inhibiting the availability of affordable housing are (1) high production cost, (2) added development risk from a difficult permitting process and fragmented financing, maintenance and management problems, and (3) regulatory and infrastructure barriers.

A copy of the study is presented in Appendix F.

5.7.2 Proposed Action Impacts and Mitigation

The proposed Ola Ka `Ilima Artspace Lofts project, a mixed-use, low-income housing development, will have a positive impact on socio-economics by addressing affordable housing demand in Honolulu. It is designed with the concept to create an affordable living and working space, and space for community events and gatherings, as well as space for non-profit partners.

Short-term construction jobs will be created from the proposed Ola Ka `Ilima Artspace Lofts project. Positive long-term effects of residents patronizing nearby stores, restaurants, and other neighborhood businesses, as well as working within the area, will be an expected increase in economic activity for the area.

Providing permanent low-income housing and affordable space for the arts meets the goals of the city, county and state for economic activity, and employment opportunities. Therefore, no mitigation is necessary.

5.8 ENVIRONMENTAL JUSTICE

Environmental justice is a movement that defines the environment as ñwhere people live and work.ò The movement seeks to balance the burden that is borne by minorities, women, the poor, and those who are generally discriminated against by redistributing these burdens (such as industrial developments that pollute the area) out of a select group of neighborhoods and making various goods more accessible.

5.8.1 Baseline Conditions

The USCB website has estimated percentages of people with various backgrounds residing in Urban Honolulu from the 2010 census. According to the website, in 2010 the population of Urban Honolulu was approximately 89.9 percent minority (non-Caucasian) and 8.5 percent of families and 9.9 percent of individuals were living below the poverty line.

According to the residential rental market study prepared by Collier International-Hawaii, the primary trade area for tenants of the project would be within a three-mile radius of the site. The target household would most likely already reside in the urban Honolulu area. The secondary market area would extend to a 10-mile radius into suburban areas. However, the uniqueness of the project could reach across the entire island of Oahu.

The potential market demand for rental housing is within the 30 to 60 percent annual median income level. This equates to approximately 50,000 households within the primary and secondary trade areas.

A household with a 50 to 60 percent annual median income level can afford to pay a range of $918 (for a one bedroom unit) to $1,527 (for a three bedroom unit) a month. This is lower than using a market benchmark rate of 30 percent of household income which yields $1,224 to $1,467 a month, and significantly lower than current market rents of $1,400 to $2,700 a month for the Kapiolani/ Kaka`ako area.

Based on affordable rent guidelines,

Unit Type	Rent (Per Month) Based on Percent of Oahu Median Household Income						
	30%	50%	60%	80%	100%	120%	140%
One-Bedroom	$550	$918	$1,102	$1,468	$1,837	$2,024	$2,572
Two-Bedroom	$661	$1,102	$1,323	$1,762	$2,205	$2,646	$3,087
Three-Bedroom	$763	$1,273	$1,527	$2,036	$2,546	$3,055	$3,564

A copy of the residential rental study is included in Appendix F.

5.8.2 Proposed Action Impacts and Mitigation

The proposed Ola Ka `Ilima Artspace Lofts project, a mixed-use arts development, will have a positive impact on environmental justice because it is designed with the concept to create an affordable living and working space, and space for community events and gatherings, as well as space for non-profit partners.

Approximately 4,000 square feet will be reserved for PA`I Arts & Culture Center, for Native Hawaiian dancers, musicians, visual artists, cultural practitioners and others who are interested in experiencing Native Hawaiian cultural traditions.

Anyone who qualifies for affordable housing may apply for residency at the Ola Ka `Ilima Artspace Lofts project, though preference will be given to artists. The percentage of Oahu residents that self-identify as artists are unavailable, however, given the overwhelming demand for affordable rentals (Residential Rental Market Study, 2013), any units unfilled by artists will be offered to the general population.

By providing permanent affordable space for the arts would meet the goals of the city, county and state for economic development, transit-oriented development and cultural preservation. No mitigation measures are necessary.

5.9 AIR QUALITY

The US Congress passed the Clean Air Act (CAA) in 1963 to reduce air pollution and regulate emissions. Several amendments have been passed since its inception that stipulates specific emission regulations according to industry. The CAA mainly focuses on the following points: cleaning commonly found air pollutants, regulating automobile emissions, regulating interstate and international air pollution, cleaning the air in national parks, reducing acid rain and toxic pollutants, protecting the ozone layer, enforcing permits, and providing a pathway for public participation. Various states, including Hawaii, have since developed their own set of air quality standards that must, at a minimum, match those of the CAA.

5.9.1 Baseline Conditions

The DOH, Clean Air Branch has several air monitoring stations set up on Oahu. These stations monitor for levels of carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), ozone (O_3), and particulate matter (PM_{10} and $PM_{2.5}$), as stipulated in the National Ambient Air Quality Standards (NAAQS) set by the Environmental Protection Agency (EPA). The State of Hawaii has stricter standards for carbon monoxide and nitrogen dioxide than are set by the NAAQS, and also requires levels of hydrogen sulfide (H_2S) to be regulated. According to the ñState of Hawaii Annual Summary 2012 Air Quality Dataò, none of the monitoring stations reported concentrations above Hawaii standards for any of the materials monitored. The Hawaii standards for these substances are listed in the table below.

Pollutant	CO	NO_2	SO_2	Pb	O_3	PM_{10}	$PM_{2.5}$	H_2S
Averaging Time	1-hour 8-hour	Annual	3-hour 24-hour Annual	Quarterly	8-hour	24-hour Annual	24-hour Annual	1-hour
Standard	9 ppm 4.4 ppm	0.04 ppm	0.5 ppm 0.14 ppm 0.03 ppm	1.5 µg/m^3	0.08 ppm	150 µg/m^3 50 µg/m^3	--	0.025 ppm

Source: DOH, Clean Air Branch Website

5.9.2 Proposed Action Impacts and Mitigation

During construction, there will be an increase in the amount of airborne particulate matter in the form of dust; however, it will be temporary. In addition, construction activities will adhere to applicable regulations to reduce dust resulting from normal construction activities. Any emissions would be minimal and for a limited duration.

Measures to control dust during construction activities will comply with Chapter 11-60.1-33, HAR, and incorporate the City and County of Honolulu ñBest Management Practicesò (BMPs), such as:

- Water active work areas and disturbed dust sources frequently.
- Plan different phases of construction to limit the area to be disturbed.
- Apply mulching, chemical soil stabilizers or wind screens to minimize wind erosion.
- Cover open-bed, soil-hauling trucks.
- Adopt a road cleaning and/or tire washing program, and
- Pave areas and/or landscaping early in the construction schedule.

Therefore, no additional mitigation measures are necessary.

5.10 PUBLIC ACCESS

Hawaii is known for its beautiful shoreline and mountain areas. These resources are important to both the Hawaiian culture and the tourism industry, so it is important to maintain easy public access to these areas.

5.10.1 Baseline Conditions

The project site is located in the Kakaâako Mauka Area, as defined by HCDA, and is currently an asphalt-paved parking lot. It does not include any public access to shoreline and mountain areas.

5.10.2 Proposed Action Impacts and Mitigation

Since the project site is located in the ñKakaâako Community Development Districtò, the Proposed Action is not expected to affect public access to the shoreline or to mountain areas. Therefore, no mitigation measures are necessary.

5.11 TRAFFIC IMPACTS

5.11.1 Baseline Conditions

Access to the proposed Ola Ka `Ilima Artspace Lofts project will be provided by driveways off Waimanu Street, which is a designated service street in the Mauka Area Plan (September 2011).

A summary of existing traffic conditions, as well as an analysis of potential traffic impacts has been prepared by Wilson Okamoto Corporation for the proposed Ola Ka `Ilima Artspace Lofts project. A brief summary of the existing area roadway system in the vicinity of the project is described below:

The project site is located adjacent to Waimanu Street between Ward Avenue and Kamakee Street. In the vicinity of the project site, Waimanu Street is a two-lane, two-way roadway generally oriented in the east-west direction. At the intersection with Ward Avenue, both approaches of Waimanu Street have one stop-controlled lane that serves all traffic movements. In the vicinity of the project site, Ward Avenue is a four-lane, two-way roadway generally oriented in the north-south direction. At the intersection with Waimanu Street, the northbound approach of Ward Avenue has an exclusive left-hand turn lane, two through lanes, and a shared through and right-turn lane while the southbound approach has an exclusive left-hand turn lane, one through lane, and a shared through and right-turn lane.

At the intersection of Waimanu Street and Kamakee Street is an all-way stop-controlled intersection. Both approaches of Kamakee Street have a shared left-turn and through lane, and a shared through and right-turn lane.

A copy of the traffic impact report is included in Appendix G.

5.11.2 Proposed Action Impacts and Mitigation

The projected traffic conditions with the construction of the proposed Ola Ka `Ilima Artspace Lofts (Year 2015) is expected to remain similar to projected traffic conditions without the construction of the project (Year 2015) during both morning and afternoon peak traffic hours along the surrounding roadways.

Therefore, the proposed Ola Ka `Ilima Artspace Lofts is not expected to have a significant impact on traffic operations in the project vicinity.

5.12 LAND USE

Land use pertains to the human modification of the natural environment, including deforestation, soil degradation, water usage, etc. Human-created land use divides land according to zones, land ownership, parcels, etc. The human division of land use is targeted towards a goal for the region and to promote smart growth of a particular area.

5.12.1 Baseline Conditions

The subject property consists of a 30,000 square foot rectangular parcel of land located at 1025 Waimanu Street, in Honolulu, Oahu, Hawaii, in an industrial business district. The subject property is described as the parcel of land designated as TMK Number: (1) 2-3-003: Parcel 040. According to the City and County of Honolulu Department of Planning and Permitting (DPP), the site is located within the ñKaka`ako Community Development Districtò and is administered by the Hawaii Community Development Authority (HCDA). The State Land Use designation is ñUrbanò.

The subject property is currently an asphalt-paved lot that is demarcated with parking spaces. The subject property is enclosed by a chain-link fence and gates which are locked to prevent public access.

5.12.2 Proposed Action Impacts and Mitigation

The planned long-term use for the subject property is to construct a mixed-use building (the proposed Ola Ka `Ilima Artspace Lofts Project) on the subject property.

The proposed Ola Ka `Ilima Artspace Lofts project involves constructing an eight-level, mixed-use building, which will include commercial and residential space, parking, and community use areas. The project conforms to HCDAôs vision for the Kaka`ako Community Development District, as stated in the Mauka Area Plan (September 2011), to become ñ*the most sustainable, livable urban community in the State, a place where people can work, live, visit, learn and play."*

5.13 ACCESS TO THE AREA

5.13.1 Baseline Conditions

Access to the project site is provided by access gates off of Waimanu Street. The subject property is currently an asphalt-paved lot that is demarcated with parking spaces. The subject property is enclosed by a chain-link fence and gates which are locked to prevent public access.

5.13.2 Proposed Action Impacts and Mitigation

The proposed Ola Ka `Ilima Artspace Lofts project involves constructing an eight-level, mixed-use building, which will include commercial and residential space, parking, and community use areas. Access to the proposed Ola Ka `Ilima Artspace Lofts project will be provided by driveways off Waimanu Street.

5.14 ENVIRONMENTAL CONDITIONS

5.14.1 Baseline Conditions

A Phase I Environmental Site Assessment (ESA) was conducted at the subject property (Bureau Veritas, 2010). The Phase I ESA identified one Recognized Environmental Condition (REC) that was related to historical use of the site, which was located on the site, and a potential REC related to potential impacts from historical uses at an adjacent and nearby properties in the vicinity of the site.

Historical research indicated that the site was previously used as a contractorâs storage yard from at least 1955 until 2008. The storage yard was unpaved and aerial photographs indicated heavy equipment was stored on site. Historical usage as a contractorâs storage yard indicates the potential use and storage of petroleum products and other hazardous materials. Additionally, vicinity properties identified in fire insurance maps included a drycleaner, chemical and fertilizer warehouse, and auto body and paint shop. These types of facilities are typically associated with the storage and/or usage of hazardous chemicals and materials, with the potential for releases of such materials.

Therefore, Bureau Veritas recommended conducting a subsurface investigation to assess the presence or absence of impacts from potential releases associated with these findings.

Based on the recommendations of the Phase I ESA, a Phase II Environmental Investigation was conducted at the subject property (Bureau Veritas, 2012). The Phase II Environmental Investigation identified limited soil and groundwater impacts at the site. Total Petroleum Hydrocarbons as residual range organics (TPH-RRO) concentrations in soil and indeno(1,2,3-cd)pyrene and benzo(g,h,i)perylene concentrations in groundwater exceed their respective Hawaii Department of Health (HDOH) Tier 1 Environmental Action Levels (EALs). However, the soil and groundwater concentrations of these three analytes do not exceed the EPA Region 9 Regional Screening Levels (RSLs). The EPA has not established a RSL in soil for TPH-RRO nor has it established any RSLs for contaminants in groundwater.

Bureau Veritas recommended conducting an Environmental Hazard Evaluation (EHE) and preparing an Environmental Hazard Management Plan (EHMP), which will provide guidance regarding the handling and management of soil and groundwater during construction. The EHE and EHMP were prepared and submitted to DOH HEER Office. Their comments have been incorporated into the final documents.

5.14.2 Proposed Action Impacts and Mitigation

An EHE was prepared to evaluate potential hazards to human health and sensitive ecological receptors associated with TPH-RRO concentrations in soil and indeno(1,2,3-cd)pyrene and benzo(g,h,i)perylene concentrations in groundwater at the site.

In addition, a Construction EHMP was prepared to manage the hazards or potential hazards during construction to reduce potential exposure or risk to the hazards during construction.

Therefore, no further mitigation is necessary.

6.0 201H APPLICATION AND EXEMPTIONS

6.1 INTRODUCTION

Hawaii Revised Statutes (HRS) Section 201H-38, ñHousing development; exemption from statutes, ordinances, charter provisions, and rulesò allows for eligible 201H projects to seek exemptions from all statutes, ordinances, and rules of any governmental agency relating to planning, zoning, and construction standards that do not negatively affect health and safety of the general public in exchange for providing affordable housing.

The proposed Ola Ka `Ilima Artspace Lofts project will be an 84-unit low-income housing tax credit building centrally located in Urban Honolulu. One hundred percent of the units will meet the affordability requirements of the 201H program in that they will be priced to be affordable to households earning 60 percent or less of the HUD median income for Honolulu. The exemptions requested below are required to maintain the financial feasibility of Ola Ka `Ilima Artspace Lofts. The primary goals are to:

- create affordable live/work space that allows artists to be more productive, more collaborative, and to earn more from their artistic work;
- create affordable space where non-profit partners can translate increased stability into increased programming and impact;
- leverage artistic energy into advancing complementary public agendas, including affordable housing, economic development, transit oriented development, and cultural preservation;
- structure Ola Ka `Ilima Artspace to maintain its affordability and impact over decades; and deliver affordable housing to the public in an attractive and efficient building situated in a prime urban location in close proximity to major employment centers and public transportation opportunities.

The 201H application process requires routing of requested exemptions under HRS 201H to all departments and agencies with authority over the exemptions, for comment and/or approval. This Draft EA will be routed to agencies (with a master list of agencies included in Appendix H) for official comment on the 201H application and requested exemptions. After receiving comments from all involved agencies and making any necessary revisions, Applicant will begin the 201H approval process. 201H approvals will be necessary from HHFDC, HCDA and the Honolulu City Council.

6.2 REQUESTED EXEMPTIONS

6.2.1 Zoning

- **HCDA - Mauka Area Rules, HAR §15-217-54 (c), & Figure 1.12-C: "…At least twenty-five per cent of the building void shall be located along the façade and have a minimum depth of ten feet, as measured from the façade towards the rear lot line; provided, however, that this minimum depth from the facade shall be increased by three feet for every ten feet of building height."**

  An exemption is sought from §15-217-54 (c) from additional setbacks from the Build-to line to maintain structural economy of the housing tower plan layout relative to parking capacity below. A setback of 3'-0" from the build-to-line to the building envelope is proposed, with sun-shading treatments within this 3'-0" setback, to allow elevation variation and interest per the intent of this section.

- **HCDA - Mauka Area Rules Figure 1.13C: Encroachments: " Min. Awnings vertical clear = 16'-0".**

  An exemption is sought from Mauka Area Rules Figure 1.13C to provide a minimum vertical clearance of 12'-0" to bottom of awnings for greater sun and rain protection of pedestrians and storefront glazing.

- **HCDA - Mauka Area Rules §15-217-54 (e): "Except in the Sheridan neighborhood zone, all ground floors shall be at least twelve feet tall along all thoroughfares."**

  An exemption is sought from §15-217-54 (e): on retail height fronting Waimanu Street to be 11'-0" height clear minimum, in order to minimize overall building encroachment into the Urban Block form building height limit while reducing overall building height from the 400' maximum height development.

- **HCDA - Mauka Area Rules § 15-217-55 (m.3), Architectural Design, Storefronts and windows for retail: "Street front elements shall have a depth of forty to eighty feet of usable commercial space with potential for dividing walls at least every thirty feet.**

  An exemption is sought from § 15-217-55 (m.3) to allow retail depth to be less than 40ô0ò deep. (<10% minimal deviation.) A shallower space is proposed at 36ô0ò deep, with potential for dividing walls at every 30'-0" minimum to be accommodated.

6.2.2 Parking and Loading

- **HCDA - Mauka Area Rules, HAR §15-217-63 (e.1), Parking & Loading.**

  An exemption is sought from specific parking requirements, per Mauka Area Rules HAR §15-217-63 (e.2): " There shall be no off-street parking requirement for the Central Kakaôako neighborhood zone:" A discretionary number of parking stalls for shared uses has been reviewed with the HCDA executive direct.

- **HCDA - Mauka Area Rules, HAR §15-217-63, Parking & Loading, (c.3): "Curb cuts shall be setback a minimum of twenty-two feet from adjacent properties. Lots with less than one hundred linear feet of frontage are exempt from this provision."**

  An exemption is sought from § 15-217-63 (c.3) to allow a driveway curb cut to be located less than 22' minimum from the adjacent lot property line.

- **HCDA - Mauka Area Rules, HAR §15-217-63, Parking & Loading, (l.1): "The following loading space requirements shall apply: Multiple-family dwellings: one=20,000-150,000; two=150,001-300,000…"**

  An exemption is sought from §15-217-63, Parking & Loading.

6.2.3 Building Permit and Plan Review Fees

- **DPP - Exemption from Revised Ordinances of Honolulu, §18-6.1 and 18-6.2, Building Permit / Plan Review Fees.**

  An exemption is being sought from plan review and building permit fees per ROH Sec. 18-6.1 & 18-6.2.

6.2.4 Public Works/ Infrastructure Fees

- **DPP/DPW - Exemption from Revised Ordinances of Honolulu, §14-14.4, Public Works / Infrastructure Fees.**

  An exemption is being sought from grading and grubbing permit fees per ROH Sec. 14-14.4.

- **DPP/DPW - Exemption from Revised Ordinances of Honolulu, Sec. 14-12.12, Public Works / Infrastructure Fees.**

  An exemption is being sought from private storm drain connection license fees per ROH Sec. 14-12.12.

- **DPP/DPW/WWB - Exemption from Revised Ordinances of Honolulu, Sec. 14-10.6, Public Works / Infrastructure Fees.**

  A reduction is sought from wastewater system connection charges in accord with the project low-income housing project status.

- **DPP/DPW/WWB - Exemption from Revised Ordinances of Honolulu, Sec. 14-10.6, Public Works / Infrastructure Fees.**

  An exemption is sought to defer water & sewer utility connection fees until an issued certificate of occupancy.

- **DPP/DPW - Exemption from Revised Ordinances of Honolulu, Sec.: 14-12.18, Public Works / Infrastructure Fees, Inequities.**

  An exemption is sought from roadway, drainage, and underground utility improvements and fees in the public right-of-way that are not directly related to this project.

6.2.5 Public Facility Dedication Fees

- **DPP/HCDA - Exemption from HAR §15-217-65, Public Facilities Dedication fee.**

  An exemption is sought from the Park Dedication requirements as set forth in Chapter 22, Article 7, ROH. The basis for exemption is the exception referred to in Mauka Area Rules §15-217-65 (a), "... floor area related to reserved housing."

6.3 SUMMARY OF REQUESTED EXEMPTIONS

A summary of requested exemptions is shown in the table below:

	County Ordinance/ Code	Exemption	Agency	Agency Comments	Developer's Response
1	Exemption from Revised Ordinances of Honolulu, §18-6.1 and 18-6.2, Building Permit/ Plan review Fees.	An exemption is being sought from plan review and building permit fees per ROH Sec. 18-6.1 & 18-6.2.	DPP		
2	Exemption from Revised Ordinances of Honolulu, §14-14.4, Public Works/ Infrastructure Fees.	An exemption is being sought from grading and grubbing permit fees per ROH Sec. 14-14.4.	DPP, DPW		
3	Exemption from Revised Ordinances of Honolulu, Sec. 14-12.12, Public Works/ Infrastructure Fees.	An exemption is sought from private storm drain connection license fees per ROH Sec. 14-12.12.	DPP, DPW		
4	Exemption from Revised Ordinances of Honolulu, Sec. 14-10.6, Public Works/ Infrastructure Fees.	A reduction is sought from wastewater system connection charges in accord with the project low-income housing project status.	DPP, DPW, WWB		
5	Exemption from Revised Ordinances of Honolulu, Sec. 1-102, 2-202(2) & 2-202(3), Board of Water Supply rules and regulations.	An exemption is sought to defer water & sewer utility connection fees until an issued certificate of occupancy.	DPP, DPW, WWB, BWS		
6	Exemption from Revised Ordinances of Honolulu, Sec.: 14-12.18, Public Works/ Infrastructure Fees, Inequities:	An exemption is sought from roadway, drainage, and underground utility improvements and fees in the public right-of-way that are not directly related to this project.	DPP, DPW		
7	Exemption from HAR §15-217-65, Public Facilities Dedication fee:	An exemption is sought from the Park Dedication requirements as set forth in Chapter 22, Article 7, ROH. The basis for exemption is the exception referred to in Mauka Area Rules §15-217-65 (a), "... floor area related to reserved housing."	DPP, HCDA		

	County Ordinance/ Code	Exemption	Agency	Agency Comments	Developer's Response
8	Mauka Area Rules, HAR §15-217-54 (c), & Figure 1.12-C: "é At least twenty-five per cent of the building void shall be located along the façade and have a minimum depth of ten feet, as measured from the façade towards the rear lot line; provided, however, that this minimum depth from the facade shall be increased by three feet for every ten feet of building height."	An exemption is sought from §15-217-54 (c) from additional setbacks from the Build-to line to maintain structural economy of the housing tower plan layout relative to parking capacity below. A setback of 3'-0" from the build-to-line to the building envelope is proposed, with sunshading treatments within this 3'-0" setback, to allow elevation variation and interest per the intent of this section.	HCDA		
9	Mauka Area Rules, HAR §15-217-63 (e.1), Parking & Loading:	An exemption is sought from specific parking requirements, per Mauka Area Rules HAR §15-217-63 (e.2): " There shall be no off-street parking requirement for the Central Kakaâako neighborhood zone:" A discretionary number of parking stalls for shared uses has been reviewed with the HCDA executive director.	HCDA		
10	Mauka Area Rules, HAR §15-217-63, Parking & Loading, (c.3): "Curb cuts shall be setback a minimum of twenty-two feet from adjacent properties. Lots with less than one hundred linear feet of frontage are exempt from this provision."	An exemption is sought from § 15-217-63 (c.3) to allow a driveway curb cut to be located less than 22' minimum from the adjacent lot property line.	HCDA		
11	Mauka Area Rules, HAR §15-217-63, Parking & Loading, (l.1): "The following loading space requirements shall apply:é . Multiple-family dwellings: one=20,000-150,000; two=150,001-300,000é "	An exemption is sought from §15-217-63, Parking & Loading, (l.1), for the elimination of a dedicated loading space.	HCDA		
12	Mauka Area Rules Figure 1.13C: Encroachments: " Min. Awnings vertical clear = 16'-0".	An exemption is sought from Mauka Area Rules Figure 1.13C to provide a minimum vertical clear of 12'-0" to bottom of awnings for greater sun and rain protection of pedestrians and	HCDA		

	County Ordinance/ Code	Exemption	Agency	Agency Comments	Developer's Response
		storefront glazing.			
13	Mauka Area Rules § 15-217-55 (m.3), Architectural Design, Storefronts and windows for retail: "Street front elements shall have a depth of forty to eighty feet of usable commercial space with potential for dividing walls at least every thirty feet.	An exemption is sought from § 15-217-55 (m.3), requiring a minimum retail depth of 40'-0" deep. A shallower retail depth is proposed at 36ô0òfeet, at <10% minimal deviation.	HCDA		

7.0 PERMITS

Various state and city government agencies were contacted for information on permits required for the proposed Ola Ka `Ilima Artspace Lofts project to move forward. Agencies contacted concerning permits/ approvals for the site are listed below:

Permit or Approval (State Agencies*)	Approving Agency
Kaka`ako Mauka Area Development Permit	HCDA
Variance from Pollution Controls (Noise Permit)	DOH
Archaeological Inventory Survey Review	DLNR (SHPD), Oahu Island Burial Council
HRS 201H Exemptions from Zoning	HHFDC, HCDA

Permit or Approval (County Agencies**)	Approving Agency
Building Permits	DPP
Certificate of Occupancy	DPP
Dewatering Permit	DPP
Grading, Grubbing, Stockpiling, Trenching	DPP
Construction Dewatering Permit	Department of Environmental Services
Sewer Connection Permit	Department of Environmental Services
Street Usage Permit	Department of Transportation (DOT)
Water and Water System Requirements for Developments	BWS
HRS 201H Exemptions from Fees	Honolulu City Council

8.0 COMPLIANCE WITH PLANS AND PROGRAMS

8.1 STATE LAND USE (CHAPTER 205, HAWAII REVISED STATUTES [HRS])

State Land Use districts, established under Chapter 205, HRS, together with the City and County of Honolulu General Plan and Development/ Sustainable Community Plans, guide population and land use growth over a 20-plus year timeframe.

The proposed Ola Ka `Ilima Artspace Lofts project site lies within the ñUrbanò district designated by the State, and conforms to uses allowed in this district.

8.2 STATE PLANNING ACT

The Hawaii State Planning Act (HSPA) was created to guide for future long-range development of the state, to provide for wise use of Hawaiiôs resources, and to improve coordination among different agencies and levels of government in the planning process. The goals of the HSPA are to, *'create a strong, viable economy; a desired physical environment; and physical, social, and economic well-being for the people of Hawaii."*

The objectives of the HSPA relate to:

(1) Population,
(2) Economy-In General,
(3) Economy-Agriculture,
(4) Economy-Visitor Industry,
(5) Economy-Federal Expenditures,
(6) Economy-Potential Growth Activities,
(7) Economy-Information Industry,
(8) Physical Environment-Land-Based, Shoreline, and Marine Resources,
(9) Physical Environment-Scenic, Natural Beauty, and Historic Resources,
(10) Physical Environment-Land, Air, and Water Quality,
(11) Facility Systems-In General,
(12) Facility Systems-Solid and Liquid Wastes,
(13) Facility Systems-Water,
(14) Facility Systems-Transportation,
(15) Facility Systems-Energy,
(16) Facility Systems-Telecommunications,
(17) Socio-Cultural Advancement-Housing,
(18) Socio-Cultural Advancement-Health,
(19) Socio-Cultural Advancement-Education,
(20) Socio-Cultural Advancement-Social Services,
(21) Socio-Cultural Advancement-Leisure,
(22) Socio-Cultural Advancement-Individual Rights and Personal Well-Being,
(23) Socio-Cultural Advancement-Culture,
(24) Socio-Cultural Advancement-Public Safety, and
(25) Socio-Cultural Advancement-Government.

Ola Ka `Ilima Artspace Lofts project complies with the HSPA objectives relating to Socio-Advancement-Housing; -Leisure; -Individual Rights and Personal Well-Being; and ï Culture. This is achieved by providing opportunities to obtain reasonably priced homes which are sensitive to community needs (the concept to create an affordable living and working space). In addition, this mixed-use development project is intended to serve the broader Hawaiian community by developing a traditional Hawaiian cultural center.

The project will not affect or inhibit the other HSPA objectives.

8.3 MAUKA AREA PLAN

The Mauka Area Plan (September 2011) establishes policies and direction for both public improvements and private development within the approximately 670-acre Kaka`ako Community Development District, administered by the HCDA. The HCDAôs ñ*vision is to ensure that the Kaka`ako Community Development District becomes the most, sustainable, livable urban community for the State, a place where people can work, live, visit, learn and play."*

The principles of the Mauka Area Plan are: (1) develop urban village neighborhoods where people can live, work, shop and recreate; (2) create great places, such as venues for performance and entertainment, or quiet places to sit and read; and (3) make the connection, which is to find balance between modes of transportation in addition to vehicular traffic.

Objectives of the Mauka Area Plan relate to: (1) urban design; (2) parks, open space and views; (3) transportation; (4) reserved housing; (5) historic and cultural resource plan; (6) social and safety plan; (7) relocation plan; (8) public facilities program; and (9) infrastructure and improvement district program.

The proposed Ola Ka `Ilima Artspace Lofts will provide a mixed-use development that blends live and work space for artists and their families, non-profit partners, and community events and gatherings. It is located outside of the vantage points and associated view planes for the Mauka Area. Therefore, the proposed Ola Ka `Ilima Artspace Lofts helps achieve the objectives of urban design; parks, open space and views; transportation; social and safety plan; and public facilities program.

8.4 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The Proposed Action was evaluated to confirm that it is in compliance with the General Plan (GP), as amended in October 2002. According to the document, the GP was established to set ñ*forth the long-range aspirations of Oahu's residents and the strategies of actions to achieve them.*ò

The proposed Ola Ka `Ilima Artspace Lofts complies with the GP objectives relating to: (1) population, (2) economic activity, (3) housing, (4) physical development and urban design, and (5) culture and recreation.

It is designed with the concept to create an affordable living and working space, and space for community events and gatherings, as well as space for non-profit partners. Approximately 4,000 square feet will be reserved for PA`I Arts & Culture Center, for Native Hawaiian dancers, musicians, visual artists, cultural practitioners and others who are interested in experiencing Native Hawaiian cultural traditions. By providing permanent affordable space for the arts the Proposed Action would meet the goals of the city, county and state for economic development, transit-oriented development and cultural preservation.

In addition, economic opportunities will be enhanced by the creation of short-term construction jobs from the proposed Ola Ka `Ilima Artspace Lofts project. Positive long-term effects of residents patronizing nearby stores, restaurants, and other neighborhood businesses, as well as working within the area, will be an expected increase in economic activity for the area.

The proposed Ola Ka `Ilima Artspace Lofts will not affect or inhibit the GP objectives relating to: (1) natural environment, (2) transportation and utilities, (3) energy, (4) public safety, (5) health and education, and (6) government operations and fiscal management.

8.5 PRIMARY URBAN CENTER DEVELOPMENT PLAN (PUCDP)

The Primary Urban Center extends along Oahuôs southern shore from Waialae-Kahala in the east to Pearl City in the west, and from the shoreline to the westerly slopes of the Koolau Mountain range. The PUCDP provides a coherent vision to guide resource protection and land use within the Primary Urban Center, which includes guidance on any development within its boundaries.

The GP also sets forth the intention of implementing the PUCDP. The purpose of the PUCDP is to take the broad statements in the GP and apply them to goals within the individual community. The PUCDP

will help the community, which is Oahuôs most diverse and populous region, to manage growth and ensure that the courses of action addressed in the GP are appropriately applied to the individual community.

It is believed that since the Proposed Action is in compliance with or will not affect the GP, it is also in compliance with or will not affect plans for the Primary Urban Center community.

9.0 PUBLIC FUNDING AWARDS

The following is the public funding that has been awarded for the proposed Ola Ka `Ilima Artspace Lofts project development:

- **City & County of Honolulu, Ordinance 13-20 (Bill 12, 2013)**
  ñKakaako Affordable Housing for Artists Projectò

  The City Council budgeted $1,101,000 to, ñAcquire land, plan, design, construct, and inspect an affordable live/work space for low-income artists and their families in the Kakaako area.òAs of the date of publication, this funding has not yet been awarded or contracted.

- **State of Hawaii, H.B. 200, 2013**
  Ola Ka óIlima Art Center LLC, Oahu

  For the 2013-2014 Fiscal Year, $350,000 Grant-in-Aid (GIA) was awarded in 2013. As of the date of publication, contract for this funding has not yet been executed.

- **State of Hawaii, H.B. 1700, 2014**
  Ola Ka óIlima Art Center LLC, Oahu

  For the 2014-2015 Fiscal Year, $1,500,000 GIA was awarded in 2014. As of the date of publication, contract for this funding has not yet been executed.

Additional public funding from State, County and Federal sources for the overall project budget is expected to be sought by Artspace.

Copies of the City and County of Honolulu Ordinance Bill, and the State of Hawaii House Bills (H.B.) for funding are included in Appendix I.

10.0 FINDINGS

We have prepared this Draft EA for the proposed Ola Ka `Ilima Artspace Lofts project (subject property) in conformance with the DLNR-OEQC requirements. The findings presented in this Section are based on Bureau Veritasôunderstanding of the subject property location and the Proposed Action at the subject property, as such action is described in Section 3.0. Should modifications to the location of the subject property or Proposed Action be made in the future, then additional inquiries may be prudent.

According to the DOH Rules (11-200-12), an applicant or agency must determine whether an action may have significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short- and long-term effects.

In making the determination, the Rules establish ñSignificant Criteriaò to be used as a basis for identifying whether significant environmental impacts will occur. According to the Rules, an action shall be determined to have significant impact on the environment if it meets any one of the following criteria:

(1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

The proposed project site is located in a light industrial area that is currently asphalt-paved and demarcated with parking spaces. This site and general area has been extensively modified for urban development, and available photographs of the site show obvious disturbances and clearings. Based on site inspections and the results of an archaeological inventory survey (AIS) (See Section 5.6, Historic and Cultural Resources), there are no known historic properties on or near the site, and no cultural resources are anticipated to be affected.

No loss or destruction of cultural resources or natural resources (i.e. wetland, wilderness area, wildlife preserve, threatened and/or endangered species, and critical habitat) are expected.

(2) Curtails the range of beneficial uses of the environment;

The Ola Ka `Ilima Artspace Lofts project conforms with State and City and County land use designations, and involves development of an Urban Use site. The project also enhances the objectives of the Mauka Area Plan.

(3) Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;

The proposed project is not expected to have a significant impact on the surrounding natural environment, historical areas or the existing community. Additionally, it will have no negative economic or social impacts on the area. Therefore, it is consistent with the Environmental Policies established in Chapter 344, HRS, and the NEPA.

(4) Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

Ola Ka `Ilima Artspace Lofts project will benefit the community at-large by providing affordable housing in the Mauka Area of Kaka`ako. By providing affordable living and working space along with space for community events and gatherings, as well as space for non-profit partners, the project fulfills the needs of the community.

(5) Substantially affects public health;

Impacts to public health may be affected by air and noise during construction; however, these will be short-term and are not expected to significantly affect public health. Construction activities will comply with applicable regulations.

(6) Involves substantial secondary impacts, such as population changes or effects on public facilities;

The estimated increase in population is approximately 200, consistent with growth and population projections listed in the Honolulu General Plan and Primary Urban Center

Development Plan. In addition, based on the size of the project, there is adequate water and sewer capacity to accommodate the project. Therefore, the proposed project is not anticipated to have substantial secondary impacts to the regional population or effects on public facilities.

(7) Involves a substantial degradation of environmental quality;

The proposed activities will be limited to the area of the proposed project site. There could be short-term impacts by noise and air quality during construction; however, all construction activities will comply with applicable regulations. Therefore, the Proposed Action will not involve substantial degradation of environmental quality.

(8) Is individually limited but cumulatively has considerable effect upon the environment, or involves a commitment for larger actions;

The Ola Ka `Ilima Artspace Lofts project conforms with State and City and County land use designations, and involves development of an Urban Use site. The project will benefit the community at-large by providing affordable living and working space along with space for community events and gatherings, as well as space for non-profit partners. No views will be obstructed or be visually incompatible with the surrounding area.

(9) Substantially affects a rare, threatened or endangered species or its habitat;

The Ola Ka `Ilima Artspace Lofts project is located in a light industrial setting. The subject property is located in a highly urbanized setting, and has been modified. No listed or proposed threatened or endangered species have been observed and are known to exist at the site. In addition, the subject property is not located within or near a designated or proposed critical habitat.

(10) Detrimentally affects air or water quality or ambient noise levels;

There could be short-term impacts to ambient noise levels or air or water quality during construction; however, all construction activities are short-term and will comply with applicable regulations.

The proposed project is not anticipated to detrimentally affect air or water quality or ambient noise levels of the area.

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

The Federal Emergency Management Agency Flood Insurance Rate Map was reviewed to determine if the subject property was located in a flood hazard area. The subject property is located in Zone X, which denotes areas determined to outside the 0.2 percent annual chance floodplain (FEMA/FIRM Map No. 15003C-0362G, revised January 19, 2011).

In addition, the project site is not located along a shoreline or beach area, and is outside of the tsunami evacuation zone. The project site is located on flat land and does not appear to be located on geologically hazardous land. It is not located on or near an estuary, freshwater or coastal waters.

Based on the above criteria, there are no environmentally sensitive areas associated within the proposed project.

(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies; or

Ola Ka `Ilima Artspace Lofts project is located outside of the vantage points and associated view planes for the Mauka Area. The project is well below the height of surrounding/nearby high rise buildings. Therefore, scenic views and view planes will not be significantly impacted by the Proposed Action.

(13) Requires substantial energy consumption.

The construction and operation phases of the proposed project will not require substantial energy consumption relative to other similar projects. The building will have a heat pump with a central water tank for hot water and low flow plumbing fixtures. In addition, Energy Star™ appliances will be installed including refrigerators, washer/dryers, stoves, and ceiling fans. Furthermore, the project building will be naturally ventilated which reduces and/or eliminates the need for air conditioning. The project building units are organized in two bars oriented north-west to south-east. Each bar contains an open single-loaded corridor with units along one side. The units are floor through and oriented north-east to south-west. This configuration allows for through ventilation of each unit by prevailing trade winds.

None of the inquiries made or documents reviewed during this EA indicated direct evidence of significant negative environmental conditions with respect to the Proposed Action at the subject property.

Based upon the draft EA and review of significant criteria, above, a Finding of No Significant Impact is anticipated.

FIGURES

SCALE 1: 24000

1 ½ 0 1 MILE

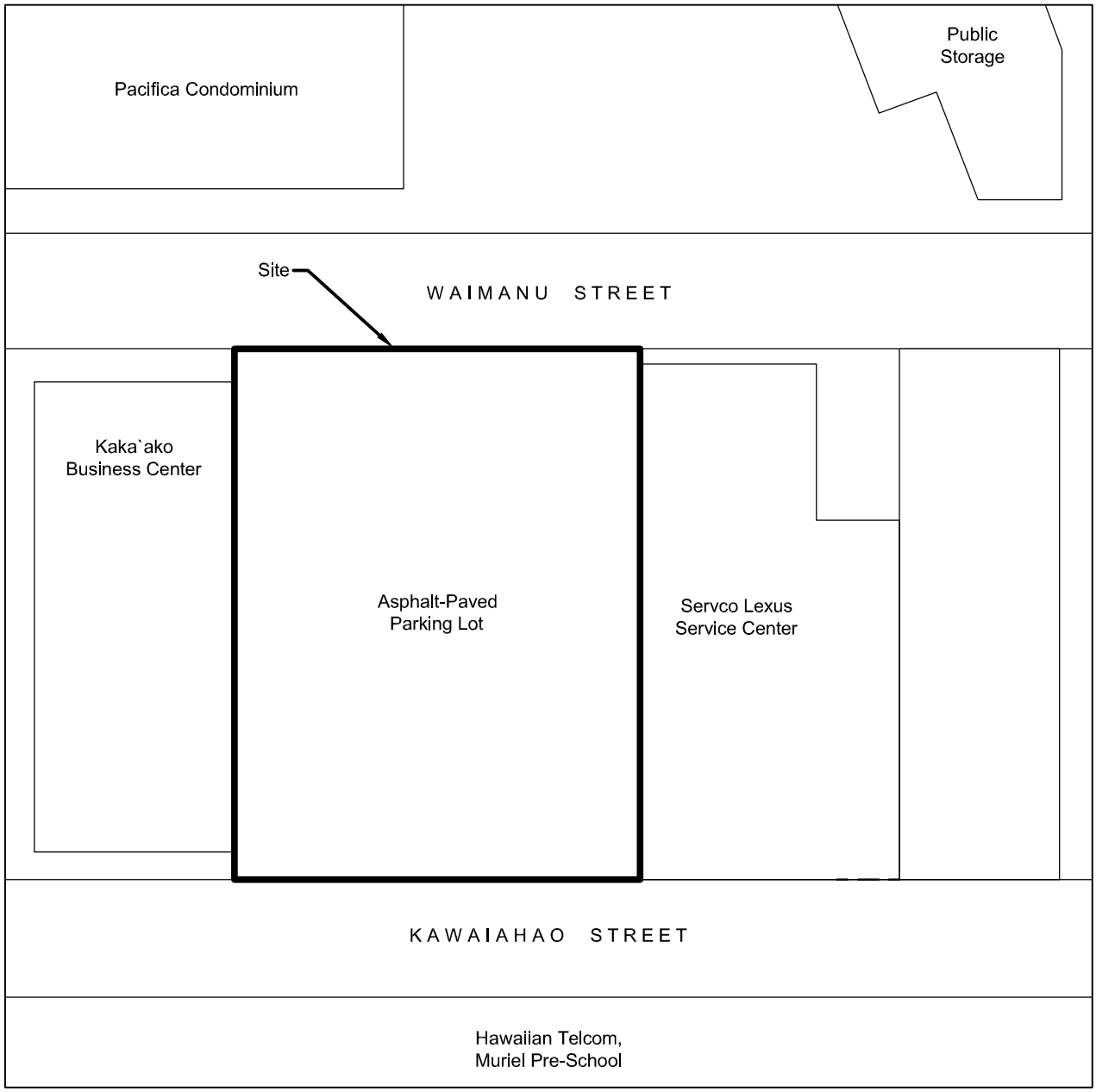
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

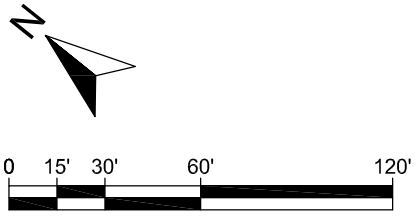
1 .5 0 1 KILOMETER

N

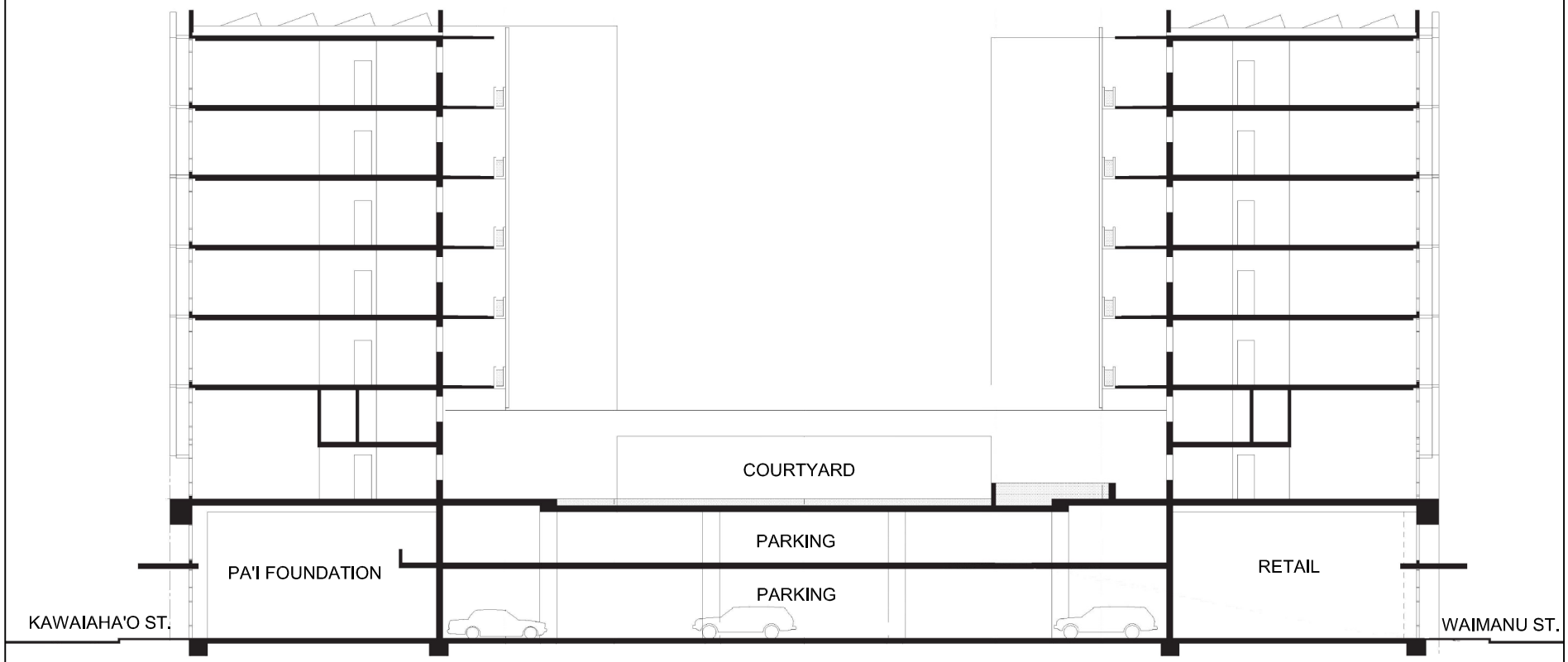
Portion of 7.5-minute Series (Topographic) Maps
United States Department of Interior
United States Geological Survey
Honolulu Quadrangle, City & County of Honolulu, Hawaii
1998

BUREAU VERITAS 1828	Project No.: 17012-012090.02	Title: Site Location Map	FIGURE 1
	Date: 01/02/14	Location: 1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	
	Revised By: JC		
	Checked By: LF	Client: Artspace	





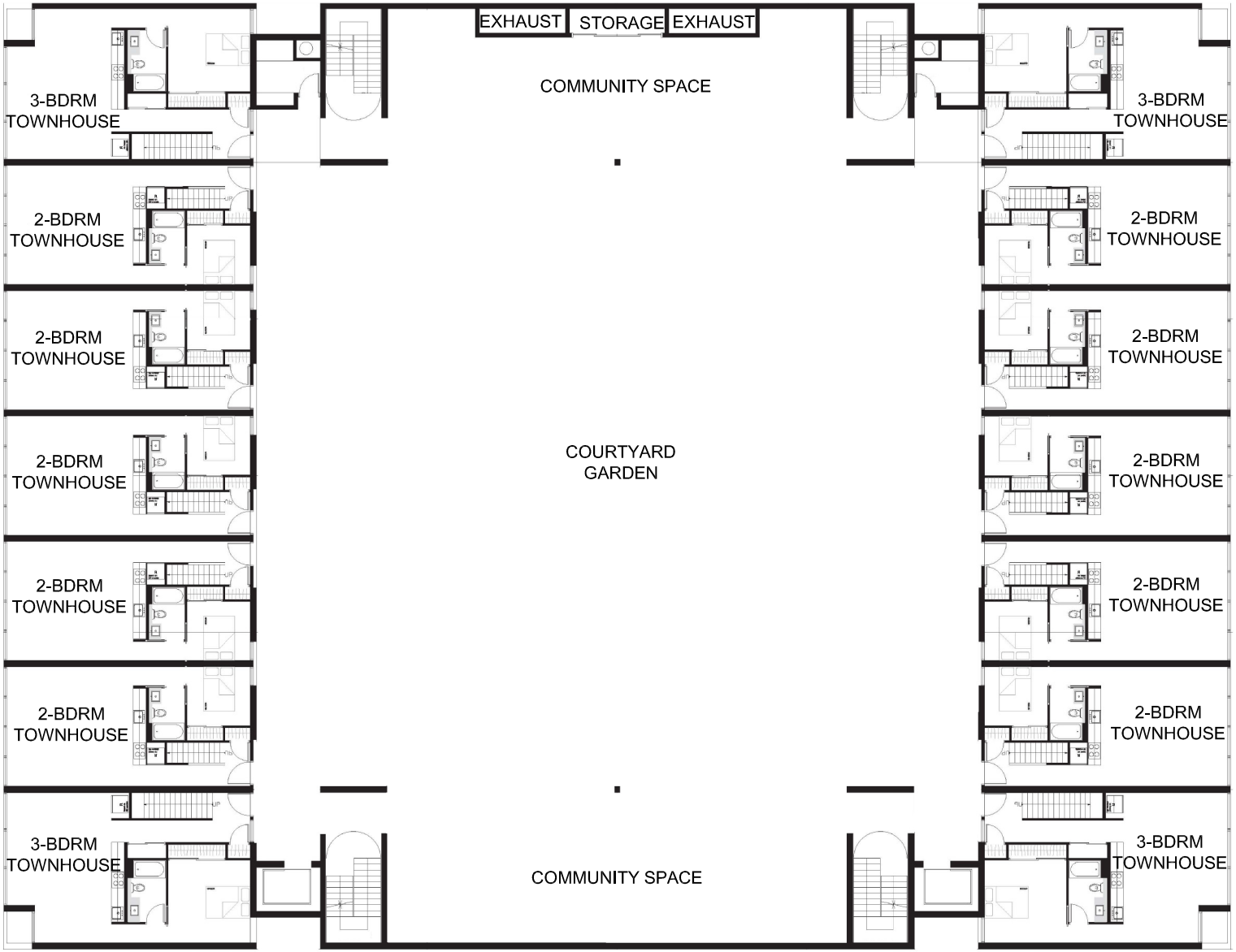
BUREAU VERITAS	Project No.: 17012-012090.00	Title: Site Vicinity Map	FIGURE 2
	Date: 01/17/14	Location: 1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	
	Revised By: DG		
	Checked By: JPR	Client: Artspace	



0 12.5' 25' 50'

BUREAU VERITAS

Project No.: 17012-012090.02	Title:	Building Cross Section	FIGURE
Date: 03/28/14	Location:	1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	3
Revised By: JC			
Checked By: LF	Client:	Artspace	



0 12.5' 25' 50'

BUREAU VERITAS	Project No.: 17012-012090.02	Title: Building Level 3 Podium Plan View	FIGURE 4
	Date: 03/28/14	Location: 1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	
	Revised By: JC		
	Checked By: LF	Client: Artspace	

BUREAU VERITAS	Project No.: 17012-012090.02	Title: Rendering of Ola Ka'ilima Artspace Lofts	FIGURE 5
	Date: 03/28/14	Location: 1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	
	Revised By: JC		
	Checked By: LF	Client: Artspace	

SCALE 1: 24000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

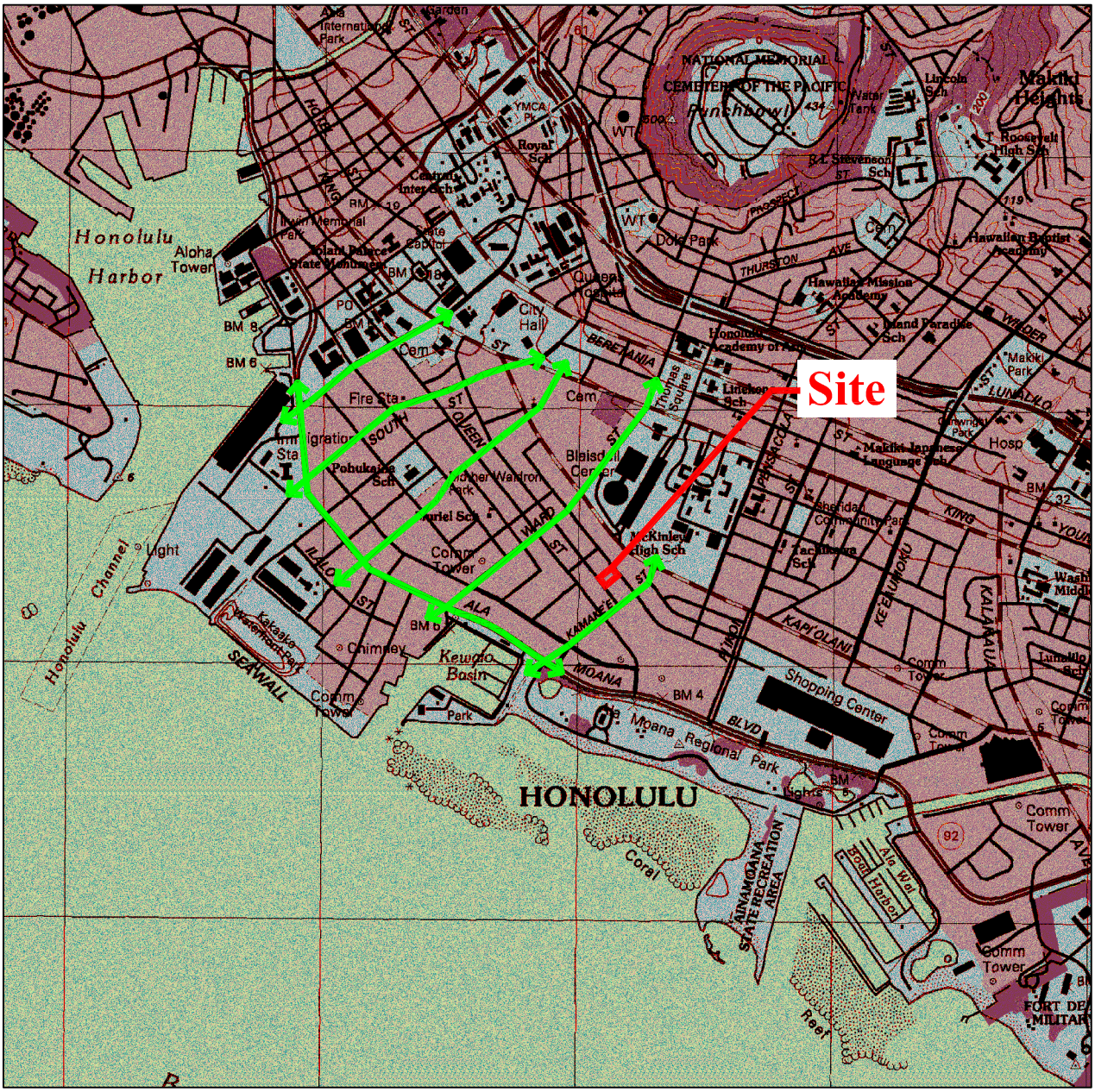
1 .5 0 1 KILOMETER

N

Portion of 7.5-minute Series (Topographic) Maps
United States Department of Interior
United States Geological Survey
Honolulu Quadrangle, City & County of Honolulu, Hawaii
1998

BUREAU VERITAS 1828

Project No.: 17012-012090.02	Title: View Planes	FIGURE 6
Date: 01/02/14	Location: 1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	
Revised By: JC		
Checked By: LF	Client: Artspace	



SCALE 1: 24000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

N

Portion of 7.5-minute Series (Topographic) Maps
United States Department of Interior
United States Geological Survey
Honolulu Quadrangle, City & County of Honolulu, Hawaii
1998

BUREAU VERITAS 1828	Project No.: 17012-012090.02	Title: View Corridors	FIGURE 7
	Date: 01/02/14	Location: 1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	
	Revised By: JC		
	Checked By: LF	Client: Artspace	

SCALE 1: 24000

1 ½ 0 1 MILE

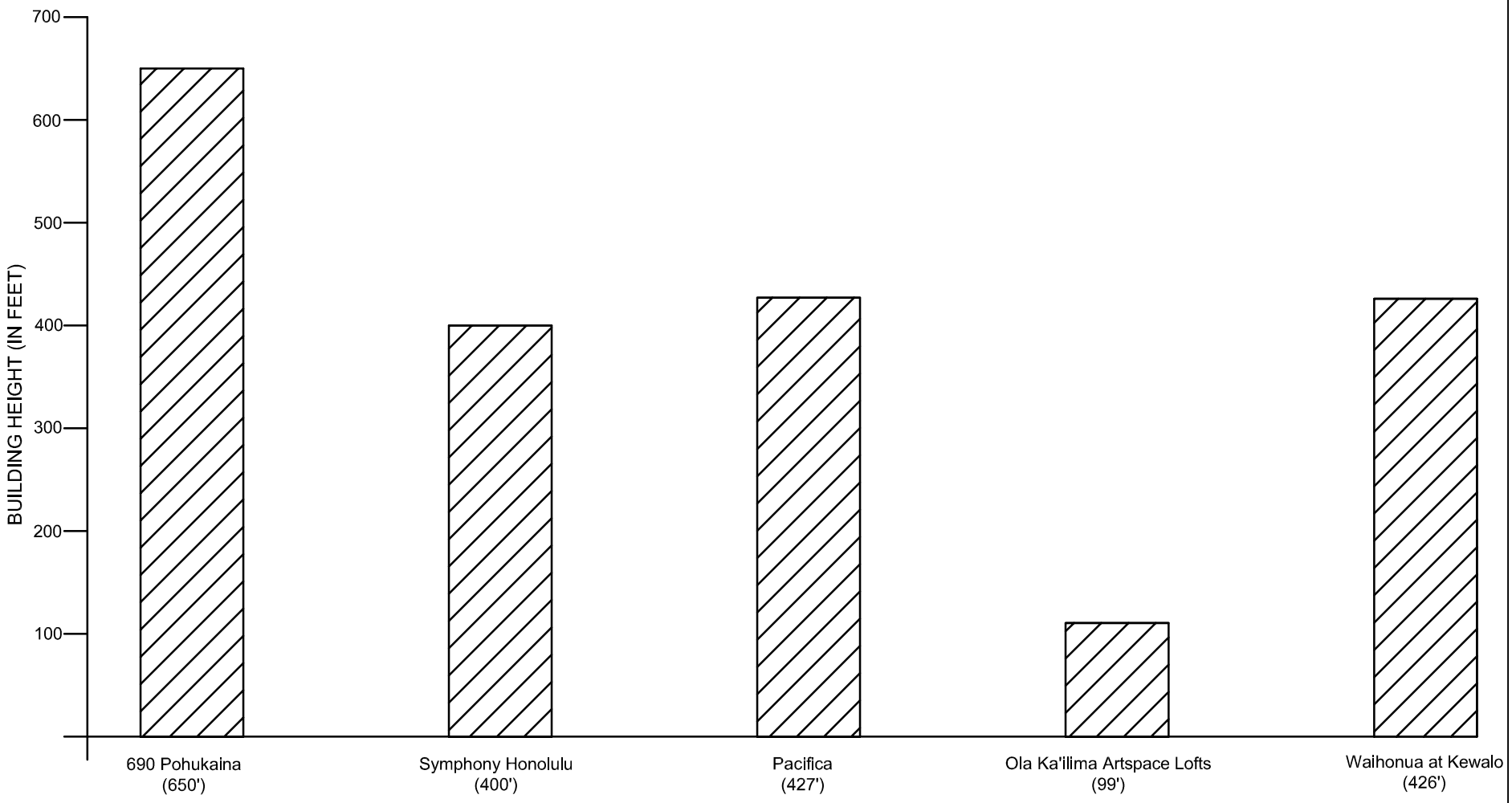
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

N

Portion of 7.5-minute Series (Topographic) Maps
United States Department of Interior
United States Geological Survey
Honolulu Quadrangle, City & County of Honolulu, Hawaii
1998

BUREAU VERITAS 1828	Project No.: 17012-012090.02	Title: Recent and Proposed Buildings in the Kaka'ako Area	FIGURE 8
	Date: 01/02/14	Location: 1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	
	Revised By: JC		
	Checked By: LF	Client: Artspace	



RECENT AND PROPOSED BUILDINGS IN THE KAKA'AKO AREA

0 75' 150' 300'
Vertical Scale

BUREAU VERITAS

Project No.: 17012-012090.02	Title:	Building Height Comparisons	FIGURE
Date: 01/02/14	Location:	1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii	9
Revised By: JC			
Checked By: LF	Client:	Artspace	

PHOTOGRAPHS

Project No. 17012-012090.02	**Description**	Overview of subject property, looking southwest	**Photo 1**
	Site Name	1025 Waimanu Street, Honolulu, Oahu, Hawaii	**Photo Date** December 9, 2009
	Client	Artspace	

Project No. 17012-012090.02	**Description**	View of the southwestern portion of the subject property, looking southwest	**Photo 2**
	Site Name	1025 Waimanu Street, Honolulu, Oahu, Hawaii	**Photo Date** December 9, 2009
	Client	Artspace	

Project No. 17012-012090.02	**Description**	View of the central portion of the subject property, looking northwest	**Photo 3**
	Site Name	1025 Waimanu Street, Honolulu, Oahu, Hawaii	**Photo Date** December 9, 2009
	Client	Artspace	

Project No. 17012-012090.02	**Description**	View of the southeastern portion of the subject property, looking southeast	**Photo 4**
	Site Name	1025 Waimanu Street, Honolulu, Oahu, Hawaii	**Photo Date** December 9, 2009
	Client	Artspace	

Project No. 17012-012090.02	**Description**	View of Kakaako Business Center located adjacent to the northwest of the subject property, looking southwest	**Photo 5**
	Site Name	1025 Waimanu Street, Honolulu, Oahu, Hawaii	**Photo Date** December 9, 2009
	Client	Artspace	

Project No. 17012-012090.02	**Description**	View of Pacifica Condominium project under construction adjacent to the north of the subject property, looking northwest	**Photo 6**
	Site Name	1025 Waimanu Street, Honolulu, Oahu, Hawaii	**Photo Date** December 9, 2009
	Client	Artspace	

Project No. 17012-012090.02	**Description**	View of Servco Lexus facility located adjacent to the southeast of the subject property, looking southeast	**Photo 7**
	Site Name	1025 Waimanu Street, Honolulu, Oahu, Hawaii	**Photo Date** December 9, 2009
	Client	Artspace	

Project No. 17012-012090.02	**Description**	View of Kawaiahao Street and businesses located adjacent to the west of the subject property, looking southwest	**Photo 8**
	Site Name	1025 Waimanu Street, Honolulu, Oahu, Hawaii	**Photo Date** December 9, 2009
	Client	Artspace	

APPENDIX A

LIST OF REFERENCES

LIST OF REFERENCES

REFERENCES:

Name of publication: *Phase I Environmental Site Assessment,1025 Waimanu Street (TMK Number: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii*
Author of publication: Bureau Veritas North America, Inc.
Date of publication: February 15, 2010

Name of publication: *Phase II Environmental Investigation, 1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii*
Author of publication: Bureau Veritas North America, Inc.
Date of publication: September 21, 2012

Name of publication: Environmental Hazard Evaluation, 1*025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii*
Author of publication: Bureau Veritas North America, Inc.
Date of publication: January 20, 2014

Name of publication: Construction Environmental Hazard Management Plan, *1025 Waimanu Street (TMK: [1] 2-3-003: Parcel 040) Honolulu, Oahu, Hawaii*
Author of publication: Bureau Veritas North America, Inc.
Date of publication: January 20, 2014

Name of publication: *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai*
Author of publication: Foote, Donald E. et al. US Department of Agriculture, Soil Conservation Service, in cooperation with the University of Hawaii Agricultural Experiment Station
Date of publication: August 1972

Name of publication: *Aquifer Identification and Classification for Oahu: Groundwater Protection Strategy for Hawaii. Technical Report No. 179*
Author of publication: Mink, J.F. and L.S. Lau
Date of publication: February 1990

Name of publication: Archaeological Inventory Survey, Ola Ka `Ilima Artspace Lofts
Author of publication: T.S. Dye & Colleagues, Archaeologists, Inc.
Date of publication: 2014

Name of publication: Traffic Impact Report, Ola Ka `Ilima Artspace Lofts
Author of publication: Wilson Okamoto Corporation
Date of publication: 2013

LIST OF REFERENCES
(Continued)

Name of publication:	Ola Ka `Ilima Artspace Lofts, 1025 Waimanu Street, Residential Rental Market Survey
Author of publication:	Colliers International-Hawaii
Date of publication:	June 25, 2013
Name of publication:	Mauka Area Plan
Author of publication:	Kakaako Community Development District, Hawaii Community Development Authority
Date of publication:	September 2011
Name of publication:	City and County of Honolulu General Plan
Author of publication:	City and County of Honolulu, Department of Planning and Permitting
Date of publication:	Amended October 2006
Name of publication:	City and County of Honolulu Primary Urban Center Development Plan
Author of publication:	City and County of Honolulu, Department of Planning and Permitting
Date of publication:	June 2004
Name of publication:	U.S.G.S. 7.5-Minute Series Honolulu, Oahu, Hawaii Quadrangle Map
Author of publication:	United States Geological Survey (USGS)
Date of publication:	1998
Name of publication:	Hazard Evaluation & Emergency Response (HEER) Office Database
Author of publication:	State of Hawaii, Department of Health, HEER Office
Date of publication:	2012
Name of publication:	State of Hawaii Annual Summary 2012 Air Quality Data
Author of publication:	State of Hawaii, Department of Health, Clean Air Branch
Date of publication:	September 2013
Name of publication:	Noise Exposure Map
Author of publication:	State of Hawaii, Department of Transportation, Airports Division
Date of publication:	2003, 2008
Name of publication:	Best Management Practices Manual for Construction Sites in

LIST OF REFERENCES
(Continued)

	Honolulu
Author of publication:	City and County of Honolulu, Department of Environmental Services
Date of publication:	May 1999
Name of publication:	National Wetlands Inventory
Author of publication:	http://www.fws.gov/wetlands
Name of publication:	Federal Emergency Management Agency (FEMA)
Author of publication:	http://www.msc.fema.gov
Name of publication:	National Wilderness Preservation System
Author of publication:	http://www.wilderness.net
Name of publication:	United States Fish and Wildlife Service
Author of publication:	http://www.fws.gov/refuges
Name of publication:	The State of Hawai`i, DLNR ï SHPD, Hawaii and National Register of Historic Places
Author of publication:	http://hawaii.gov/dlnr/2013-shpd/
Name of publication:	United States Census Bureau
Author of publication:	http://www.census.gov/
Name of publication:	Chapter 205A, Hawaii Revised Statutes (HRS)
Author of publication:	State of Hawaii
Date of publication:	January 31, 2006
Name of publication:	Chapter 226, HRS (Hawaii State Planning Act)
Author of publication:	State of Hawaii
Date of publication:	2005
Name of publication:	Chapter 343 HRS (Environmental Impact Statements)
Author of publication:	State of Hawaii
Date of publication:	1993
Name of publication:	Chapter 200, Hawaii Administrative Rules (HAR)

LIST OF REFERENCES
(Continued)

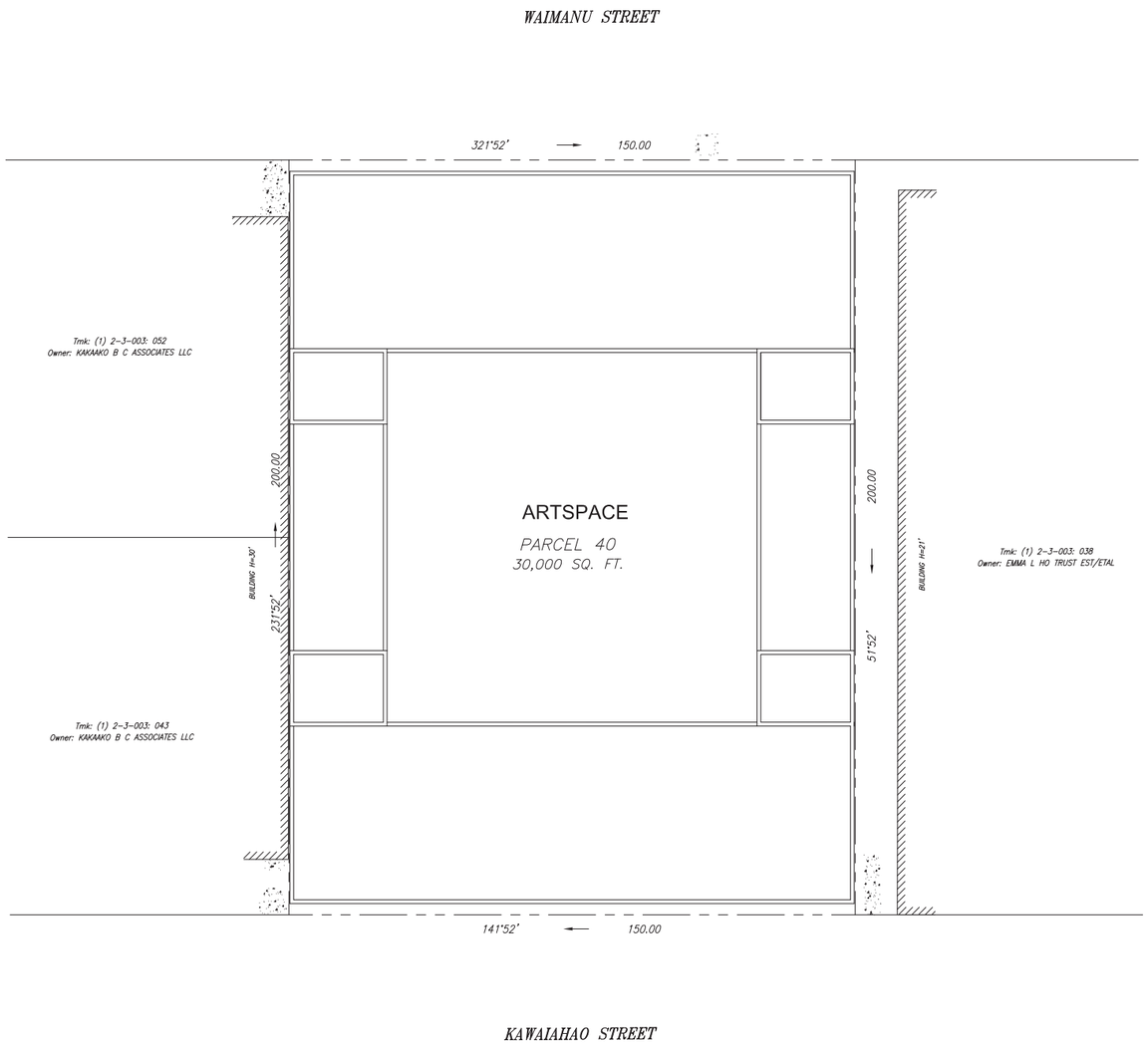
Author of publication: State of Hawaii
Date of publication: 1996

Name of publication: Chapter 11-46, HAR
Author of publication: State of Hawaii, Department of Health
Date of publication: 1996

Name of publication: Chapter 11-60.1-33, HAR, Fugitive Dust
Author of publication: State of Hawaii, Department of Health
Date of publication: 2011

APPENDIX B

ARCHITECTURAL DRAWINGS



SITE PLAN

1:20 3.18.14

PROJECT DATA

PROJECT:	ARTSPACE / PA'I
OWNER/AGENCY:	OLA KA ILIMA ARTSPACE LOFTS, LLC
ADDRESS:	1025 WAIMANU STREET HONOLULU, HI 96814
ZONING CODE:	MAUKA AREA RULES CHAPTER 217
TAX MAP KEY:	(1) 2-3-003:040
ZONING	CENTRAL KAKAAKO
STATE LAND USE	RESIDENTIAL-MULTI-FAMILY
FLOOD ZONE	X
LOT SIZE:	150"x200'
REQUIRED	-
ACTUAL	0.688 ACRES / 30,000 SF
LOT COVERAGE	
MAXIMUM	100%
ACTUAL	97%
HEIGHT LIMIT	
LIMIT	100'
ACTUAL	99'
MAX LOT WIDTH	300'
ACTUAL	150'
FRONT YARD	
MINIMUM	N/S - 15'
ACTUAL	3'
REAR YARD	
MINIMUM	0'
ACTUAL	3'
SIDE YARD	
MINIMUM	0'
ACTUAL	3"
FAR	
MINIMUM	3.5
ACTUAL	3.8
PARKING	
REQUIRED	0
ACTUAL	94 STALLS
ADA PARKING	
REQUIRED	4
ACTUAL	4
LOADING STALL	
REQUIRED	2
ACTUAL	0
BUILDING CODE	2006 INTERNATIONAL BUILDING CODE
OCCUPANCY CLASSIFICATION	A-3, M, R-2, S-1
CONSTRUCTION TYPE	TYPE I-B (TYPE I-A FOR STRUCTURAL ELEMENTS)
AUTOMATIC SPRINKLER SYSTEM	YES

		I-B			Sprinkler Increase	Type I-B (Modified)
Occupancy Group	**Height**	160			20	**180**
A-3	Stories	11			1	**12**
(community ctr)	Area	UL			-	-
M	Stories	11				**12**
(retail)	Area	UL			-	-
R-2	Stories	11				**12**
(residential)	Area	UL			-	-
S-2	Stories	11				**12**
(parking, storage)	Area	79,000			-	-

ALL ASPECTS OF THIS PROJECT WILL COMPLY WITH THE REQUIREMENTS OF THE THE AMERICANS WITH DISABILITY ACT ACCESSIBILITY GUIDELINES & THE FAIR HOUSING ACT ACCESSIBILITY REQUIREMENTS

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLC
121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-9606
Facsimile 206 443-1218

831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221

Artspace/PA'I GSF

Level	Artspace	Community	PA'I	Retail	Housing	Parking	Support	Circulation	Courtyard	Total GSF
Street/P1 (Level 1)	997		4,691	1,955		15,858	2,062	2,403		27,966
P2 (Level 2)						15,696	4,211	1,641		21,548
Podium/Residential (Level 3)		3,585					238	3,666	9,213	33,194
2 Bedroom Townhouse 1056 SF (10)					10,560					
3 Bedroom Townhouse 1483 (4)					5,932					
Residential 1 (Level 4)							238	3,666		15,746
1 Bedroom Unit 791 SF (10)					7,910					
2 Bedroom Unit 983 SF (4)					3,932					
Residential 2 (Level 5)							238	3,666		15,746
1 Bedroom Unit 791 SF (10)					7,910					
2 Bedroom Unit 983 SF (4)					3,932					
Residential 3 (Level 6)							238	3,666		15,746
1 Bedroom Unit 791 SF (10)					7,910					
2 Bedroom Unit 983 SF (4)					3,932					
Residential 4 (Level 7)							238	3,666		15,746
1 Bedroom Unit 791 SF (10)					7,910					
2 Bedroom Unit 983 SF (4)					3,932					
Residential 5 (Level 8)							238	3,666		15,746
1 Bedroom Unit 791 SF (10)					7,910					
2 Bedroom Unit 983 SF (4)					3,932					
TOTAL	997	3,585	4,691	1,955	76,420	31,554	7,701	26,040	9,213	162,156

Artspace/PA'I Unit Count

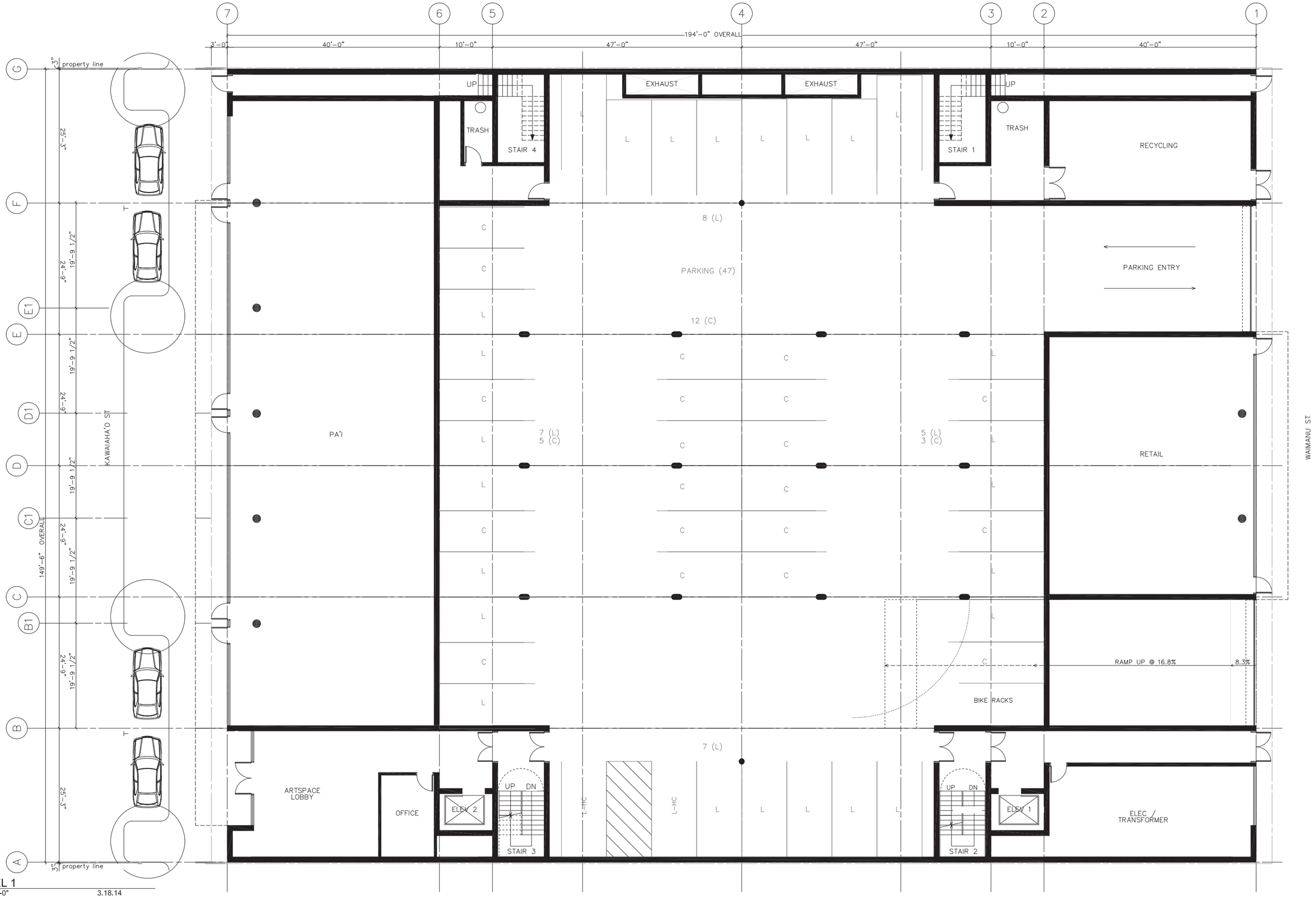
Level	1 bedroom	2 bedroom	2 bedroom townhouse	3 bedroom townhouse	total
Podium/Residential (Level 3)			10	4	14
Residential Mezzanine (Level 3a)					
Residential 1 (Level 4)	10	4			14
Residential 2 (Level 5)	10	4			14
Residential 3 (Level 6)	10	4			14
Residential 4 (Level 7)	10	4			
Residential 5 (Level 8)	10	4			14
Total	50	20	10	4	84
Percent of Total	60%	24%	12%	5%	100%

Artspace/PA'I Parking Count

Level	compact	standard	accessible	total
Street/P1 (Level 1)	21	24	2	47
P2 (Level 2)	20	25	2	47
Total	41	49	4	94

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLC
121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-8606
Facsimile 206 443-1218

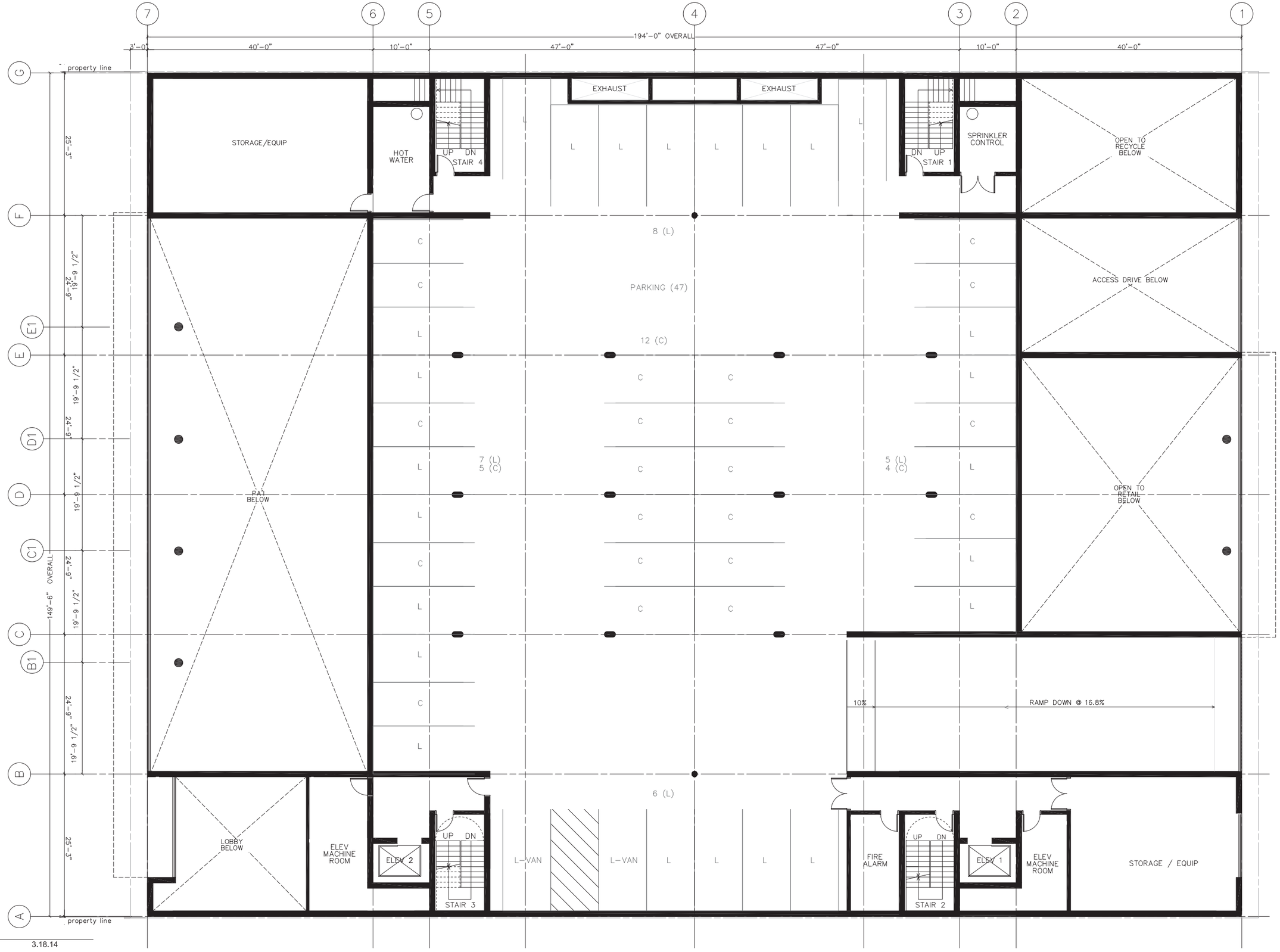
831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221



LEVEL 1
1/8" = 1'-0"
3.18.14

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLC
121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-9606
Facsimile 206 443-1218

831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221



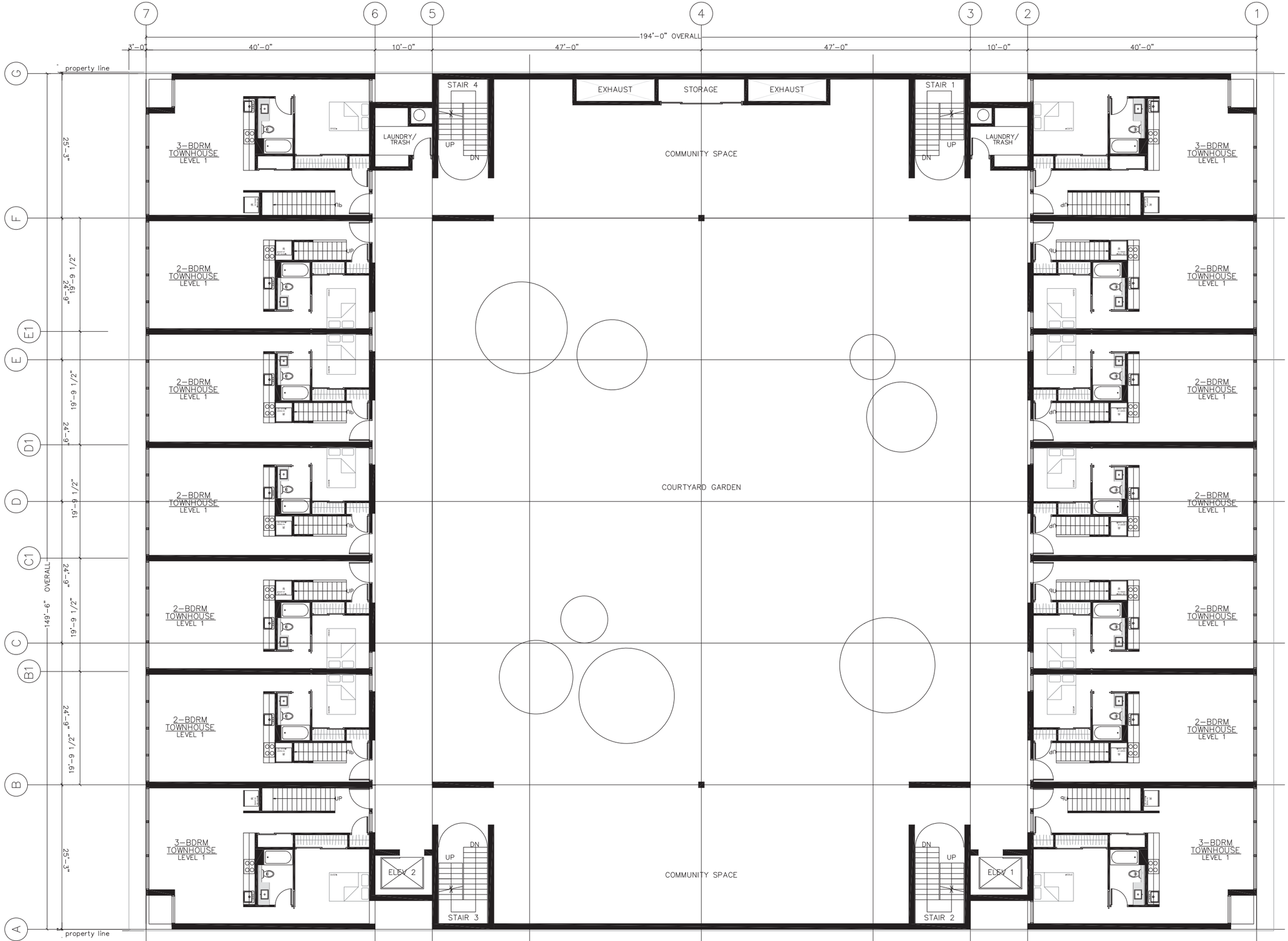
LEVEL 2

1/8" = 1'-0"

3.18.14

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLC
121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-8606
Facsimile 206 443-1218

831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221



LEVEL 3

1/8" = 1'-0"

3.18.14

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLC

121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-8606
Facsimile 206 443-1218

831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221

LEVEL 3A

1/8" = 1'-0"

3.18.14

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLC
121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-8606
Facsimile 206 443-1218

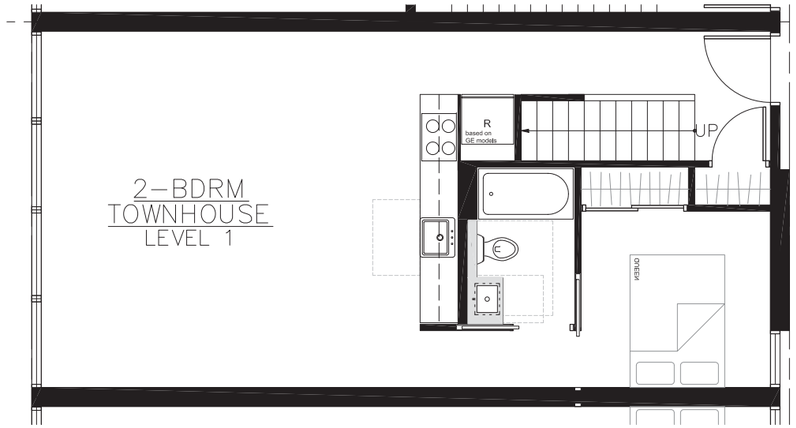
831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221

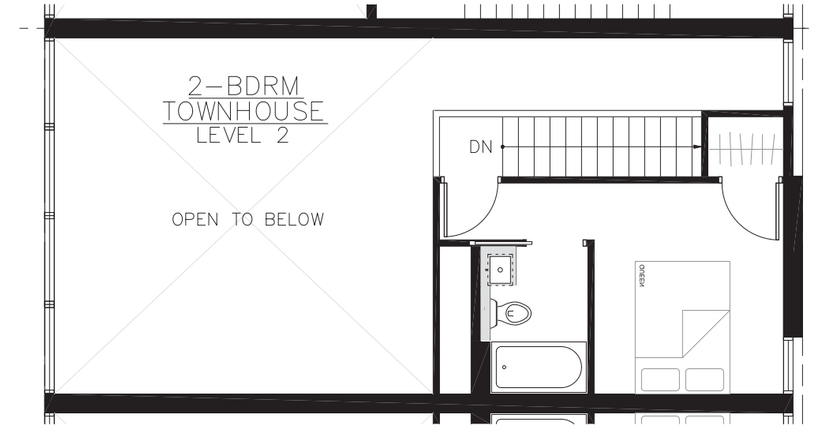
LEVEL 4-9 TYPICAL

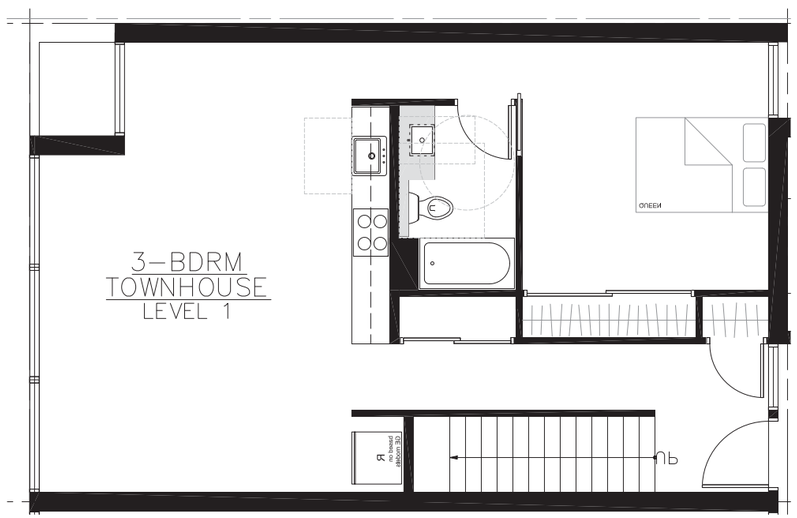
1/8" = 1'-0" 3.18.14

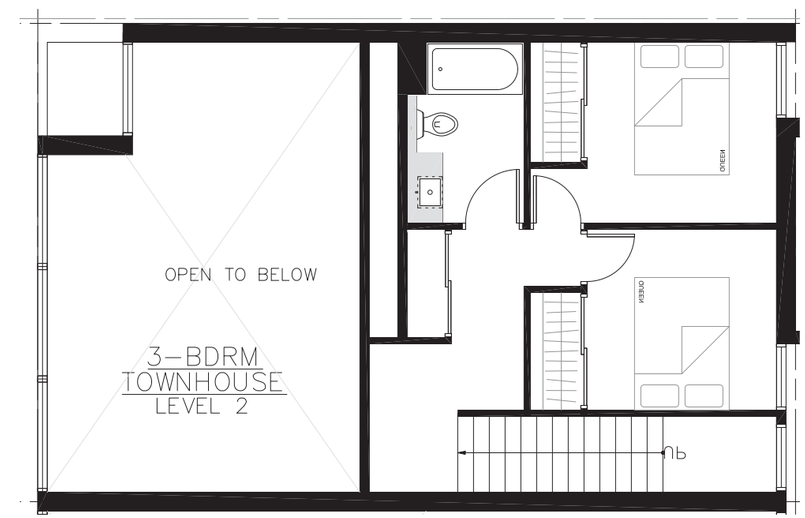
WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLC
121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-9606
Facsimile 206 443-1218

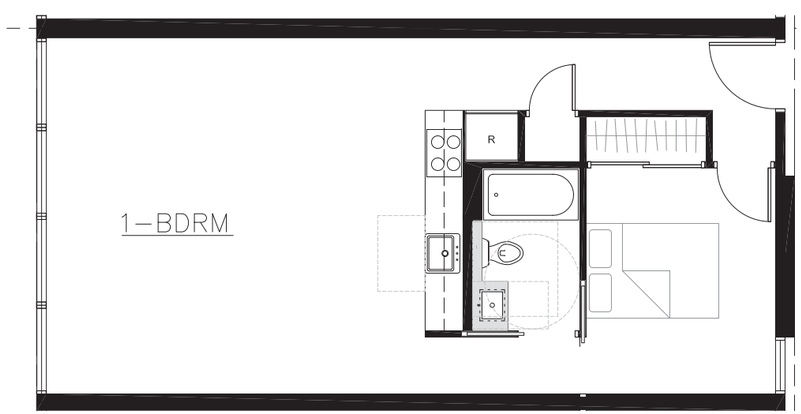
831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221

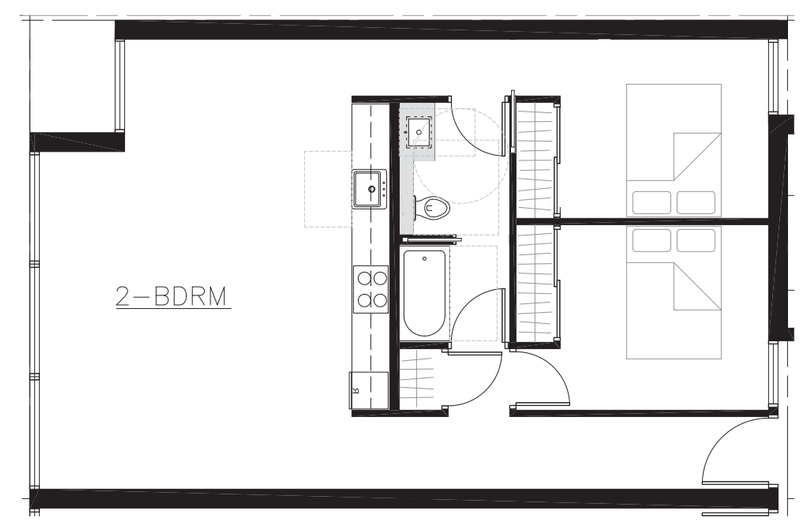










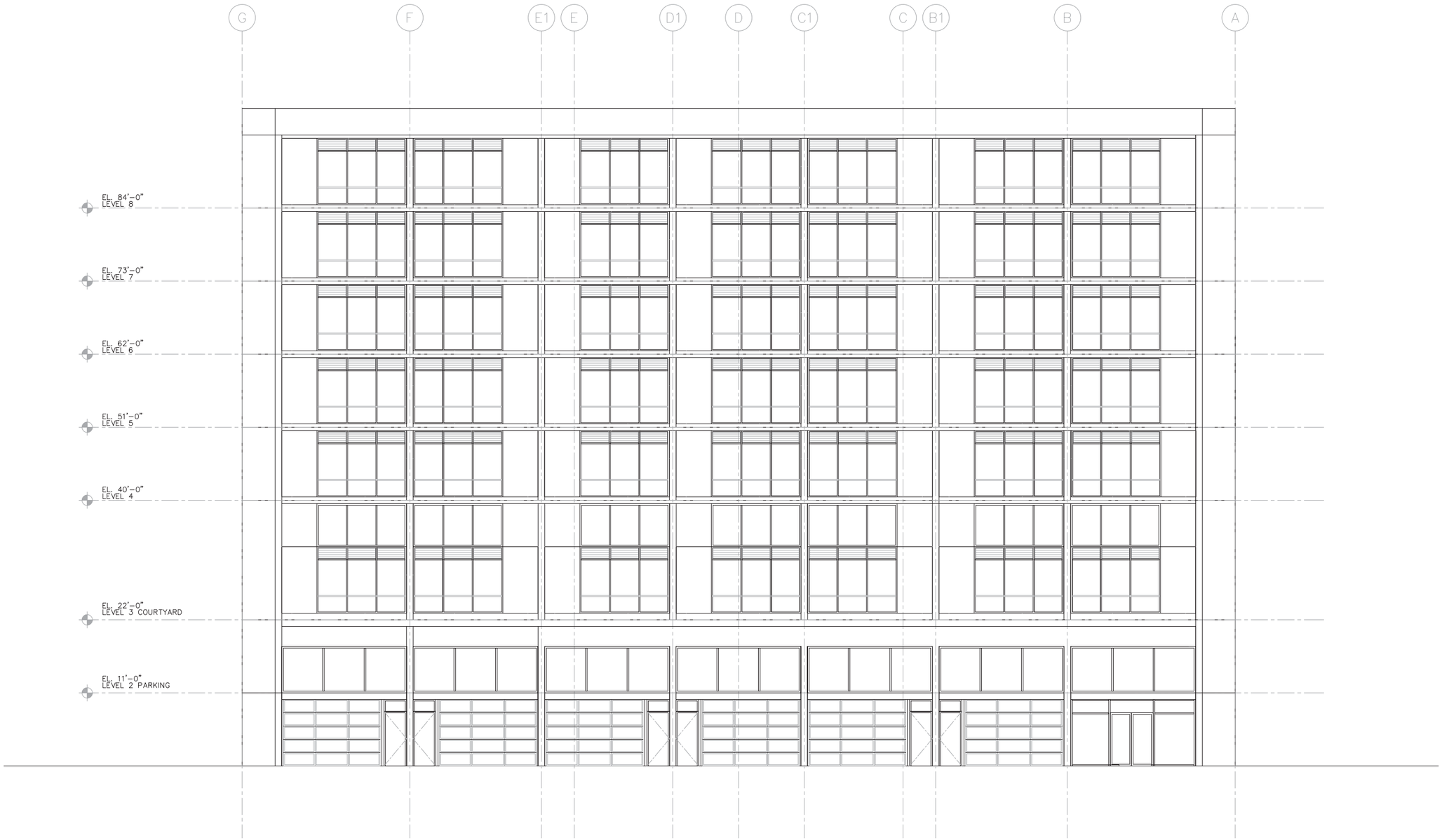


UNIT PLANS

1/8" = 1'-0" 3.18.14

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLC
121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-8606
Facsimile 206 443-1218

831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221



KAWAIAHA'O ELEVATION

1/8" = 1'-0" 3.18.14

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLP

121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-8606
Facsimile 206 443-1218

831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221

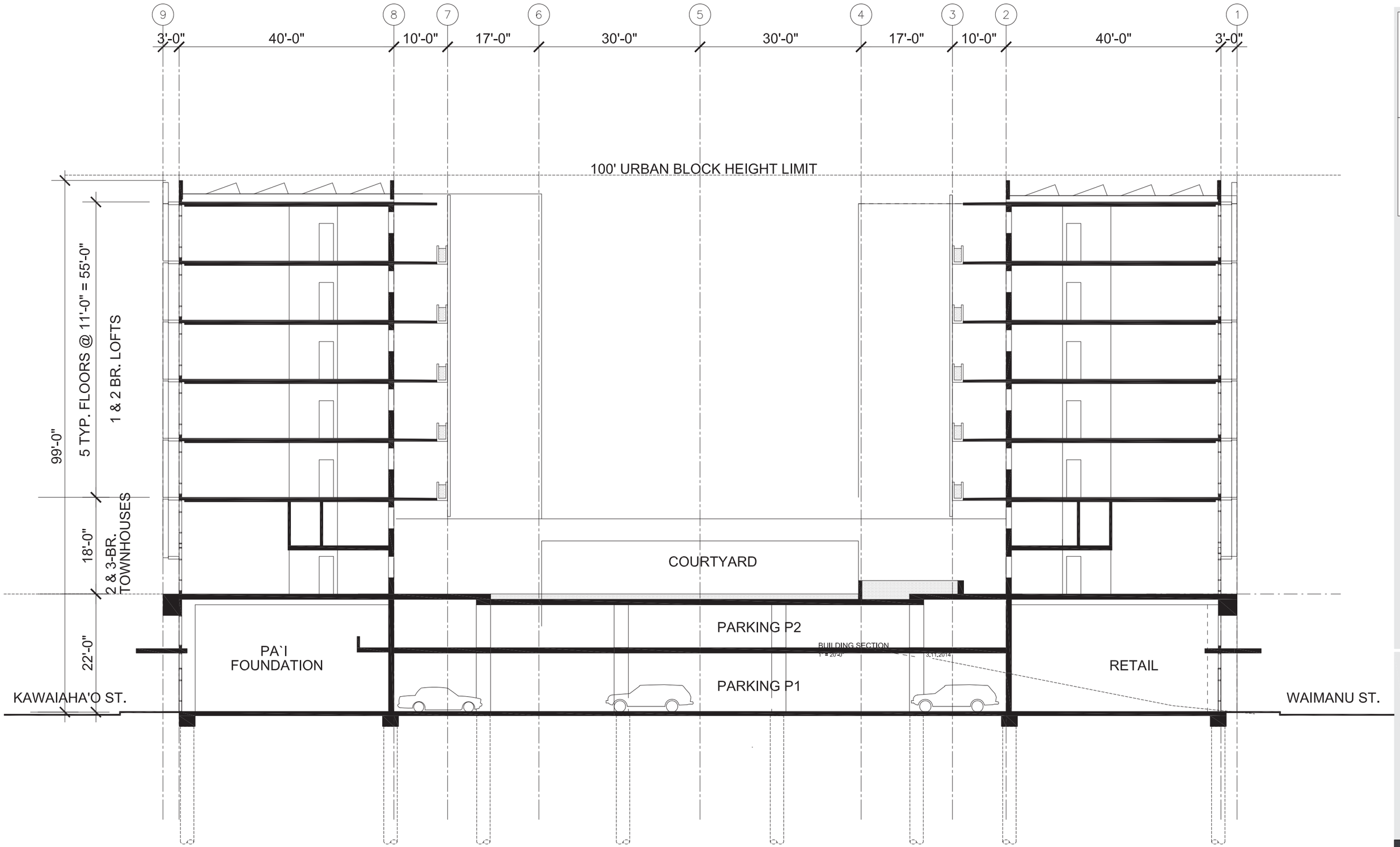
WAIMANU ELEVATION

1/8" = 1'-0" 3.18.14

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLP

121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-9606
Facsimile 206 443-1218

831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221



BUILDING SECTION
1/8" = 1'-0" 3.18.14

WEINSTEIN AU ARCHITECTS + URBAN DESIGNERS LLP
121 Stewart Street, Suite 200
Seattle, Washington 98101
Telephone 206 443-9606
Facsimile 206 443-1218
831 Pohukaina Street, Suite E1
Honolulu, Hawaii 96813
Telephone 808 597-1155
Facsimile 808 591-1221

APPENDIX C

COMMUNITY CONSULTATION CORRESPONDENCE

SECTION 1

Ala Moana/ Kaka'ako Neighborhood Board No. 11

ALA MOANA/KAKAAKO NEIGHBORHOOD BOARD NO. 11

c/o NEIGHBORHOOD COMMISSION • 530 SOUTH KING STREET ROOM 406 • HONOLULU, HAWAII, 96813
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET http://www1.honolulu.gov/nco

REGULAR MEETING AGENDA
TUESDAY, FEBRUARY 28, 2012, 7:00 P.M.
MAKIKI CHRISTIAN CHURCH
829 PENSACOLA STREET

Rules of Speaking: Anyone wishing to speak is asked to raise their hand, and when recognized by the Chair, to address comments to the Chair. Speakers are encouraged to keep their comments under 3 minutes, and those giving reports are urged to keep their reports less than 3 minutes. Please silence all electronic devices.

Note: The Board may take action on any agenda item. As required by the State Sunshine Law (HRS 92), specific issues not noted on this agenda cannot be voted on, unless added to the agenda.

I. CALL TO ORDER - Chair Larry Hurst

II. **DECLARATION OF VACANCY IN SUB-DISTRICT 1**

III. CITY MONTHLY REPORTS: (Limited to 3 minutes each)
   a. Honolulu Fire Department
   b. Honolulu Police Department
   c. Board of Water Supply

IV. RESIDENTS' CONCERNS: (Limited to 3 minutes each)
   a. **UPDATE ON THE HONOLULU SEAWATER AIR CONDITIONING PROJECT** - Scott Higa, an engineer with HSWAC

V. COMMITTEE REPORTS:
   a. Chair's Report - Larry Hurst - **SHINNYO-EN HAWAII MEMORIAL DAY SERVICE**
   b. Community Relations - Wayne Ibarra - **AHUPUA'A BOUNDARY MARKER PROJECT**
   c. Health and Public Safety - Chelsea Tanimura - **GENETICALLY MODIFIED ORGANISMS**
   d. Homelessness, Citizen Patrol - Dexter Sensui - **GRAFFITI INCREASE**
   e. Land Utilization, O'ahu Metropolitan Planning Organization (OMPO) - Philip Minn
   f. Legislation - Michael Zehner
   g. Parks and Waterways - Steven Okumoto
   h. Transportation, HART - Kevin Shiota

VI. ELECTED OFFICIALS:
   a. City Councilmember Tulsi Gabbard
   b. City Councilmember Ann Kobayashi
   c. Mayor Peter Carlisle's Representative - Robin Chun Carmichael, Deputy Director, Department of Human Resources
   d. State Senator Carol Fukunaga
   e. State Senator Brickwood Galuteria
   f. State Representative Tom Brower
   g. State Representative Karl Rhoads
   h. State Representative Scott Saiki
   i. Governor Neil Abercrombie's Representative - Barbara Krieg, Interim Director of the Department of Human Resources Development

VII. PRESENTATIONS/BOARD BUSINESS:

a. **ARTSPACE**
b. **SYMPHONY HONOLULU**
c. **VARIANCE YACHT HARBOR TOWERS**

VIII. APPROVAL OF JANUARY 24, 2012 REGULAR MEETING MINUTES

IX. TREASURER'S REPORT

X. ANNOUNCEMENTS:

1. Next meeting - The next meeting of the Ala Moana/Kakaako Neighborhood Board No. 11 will be on Tuesday, March 27, 2012 at 7:00 p.m. at Makiki Christian Church, 829 Pensacola Street.
2. **No Loitering** on Church Grounds After Board Meetings

XI. ADJOURNMENT

A mailing list is maintained for interested persons and agencies to receive this Board's agenda and minutes. Additions, corrections, and deletions to the mailing list may be directed to the Neighborhood Commission Office (NCO), Honolulu Hale, 530 South King Street, Room 406, Honolulu, Hawaii 96813; Telephone (808) 768-3710 or Fax (808) 768-3711; or call Neighborhood Assistant K. Russell Ho at 768-3715. Agendas and minutes are also available on the internet at www.honolulu.gov/nco.

Any individual wishing to attend a Neighborhood Board meeting who has questions about accommodations for a physical disability or a special physical need should call the NCO at 768-3710 between 8:00 a.m. and 4:00 p.m., at least 24-hours before the scheduled meeting.

ALA MOANA/KAKAAKO NEIGHBORHOOD BOARD NO. 11

c/o NEIGHBORHOOD COMMISSION • 530 SOUTH KING STREET ROOM 406 • HONOLULU, HAWAII, 96813
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET http://www1.honolulu.gov/nco

DRAFT REGULAR MEETING MINUTES
TUESDAY, FEBRUARY 28, 2012
MAKIKI CHRISTIAN CHURCH

CALL TO ORDER: Chair Larry Hurst called the meeting to order at 7:00 p.m. **A quorum was established with seven (7) members present**. Note - This nine-member Board requires five members to establish quorum and to take official Board action.

Board Members Present - Larry Hurst, Wayne Ibara, P. Nathan Minn, Steven Okumoto, Dexter Sensui (arrived at 7:09 p.m.), Kevin Shiota, Chelsea Tanimura, and Michael Zehner.

Board Members Absent - Sean Newcamp.

Vacancies - None.

Guests - Nalani Aki (Senator Brickwood Galuteria's Office staff), Representative Tom Brower, Representative Karl Rhoads, Jonathan Tungpalan (Representative Scott Saiki's Office staff); Robin Chun-Carmichael (Mayor Peter Carlisle's Representative, Department of Human Resources, Deputy Director); Michele Sansone (Councilmember Ann Kobayashi's Office staff), James Larson (Councilmember Tulsi Gabbard's Office staff), Sgt. Jeffrey Nagai and Sgt. Lurbe (Honolulu Police Department), Sandy Nahoopii-Soong (Board of Water Supply), Pat Lee (Honolulu Rail Transit), , Sam Mitchell and Christopher D. Smith (Makiki/Lower Punchbowl/Tantalus Neighborhood Board No. 10), Richard Gamberg, Dean Schmerbauch, Tino Balcita (Citizen Patrol), Jack Hamada, Dexter Okada (KBLA), Annie Koh, Dan Nishikawa (OM), Melissa Yee (Seeds of Truth), M. Tait (Hawai'i Convention Center); Jeanne Murata, Joyce Thompson and Francisco Gutierrue (Symphony, OliverMcMillan); Cathryn Vandenbrink and Vicky Takarnine (Artspace); and K. Russell Ho (Neighborhood Commission Office staff).

DECLARATION OF VACANCY IN SUB-DISTRICT 1 - Prior to tonight's meeting, Chair Hurst received a letter from Tom Heinrich, Executive Secretary of the Neighborhood Commission Office, regarding this agenda item to declare a vacancy in Subdistrict 1. This seat is currently held by Sean Newcamp. According to the 2008 Neighborhood Plan, Section 2-14-106, the only time that a Neighborhood Board may declare a seat vacant is when a Board member misses three meetings. Because the Ala Moana/Kakaako Neighborhood Board No. 11 considered this type of action at the January 2012 meeting and failed to declare the seat vacant, Newcamp will have to accumulate three additional absences before the Board could again consider his removal pursuant to Section 2-14-106. Heinrich strongly recommended that the Ala Moana/Kakaako Neighborhood Board No. 11 defers the agenda item to declare a vacancy in Subdistrict 1, until it can properly consider this issue in accordance with Section 2-14-106.

Under Section 2-14-107 and Section 2-14-108, a Board member may be disqualified by relocation to a new primary residence, located outside of the neighborhood district or subdistrict. However, the Neighborhood Commission, not the Board, is the proper body to determine whether the member remains qualified to continue holding the seat.

Chair Hurst mentioned that he was in communication with Newcamp and that he will ask for a letter of resignation, instead of waiting for Board action in April 2012. This item was deferred.

CITY MONTHLY REPORTS

Honolulu Fire Department (HFD) - No representative was present and no report was available.

Honolulu Police Department (HPD) - Sgt. Jeffrey Nagai reported the following:

1. January 2012 Statistics - Included 23 assaults, 6 burglaries, 45 drug offenses, 23 driving under the influence (DUI), 5 family offenses, 4 graffiti, 172 motor vehicle collisions, 7 motor vehicle thefts, 15 property damages, 2 robberies, 0 sex offenses, 39 unauthorized entries into motor vehicles (UEMV), and 393 miscellaneous calls for service.

2. Avoidable Crimes Safety Tips - Sgt. Lurbe distributed several safety tips and mentioned that at Ala Moana Center, women reported that when they went to the restroom, their handbags were taken off the hooks on the inside of the stalls. Sgt. Lurbe advised that awareness prevents crimes.

Board of Water Supply (BWS) - Sandy Nahoopii-Soong circulated a report and reported the following:

1. Main Break Report: On January 23, there was one main break on Ilaniwai Street.
2. New Manager and Chief Engineer - BWS is pleased to announce that Ernest Lau has recently been appointed as its tenth manager and chief engineer.
   As manager, Lau will be responsible for the overall strategic direction and management of the BWS, with a focus on furthering the department's mission to provide a safe and dependable water supply, now and into the future.
   Lau previously served as the administrator of the Public Works Division under the State Department of Accounting and General Services, where he oversaw the planning, coordinating, directing, and controlling of a statewide program of engineering, architectural, and construction services. Lau previously worked as Deputy Director of the State Commission on Water Resource Management, Department of Land and Natural Resources; the Manager and Chief Engineer of the Kaua'i Department of Water; and at the Board of Water Supply for more than 14 years as an engineer in Long Range Planning and Water Systems Planning.
   For more information on Ernest Lau, please visit our website at www.boardofwatersupply.com.
3. Detect-A-Leak Week: March 11 -17 - Preserving and protecting our most essential resource - our water - is everyone's responsibility. The BWS encourages all residents to check for property leaks and to fix them promptly during Detect-A-Leak Week, which is being observed statewide from March 11-17. Checking for and repairing property leaks helps save water, lowers your water and sewer bill, and prevents potential damage to your home.
   During Detect-A-Leak Week free toilet leak detection dye tablets will be available to the public during that week at the BWS Public Service Building at 630 South Beretania Street, at all Satellite City Halls, and City Mill locations. Toilet leak detection dye tablets have been provided to Board members and extras are available to the community. For more leak detection information, call 748-5041 or visit our website, Facebook or Twitter pages:
   - Website: www.boardofwatersuQply.com
   - Facebook: http://www.facebook.com/BWSHonolulu
   - Twitter: http://www.twitter.com/BWSHonolulu.

Comments followed:

Chair Hurst offered that Nahoopii-Soong could send the Board the report instead of presenting the report in person. Nahoopii-Soong will continue coming to the Board.

Sensui arrived at 7:09 p.m.; **eight members present.**

RESIDENTS' CONCERNS

1. Update On The Honolulu Seawater Air Conditioning Project - Scott Higa, an engineer with HSWAC, updated the project. He will keep in contact with Land Utilization Chair P. Nathan Minn.
2. 53 By The Sea - Resident Jack Hamada made a statement that Chair Hurst made testimony on behalf of the Board supporting the liquor license for 53 By The Sea. Chair Hurst stated that was not true. He testified that notice was duly given.
3. Noise - A condo resident reported loud noise at the Fresh Café at 831 Queen Street in the late night/early morning hours and on Sunday afternoons and at Quick Fix Cycles, which repairs and tests mopeds with "illegal" modified mufflers. He filed a complaint with HPD and he may file with the Liquor Commission. Chair Hurst mentioned that it was a "mixed use" area and noise laws may be unenforceable during work hours. When the Board reported possible gambling and prostitution at 832 Queen Street, the occupants moved out.
4. Occupy Honolulu - Makiki/Lower Punchbowl/Tantalus Neighborhood Board No. 10 members Sam Mitchell and Christopher D. Smith introduced themselves to Neighborhood Board No. 11 and they wanted to establish more communication between Neighborhood Board No. 11 and the Occupy Honolulu people.
5. Senate Bill (SB) 2945 - Senator Fukunaga introduced SB 2945, Relating to Liquor Licenses. It authorizes the revocation or suspension of a liquor license for a continuing pattern of noise, disturbance, misconduct, or disorder. Update: February 21, 2012: The committee on Public Safety, Government Operations, and Military Affairs (PGM) recommended that the measure be PASSED UNAMENDED. Report was adopted, passed second reading and referred to Commerce and Consumer Protection (CPN). CPN will hold

decision making at 10:00 a.m. in conference room 229.

6. Joint Management Traffic Project - It has been completed.

COMMITTEE REPORTS

Chair's Report - Chair Hurst recommended support for the annual Shinnyo-en Hawaii Memorial Day Service. **Zehner moved; Sensui seconded that the Ala Moana/Kakaako Neighborhood Board No. 11 supports the Shinnyo-en Hawaii Memorial Day Service. The motion was ADOPTED by UNANIMOUS CONSENT, 8-0-0** (**AYE**: Hurst, Ibara, Minn, Okumoto, Sensui, Shiota, Tanimura, and Zehner)**.**

Community Relations - **Ibara moved; Sensui seconded that the Ala Moana/Kakaako Neighborhood Board No. 11 supports the RESOLUTION OF SUPPORT for the O'ahu Ahupua'a Boundary Marker Project, which was printed the January 24, 2012 meeting minutes.** Chair Hurst mentioned that a poster, supporting the project, had the word "secession." **The motion was ADOPTED by UNANIMOUS CONSENT, 8-0-0** (**AYE**: Hurst, Ibara, Minn, Okumoto, Sensui, Shiota, Tanimura, and Zehner)**.**
(Note - The resolution is attached at the end of the minutes.)

Health and Public Safety - Tanimura reported the following:

1. Genetically Modified Organisms (GMO)s - Her personal opinion is that GMOs are hard to avoid and may need more labeling requirements. Dr. Melissa Yee added that at the State Legislature, the bill was not heard and there is no federal labeling. She will go to the City Council next. There was a rally at the Capitol last week. She claimed that animals were harmed by GMOs and that companies contribute money to legislators. She distributed a flyer for a panel discussion tomorrow. **Zehner moved; Ibara seconded that the Ala Moana/Kakaako Neighborhood Board No. 11 supports the position that this issue (of Genetically Modified Organisms (GMO)-labeling) should be heard in committee. The motion was ADOPTED by UNANIMOUS CONSENT, 8-0-0** (**AYE**: Hurst, Ibara, Minn, Okumoto, Sensui, Shiota, Tanimura, and Zehner)**.**
2. Senate Bill (SB) 2776, Relating To Public Safety - The intent of the bill is to return prisoners to Hawai'i from mainland prisons. A recent news item was that the family of a Hawai'i inmate, killed in an Arizona prison, is suing the state and the prison operator, Corrections Corporation of America. Another item in the news was that inmates at Hawaii's Correctional Center for Women are growing cloned breadfruit trees to help feed the hungry.

Homelessness, Citizen Patrol - Sensui reported the following:

1. Graffiti Increase - At the Alder Street detention home, there is more graffiti.
2. Homelessness - There may be a new homeless person in the area. While on the Citizen Patrol, members want to help the homeless.

Land Utilization, O'ahu Metropolitan Planning Organization (OMPO) - P. Nathan Minn reported the following:

1. Night Work - There is road work on Ala Moana Boulevard at nights.
2. OMPO - The Board may need a new alternate to attend the OMPO meetings.

Legislation - Michael Zehner reported the following:

1. First Crossover - House bills went to the Senate and vice versa.
2. Senate Bill (SB) 2945, Relating to Liquor Licenses - The Bar Association thinks it may be a "bad" bill. The "smoking ban" created more noise and fights outside. There needs to be a balance.

Parks and Waterways - No report.

Transportation, Honolulu Authority for Rapid Transportation (HART) - Kevin Shiota reported the following:

1. Monday, February 6, 2012 - The City received "Letter of No Prejudice" from the Federal Transit Administration (FTA). This allows Honolulu to spend $184.7 million for construction on the first phase of the guideway, (underground foundations and vertical columns). The NTP should be (or has been) given to Kiewit.
2. Friday, February 24, 2012 - HART names Daniel Grabauskas as "Finalist for the CEO position." On March 1 (Thursday) HART's Board of Directors will take public testimony and vote on his confirmation.
   - Meeting location and date - Mission Memorial Annex Conference Room, 550 South King Street, Honolulu, Hawai'i, Thursday, March 1, 2012, 10:00 a.m.
   - Proposed CEO contract terms - 3 years, $245,000 annual salary; $42,000 for housing/transportation;

Possible $35,000 annual performance bonus; Start date: Mid-April.

- Work History - Currently, Grabauskas is chairman and senior strategic advisor of the Bronner Center for Transportation Management (consulting firm); Former Secretary of Transportation for Massachusetts; Former general manager of the Massachusetts Bay Transportation Authority.

Honolulu Rail Transit Project (HRTP) - Pat Lee reported the following:

Besides the news about Daniel Grabausaks' appointment to the position of Executive Director, and the "Letter of No Prejudice," allowing heavy construction for the rail project, President Obama also included $250 million for the Honolulu rail project in his FY2013 federal budget. This budget request, which would come from the New Starts Program for rail projects, was the largest amount for any project in the country for this year, and reflects the confidence the FTA has in Honolulu's ability to build the rail system.

The City can expect to obtain a final commitment of federal funding (called a "Full Funding Grant Agreement or FFGA") by October for the $1.55 billion federal share of the project, which will be nearly one third of the entire construction cost. There is more than $800 million in the financial plan for any unforeseen contingencies, such as delays and $295 million allotted for any finance charges.

For more information, please visit our website at www.honolulutransit.org or call our hotline 566-2299.

ELECTED OFFICIALS

City Councilmember Tulsi Gabbard - James Larson distributed the newsletter and reported the following:

1. Correction to the January 24, 2012 Meeting Minutes - "Page 6, under Councilmember Tulsi Gabbard's report, it should read, 'Bill 54 Support - Councilmember Gabbard was informed of the Ala Moana/Kakaako Neighborhood Board No. 11 concerns.'"
2. Resolution 12-3: Changes to the Hawaii Public Procurement Code - Councilmember Gabbard introduced Resolution 12-3 urging for specific changes to the Hawaii Public Procurement Code to allow Hawaii's counties to oversee the most prudent use of taxpayer dollars while ensuring the safety and welfare of local communities. Adopted by the City Council last month, Resolution 12-3 is currently at the Hawaii State Legislature for consideration.
3. Bill 56: Adoption of the New Fire Code - Bill 56 passed its second reading and public hearing last month. On February 7th, it went back to the Committee on Safety, Economic Development and Government Affairs. Then, it went to the February 15th City Council meeting in Kapolei for its third and final hearing.

City Councilmember Ann Kobayashi - Michele Sansone distributed the newsletter and reported that the City Administration's Budget is due on Friday, March 2, 2012.

Mayor Peter Carlisle's Representative - Robin Chun Carmichael, Deputy Director, Department of Human Resources, reported the following:

1. Honolulu 311 - The City has a new 311 "Smart Phone" reporting "App", which allows the public to use their personal "smart phones' to report and send photos of abandoned vehicles, broken street lights, illegal dumping and other issues. The user-friendly software is able to pinpoint locations using GPS and the information submitted will be forwarded to the appropriate departments for action. The App can be downloaded from the app marketplace by searching for "Honolulu 311."
2. No Left Turn Light - It was reported that the no left turn light at Kapiolani and Piikoi (heading Diamond Head) was still out, but the illuminated sign at Sheridan St. was fixed. Department of Transportation Services (DTS) is still investigating and the DTS Director will come in April.
3. Occupy Honolulu at Thomas Square - The City will continue to enforce the Stored Property Ordinance at Thomas Square.
4. Other Violators - Chair Hurst gave Chun Carmichael many flyers that were posted on utility poles and asked Department of Corporation Counsel (COR) to look into locating and fining violators.
5. Bulky Item Pick-Up - The bulky item pick up is supposed to be on the second Wednesday of the month. However, it is two weeks late. Chun Carmichael will follow up.
6. Graffiti - Graffiti was reported on the 1100 block on King Street.

State Senator Carol Fukunaga - Nalani Aki from Senator Brickwood Galuteria's Office distributed Senator Fukunaga's newsletter, which mentioned Senate Bill (SB) 2945 and the newsletter had a survey.

State Senator Brickwood Galuteria - Nalani Aki also distributed Senator Galuteria's newsletter.

State Representative Tom Brower - Representative Brower distributed his newsletter and reported the following:

1. Casino Legislation - On February 13, the House Tourism committee heard Bill 2788 to allow a casino in Waikiki. As the Chair of the committee, Representative Brower deferred the measure, so the bill did not pass.
2. Homeless Shelter Meeting - Earlier this month, Representative Brower was the featured guest speaker at Next Step Shelter's monthly meeting. Next Step has been working on a bid to replace the hot water heater and address plumbing issues, a grant for a comfort room for crying children, and a store. The libraries for children and adults just opened. Next Step is also convening a Member Advisory Group consisting of shelter clients and staff to come up with suggestions and recommendations for improving the shelter. Shelter residents complained about "strict" shelter rules, lack of hot water, and the aphids in the lettuce from the hydroponics garden.
3. Update: "Rowdy Bars" Legislation - The Senate companion, SB 2945 passed Public Safety, Government Operations, and Military Affairs (PGM) on February 14. The Senate Commerce and Consumer Protection committee will be voting on it tomorrow at 10:30 a.m. (This is referencing legislation Representative Brower introduced to regulate liquor license establishments who have a history of "noise, disturbance, misconduct or disorder.") To cut down on some of the public safety and noise concerns allegedly brought about by smokers outside liquor license establishments, Representative Brower supported House Bill 2306, which would allow certain liquor license establishments smoking on their premises. As of February 17, the bill is no longer "alive."

State Representative Karl Rhoads - Representative Rhoads reported the following:

1. It was reported that there is an "uplift" in the sidewalk at 1245 Rycroft Street. Representative Rhoads forwarded this issue to the City.
2. Representative Rhoads received a complaint about bicyclists speeding on the sidewalk on Piikoi Street (Diamond Head side) between Kamaile Street and Rycroft Street. He forwarded the complaint to HPD.
3. Representative Rhoads received a complaint about the sidewalk "caving in" in front of 1117 Hoolai Street. He forwarded the complaint to the City.
4. Representative Rhoads reported to HPD that a van is routinely parking illegally in front of 928 Birch.
5. Representative Rhoads asked for DTS to install a no parking sign at this same location, 928 Birch.
6. Representative Rhoads wrote to the Hawaii Community Development Authority asking them to fix the lights that are out in Kakaako Waterfront Park and some on the trail leading out of the lot. HCDA responded that these lights will be repaired as soon as possible.
7. Representative Rhoads has received a number of complaints about speeding in the Sheridan area at the following locations: Sheridan Street between King and Kapiolani; Piikoi between Rycroft and King; Rycroft between Sheridan and Piikoi and Alder between Elm and Rycroft.
8. Representative Rhoads received a complaint about 704 Sheridan being "graffitied." He wrote to the owner, letting them know that their property has been "graffitied" and letting them know about an organization that might be willing to help them to paint it over.
9. Representative Rhoads received a complaint about parked cars at the corner of Kamaile and Sheridan, blocking traffic. He asked DTS to look into it.
10. Representative Rhoads received a complaint about homeless living on the Ewa side of Pensacola. He asked IHS to look into it.
11. Regarding the Urination and Defecation Bill, there was an article in today's newspaper about bathrooms being closed in Waikiki.

State Representative Scott Saiki - No representative was present, but his newsletter was available.

Governor Neil Abercrombie's Representative - No representative was present and no report was available.

PRESENTATIONS/BOARD BUSINESS

Artspace - Vicky Takamine, a kumu hula for 35 years, and Cathryn Vandenbrink explained their project:

1. Project Goals
   - Create a cultural facility that sustains and nurtures native Hawaiian artists and arts organizations
   - Create affordable multi-ethnic artist housing
   - Expand the field's capacity to support the space needs of culturally distinct communities
   - Connect Honolulu-based artists with peers and constituents across Hawai'i and beyond
   - Fulfill affordable artist housing, transit-oriented development) and economic development goals of Honolulu
2. Background and Description

- PA'l Foundation, a 501(c) 3 organization whose mission is to preserve and perpetuate Hawaiian cultural tradition for future generations, invited Artspace in 2009 to help PA'l explore the space needs of Hawaiian artists. This original partnership was facilitated and funded by the Ford Foundation. Through a "discovery" process, under the guidance of PA'l Executive Director Vicky Takamine, Artspace met with and learned from many native artists and arts organizations on Hawai'i Island and O'ahu. This resulted in a shared vision with PA'l to create a mixed-use project in Honolulu that will serve the broader Hawaiian community by developing a traditional Hawaiian cultural center with classroom space, space for teaching and performing Hula, music, and other traditional practices, as well as affordable multi-ethnic artist housing for all Hawaiian artists and their families.

3. Project Updates/Details
   - Site control: The Hawaiian Community Development Authority has approved an exclusive agreement with Artspace/PA'l for the Block 40 site in the Kaka'ako neighborhood of Honolulu, a transitional area of light industrial property located between the downtown business district and Waikiki Beach. This 30,000-square-foot site will be leased to Artspace for 65 years.
   - 72 units of artist live/work housing will have high ceilings, large windows, durable surfaces$_1$ large doors, and wide hallways to accommodate a variety of creative activities. Each unit will be larger than a typical affordable unit to allow for ample workspace. A roof deck will provide residents with common space and a generous gardening area. The live/work space will be available to income-qualifying artists from all cultural backgrounds represented in Hawai'i. Like all Artspace projects, this building will be multi-ethnic, multi-generational, and multi-disciplinary.
   - 4,000 square feet will be used to create a Hawaiian Cultural Center with classroom space, and space for teaching and performing Hula, music, and other traditional practices. An additional 6,000 square feet will be available for other artistic and community uses.

Chair Hurst invited them back in the future.

Symphony Honolulu - Jeanne Murata, Joyce Thompson and Francisco Gutierrue from OliverMcMillan in San Diego, presented their condominium project with 355 units at the corner of Kapi'olani Boulevard and Ward Avenue across from the Neal Blaisdell Center. It would house a JN Chevrolet showroom, like the Pflueger Honda dealership at Capitol Place in downtown. March 7th will be the public hearing. Tonight's presentation is a "sneak peek." The tower would be 400 feet high. The restaurant on Ward Avenue would be a "pedestrian experience" and there will be 30,000 sq. ft. of green space. It will have solar panels and windows on both sides. There will be one entrance for commercial customers and one entrance for residents. The flexible interior will have "stacked" floors for fashion shows and auto show rooms. The designs are not "final" yet. They hope to start sales by the end of summer and construction by the end of the year. Two restaurants are planned. They will have "market" units "work-place" units, which are Hawaii Community Development Authority (HCDA)-mandated.

Chair Hurst invited them back in the future.

Variance Yacht Harbor Towers - There will be more changes.

APPROVAL OF JANUARY 24, 2012 REGULAR MEETING MINUTES: No action taken.

TREASURER'S REPORT: Treasurer Sensui reported that the Fiscal Year (FY) 2012 Allocation was $574.00. After expenditures for the printing of the agendas and minutes, the balance, as of February 28, 2012 was $324.17. The Treasurer's report was filed.

ANNOUNCEMENTS

1. Next meeting - The next meeting of the Ala Moana/Kakaako Neighborhood Board No. 11 will be on Tuesday, March 27, 2012 at 7:00 p.m. at Makiki Christian Church, 829 Pensacola Street.
2. **No Loitering** on Church Grounds after the Board Meetings (after 9:00 p.m.)

ADJOURNMENT: The meeting adjourned at 9:10 p.m.

Submitted by: K. Russell Ho, Neighborhood Assistant
Reviewed by: Chelsea Tanimura, Secretary, and
Larry Hurst, Chair

RESOLUTION OF SUPPORT FOR THE
O'AHU AHUPUA'A BOUNDARY MARKER PROJECT

WHEREAS, the Ala Moana/Kakaako Neighborhood Board No. 11 lies in the ahupua'a of Honolulu, which is located within the moku - or district - of Kona, O'ahu; and

WHEREAS, within this neighborhood board district are many natural and cultural resources of importance and value to the people who live, work and recreate upon the lands, along the streams and beside the shores of this ahupua'a; and

WHEREAS, these traditional land divisions were recognized by native Hawaiians many centuries ago as an effective means of managing and caring for our resources and our people; and

WHEREAS, from the mountains to the sea, ahupua'a stewardship was found to have been successful in sustaining a large population on our island for many centuries; and

WHEREAS, in modem times, our resources are as precious and valuable to our people as they were long ago; and

WHEREAS, it is important that those who now live and work on this 'aina understand our kuleana - responsibility - to malama our resources for present and future generations; and

WHEREAS, just as important to us all is the need to safeguard our historic and cultural resources, many of which can also be found within our ahupua'a; and

WHEREAS, the O'ahu Council of the Association of Hawaiian Civic Clubs has initiated the O'ahu Ahupua'a Boundary Marker project to install ahupua'a boundary marker signage at the boundaries of each of the ahupua'a in our moku as well as other districts on our island; and

WHEREAS, such markers will enable our communities to understand where our kuleana lies and which resources we should look after; now, therefore,

BE IT RESOLVED by the members of the Ala Moana/Kakaako Neighborhood Board No. 11 that we support the O'ahu Boundary Marker project in concept, in the hope that it will encourage our communities to become better stewards of the resources in our ahupua'a; and

BE IT FURTHER RESOLVED by our Neighborhood Board that copies of this Resolution be forwarded to the O'ahu Council of the Association of Hawaiian Civic Clubs, to Mayor Peter Carlisle and the Director of the City Department of Transportation Services, and to Governor Neil Abercrombie and the Director of the State Department of Transportation.

APPROVED by the Ala Moana/Kakaako Neighborhood Board No. 11 at its February 28, 2012 regular monthly meeting.

Submitted by: Larry Hurst, Chair

ALA MOANA/KAKAAKO NEIGHBORHOOD BOARD NO. 11

c/o NEIGHBORHOOD COMMISSION • 530 SOUTH KING STREET ROOM 406 • HONOLULU, HAWAII, 96813
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET http://www1.honolulu.gov/nco

REGULAR MEETING AGENDA
TUESDAY, JULY 24, 2012, 7:00 P.M.
MAKIKI CHRISTIAN CHURCH
829 PENSACOLA STREET

Rules of Speaking: Anyone wishing to speak is asked to raise their hand, and when recognized by the Chair, to address comments to the Chair. Speakers are encouraged to keep their comments under 3 minutes, and those giving reports are urged to keep their reports less than 3 minutes. Please silence all electronic devices.

Note: The Board may take action on any agenda item. As required by the State Sunshine Law (HRS 92), specific issues not noted on this agenda cannot be voted on, unless added to the agenda.

I. CALL TO ORDER - Chair Larry Hurst

II. CITY MONTHLY REPORTS: (Limited to 3 minutes each)
   a. Honolulu Fire Department
   b. Honolulu Police Department

III. EXECUTIVE SESSION

IV. ELECTION OF BOARD OFFICERS
   a. Chair
   b. Vice Chair
   c. Secretary
   d. Treasurer

V. RESIDENTS' CONCERNS
   a. Submitted from 1133 Waimanu Street
   b. Kissaten Liquor License

VI. COMMITTEE REPORTS:
   a. Chair's Report - Larry Hurst
   b. Citizen Patrol (Permitted Interaction Group) - Dexter Sensui
   c. Community Relations - Wayne Ibara
   d. Health - Chelsea Tanimura
   e. Land Utilization, Oahu Metropolitan Planning Organization - P. Nathan Minn
      1. Artspace Affordable Housing
   f. Legislation - Michael Zehner
   g. Parks and Waterways - Steven Okumoto
      1. Board of Water Supply
   h. Public Safety - Tony Kato
   i. Transportation, Honolulu Authority for Rapid Transportation - Kevin Shiota
      1. Honolulu Rail Transit Project - Pat Lee

VII. ELECTED OFFICIALS:
   a. City Councilmember Tulsi Gabbard
   b. City Councilmember Ann Kobayashi
   c. Mayor Peter Carlisle's Representative - Robin Chun Carmichael, Deputy Director, Department of Human Resources
   d. State Senator Carol Fukunaga

e. State Senator Brickwood Galuteria
f. State Representative Tom Brower
g. State Representative Karl Rhoads
h. State Representative Scott Saiki
i. Governor Neil Abercrombie's Representative - Barbara Krieg, Interim Director of the Department of Human Resources Development

VIII. PRESENTATIONS/BOARD BUSINESS:
a. Makahiki Autumn Festival "Block- Party" Closing Keeaumoku Street - City & County of Honolulu and DB Productions, Rick Taniguchi

IX. APPROVAL OF JUNE 26, 2012 REGULAR MEETING MINUTES

X. TREASURER'S REPORT

XI. ANNOUNCEMENTS:
a. Next Meeting - The next meeting of the Ala Moana/Kakaako Neighborhood Board No. 11 will be on Tuesday, August 28, 2012 at 7:00 p.m. at Makiki Christian Church, 829 Pensacola Street.
b. **No Loitering** on Church Grounds after Board Meetings (after 9:00 p.m.)

XII. ADJOURNMENT

A mailing list is maintained for interested persons and agencies to receive this Board's agenda and minutes. Additions, corrections, and deletions to the mailing list may be directed to the Neighborhood Commission Office (NCO), Honolulu Hale, 530 South King Street, Room 406, Honolulu, Hawaii 96813; Telephone (808) 768-3710 or Fax (808) 768-3711; or call Neighborhood Assistant K. Russell Ho at 768-3715 or e-mail - kho4@honolulu.gov. Agendas and minutes are also available on the internet at www.honolulu.gov/nco.

Any individual wishing to attend a Neighborhood Board meeting who has questions about accommodations for a physical disability or a special physical need should call the NCO at 768-3710 between 8:00 a.m. and 4:00 p.m., at least 24-hours before the scheduled meeting.

ALA MOANA/KAKAAKO NEIGHBORHOOD BOARD NO. 11

c/o NEIGHBORHOOD COMMISSION • 530 SOUTH KING STREET ROOM 406 • HONOLULU, HAWAII, 96813
PHONE (808) 768-3710 • FAX (808) 768-3711 • INTERNET http://www1.honolulu.gov/nco

DRAFT REGULAR MEETING MINUTES
TUESDAY, JULY 24, 2012
MAKIKI CHRISTIAN CHURCH

CALL TO ORDER: Chair Larry Hurst called the meeting to order at 7:00 p.m. with **a quorum of eight (8) members present**. Note - This nine-member Board requires five (5) members to establish quorum and to take official Board action.

Board Members Present - Larry Hurst, Wayne Ibara, Tony Kato, P. Nathan Minn, Steven Okumoto, Dexter Sensui, Kevin Shiota, Chelsea Tanimura (arrived at 7:01 p.m.), and Michael Zehner.

Board Members Absent - None.

Vacancies - None.

Guests - Dale Uno (State Senator Brickwood Galuteria's Office staff), State Representative Tom Brower, Sonny Le (Representative Karl Rhoads' Office staff), Jonathan Tungpalan (State Representative Scott Saiki's Office staff), Robin Chun-Carmichael (Mayor Peter Carlisle's Representative, Department of Human Resources, Deputy Director); City Councilmember Ann Kobayashi and Michele Sansone (Councilmember Ann Kobayashi's Office staff), James Larson (City Councilmember Tulsi Gabbard's Office staff), Wayne Yoshioka (Department of Transportation Services, Director), Captain Robert Hoopii and Fire Fighter Ed Agi (Honolulu Fire Department, Pawaa Station), Lieutenant Eric Zarriello, and Sergeant Dalton Wong (Honolulu Police Department, District 1), Pat Lee (Honolulu Rail Transit Project); Ryo Fujise, Alan Kashiwabara, Ayako Kobayash, Evelyn Kuramoto, Sandra Young, Resty and Letty Riguerra, Shinya and Sumie Yoshikoski, Sun J. Hwang, John Y.Yamano, Joe Magaldi, K. Shiraya, Albert Cowie, Marion MacRitchie, Naoto Suzuki, Cathy Yu, Misako and Allen Hill, Sharon Tada, M. Ogawa, Dr. Ron Perry, Guy Perry, Gerry Hsu, Wes Suzawa, Toshiko Koizumi, Jocelyn Leroux, Mary Hee Wai, Scott Hee Wai, Sharon Shak, Haruko Takahashi, C. Banerschkeises, Myron S.S. Wong, and Shioko Yosemori (Hawaiki Tower); Sharon H. Nishi, Ira Ratner and Myrtle Wong (Homeowners), Dave Striph (Howard Hughes Corporation), Joyel Horita, M. Tait (Hawai'i Convention Center), Tino Balcita (Citizens Patrol), Roy Gatter, Liz Larson (Senate District 12 candidate), Tiffany H.Y. Au (Candidate for House District 26) and Cynthia Au (Friends of Tiffany H.Y. Au), Richard Gamberg, Jim Hayes, and K. Russell Ho (Neighborhood Commission Office staff).

CITY MONTHLY REPORTS

Honolulu Fire Department (HFD) - Fire Fighter Ed Agi reported the following:

1. Statistics for July 2012 - There were 0 structures, 0 wildland, 2 rubbish, and 0 vehicle fires; 141 medical emergencies, 6 search/rescue, and 114 miscellaneous calls for service. There were no major or unusual incidents.
2. Fire Safety Tips - Open burning of any material, including green yard waste and household trash, is prohibited throughout the state. Violations of open burning rules may result in lines of up to $10,000 per day for each offense. Owners, operators, or managers of properties, premises, businesses, or industries where open burning occurs will be held responsible.

Comments followed: Chair Hurst noticed that HFD was busy after a "light" month.

Board member Tanimura arrived at 7:01 p.m.; **9 members present**.

Honolulu Police Department (HPD) - Sergeant Dalton Wong distributed the monthly report and reported the following:

1. June 2012 Statistics - There were 23 assaults, 4 burglaries, 48 drug offenses, 44 driving under the influence (DUI), 8 family offenses, 5 graffiti, 193 motor vehicle collisions, 10 motor vehicle thefts, 26 property damages, 5 robberies, 2 sex offenses, 16 unauthorized entries into a motor vehicle (UEMV), and 355 miscellaneous calls for service.

2. Neighborhood Security Watch - If you or someone that you know would like to join or participate in a Neighborhood Security, Business Security Watch or Citizen Patrol group, contact Sergeant Lawrence Santos at 529-3695 or at lsantos@honolulu.gov.

Comments followed:

1. Beat 176 - Chair Hurst pointed out that Beat 176 had about 31 percent of the driving under the influence (DUI) cases and 28 percent of the motor vehicle collision (MVC) for the whole district.
2. Paperwork - Board member Kato, formerly with the Los Angeles Police Department (LAPD), noticed that there is more time spent on paperwork in Honolulu. LAPD is different as the officers spend 1/2 an hour to write up a report and in Honolulu it is more detailed. HPD responded that they park in the shade for visibility and with computers installed in the patrol cars and better communications, HPD gets better investigations.
3. Tip - To prevent burglaries, watch out for your neighbors. A neighbor spotted a person removing the louvers to the windows of a house. When the HPD "checked it out," the officers found out that the neighbor had forgotten his keys in his house.
4. Another Tip - Chair Hurst mentioned that at the main HPD headquarters on South Beretania Street, there is a museum on the HPD. It is worth a visit.

EXECUTIVE SESSION: The Board received a letter from the Neighborhood Commission Office (NCO), regarding "Executive Sessions," and no action was taken. Chair Hurst moved on to the next agenda item.

ELECTION OF BOARD OFFICERS: This item was moved to later in the agenda.

RESIDENTS' CONCERNS

1. Fresh Café and The Asylum - A resident mentioned that he complained about the Fresh Café in February 2012 and it was resolved with the help of Councilmember Tulsi Gabbard and the Ala Moana/Kakaako Neighborhood Board No. 11. The Asylum has a "Bring Your Own Booze (BYOB)" policy and they have after hours fights.
2. Quick Fix Cycles - At 858 Queen Street, Quick Fix Cycles "fixes" motorcycles with illegal muffler modifications. This is a State licensing and noise enforcement issue. Mayor's Representative Chun-Carmichael was asked what the law was. This complaint was suggested to be forwarded to Councilmember Tulsi Gabbard to change the laws and to the State Hawaii Community Development Authority (HCDA).
3. Candidate for State House District 26 (Republican) - Tiffany Au introduced herself. Two of her campaign issues were fighting graffiti and recycling. She was advised to contact the Citizens Patrol Permitted Interaction Group (PIG) Chair Sensui.
4. Candidate for City Council District 5 (Non-Partisan) - Jim Hayes introduced himself. He was concerned about the State noise laws and different land uses at property lines.
5. Three Concerns from 1133 Waimanu Street - Chair Hurst reported the following:
   A. Speeding Cars on Queen Street at Kolowalu Park Crosswalk: This item was previously referred to Department of Transportation Services (DTS), which installed special signs. The median was removed to accommodate residents on the makai side of Queen. A controlled light or flashing light are more than likely being considered, along with the construction costs of supplying power by much entrenching. The park design was excellent, allowing a view of the crosswalk. As with all traffic problems, it comes down to the individual driver and pedestrian. A pedestrian impeding traffic is just as dangerous as a non-attentive driver. HPD Chief of Police (Louis Kealoha) has made a TV Public Service Announcement (PSA), emphasizing speeding and pedestrians. Residents can make traffic incident reports, citing speeders to HPD.
   B. Cars Parked on Street over 24 Hours: This should be reported to the City by telephone with the exact required information. This gets the fastest response by one of the two investigators. Then, the abandoned vehicle process starts and that vehicle might be towed within a month, as the contracted towing company works island-wide by sectors. During that time, a vehicle can be moved only two inches to start the process all over again. Enforcing metered parking is a HPD function. Tickets for violations of any kind are issued. At one time, it was explained to the complainants that not reporting four-hour storage parking violations, by limos and tour buses, causes a "broken window," when not addressed, is a sign of a deteriorating area and invites not just more parking violations, but other more serious crimes.

C. Early Morning Refuse Pick-Up: At the last town meeting, the following was resolved - urban refuse pick-up is required by law and allowed at 4:00 a.m., as refuse trucks are prohibited on main thoroughfares after 6:30 a.m. In fact, the City Council legislated an extra 30 minutes, so companies might start later. However, population growth inevitably means more refuse pick-ups. Voters could elect legislators, who will change existing laws.

6. Kissaten Liquor License at the Hawaiki Tower at 88 Piikoi Street - Sharon Tada, the spokesperson for 44 residents, mentioned the following concerns for the Liquor Commission public hearing on Thursday, July 26, 2012: There were no adequate parking (only four (4) spaces); no adequate restrooms (patrons had to walk through the common area of the condo; and no adequate security (for families and children). Tada asked for the Neighborhood Board's support. A resident had looked at the application and noted "violations" - no nearby restrooms and a long walk through the condo's common area. The preliminary approval has been given. Representative Tom Bower added that he invited the Kissaten people, but they did not attend tonight's meeting. **Sensui moved; and Zehner seconded that the Ala Moana/Kakaako Neighborhood Board No. 11 opposes the issuance of a liquor license for Kissaten and that it supports the residents. The motion was ADOPTED by UNANIMOUS CONSENT, 9-0-0** (**AYE**: Hurst, Ibara, Kato, Minn, Okumoto, Sensui, Shiota, Tanimura, and Zehner)**.**

   Comments followed:
   A. Appreciation Noted - Tada acknowledged the participation of Board members and residents.
   B. Other Comments - The Kissaten people did not show up. The residents should also attend the Liquor Commission meeting. The condo association board and KHON may also have input. Chair Hurst mentioned that the Board's standing resolution on liquor licensing will be on next month's agenda.

7. Candidate for State Senate District 12 (Republican) - Liz Larson introduced herself. She will be hosting a Veterans Appreciation Barbeque on Saturday, August 25, 2012 at Kapi'olani Park, starting at 4:00 p.m. There will a speaker from the famed 442nd Regimental Combat Team.

COMMITTEE REPORTS:

Chair's Report - Chair Larry Hurst had previously reported - Three Concerns from 1133 Waimanu Street.

Citizen Patrol (Permitted Interaction Group) - Chair Hurst reported that the Citizens Patrol was recognized by the HPD.

Community Relations - No report.

Health - Committee Chair Chelsea Tanimura reported the following:

1. Sewage Spill - On July 21, 2012 a private contractor drilled into a sewer lateral during construction work at 1500 Ala Moana Boulevard and more than 3000 gallons have entered the Ala Wai Canal.
2. No New Cases - On June 20, 2012 the Hawaii State Department of Health (DOH) has completed its contact investigation for tuberculosis (TB) that began in March 2012, after a student attending Hawaii Pacific University (HPU) and Kapiolani Community College (KCC) was diagnosed with active TB disease. As of today, no new related cases of active TB disease have been identified.

O'ahu Metropolitan Planning Organization (OahuMPO) Citizen Advisory Committee (CAC) - Chair Hurst assigned this area to Board member Kato.

Land Utilization -

1. Artspace Affordable Housing - Cathryn Vandenbrink made an encore presentation about Artspace in Hawai'i. The fact sheet highlighted the following:
   A. Project Goals
      - Create a cultural facility that sustains and nurtures native Hawaiian artists and arts organizations
      - Create affordable multi-ethnic artist housing
      - Expand our capacity to support the space needs of culturally distinct communities
      - Connect Honolulu-based artists with peers and constituents across Hawai'i and beyond
      - Fulfill affordable artist housing, transit-oriented development, and economic development goals of City and County of Honolulu
   B. Project Updates/Details

- The Hawaii Community Development Authority (HCDA) has approved an exclusive agreement with Artspace/PA'l for the Block 40 site in the Kaka'ako neighborhood of Honolulu. This 30,000-square-foot site will be leased to Artspace for 65 years.
- 80 units of artist live/work housing will have high ceilings, large windows, durable surfaces, large doors, and wide hallways to accommodate a variety of creative activities. Each unit will be larger than a typical affordable unit to allow for ample workspace. A podium deck will provide residents with common space and a generous gardening area. The live/work space will be available to income-qualifying artists from all cultural backgrounds represented in Hawai'i. Like all Artspace projects, this building will be multi-ethnic, multi-generational, and multi-disciplinary.
- 4,000 square feet will be used to create a Hawaiian Cultural Center with classroom space, and space for teaching and performing hula, music, and other traditional practices. Additional commercial space will be available for artistic and community uses.

C. Next Steps/Timeline
- Throughout 2012 Artspace/PA'l will undertake physical due diligence on the site, ramp up community and artist outreach, and apply for subordinate and grant financing/funding. Artspace will apply for City and County of Honolulu housing funding in 2012. We expect to apply for state Low Income Housing Tax Credits in January/February 2013. This would support a late 2013, early 2014 construction start and a projected opening in 2015.

Comments followed:
1. Marketing - There will be community space for residents and the community. They will be marketing rentals to artists first, then to the non-artists list.
2. Who is an Artist? - A group of local artists will determine the criteria to qualify for the units. The applicant must show a body of work and must be actively pursuing the art.

Ibara moved; and Shiota seconded that the Ala Moana/Kakaako Neighborhood Board No. 11 support this project by Artspace. The motion was ADOPTED, 8-1-0 (**AYE**: Hurst, Ibara, Kato, Minn, Okumoto, Sensui, Shiota, and Zehner; **NAY**: Tanimura)**.** Tanimura mentioned that she was not opposed to The Arts, but she did not like the giving of preference to certain groups, as everyone needs affordable housing.

Legislation - No report.

Parks and Waterways - Board of Water Supply (BWS) representative Sandy Nahoopii-Soong was not present, but she had e-mailed the following report to Neighborhood Assistant Ho, who e-mailed it to Board members, who have an e-mail address:

1. Board of Water Supply (BWS)

A. Main Break Report - There was one main break on June 24, 2012 at 5:37 a.m. at 205 Koula Street in Kakaako. It was a 6-inch pipe, installed in 1937.

B. Open House and Unthirsty Plant Sale - BWS will be holding its 24th Annual Halawa Xeriscape Garden Open House and Unthirsty Plant Sale on Saturday, August 4, from 9:00 am. to 3:00 p.m. Studies have shown that up to half of the average single family home's total water consumption is used outdoors and that practicing a concept known as xeriscaping, or conserving water through efficient landscaping, can amount to a significant savings on water and sewer bills. As a way of giving back to its customers, the BWS puts on this free, family-friendly event every year as a way to teach people how to save water outdoors by incorporating xeriscape concepts at home.

All Neighborhood Board members, along with the entire community, are invited to the open house, which includes a full day of fun educational activities such as xeriscape workshops, keiki games, keiki garden planting, garden tours and a free mulch giveaway. Don't miss the ever popular Rain Barrel Workshop, which will offer a limited supply of barrels on a first-come, first-served basis! At least a dozen local nurseries will be selling a variety of unthirsty plants, with proceeds supporting educational programs and classes at the BWS's Halawa Xeriscape Garden.

If you are unable to attend the event, follow the BWS on Facebook and Twitter to view live social media updates from the event. This fun and educational event highlights xeriscaping, which is an innovative technique that can save 30-80 percent on outdoor water consumption.

For more information, please visit www.boardofwatersupply.com or call 748-5041.

C. BWS Projects - BWS has not set the start dates for both the Kona Street and Ward Avenue projects. It will have these dates set by next month and will send the start dates as soon as the dates are determined.

Public Safety - No report.

Transportation, Honolulu Authority for Rapid Transportation (HART) - Chair Hurst mentioned that the Neighborhood Commission Office (NCO) had asked for the name of the Transportation Chair. Committee Chair Kevin Shiota reported the following:

1. Thursday, June 28, 2012 - Honolulu Authority for Rapid Transportation (HART) submits its request for a Full Funding Grant Agreement (FFGA) to the Federal Transit Administration (FTA). FFGA would formally establish the level of federal funding ($1.55 billion) for the rail project.
   A. FIGA Approval Timeline
      1) FTA review, approximately 30 days.
      2) White House Office of Management and Budget, 30 days.
      3) FTA informs Congress of its intent to sign, Congressional review, 60 days
   B. FFGA Application Included An Updated Financial Plan
      1) Total estimated project cost decreased $10 million, from $5.17 to $5.16 billion.
      2) General Excise Tax (GET) revenue projection increased from $3.15 to 3.29 billion.
      3) Contingency reserve reduced to 15% of project's cost.
   C. Regarding the Updated Financial Plan. Honolulu Star-Advertiser Reports (June 29, 2012 and July 16, 2012):
      1) Initial segment opening date (Kapolei to Aloha Stadium) changed from late-2015 to mid-2016.
      2) The city is planning for fare increases in 2017 and 2023.
      3) Subsidy to operate during 2010-2030 is $5.87 billion, increase of approximately $582 million from the previous plan.
      4) After the rail is running, the operating subsidy will be 17% of overall City tax collections.
      5) Today, transit is approximately 12% of City tax collections.
2. Tuesday, July 10, 2012 - HART Executive Director Daniel Grabauskas announced $2.8 million of public relations-related cost reductions. The reductions involve several sub-consultants and public involvement positions.
3. Wednesday, July 11, 2012 -City Council pass resolutions and continues to apply downward pressure to rail costs:
   A. Ask the City Auditor to audit public relations spending for rail.
   B. Ask the City to review its contracts to prevent change orders or budget overruns and instructs HART to hold off authorizing new construction, until after the City has secured federal funding.

Honolulu Rail Transit Project (HRTP) - Due to the lateness of hour and not to be redundant of Board member Shiota's report, Pat Lee summarized his report and submitted the following full report:

- Honolulu Authority for Rapid Transportation (HART) has submitted a request for $1.55 billion in federal "New Starts" funding for the Honolulu Rail Transit Project. The "Full Funding Grant Agreement (FFGA)" submittal is the final step in the Federal Transit Administration's planning and development process, which concludes in a multi-year agreement between the City & County of Honolulu and the FTA that formally establishes the level of federal funding for the rail project.
- The Honolulu Rail Project has already received $120 million in federal funding that goes toward the requested $1.55 billion. When the FFGA is approved later this year, Honolulu will secure the commitment of $1.55 billion in federal funds for construction of the rail project.
- After receiving Honolulu's FFGA request, the FTA will take approximately 30 days to review it before forwarding the request to the Office of Management and Budget at the White House for its own 30-day review. From there, the FTA will inform Congress of its intent to sign the agreement as part of a 60-day notification process. The completed agreement is expected to be finalized later this year.
- Along with the FFGA request, HART provided FTA officials with an updated financial plan and other documents that include the scope, schedule and budget for the rail project. The new financial plan provides updated figures from the previous financial plan published in September 2011.
- Among the highlights of the final financial plan:
  ◊ Total project cost is projected to decrease by $10 million to $5.16 billion.
  ◊ The applied contingency decreased 21% from $815 million to $645 million. HART is anticipating that it would be zeroed out by the end of construction.
  ◊ Potential use of Section 5307 funds decreased 14% from $244 million to $210 million.

- ◊ Finance cost decreased 27% from $295 to $215 million.
- ◊ General Excise Tax (GET) surcharge revenue increases 4% from $3.15 billion to $3.29 billion due to Hawai'i's economic recovery.
- ◊ Ending cash balance increases 113% from $83 million to $193 million.

For more information, please visit the project website at www.honolulutransit.org, call the project hotline at 566-2299, or email at info@honolulutransit.org.

ELECTED OFFICIALS

City Councilmember Tulsi Gabbard - James Larson distributed the newsletter and he was available to hear concerns. The newsletter highlighted the following:

1. Honoring the Kailua Independence Day Parade.
2. Honoring Father Claude Francis Du Teil - On July 1st, 2012, the Institute of Human Services (IHS) celebrates its 34th year. Father Du Teil would have been 92 years old.
3. Resolution 12-149: Auditing Hart Contracts - The Budget Committee passed Resolution 12-149, calling for an audit of the Honolulu Authority for Rapid Transportation's contracts and spending for public relations and public involvement services. Resolution 12-149 now goes before the full City Council on July 11th.
4. PROJECT C.L.E.A.N. (Community Lokahi to Enrich our Aina Now)
5. District 6 Spotlight - Sean Barboza was in the spotlight.

City Councilmember Ann Kobayashi - Michele Sansone distributed the newsletter and Councilmember Kobayashi reported the following:

1. Award - The YWCA awarded Councilmember Kobayashi a Women's Leadership Award.
2. Budget - The Ala Moana Beach Park restrooms were cleaned and repaired with extra funding. Councilmember Kobayashi received many complaints about the TheBus changes. She hoped to restore funds. Although HART cut $2.8 million for its public relations staff, there are still nine (9) people on staff. Councilmember Kobayashi questioned why HART spends so much money on public relations.

Mayor Peter Carlisle's Representative - Robin Chun Carmichael reported the following:

1. Roads -
   A. The City & County of Honolulu owns about 3,400 lane miles.
   B. 464 lane miles were paved between October 2010 and June 2012.
   C. 170 lane miles of paving are under construction.
   D. 329 lane miles of paving were recently awarded by Department of Budget and Fiscal Services (BFS).
   E. 330 lane miles of are in design, pending bidding by June 2013 with Fiscal Year (FY) 2012 funds.
   F. That's a total of 1,293 lane miles being addressed
2. Ala Moana Neighborhood Transit-Oriented Development (TOD) Plan - There will be a Community Workshop #1 on Tuesday, August 7, 2012 from 6:00 p.m. to 8:00 p.m. at the McKinley High School Cafeteria, 1039 South King Street. For more information, visit - www.honoluludpp.org/planning.
3. TheBus Changes - Department of Transportation Services (DTS) Director Wayne Yoshioka report the following:
   A. Roll Out - The changes will come in two (2) phases in June and in August. The Route 55 Circle Island off-peak schedule will use the double bus. For the August 19 changes, Route 13 will go from Liliha to Kaimuki/Kapahulu and up to the University of Hawaii (UH) on Kapi'olani Boulevard, not on King Street. Visit - www.thebus.org, or call 768-8365 to talk to DTS.
   B. Help for the Department of Education (DOE) - As the DOE cut school bus service, DTS will enhance bus service for some routes. There will be more crowding.

State Senator Carol Fukunaga - No representative was present, but the newsletter was available.

State Senator Brickwood Galuteria - Dale Uno distributed the newsletter and was available to hear concerns.

State Representative Tom Brower - Representative Brower reported the following:

1. Liquor License for Kissaten Restaurant at Hawaiki Tower - Representative Brower thanked the Ala Moana/Kakaako Neighborhood Board No. 11 for opposing the granting of a liquor license.

2. Kakaako Waterfront Park - It appears that homeless people are moving there. Board member Okumoto added that the homeless are moving around and establishing campsites, as they are not going to the shelters.

State Representative Karl Rhoads - Sonny Le reported the following:
1. Senate Bill 2630 (Act 297) - It would authorize the liquor commission in a county with a population of over 700,000 to establish a pilot program that uses both the dBA and the dBC weighting system for the purpose of community noise control. The measure was signed into law by Governor Neil Abercrombie on July 10, 2012.
2. McKinley High School Going Green Day - It will be on Saturday, August 25 from 9:00 a.m. to 1:00 p.m.

State Representative Scott Saiki - Representative Saiki distributed his newsletter and reported the following:
1. Governor's Vetoed Bills - His report listed the vetoed bills.
2. Homeless - Representative Saiki was also concerned about the homeless.

Governor Neil Abercrombie's Representative - Barbara Krieg had submitted her written report to Chair Hurst.

PRESENTATIONS/BOARD BUSINESS

Makahiki Autumn Festival "Block Party" and the Closing of Keeaumoku Street - Rick Taniguchi and Clifford Chang of DB Productions, and the City & County of Honolulu are exploring the possibility of holding a block party for the revitalization of the area for the merchants on Saturday, September 29 on Rycroft Street at Keeaumoku Street. It would be totally cultural with no liquor or rock bands. The merchants would get involved. They just wanted to come and listen.

Comments followed:
1. Bad Idea - It is a high crime area and Keeaumoku Street should not be blocked off, as it is a major thoroughfare.
2. Korean Chamber of Commerce - This project will be on the Korean Chamber of Commerce's next month's agenda.

APPROVAL OF JULY 24, 2012 REGULAR MEETING MINUTES: Chair Hurst mentioned that he made no corrections. **Zehner moved; and Sensui seconded that the Ala Moana/Kakaako Neighborhood Board No. 11 APPROVE the July 24, 2012 regular meeting minutes as written. As there were no objections, the Ala Moana/Kakaako Neighborhood Board No. 11 ADOPTED the motion by UNANIMOUS CONSENT, 9-0-0** (**AYE**: Hurst, Ibara, Kato, Minn, Okumoto, Sensui, Shiota, Tanimura, and Zehner)**.**

ELECTION OF BOARD OFFICERS: **Zehner moved; and Shiota seconded that the Ala Moana/Kakaako Neighborhood Board No. 11 keep the same officers as last year. As there were no objections, the Ala Moana/Kakaako Neighborhood Board No. 11 ADOPTED the motion by UNANIMOUS CONSENT, 9-0-0** (**AYE**: Hurst, Ibara, Kato, Minn, Okumoto, Sensui, Shiota, Tanimura, and Zehner)**.**

TREASURER'S REPORT: Shiota reported that the Fiscal Year (FY) 2012 Allocation was $574.00. After expenditures for the printing of the agendas and minutes, the balance, as of July 24, 2012 was $189.31. The Treasurer's report was filed.

ANNOUNCEMENTS

1. Next meeting - The next meeting of the Ala Moana/Kakaako Neighborhood Board No. 11 will be on **Tuesday, August 28, 2012** at 7:00 p.m. at Makiki Christian Church, 829 Pensacola Street.
2. **No Loitering** on Church Grounds after Board Meetings (after 9:00 p.m.)

ADJOURNMENT: The meeting adjourned at 9:00 p.m.

Submitted by: K. Russell Ho, Neighborhood Assistant
Reviewed by: Adam LeFebvre, Neighborhood Assistant
Reviewed by: Larry Hurst, Chair

SECTION 2

Oahu Island Burial Council

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ESTHER KIA'AINA
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

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
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD STE 555
KAPOLEI HI 96707

AGENDA
OAHU ISLAND BURIAL COUNCIL MEETING

DATE: **Wednesday, November 14, 2012**
TIME: **10AM**
PLACE: **Department of Land and Natural Resources**
Board Room
Kalanimoku Building, 1st Floor
1151 Punchbowl Street
Honolulu, Hawaii 96813

I. CALL TO ORDER

II. ROLL CALL/PULE

III. APPROVAL OF MINUTES

September 12, 2012 **October 10, 212**

IV. NEW BUSINESS

A. Department's Recommendation to Recognize Paulette Kaanohiokalani Kaleikini and Ohana (List of Names Provided to Council via Review Letter) as Cultural Descendants to Unidentified Human Skeletal Remains Found on State Lands Seaward of the Hoakalei Resort Development Project, Honouliuli Ahupuaa, Ewa District, Island of Oahu.
Discussion/Determination: Discussion and determination to recognize above individual and ohana (list will be provided to council members at meeting) as cultural descendants to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

B. **Ola Ka Ilima Project, Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-003:040.**
Information/Recommendation: Introduction of proposed affordable housing and creative art space/cultural center.

C. Clarification by the Office of Information Practices Regarding Quorum, Composition and Task Force.
Information/Recommendation: Update by the Office of Information Practice regarding the guidelines on receiving testimony without quorum, the burial council's composition and the role, responsibility and life of a task force.

D. Discovery Human Skeletal Remains in Phase IV City Center of the Honolulu Rapid Transit Corridor, Waikiki Ahupuaa, Kona District, Island of Oahu.
Information/Discussion/Recommendation: Update on the project and discussion of above finds in test trenches 141 and 142.

V. OLD BUSINESS

A. Draft Burial Treatment Plan for the Hauula Community Park Wastewater System Reconstruction Project, Hauula Ahupuaa, Koolauloa District, Oahu Island, TMK: 5-4-009:007 por.
Discussion/Recommendation/Determination: Discussion of above plan and council's *determination* on whether or not to preserve in place or relocate human skeletal remains. Discussion of above plan and council's *recommendation* to State Historic Preservation Division on whether or not to approve above plan.

B. Draft Burial Treatment Plan for SIHP 50-80-14-7308 at the International Market Place Re-Development Project, Waikiki Ahupuaa, Honolulu (Kona) District, Island of Oahu, TMK: 2-6-022:038.
Discussion/Recommendation/Determination: Discussion of above plan and council's *determination* on whether or not to preserve in place or relocate human skeletal remains. Discussion of above plan and council's *recommendation* to State Historic Preservation Division on whether or not to approve above plan.

C. Ala Moana Center Ewa Expansion Project, Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-038:011.
Information/Discussion/Recommendation: Discussion and update of above project, the consultation process and the archaeological inventory survey.

D. **Kawaiahao Church Multi-Purpose Building Renovation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 2-1-032:017.**
Information/Discussion: Discussion of above project.

VI. INADVERTENT DISCOVERIES

A. Inadvertent Discovery of Human Skeletal Remains at Waihonua, Kakaako, Waikiki Ahupuaa, Honolulu (Kona) District, Island of Oahu, TMK: 2-3-006:017.
Information/Recommendation: Discussion on the above discoveries identified as burials 22, 23 and 24.

B. Inadvertent Discovery of Human Skeletal Remain found in Nimitz Highway fronting Aloha Tower Market Place.
Information/Recommendation: Discussion on the above discovery.

C. Inadvertent Discovery of Human Skeletal Remains found in Sidewalk fronting IBM Building.
Information/Recommendation: Discussion on the above discovery

VII. CORRESPONDENCE

A. National Historic Preservation Act- Section 106 Consultation for Interstate Route H-1 Rehabilitation, Middle Street to Vicinity of Ward Avenue, Honolulu, Kapalama and Kalihi Ahupuaa, Kona District, Island of Oahu.
Information/Recommendation: Discussion and possible recommendations for above correspondence.

B. Section 106, Marine Corps Base Hawaii, Proposed Project to Repair the Ground System Along the Perimeter Fence at Marine Corps Training Area Bellows (MCTAB), Waimanalo Ahupuaa, Koolaupoko District, Island of Oahu, TMK: 4-1-015:001
Information/Recommendation: Discussion and possible recommendations for above correspondence.

C. Request for Consultation Regarding the Development of an Archaeological Inventory Survey Plan for the Ward Neighborhood Master Plan Project Phase I, Kakaako Ahupuaa, Kona District, Island of Oahu, TMK: 2-1-050:001, 061 & 062; 2-3-001:001 & 004 and 2-3-005:019 & 017.
Information/Recommendation: Discussion and possible recommendations for above correspondence.

VIII. ANNOUNCEMENTS

A. Next meeting date is scheduled for Wednesday, December 12, 2012.

IX. ADJOURNMENT

Pursuant to §92-3 HRS, all interested persons shall be afforded an opportunity to present oral testimony or submit data, views, or arguments, in writing on any agenda item. Additionally, pursuant to a policy adopted by the Oahu Island Burial Council at its September 14, 2005 meeting, oral testimony for items listed on the agenda is limited to three minutes per person, per agenda item.

Pursuant to sections §92-4, §92-5(a)(8), and §6E-43.5, Hawaii Revised Statutes (HRS), and upon compliance with the procedures set forth in section 92-4, HRS, the council may go into a closed meeting to consider information that involves the location or description of a burial site.

A request to be placed on a burial council meeting agenda must be made with the Burial Sites Program staff at least two weeks preceding the scheduled meeting date. In addition, the request must be accompanied by all related documents. Failure to comply with this procedure will delay the item to the following month's agenda.

Materials related to items on the agenda are available for review at the State Historic Preservation Division in room 555 of the Kakuhihewa Building located at 601 Kamokila Boulevard, Kapolei, Hawaii 96707. Persons with disabilities requiring special assistance should contact the division in advance at (808) 692-8015.

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ESTHER KIA'AINA
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

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
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD STE 555
KAPOLEI HI 96707

MINUTES
OAHU ISLAND BURIAL COUNCIL MEETING

DATE: **Wednesday, April 10, 2013**
TIME: **10:00am**
PLACE: **Department of Land and Natural Resources**
Kalanimoku Building-Board Room
1151 Punchbowl Street
Honolulu, Hawaii 96813

ATTENDANCE:

Members:
Hinaleimoana Wong-Kalu, Chair
Jonathan Scheuer, Vice-Chair
Steve Hoag
Aaron Mahi
Chuck Ehrhorn
Danna Holck

Staff: Kawika Farm, Burial Sites Specialist

Absent:

Shad Kane	Excused
Pokii Magallanes	Excused
Kali Fermantez	

Guest:

Lopaka Asam	Len Lorenzo
Lana Lorenzo	Kalani Asam
Tom Dye	Kawika McKeague
Kevin Miyamura	Donna Makaiwi
Kaanohi Kaleikini	JR Keoneakapu William
Mana Caceres	Kekaimalino Kaopio
Bryan Nakamura	Gary Omori
Lani Lapilio	Haaheo Guanson
Kaleo Patterson	Matt McDermott
Lily Felton	Kamaile Maldonado
Jerome Yasuhara	Vicky Takamine Holt
Faith Miyamoto	

I. CALL TO ORDER/PULE

The Oahu Island Burial Council (OIBC) chair, Hinaleimoana Wong-Kalu called the meeting to order at 10:14am.

II. ROLL CALL/PULE

Wong-Kalu gave the *pule wehe*. OIBC members; Wong-Kalu, Jonathan Scheuer, Chuck Ehrhorn, Steve Hoag and Danna Holck introduced themselves. From the State Historic Preservation Division (SHPD), Kawika Farm introduced himself.

Scheuer informed the audience that the OIBC would move through the agenda as quickly as possible due to members needing to leave which would leave the council without quorum.

III. MINUTES

Wong-Kalu asked that approval of the minutes be deferred.

IV. BUSINESS

Scheuer informed the audience that those individuals up for recognition before the OIBC had the right to request their item be discussed in executive session.

A. Department's Recommendation to Recognize Justin Kepoohunaikeauoli Keliipaakaua as a Cultural Descendant to Unidentified Human Skeletal Remains Found in Phase IV City Center for Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 1-7-002:026, 2-1-051, 2-1-050:067 & 2-3-002:001.
Discussion/Determination: Discussion and determination to recognize above individual as a cultural descendant to unidentified human skeletal remains at above project.

Scheuer moved and Ehrhorn seconded, that the burial council accept the recommendation by the department to recognize Justin Kepoohunaikeauoli Keliipaakaua (Scheuer clarified the last name is one name and not separated) as a cultural descendant to unidentified human skeletal remains found in Phase IV City Center for Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 1-7-002:026, 2-1-051, 2-1-050:067 & 2-3-002:001.

Kaanohi Kaleikini supported the recognition of the named individual as he is her sister's grandson.

VOTE: ALL IN FAVOR. Motion carried.

B. Department's Recommendation to Recognize Bruce Yoshio Keaulani as a Cultural Descendant to Unidentified Human Skeletal Remains Found in Phase IV City Center for Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 1-7-002:026, 2-1-051, 2-1-050:067 & 2-3-002:001.
Discussion/Determination: Discussion and determination to recognize above individual as a cultural descendant to unidentified human skeletal remains at above project.

Scheuer moved and Holck seconded, that we [the burial council] accept the department's recommendation to recognize Bruce Yoshio Keaulani as a cultural descendant to unidentified human skeletal remains found in Phase IV City Center for

Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 1-7-002:026, 2-1-051, 2-1-050:067 & 2-3-002:001.

Kaleikini wanted to know what process the genealogist hired by Honolulu Authority for Rapid Transportation (HART) followed and if the genealogist followed the same rules as SHPD. Kaleikini wanted assurance the genealogist was not rushing applications through the process and did not want anyone to think that cultural recognition should be taken lightly. Kaleikini did not object to claimants coming forward seeking cultural recognition as descendants if they wanted to *malama* the *iwi* of their *kupuna,* she was concerned that some claimants were coming forward with other intentions that were not *pono*. Kaleikini wanted the council to scrutinize every claimant seeking cultural recognition to ascertain the merit of their request.

Lopaka Asam felt all *kanaka maoli* had the right to come forward as cultural descendants.

Farm said SHPD had a backlog of applications from claimants seeking cultural recognition. To address the matter, SHPD initiated discussion with representatives of HART about the possibility of HART hiring their own genealogist to conduct a preliminary review of potential applicants following Hawaii Administrative Rules (HAR). SHPD would then review the applications of those claimants the genealogist felt met the standards of a cultural descendant and draft a recommendation to the OIBC for determination. Farm said the OIBC is the deciding body regarding recognition of descendants and that the OIBC could always move into executive session to cross examine claimants if the OIBC felt SHPD had erred in its recommendation.

Lenneth Lorenzo said he is the genealogist hired by HART. Lorenzo said he reviewed a claimant's application and submitted a report to SHPD. Lorenzo said he was not a decision maker in the process and that he was simply assisting potential claimants. Lorenzo acknowledged that recognition could only be granted by the OIBC.

Scheuer wanted to know if claimants had the option of having only SHPD review their application to which Farm answered yes. Scheuer wanted to know how the process that HART's genealogist followed differed from the process utilized by SHPD. Farm said the process was the same except that HART's genealogist had more time to dedicate specifically to review applications submitted by claimants. Scheuer wanted to know what SHPD did with the reports the genealogist submitted to SHPD. Farm said SHPD would meet with the genealogist to go over each report and address any concerns or discrepancies and reminded the council that SHPD ultimately drafts the recommendation to the council on whether a claimant should be recognized as a descendant.

Wong-Kalu said she was part of the selection process of hiring HART's genealogist.

Farm said SHPD has been seeking clarification from the attorney general's (AG) office regarding the standards of a cultural descendant. Farm said HAR did not contain language which specifically addressed the time period a claimant needed to established genealogical connections to and that previous guidance from the AG's office interpreted the rules very loosely. Farm said the rules simply stated that a cultural descendant must establish genealogical connections to someone that once resided, is buried or both in an ahupuaa and was told that a change in HAR may be warranted. Farm disagreed with loosely interpreting HAR as suggested by the AG's office.

Asam preferred someone from the AG's office weigh in on the issue. Wong-Kalu said the AGs are not cultural resources and wanted to hear from Farm as SHPD's representative from the history and culture branch.

Farm said cultural recognition was created for those claimants seeking recognition as a lineal descendant but could not positively identify who the encountered burial was. Farm said historically, Hawaiians that lived in a particular area more than likely were related and that if claimants failed to prove who the burial was but established a genealogical connection to someone from that particular area, then the claimant should be afforded cultural recognition. Farm did not think HAR meant to recognize claimants as cultural descendants who could only establish a genealogical connection one or two generations ago. Farm said HART's genealogist had the discretion to push claimants to establish genealogical connections much further then SHPD. Farm said SHPD was still clarifying the matter with the AG's office. Farm said SHPD's recommendation to the OIBC is based on its review of everything submitted by a claimant. Farm said the council could always questions claimants directly if the council disagreed with SHPD's recommendation as the council had the final say on recognition.

Wong-Kalu felt a cultural perspective was very important and did not think the AG's office necessarily understood the cultural aspect or implications of HAR.

Kaleikini said she challenged the lineal recognition afforded to claimants by the council in another matter and successfully had the claimants stripped of their lineal recognition. Kaleikini said the rules are very important and agreed with prior a comment made that the AG's office needed to weigh in on the matter for clarification. Kaleikini did not want cultural recognition taken lightly because she was not sure if claimants coming forward would actually *malama* the *iwi*. Kaleikini suggested all recognition be deferred until the AG's office addressed the concerns raised. Kaleikini felt SHPD and the AG's office both needed to agree on the interpretation of cultural recognition.

Farm suggested the council move into executive session and question each claimant to their satisfaction prior to making a determination on whether the claimant should be afforded cultural recognition.

Kaleikini disagreed with Farm's suggestion and wanted the matter clarified with the AG's office. Kaleikini reiterated her request to defer all recognition until the matter has been addressed with and by the AG's office.

Scheuer moved and Ehrhorn seconded to move into executive session

Scheuer moved and Ehrhorn seconded to move out of executive session.

Scheuer withdrew his motion and Holck withdrew her seconding of that motion.

Scheuer said recognition was afforded to the individual in the previous agenda item because that individual had already been previously recognized to the Honolulu ahupuaa for other burials and projects.

Scheuer moved and Ehrhorn seconded to defer action on agenda items IV A, B, C, D and E and request the presence of an attorney general at the next OIBC meeting to discuss the standards applied when granting cultural recognition as well as issues pertaining to the use of an outside genealogist in support of SHPD's recommendation to the council.

VOTE: ALL IN FAVOR. Motion carried.

C. Department's Recommendation to Recognize Euel Ray Kaleihau Kamauu as a Cultural Descendant to Unidentified Human Skeletal Remains Found in Phase IV City

Center for Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 1-7-002:026, 2-1-051, 2-1-050:067 & 2-3-002:001.
Discussion/Determination: Discussion and determination to recognize above individual as a cultural descendant to unidentified human skeletal remains at above project.

Item was deferred.

D. Department's Recommendation to Recognize Baldo Alfred Kaleo Patterson, Jordan Patterson and Josiah Patterson as Cultural Descendants to Unidentified Human Skeletal Remains Found in Phase IV City Center for Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 1-7-002:026, 2-1-051, 2-1-050:067 & 2-3-002:001.
Discussion/Determination: Discussion and determination to recognize above individuals as cultural descendants to unidentified human skeletal remains at above project.

Item was deferred.

E. Department's Recommendation to Recognize Dixie Kuulei Afoa Kalamau as a Cultural Descendant to Unidentified Human Skeletal Remains Found in Phase IV City Center for Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 1-7-002:026, 2-1-051, 2-1-050:067 & 2-3-002:001.
Discussion/Determination: Discussion and determination to recognize above individual as a cultural descendant to unidentified human skeletal remains at above project.

Item was deferred.

F. Ola Ka Ilima Project, Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-03:040.
Information/Discussion/Recommendations: Update and discussion of above project and creative art space/cultural center.

Kawika McKeague of PAI introduced Vicky Holt Takamine also of PAI, Tom Dye the project's archaeologist and Kevin Miyamura the project's architect. McKeague said the project was an affordable housing development geared towards artists. McKeague said PAI was partnered with Art Space and that the project was located in Kewalo. McKeague said they were before the council to present the conceptual design on what the project would look like which would guide the archaeological work that needed to occur.

Miyamura went over a PowerPoint presentation and said the project would have 80 units over two floors of parking. Miyamura said the project tried to reduce proposed construction to minimize the potential impact on *iwi* that may be present.

Dye said the project conducted soil boring which were monitored by an archaeologist. Monitoring revealed the presence of a sand layer throughout the property which potentially contains *iwi kupuna*. Dye said an archaeological inventory survey (AIS) would be conducted for the entire project area that will be impacted by construction. Test trenches would be placed throughout the entire foundation of the proposed project.

Ehrhorn wanted to know how the project proposed to handle the possible encounter of skeletal fragments within the fill layer throughout the project. Dye was not concerned about skeletal fragments within the fill layers as he thought the probability of such encounter was relatively low. Dye thought the matter would need to be addressed on a case by case basis. McKeague said the project would do what makes sense and is *pono*.

Aaron Mahi enters the meeting at 11:33am.

Miyamura said the project completed approximately 33% of its design.

Wong-Kalu informed the audience of McKeague's contact info and encouraged interested parties to consult with the project's representatives.

G. Update on Legislative Bills and Measures.
Information/Discussion/Recommendation: Update on bills and measures that relate to burial councils.

Kamaile Maldonado from the Office of Hawaiian Affairs (OHA) went over her handout of bills that relate to burial councils. Maldonado covered Senate Bill 407 which sought to clarify statutory provisions relating to composition and quorum of island burial councils. Maldonado said the language of SB407 was still being worked out. Maldonado handed the council OHA's most updated draft of SB407 and went over the changes made. Maldonado said SB1171 which would permit the phased review of certain projects by SHPD passed third reading before the House and would now be transmitted to the Senate.

Scheuer informed the audience that General Measure 729 which involved the confirmation of Wong-Kalu to a second term on the OIBC would be heard later in the afternoon.

H. Archaeological Inventory Survey work of Phase IV City Center for Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu.
Update/Information/Discussion/Recommendation: Update and discussion of human skeletal remains identified within trench 227 A and trench 226 C.

Kaleo Patterson, Lani Maa Lapilio, Faith Miyamoto and Matt McDermott came before the council to discuss the subject agenda item. McDermott of Cultural Surveys Hawaii (CSH) said SHPD submitted comments for the AIS which covered the airport area and CSH was currently working on the requested revisions. McDermott said the AIS report for Phase IV City Center was submitted to SHPD on April 8 for review. McDermott said the report was posted on HART's webpage and was approximately 4500 pages. McDermott said the public could download the AIS report from HART's webpage and recommended focusing on volume I.

Miyamoto the chief planner for HART said a misunderstanding occurred at HART's most recent consultation meeting and asked Lapilio to clarify the matter.

Lapilio of Aukahi said HART held six consultation meetings, five open meetings for all interested parities and one meeting for recognized descendants which was convened and cancelled. Lapilio said HART would continue to have open meetings, but would also have closed meetings for recognized descendants only. The meeting for recognized descendants would focus on specific treatment for the *iwi* encountered during the AIS. The project aimed to hold two meetings a month, one open and one closed in addition to coming before the OIBC offering multiple opportunities for consultation. Lapilio said the most recent meeting for recognized descendants was cancelled because there were other individuals that showed up for the meeting that were not recognized as cultural descendants and refused to leave.

Kaleikini reiterated concern about HART's hiring of a genealogist and did not want the review of applications expedited. Kaleikini felt it was important that all reviews are done thoroughly and in a *pono* manner. Kaleikini did not think all the claimants coming forward should be recognized as cultural descendants.

Kalani Asam (K Asam) said he continues to learn about the process but asked that other Hawaiians be mindful of others that want to participate in the consultation process.

Patterson agreed the process was very important and appreciated the work HART's genealogist and SHPD did.

Asam also felt all Hawaiians had the responsibility to care for their ancestors and would advocate for the best interest of all *iwi* that is Native Hawaiian. Asam did not like when Hawaiians fought amongst themselves.

Kaleikini hoped Asam would reiterate his comments if and when *iwi* are encountered and proposed for relocation. Kaleikini said in historic times not anyone could *malama* the *iwi* and that those that cared for the *iwi* were chosen. Kaleikini felt only family should care for the bones of their ancestors. Kaleikini felt the recognition process was extremely important and felt SHPD and the OIBC had a very important role. Kalekini questioned whether all the claimants seeking recognition as cultural descendants fully understood the *kuleana* associated with their recognition. Kaleikini expects all recognized descendants to follow through with their *kuleana* to *malama* the *iwi* of their *kupuna*. Kaleikini felt many of the claimants seeking recognition as cultural descendants were only coming forward to pursue the financial benefit of becoming a cultural monitor. Kaleikini said many of the cultural descendants already recognized don't even participate with *kanu* ceremonies. Kaleikini said very few recognized descendants actually come out to fulfill their *kuleana* as cultural descendants. Kaleikini pleaded with the council to be very careful with who is afforded recognition as a cultural descendant.

Asam reiterated his comments that Hawaiians are responsible for caring for the bones of their ancestors and did not want any Hawaiian skeletal remains cared for by non-Hawaiians.

Wong-Kalu said it was okay for Hawaiians to disagree as long as the issue was kept in perspective. Wong-Kalu said the process of submitting genealogical information to SHPD and coming before the burial council for recognition as a cultural descendant was the law and rules that must currently be followed. Wong-Kalu reminded everyone why they were at the meeting which is to *malama* the *iwi* of their *kupuna* and felt that should be a claimant's purpose. Wong-Kalu agreed that individuals, whose purpose was not for the care of their ancestors, should not come forward as a cultural descendant.

I. Kawaiahao Church Multi-Purpose Building Renovation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 2-1-032:017.
Update/Information/Discussion/Recommendation: Update and discussion of above project.

Scheuer said the OIBC passed four motions at their previous meeting regarding Kawaiahao Church. The first pertained to the OIBC mediating with the church to resolve the situation outside of the court system. The second enabled the OIBC to respond should any of the parties appeal the intermediate court of appeals ruling. The third sought to secure legal council separate from the AG's office. The fourth delegated authority to the chair and vice-chair to act on behalf of the OIBC and manage the issues involving Kawaiahao. Scheuer said he and the chair have been actively pursuing each motion previously made by the council at a prior meeting. Scheuer said they reached a road block regarding whether the OIBC could seek outside legal council. Scheuer said a worst case scenario would involve either he or the chair or both to respond to the court system as individuals and not members of the OIBC.

V. INADVERTENT DISCOVERIES

A. Hale Mohall II Development Project, Waimano Ahupuaa, Ewa District, Island of Oahu, TMK: 9-7-019:035.

Update/Information/Discussion/Recommendation: Update and discussion of above project and disturbance of area slated for preservation.

McDermott of CSH said the most recent finds involved two individuals. One individual appeared supine and the other appeared flexed. The current finds are approximately 50-60 feet from a designated preservation site and was encountered during trenching for a sewer line. The project on its own decided to reroute the sewer line so that the burial at least had the option of being preserved in place. The burials could also be relocated to the established preservation area and the project was awaiting SHPD's determination.

Scheuer wanted to know what was being constructed to which McDermott answered elderly and low affordable housing units.

McDermott said the burials were found in a hard clay layer. Scheuer informed the audience that these finds were proof that burials are found in other stratigraphy and not just jaucus sand layers.

VI. ANNOUNCEMENTS

A. Next meeting date is scheduled for Wednesday, May 8, 2013.

B. Submittal and confirmation of GM729 for Hinaleimoana Wong-Kalu.

Scheuer reminded the audience of Wong-Kalu's confirmation at 2:45 in room 224 at the State Capitol and encouraged people to attend in support for Wong-Kalu.

VII. ADJOURNMENT

Scheuer moved and Mahi seconded to adjourn the meeting at 12:50pm.

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ESTHER KIA'AINA
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

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
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD STE 555
KAPOLEI HI 96707

AMENDED

AGENDA
OAHU ISLAND BURIAL COUNCIL MEETING

DATE: **Wednesday, December 11, 2013**
TIME: **10AM**
PLACE: **Department of Land and Natural Resources**
Board Room
Kalanimoku Building, 1st Floor
1151 Punchbowl Street
Honolulu, Hawaii 96813

I. CALL TO ORDER

II. ROLL CALL/PULE

III. MINUTES

September 11, 2013 **November 13, 2013**

IV. BUSINESS

A. Department's Recommendation to Recognize Kanaloa Kanaina Kakino Koko as a cultural descendant to Human Skeletal Remains Found in Phase IV City Center for Honolulu Authority for Rapid Transportation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 1-7-002:026, 2-1-051, 2-1-050:067 and 2-3-002:001.
Discussion/Determination: Discussion and determination to recognize above individual as a cultural descendant to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

B. Department's Recommendation to Recognize Michael Kumukauoha Lee as a Cultural Descendant to Unidentified Human Skeletal Remains Encountered at Princess Kaiulani Redevelopment Project, Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-6-022:001 and 041.

Discussion/Determination: Discussion and determination to recognize the above individual as a cultural descendant to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

C. **Department's Recommendation to Recognize Michael Kumukauoha Lee as a Cultural Descendant to Unidentified Human Skeletal Remains Encountered with State Department of Transportation's Nimitz Highway and Ala Moana Boulevard Resurfacing and Highway Lighting Replacement Project (Aloha Tower Market Place/Hawaiian Electric Company), Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 2-1-014:006.**
Discussion/Determination: Discussion and determination to recognize the above individual as cultural descendant to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

D. **Department's Recommendation to Recognize Michael Kumukauoha Lee as a Cultural Descendant to Unidentified Human Skeletal Remains Encountered with State Department of Transportation's Nimitz Highway and Ala Moana Boulevard Resurfacing and Highway Lighting Replacement Project (IBM Building/ Goodfellows Brothers, Inc.), Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-005:004.**
Discussion/Determination: Discussion and determination to recognize the above individual as a cultural descendant to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

E. **Department's Recommendation to Recognize the Named Individuals (See Attached List) as Cultural Descendants to Unidentified Human Skeletal Remains Encountered at Waihonua Development Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-006:017.**
Discussion/Determination: Discussion and determination to recognize the named individuals as cultural descendant to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

F. **Department's Recommendation to Recognize the Named Individuals (See Attached List) as Cultural Descendants to Unidentified Human Skeletal Remains Encountered at TMK: (1) 9-1-134:018 and Reinterred at the Kauhale Preserve Site: 50-80-14-3201, Honouliuli Ahupuaa, Ewa District, Island of Oahu, TMK: 9-1-134:007 & 029.**
Discussion/Determination: Discussion and determination to recognize named individuals as cultural descendants to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

G. **Department's Recommendation to Recognize the Named Individuals (See Attached List) as Cultural Descendants to Unidentified Human Skeletal Remains Found at International Market Place, Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-6-022: 036-039 & 043.**
Discussion/Determination: Discussion and determination to recognize named individuals as cultural descendants to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

H. **Department's Recommendation to Recognize the Named Individuals (See Attached List) as Cultural Descendants to Unidentified Human Skeletal Remains Encountered During Archaeological Inventory Survey for Aloha Solar Energy Farm 2, Honouliuli Ahupuaa, Ewa District, Island of Oahu, TMK: 9-1-013:070.**
Discussion/Determination: Discussion and determination to recognize named individuals as cultural descendants to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

I. **Department's Recommendation to Recognize William P. Haole, III as a Cultural Descendant to Unidentified Human Skeletal Remain Found with State Department of Transportation's Nimitz Highway and Ala Moana Boulevard Resurfacing and Highway Lighting Replacement Project (IBM Building/GoodFellows Brothers Inc.), Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-005:004.**
Discussion/Determination: Discussion and determination to recognize above individual as a cultural descendant to unidentified human skeletal remains at above project.

The council may elect to go into executive session pursuant to HAR §13-300-25 (d) Meetings. The council may close a meeting whenever location or description of a Native Hawaiian burial site is under consideration. The chairperson, by concurrence of a

majority of members present at the meeting, shall be authorized to require the public to leave the meeting while the confidential matter is being discussed and reopen the meeting once the confidential matter is no longer being considered.

J. **Draft Burial Treatment Plan for SIHP# 50-80-14-7435 for the Nimitz Highway & Ala Moana Boulevard Resurfacing and Highway Lighting Replacement Project, Honolulu and Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-1-Various; 2-3-Various; 2-6-Various: Nimitz Highway and Ala Moana Boulevard Right-of-Way.**
Information/Discussion/Recommendation: Discussion on the above plan.

K. **Central YMCA Redevelopment/Aloha Kai Project, Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-036:005.**
Information/Discussion/Recommendation: Introduction and discussion on the above project.

L. **Archaeological Inventory Survey Work for the Proposed Pai/Art Space Project at Waimanu Street, Honolulu Ahupuaa, Kona Distict, Island of Oahu, TMK: 2-3-003:038.**
Information/Discussion/Recommendation: Informational update on the above project.

M. **Kamehameha Schools- Kaiaulu O Kakaako Master Plan, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 2-1-056:002, 007 and 008.**
Information/Discussion/Recommendation: Update and discussion on the above project.

N. **Ala Moana Center Ewa Expansion Project, Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-038:011.**
Information/Discussion/Recommendation: Update and discussion on the above project.

O. **King's Village Project, Waikiki Ahupuaa, Kona District, Island of Oahu, TMK: 2-6-023, 029, 037 and 076.**
Information/Discussion/Recommendation: Update and discussion on the above project.

P. **Honolulu Authority for Rapid Transportation Project, Multiple Ahupuaa, Multiple Districts, Island of Oahu, Multiple TMK.**
Information/Discussion/Recommendation: Update and discussion on above project.

Q. **Kunia Mauka Loa Ridge C&C Farmlands Project, Honouliuli Ahupuaa, Ewa District, Island of Oahu, TMK: 9-2-004.**
Information/Discussion/Recommendation: Update by task force and discussion on above project.

R. **Kawaiahao Church Multi-Purpose Building Renovation Project, Honolulu Ahupuaa, Kona District, Island of Oahu, TMK: 2-1-032:017.**
Information/Discussion/Recommendation: Update and discussion on most recent court ruling related to above project.

V. INADVERTENT DISCOVERIES/OTHER CORRESPONDENCE

A. **Inadvertent Discovery of Unidentified Human Skeletal Remains Along Farrington Highway, Keaau Ahupuaa, Waianae District, Island of Oahu, TMK: 8-3-001:036.**
Information/Discussion/Recommendation: Discussion on the above find.

B. **Request for Information Regarding Preparation of a Cultural Impact Assessment for Proposed Kaimuki Pump Station Redevelopment Project, Kaimuki Ahupuaa, Kona District, Island of Oahu, TMK: 2-7-030:012 and 055.**

Information/Discussion/Recommendation: Discussion on above correspondence.

C. **Follow up Letter Regarding Invitation to Participate as a Native Hawaiian Organization as Part of NAGPRA (Native American Graves Protection and Repatriation Act) Regarding the Proposed Kapolei High School RELO AT&T Site, Honouliuli Ahupuaa, Ewa District, Island of Oahu, TMK: 9-1-016:074.**
Information/Discussion/Recommendation: Discussion on above correspondence.

D. **Cultural Surveys Hawaii's Request for Consultation Regarding Archaeological Inventory Survey Plans for the Ward Neighborhood Master Plan Project, Honolulu, Ahupuaa, Kona District, Island of Oahu, TMK: 2-3-001:005; 2-3-002:001, 067, 086 & 087; 2-3-003:001; 2-1-052:011, 012, 020, 022, 024, 027, 028, 031-036, 038-040 & 051-053.**
Information/Discussion/Recommendation: Discussion on above correspondence.

E. **Section 106 Consultation Request Regarding Relocation of Marine Unmanned Aircraft System Squadron Three to Hawaii Aboard Marine Corps Base Hawaii, Kaneohe Bay and Aboard Wheeler Army Airfield, Kaneohe and Waianae Ahupuaa, Koolaupoko and Waianae District, Island of Oahu, TMK: 4-4-008:001 and 7-7-001.**
Information/Discussion/Recommendation: Discussion on above correspondence.

F. **Native American Graves Protection and Repatriation Act (NAGPRA) Federal Notification From the University of Texas, San Antonio Regarding the Donation of Two Human Skulls From Hawaii.**
Information/Discussion/Recommendation: Discussion on the above correspondence.

G. **Invitation to Oahu Burial Council Members to Attend Free Training Relating to Native Hawaiian Cultural and Natural Resources.**
Information/Discussion/Recommendation: Discussion on above correspondence.

VI. ANNOUNCEMENTS

A. **Next meeting date is scheduled for Wednesday, January 8, at 10am.**

VII. ADJOURNMENT

Pursuant to §92-3 HRS, all interested persons shall be afforded an opportunity to present oral testimony or submit data, views, or arguments, in writing on any agenda item. Additionally, pursuant to a policy adopted by the Oahu Island Burial Council at its September 14, 2005 meeting, oral testimony for items listed on the agenda is limited to three minutes per person, per agenda item.

Pursuant to sections §92-4, §92-5(a)(8), and §6E-43.5, Hawaii Revised Statutes (HRS), and upon compliance with the procedures set forth in section 92-4, HRS, the council may go into a closed meeting to consider information that involves the location or description of a burial site.

A request to be placed on a burial council meeting agenda must be made with the Burial Sites Program staff at least two weeks preceding the scheduled meeting date. In addition, the request must be accompanied by all related documents. Failure to comply with this procedure will delay the item to the following month's agenda.

Materials related to items on the agenda are available for review at the State Historic Preservation Division in room 555 of the Kakuhihewa Building located at 601 Kamokila Boulevard, Kapolei, Hawaii 96707. Persons with disabilities requiring special assistance should contact the division in advance at (808) 692-8015.

List of Names for Agenda Item IV-E

Brandy Kalehua Kamohalii Caceres
Norman “Mana” Christopher Moore Kaleilani Caceres
Kekamamakoaakailihou Kaleilani Kamohalii Caceres
Keahealaiianiikekamaehuokahikiku Kiekiekananiokuuleilehua Kamohalii Caceres
Kekamakeuakauiikuhaoikalai Kalehuahiehie Kamohalii Caceres

List of Names for Agenda Item IV-F

Brandy Kalehua Kamohalii Caceres
Norman “Mana” Christopher Moore Kaleilani Caceres
Kekamamakoaakailihou Kaleilani Kamohalii Caceres
Keahealaiianiikekamaehuokahikiku Kiekiekananiokuuleilehua Kamohalii Caceres
Kekamakeuakauiikuhaoikalai Kalehuahiehie Kamohalii Caceres
Kimball Kekaimalino Kaopio

List of Names for Agenda Item IV-G

Brandy Kalehua Kamohalii Caceres
Norman “Mana” Christopher Moore Kaleilani Caceres
Kekamamakoaakailihou Kaleilani Kamohalii Caceres
Keahealaiianiikekamaehuokahikiku Kiekiekananiokuuleilehua Kamohalii Caceres
Kekamakeuakauiikuhaoikalai Kalehuahiehie Kamohalii Caceres

List of Names for Agenda Item IV-H

Paulette Kaanohiokalani Kaleikini
Moani Umiaimoku Kaleikini
Tuahine Kanekapolei Kaleikini
Kala Waahila Kaleikini
Kalahikiola Mahikeahi Keliinoi
Kilinahe Ialuamoku Keliinoi
Aliikaua Keawenuiaumi Kaleikini
Noeau Kamehanaokala Kaleikini
Haloa Kekoo Namakaokalani Kaleikini
Mahiaimoku Kekaulike Kaleikini
Moehonua Keaweamahi Kaleikini
Jim Medeiros Senior
Michael Lani Keaweamahi
April Leimomi Keaweamahi
Shanlyn Maile Keaweamahi Kanohokula
Brandy Kalehua Kamohalii Caceres
Norman “Mana” Christopher Moore Kaleilani Caceres
Kekamamakoaakailihou Kaleilani Kamohalii Caceres
Keahealaiianiikekamaehuokahikiku Kiekiekananiokuuleilehua Kamohalii Caceres
Kekamakeuakauiikuhaoikalai Kalehuahiehie Kamohalii Caceres
JR Keoneakapu Williams
Kimball Kekaimalino Kaopio

SECTION 3

Artist Community

May 22, 2012
Artist Community Meeting
ARTS at Mark's Garage
6-8 PM

Notices went out to mailing lists of Hawai'i Arts Alliance, ARTS at Mark's Garage and PAʻI informing artists of an informational meeting about the Ola Ka ʻIlima Artspace Lofts project in Kakaʻako.

Vicky Takamine, executive director of PAʻI, gave a history of her organization and its introduction to Artspace through the Ford Foundation.

Stacey Mickelson, vice president of Artspace gave a powerpoint presentation about the history of Artspace, what makes an Artspace project different from traditional affordable housing and what criteria is used to determine who is an artist.

Cathryn Vandenbrink, vice president of Artspace answered questions about how to qualify for Artspace housing, focusing primarily on the income certification and the artist screening process. Artists were interested in learning if there was a waiting list. It was explained that fair housing laws require that everyone have an equal opportunity to apply for affordable housing so there is not a formal waiting list before a property opens. The interest list is a way for artists to be informed by project updates but does not give them residential priority. Artists wanting to know what kind of activities would be allowed in the building. Residential code-compliant creative activities are allowed in Artspace buildings. Welding, glass blowing, amplified band practice and other non-code compliant activities are not allowed though the artists involved in those activities may choose to live in the building and arrange for those actions to happen elsewhere. Sculptors may use their space as design studio while fabricating pieces elsewhere. Artists asked how Artspace defines artist. Cathryn answered that artists in each community Artspace works in have a hand in creating the definition of artist for their project. A committee of artists that are multi-ethnic, multi-generational and multi-disciplined will work with Artspace on that definition and make up the initial artist screening committee.

SECTION 4

Descendent Families

PA'I

Sign In Sheet 6/18/13

Name	E-Mail	Phone
		(808) 852-8884
1) Urni Sexton	hauguinpeacemaker@gmail.com	
2) ~~GARY TAKAYAMA~~	~~gtakayama@aol.com~~	~~383-5991~~
3) ~~P. Takayama~~	~~ptakayama@hawaii.rr.com~~	
4. Susan Weenk	susanweinik@aol.com	382 1162
5 Kanaloa Koko	Kanaloa.koko@gmail.com	782 4493
6 Tom Dye	tsd@tsdye.com	808-387-9352
7. Kepoo Keliipoakaua		
8. Clarissa Kenui	clarissakenui@gmail.com	808-888-9200
9 Kaunohi Kaleikini	pkaleikini@hawaii.rr.com	
10 JR Keoneakapu Williams	Jrkeoneakapu@gmail.com	
11 Kekaimalino Kaopo	Kekaislife@yahoo.com	
12 Chiras 'Olidukeakua Naone	cnaone22@ymail.com	
13. Alii		
14 HINALEIMOANA WONG-KALU	farhine.hina@gmail.com	808-225-4123
15. Leinaala + Poomui Lopes		
16. Alii Corona	david.corona1188@yahoo.com	
17.) Darren Lopes	(808) 723-1121	
Kawika	Jennifer	Sivia Hutchinson
Cathryn	Lani	(808) 561-7668
Vickie	Greg	
Kalu		Poomui Lopes
Lorna		Leinaala Lopes
Kerm		2427 Maemalaha Rd
		Honolulu 96822

Descendant Family Meeting, HCDA Board Room, June 18, 2013, 6 pm – 8 pm

Presenters:

Introduction	Kawika McKeague, PAʻI Board President,
Project description	Vicky Takamine, Kumu Hula and PAʻI Executive Director
Artspace background	Cathryn Vandenbrink, Vice President, Properties, Artspace
Architectural design	Kevin Miyamura, Urban Works
Archeology Survey	Tom Dye, Tom S. Dye and Associates

Kawika McKeague, former chair of the Oʻahu Burial Council welcomed the families and thanked them for their diligence in malama na iwi kupuna. Kawika talked about the importance of doing this project right and hopes this will be a model for other projects. Kawika acknowledged this project is largely due to his Kumu, Vicky Takamine's ,vision and hard work and how the team will maintain the highest standards of creativity and sensitivity.

Vicky Takamine related how she learned of Artspace through a visit with the Ford Foundation to Seattle where she toured two existing Artspace projects. She talked about the need for artist housing in Honolulu for all artists and the need for permanent and affordable space for a native Hawaiian center for arts and culture. She spoke about the importance of working closely with the burial council and the descendant families as this Kakaʻako development moves forward.

Cathryn Vandenbrink talked about Artspace's mission to create, foster and preserve affordable space for artists and their families and for arts organizations. Artspace came to Honolulu at the invitation of PAʻI with support from the Ford Foundation. Cathryn talked about the importance Artspace places on engaging with the community through meetings with neighborhood stakeholders, like the descendant families.

Kevin Miyamura from Urban Works presented the schematic design of the project and discussed the building materials, the foundation system, size and height of the building and how the larger unit designs accommodate a wide variety of creative activities.

Tom Dye presented his plan for trenching on the site. Before any work is done the site will be thoroughly researched by his team of archeologists to determine if there are any iwi present. The trenching plan is derived from the structural plan. He invited descendent family members to observe this process on site.

Concerns/issues:

- Building footprint and structural foundation requirements;
- Approach and methodology to conducting the AIS;
- Inclusion and update to potential descendants that would step forward for recognition if iwi kūpuna encountered
- Comments about the programming of the space and assignment of residential units to Native Hawaiians as first preference.

- Comments about the flexibility of the design and how iwi kūpuna could be accommodated if found.
- OIBC Chair requested that we provide regular updates to OIBC and SHPD for the public record and the importance of keeping everyone abreast of the project activities.

Follow up meeting will be scheduled after AIS completed.

APPENDIX D

NATIONAL WETLAND MAP

AND

FEMA/FIRM MAP

SECTION 1

National Wetland Map

U.S. Fish and Wildlife Service

National Wetlands Inventory

Ola Ka `Ilima
Artspace Lofts

Dec 17, 2013

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

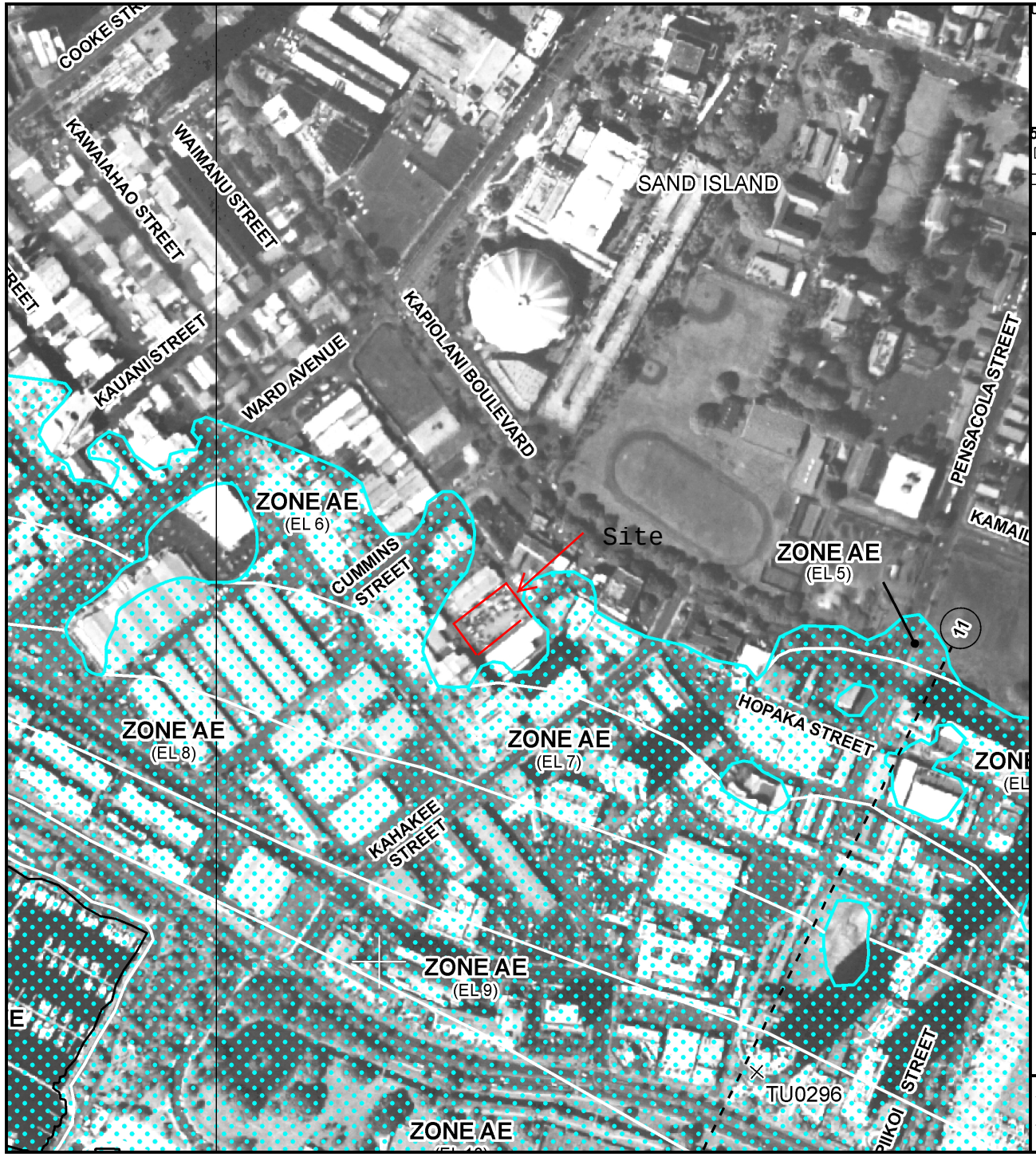
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

1025 Waimanu St.

SECTION 2

FEMA/FIRM Map



ional Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

50 0 500 1000 FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0362G

FIRM

FLOOD INSURANCE RATE MAP

CITY AND COUNTY OF HONOLULU, HAWAII

PANEL 362 OF 395

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HONOLULU, CITY AND COUNTY OF	150001	0362	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
15003C0362G

MAP REVISED
JANUARY 19, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

APPENDIX E

ARCHAEOLOGICAL INVENTORY SURVEY

T. S. Dye & Colleagues, Archaeologists, Inc.
735 Bishop St., Suite 315, Honolulu, Hawai'i 96813

Archaeological Inventory Survey for the Proposed Ola Ka 'Ilima Artspace Lofts Project*

Land of Honolulu, Kona District, O'ahu Island
TMK: (1) 2-3-003:040

Carl E. Sholin Nathan J. DiVito Thomas S. Dye, PhD

March 24, 2014

Abstract

At the request of Artspace, T. S. Dye & Colleagues, Archaeologists has completed an archaeological inventory survey for the proposed Ola Ka 'Ilima Artspace Lofts project, located at Honolulu, Kona District, O'ahu Island. Six backhoe trenches were excavated to coincide with places where a proposed building foundation has the potential to penetrate the thick application of fill material at the parcel and to have an adverse effect on historic properties. No historic properties were discovered during the archaeological inventory survey for the proposed Ola Ka 'Ilima Artspace Lofts project. Therefore, it is recommended that a determination of "no historic properties affected" be made for the proposed Ola Ka 'Ilima Artspace Lofts project.

Contents

1 Introduction **3**
1.1 Project Area 3
1.2 Project Authority and Standards 5

2 Background **5**
2.1 Natural Environment 5
2.2 Traditional and Historic Land Use 5
2.2.1 Place Names and Traditional History 6
2.2.2 Nineteenth-Century Maps of Kewalo 6
2.2.3 Land Tenure of the Proposed Ola Ka 'Ilima Artspace Lofts Project . . . 10
2.3 Previous Archaeology 12

*Prepared for Artspace, 847 Hiawatha Place South, Seattle, WA 98144.

3 Methods **19**
3.1 Consultation 22
3.2 Disposition of Collections 22

4 Field Results **22**
4.1 Borehole Excavations 22
4.2 Trench Excavations 22

5 Laboratory Results **29**
5.1 Material Types 29
5.2 Dates of Artifact Manufacture 30
5.2.1 1880–1900 31
5.2.2 1910–1930 32
5.2.3 1955–1960 33

6 Summary and Conclusions **35**

A Stratigraphic Contexts **39**

B Field Catalog **39**

C Artifact List **39**

Glossary **45**

Hawaiian Terms **46**

Abbreviations **47**

Bibliography **47**

Illustrations

1 Location of the Ola Ka ʻIlima Artspace Lofts project 4
2 A portion of a map of Honolulu in 1817 7
3 A portion of a map of Honolulu in 1825 8
4 A portion of a map of Honolulu in 1855 9
5 Archaeological investigations near the Ola Ka ʻIlima Artspace Lofts project . 13
6 Map of previously identified archaeological sites 14
7 Planned locations of Trenches 1–7 21
8 Trench location map 23
9 Stratigraphic profile drawing of Trench 4 24
10 Stratigraphic profile photograph at Trench 4, stall 53 27
11 Wood chips from Context 2 28
12 Photograph of historic materials from Context 3 28
13 Photograph of a nineteenth-century bottle base 32

14 Photograph of nineteenth-century ceramic sherds 33
15 Photograph of early twentieth-century glass bottles 34
16 Photograph of mid-twentieth-century glass containers 35
17 Photograph of mid-twentieth-century ceramics 36

Tables

1 Sediment descriptions for Trench 4 stratigraphic profiles 24

1 Introduction

At the request of Artspace, T. S. Dye & Colleagues, Archaeologists has completed an archaeological inventory survey for the proposed Ola Ka ʻIlima Artspace Lofts *project*. Artspace is working on the proposed project with PAʻI, a nonprofit dedicated to preserving native Hawaiian cultural traditions. Artspace, working with PAʻI Executive Director Vicky Takamine and in consultation with native artists and arts organizations on the islands of Hawaiʻi and Oʻahu, has designed the proposed Ola Ka ʻIlima Artspace Lofts project to create a unique mixed-use arts project in Honolulu.

A residential component will consist of 80 units of affordable housing for artists and their families from all cultural backgrounds. Residential units will feature high ceilings, large windows, durable surfaces, large doors, and wide hallways to accommodate a variety of creative activities. A plaza garden will provide residents with common space and a generous gardening area.

The proposed Ola Ka ʻIlima Artspace Lofts project's ground floor will be home to the PAʻI Arts and Culture Center that will serve the broader Hawaiian community with classrooms, space for teaching and performing hula, music, and other traditional practices. The Culture Center will occupy 4,000 ft.^{2}; an additional 2,000 ft.^{2} of retail space will be available for arts-related businesses.

1.1 Project Area

The proposed Ola Ka ʻIlima Artspace Lofts project is located at 1025 Waimanu Street in the Kewalo section of Honolulu. The Ola Ka ʻIlima Artspace Lofts project is proposed for a parcel of land that comprises 0.6887 ac. in the land of Honolulu, Kona District, Oʻahu Island (fig. 1). It is identified on tax maps as TMK: (1) 2–3–003:040. The land is owned by the Hawaii Community Development Authority. The proposed Ola Ka ʻIlima Artspace Lofts project is bordered on the north by Waimanu Street, on the south by Kawaiahaʻo Street, and by commercial buildings to the east and west.

The proposed Ola Ka ʻIlima Artspace Lofts project is currently improved with a public parking lot operated by District Parking Services.

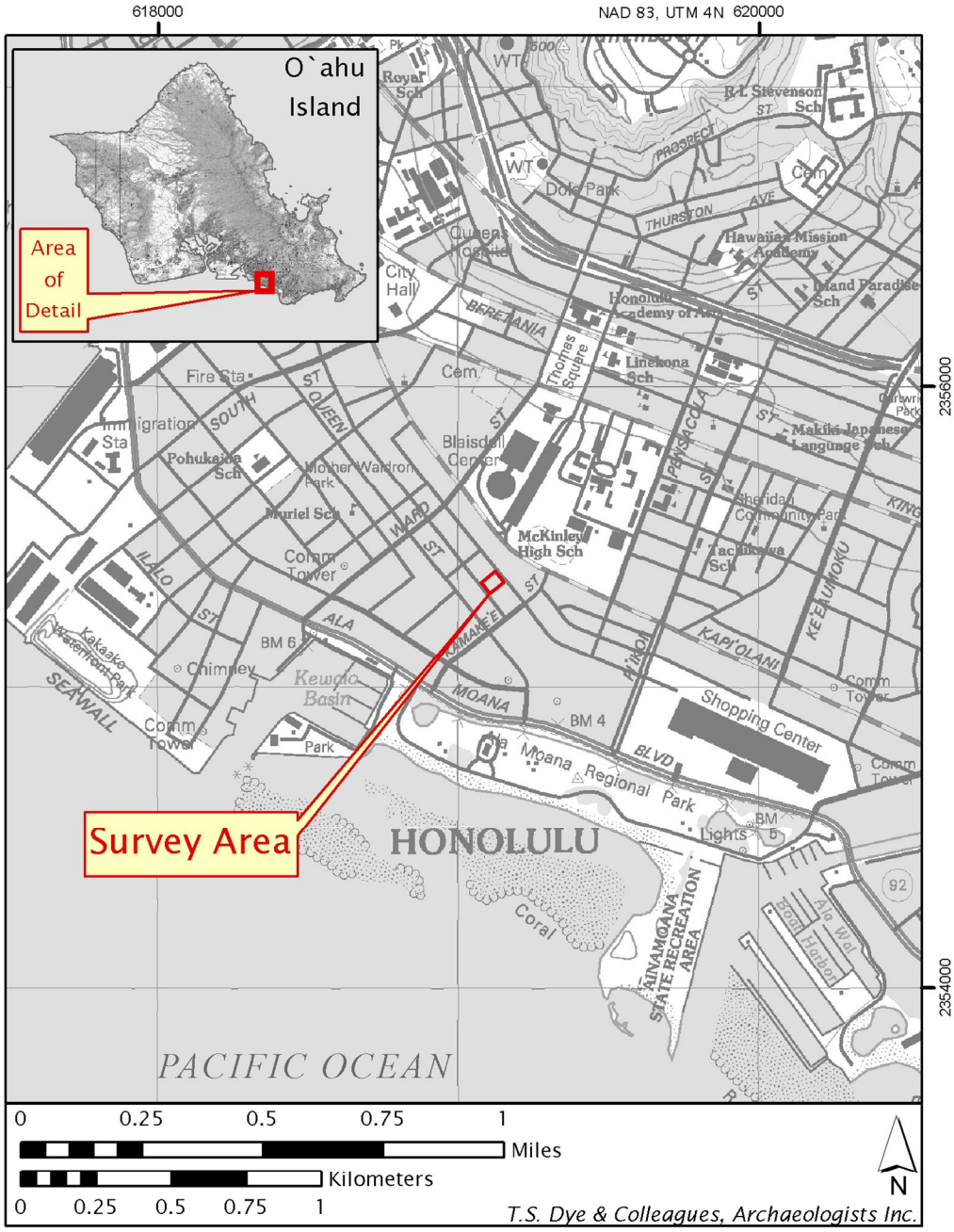


Figure 1: Location of the Ola Ka ʻIlima Artspace Lofts project on a portion of the 1998 USGS Honolulu quadrangle map.

1.2 Project Authority and Standards

The archaeological inventory survey with backhoe trenching was performed under the authority of the Hawai'i State Historic Preservation Program (HRS 6E). This project was an inventory survey with subsurface backhoe testing and was aimed toward the identification of historic properties that may be affected by the proposed *undertaking*. The field procedures, laboratory methods, and report preparation were guided by the State Historic Preservation Division's *Rules Governing Standards for Archaeological Inventory Surveys and Reports* (§13-276). This inventory survey report is drafted to meet the requirements and standards of both federal and state historic preservation law. These include Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended. Data and results contained herein may be used in consultation with a variety of interested parties including the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation.

2 Background

This section describes the natural environment and cultural history of the proposed Ola Ka 'Ilima Artspace Lofts project. It reviews place names and traditional history of Kewalo, analyzes various nineteenth-century maps of Honolulu that include the Kewalo area, and presents the history of land tenure as recorded at the Bureau of Conveyances.

2.1 Natural Environment

The proposed Ola Ka 'Ilima Artspace Lofts project lies at an elevation of 0–10 ft. above sea level. Ground surface of the proposed Ola Ka 'Ilima Artspace Lofts project is relatively flat; however, there is a gentle rise near the middle of the parcel that is approximately 70 cm (2.2 ft.) higher than surface grade at Kawaiaha'o and Waimanu Streets.

The sediments underlying the asphalt paving of the parking lot are classified as mixed Fill Land [10]. This land type occurs mostly in Pearl Harbor and in Honolulu, adjacent to the ocean. It consists of areas filled with material dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources. Sediments underlying *fill* material elsewhere in Kewalo include Pleistocene calcareous *sand* and reef rock [37]. These deposits originate from a time around 3,500 years ago when sea level began to retreat from its mid-Holocene high stand about 2 m above present mean sea level [14].

The project area receives 20–30 in. of rain annually [11], which runs off the asphalt paving into street drains. The nearest streams are Nu'uanu Stream, located about 2.5 km northwest, and Mānoa Stream, about 3 km southeast. Vegetation is limited to weeds that grow along the edges of the parking lot.

2.2 Traditional and Historic Land Use

The proposed Ola Ka 'Ilima Artspace Lofts project is located in Kewalo 'Ili, Honolulu Ahupua'a. The following discussion first looks at the place names and their relationship

to traditional histories regarding Kewalo. Second, historic-era maps are evaluated to understand how patterns of land use shifted in the early to mid-nineteenth century. Third, the chain of land conveyance is reconstructed.

2.2.1 Place Names and Traditional History

Kewalo literally means "the calling (as an echo)" [33:109]. Traditional histories suggest that in Kewalo, individuals of the lowest social rank, *kauā*, were drowned in accordance with the royal decree, *Kānāwai Kaihehe'e*. This practice has been associated with human sacrificial rites conducted on Pūowaina [19]; however, it is unclear how well the primary sources support this claim.

Traditional histories also recount Kewalo as the birthplace of Hua, a chief of Waikīkī, and ancestor to the later literary figures Kana and Nīheu. "Hua was a good chief. His favorite occupation was cultivating, which he did at Kewalo and Kō'ula. He was a chief who cared for the people and made favorites of the first-born children all over the land" [18:24].

Another place name, Waimanu, is also illustrative of the state of the land in traditional Hawaiian and early historic times. Waimanu Street lies along the course of a traditional Hawaiian trail. The literal translation of *Waimanu* is "bird water" [33:225], which may refer to the wetland environment that existed in Kewalo prior to the twentieth century. This open wetland environment is illustrated by several maps that date from the early to mid-nineteenth century.

2.2.2 Nineteenth-Century Maps of Kewalo

Although he never visited O'ahu, Cook's rediscovery of the Hawaiian archipelago opened the region to European and American exploration in the early to mid-nineteenth century. Several maps of O'ahu's southeast shore were drafted in the early to mid-nineteenth century offering a variety of cultural perspectives on the region. Although these maps illustrate the terrestrial geography of Kewalo, their purpose is to provide a reliable record of the coastal waters as an aid to navigation [9]. This cartographic focus is important to keep in mind when viewing these maps in the context of archaeological prospecting. Three maps that illustrate Kewalo 'Ili and surrounding areas are presented below.

An 1817 map by Russian explorer Otto von Kotzebue shows Honolulu and surrounding areas [9:49]. South of Pūowaina, or Punchbowl Crater, in the general vicinity of the proposed Ola Ka 'Ilima Artspace Lofts project, several features are represented including three ponds, an unidentified square feature, and scattered *hale* (fig. 2).

Eight years later, the same stretch of coast was mapped by Lieutenant Charles Robert Malden, an officer of the British vessel *H.M.S. Blonde* (fig. 3).[1] Several features are illustrated on this map in the vicinity of the proposed Ola Ka 'Ilima Artspace Lofts project south of Pūowaina, which is annotated as "Punchbowl Hill" [9:63]. Features near the proposed Ola Ka 'Ilima Artspace Lofts project include a cluster of rectangular features

[1] The *H.M.S. Blonde* was sent to the Hawaiian Islands to return the bodies of King Liholiho and Queen Kamāmalu who had contracted measles and died on their first trip to England.

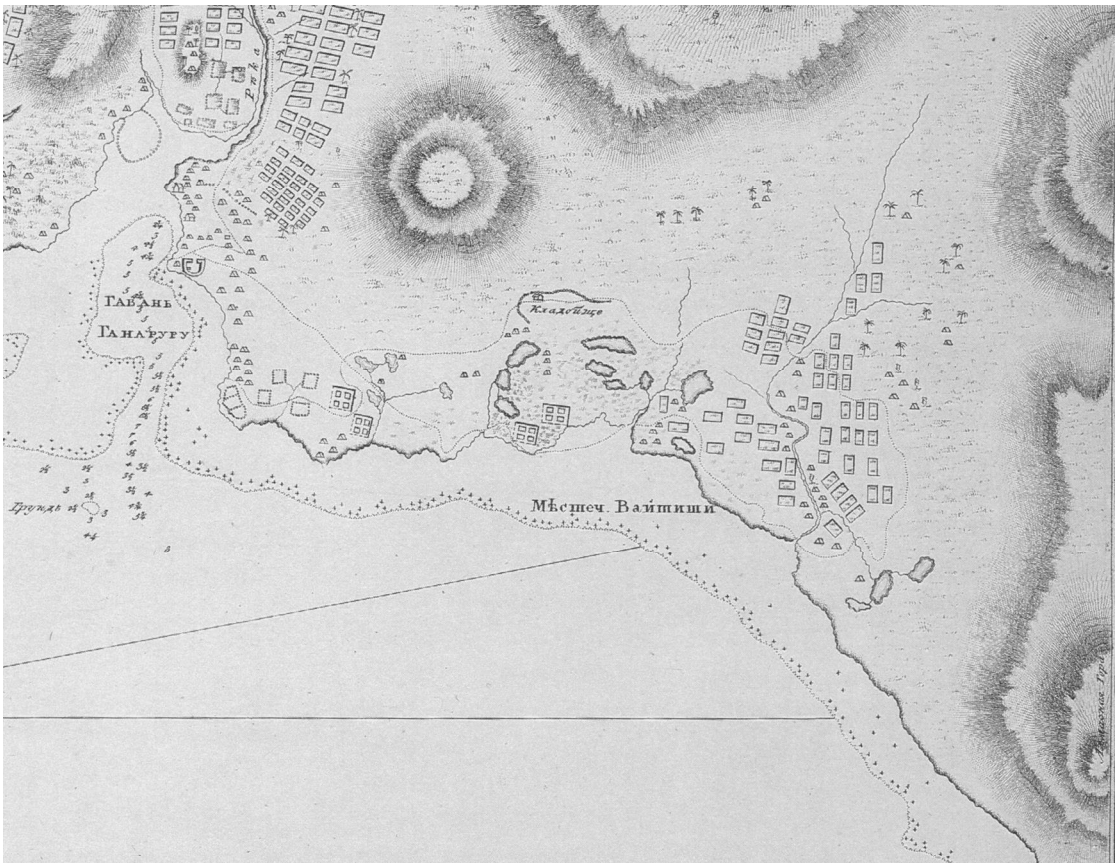


Figure 2: A portion of the 1817 Kotzebue map [9:49] of southern Oʻahu showing a cluster of what appear to be three ponds, possible *loʻi kalo* and scattered *hale* south of Pūowaina, or Punchbowl Crater. Pūowaina is illustrated on the top center of the figure and Lēʻahi, Diamond Head, is illustrated in the bottom right corner. The top of the frame is north.

annotated as "Fish Ponds," a cluster of palm trees, and a generic pattern which appears to indicate a natural wetland.

Thirty years later, the same stretch of coast was mapped by Lieutenant Henri de La Passe, an officer of the French vessel *Eurydice*. Several features are illustrated on this map in the vicinity of the proposed Ola Ka ʻIlima Artspace Lofts project south of Pūowaina, which is annotated as "*Bol de Punch*" [9:63]. Features near the proposed Ola Ka ʻIlima Artspace Lofts project include a broad expanse of rectangular features that stretch from present day Kakaʻako to Waikīkī. These rectangular features are annotated as "*Marais et Pêcheries*," or marshes and fisheries.

According to Monmonier [23], maps necessarily distort reality in order to simplify complex geographies, and to convey their purpose. Monmonier goes on to outline five general operations used by cartographers for these ends: selection, simplification,

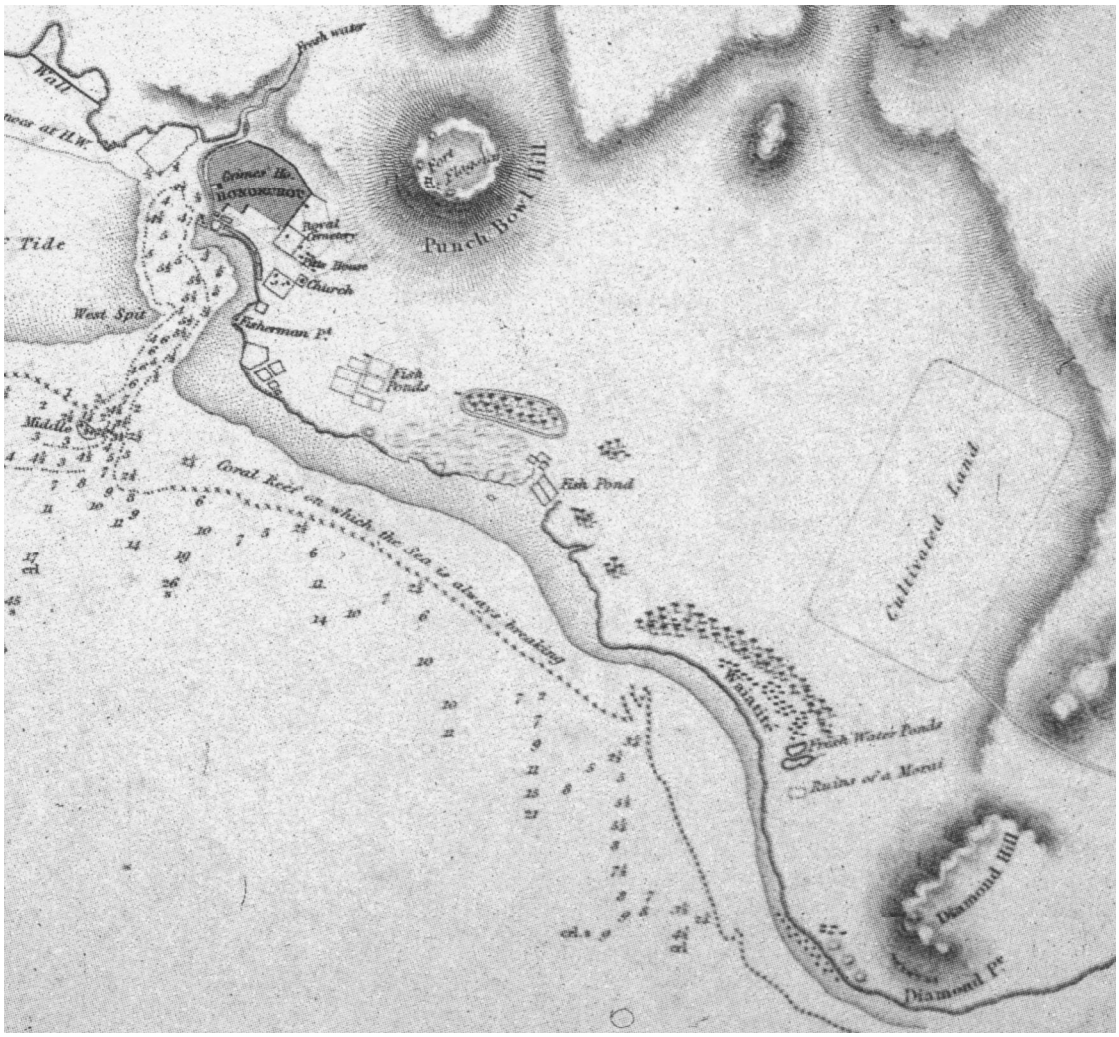


Figure 3: A portion of the 1825 Malden map of southern O‘ahu showing a cluster of fishponds, a palm grove, and a natural swampy wetland south of Pūowaina. Pūowaina is illustrated at the top center of the figure, and is annotated here as *Punch Bowl Hill*. Lē‘ahi is at the bottom right of the frame and is annotated here as *Diamond Hill*. The top of the frame is north.

displacement, smoothing, and enhancement. All of these operations are evident in these maps. Selection is evident in the Malden map; trees are illustrated in distinct clusters; however, this type of data is typically continuous. Simplification is evident in the Kotzebue map; uniform point features have been illustrated for all structures, save Honolulu Fort. Displacement is also evident on the Kotzebue map; adjacent *lo‘i kalo* have been illustrated further apart than they are likely to have been placed on the ground. Smoothing is evident in the La Passe map; the coastline is rounder than it is illustrated in either the Kotzebue

Figure 4: A portion of the 1855 La Passe map of southern O‘ahu showing rectangular features annotated as “*Marais et Pêcheries*,” swampland and fisheries, in the area south of Pūowaina. Pūowaina is illustrated at the top center of the figure and is annotated *Bol de Punch*. Lēahi is at the bottom right of the frame and is annotated *Diamant*. The top of the frame is north.

map or the Malden map. Enhancement is also illustrated in the La Passe map; slope hash marks are illustrated in great detail.

When observed together, these three maps demonstrate either the development of Kewalo through the early nineteenth century, or the range of interpretive illustration. It is clear that both natural wetlands as well as fishponds were present in Kewalo in the early to mid-nineteenth century. However, given the purpose of the maps, which was to record navigable waterways and anchorages, as well as the distortions used in the illustration, it is likely that the features on the landscape should be taken as illustrative, rather than accurately described and located.

2.2.3 Land Tenure of the Proposed Ola Ka ʻIlima Artspace Lofts Project

In traditional Hawaiian times, lands were held exclusively by the chiefs under the *ahupuaʻa* system. This land tenure system was hierarchical. Large areas of land called *moku* were held by the highest chiefs, the *aliʻi ʻai moku*. Lands within a *moku* were further divided into individual watersheds called *ahupuaʻa*. Chiefs competed for control over *ahupuaʻa* and their associated resources. Following Kamehameha's conquest of Oʻahu Island in 1795, the *moku* and *ahupuaʻa* of Oʻahu were distributed among Kamehameha's chiefs. Dorothy Barrèra's transcription of the testimony of John ʻĪʻī indicates that during this time, Kamehameha I gave Kewalo to Ihu [3]. Upon Ihu's death, Kewalo then passed to Ihu's heir.[2] From Ihu's heir, the land then passed to Kamakee.

In the mid-nineteenth century, the system of land tenure dramatically shifted from the traditional Hawaiian *ahupuaʻa* system to a westernized system of private land ownership. All of the lands of the Hawaiian archipelago were assessed and awarded to various parties during what is known as the 1848 *Māhele*. During the 1848 *Māhele*, lands in Kewalo and neighboring Kakaʻako were awarded to various parties. Land Commission Award 10605 included what is now the proposed Ola Ka ʻIlima Artspace Lofts project.[3] In 1852, it was formally awarded to Kamakee and her husband Iona Piikoi. A review of the documents associated with this award, including the Land Commission Award, Royal Patent, Native Register, Native Testimony, and Foreign Testimony, yielded no information on the physical characteristics of the land. Although Kamakee and Iona Piikoi claim a house lot in Honolulu, it is uncertain whether this is in Kewalo or in Pualoalo, which they both claimed in Honolulu.

It is interesting to note that Kamakee and Iona Piikoi voiced their concerns about Kewalo lands that wrongfully went to others, were trespassed on, and wrongfully occupied. They wanted to ensure access and resource use rights of fish, wood, water, and other resources for the natives of the land. The following is from Native Register 563v4, which was translated in Altizer et al.[4]

> Kindly award our claims, with their lihis and their leles, and all the places which wrongfully went to someone else, and which were trespassed upon and which were perhaps wrongfully occupied, and the places which were conveyed by lease, and all the rights which pertain in the names of those lands—the right to the protected fish and the wood and the water and everything which is said to pertain to these lands. That is what we give to you to work on and quite title to us and to award in a way as to benefit the populace who are living on the land, and the lands which we occupy which also are for us. [1:A-3]

[2]There is some confusion as to whether the land passed to Ihu's wife or to his daughter. Barrèra's transcription states "[the land] passed into the possession of his daughter Keahupuaa [sic] who was wet nurse to Kamehameha III." Barrèra goes on to qualify that Ihu's wife, Kaaikane, was wet nurse to Kamehameha III.

[3]Land Commission Award 10605 included several *ʻāpana* in various lands. The Ola Ka ʻIlima Artspace Lofts area is included in *ʻāpana* 7, which is described as "Kewalo, lihis and leles, perhaps, at Honolulu, Oahu." The Land Commission documents show a map labeled "Ili o Kewalo," a single large parcel that doesn't distinguish any *lele* or *lihi*.

[4]The original document can be accessed at the Bureau of Conveyances in Honolulu, HI.

Kamakee and Iona Piikoi held this land for the following two decades, then it passed to their daughter Maria Maipili Cummins in 1873.[5] The land was held by the Cummins clan for the next two decades. In 1896, several members of the Cummins clan included deeded portions of their land in Kewalo to Charles S. Desky for the amount of $32,000.[6] Desky immediately subdivided the land into house lots[7] which he sold individually. Over 170 records of conveyance from Desky to various parties were recorded in Kewalo between 1895 to 1903. During this subdivision, the proposed Ola Ka ʻIlima Artspace Lofts project was identified as lots 5, 6, 7, 20, 21, and 22 of Block 11. Between 1897 and 1911, these lots traded hands several times. Furthermore, at least four of the lots went into mortgage agreements making the conveyance record murky for this time period. What is clear is that by 1911, approximately 70 to 85 percent of Block 11, including the proposed Ola Ka ʻIlima Artspace Lofts project, was owned by Allen and Robinson Limited.

The company Allen and Robinson Ltd. was a lumber and shipping business founded by Mark Prever Robinson and Samuel Clesson Allen in the late 1870s.[8] Both Robinson and Allen were prominent figures in late nineteenth-century Honolulu and had ties with the shipping, sugar, and rail industries in Hawaiʻi. In 1882, Robinson sold his interest in the company to Allen. When the company incorporated in 1901, it took on the name Allen and Robinson Ltd. Allen was also married to Mark Robinson's sister Bathsheba. When Allen died in 1903, Bathsheba M. Allen and Mark P. Robinson, among others, were listed as heirs.[9]

In the early twentieth century, all of the Allen and Robinson Ltd. holdings in Block 11 were used as a lumberyard. Sanborn Fire Insurance maps indicate that in 1914, the lumberyard housed an average of three million feet of lumber. By 1927, the lumberyard was planned for removal. Upon the death of Bathsheba Allen, the Allen and Robinson Ltd. land was transferred to her estate. In 1936, trustees to Bathsheba's estate, E. H. Wodehouse, W. W. Chamberlain, and Mark A. Robinson, granted the land, which included the proposed Ola Ka ʻIlima Artspace Lofts project, to American Factors Ltd.[10]

At the time, American Factors Ltd. was one of the "Big Five" companies that controlled the Hawaiian economy. Originally known as H. Hackfeld & Co. Ltd., the German-owned sugar company was seized by the Alien Property Custodian during World War I and sold to a new group, American Factors Ltd. [45:15]. When American Factors Ltd. acquired the proposed Ola Ka ʻIlima Artspace Lofts project property in 1936, its business was shifting from sugar manufacture to land development. The company only held the land for four years when, in 1940, it deeded lots 5, 6, 7, 20, 21, and 22 of Block 11 to James Wilson

[5] Royal Patent 5716.

[6] Hawaiʻi State Bureau of Conveyances, book 164, page 255.

[7] Affidavit, Hawaiʻi State Bureau of Conveyances, book 162, page 222.

[8] Statewide County HI Archives Biographies, Robinson, Mark Prever, July 4, 1852, edited by George F. Nellist, October 7, 2009, `http://files.usgwarchives.net/hi/statewide/bios/robinson59bs.txt`, accessed on January 1, 2014.

[9] Samuel and Bathsheba Allen had one adopted son, George C. Allen. He was not named as an heir to Samuel Allen's trust because in 1901 he forfeited his rights to the trust for the amount of $500. George Allen's motivations are unclear, as other records of conveyance were found in which George C. Allen granted lands that he owned on Hawaiʻi Island to Samuel and Bathsheba around the same time period.

[10] Hawaiʻi State Bureau of Conveyances, book 1307, pages 252–253.

Glover for $15,000.[11] These six lots comprise the extent of the proposed Ola Ka ʻIlima Artspace Lofts project. James Wilson Glover was an engineer and businessman that served on the Hawaii Territorial Legislature in the mid-1940s.[12] He was the proprietor of James W. Glover Holding Co. Ltd. from 1935 until his death in 1957. Presumably, upon his death, the proposed Ola Ka ʻIlima Artspace Lofts project was passed to James W. Glover Holding Co. Ltd., which was, and continues to be, a major construction company in the state of Hawaiʻi. According to the Sanborn Fire Insurance maps, at some point between 1927 and 1956, the proposed Ola Ka ʻIlima Artspace Lofts project was used as a construction storage yard. During the years that James W. Glover Holding Co. held the land, they were involved with various construction projects on Oʻahu, including construction of the National Memorial Cemetery of the Pacific at Punchbowl, development of the Iwilei neighborhood, and construction of the H-1 Freeway.

In 1990, the land passed from James W. Glover Holding Co. Ltd. to ACME (St Ex Inc.).[13] That same day the land was flipped and conveyed to 1065 Kapiolani Association, who held the land for eleven years. The land was conveyed twice in 2001. However, the record is unclear as to whom the land was granted to and from. The first conveyance in 2001 is likely to have been from 1065 Kapiolani Association, but the party to whom the land was conveyed is unknown.[14] This transaction occurred in February, and the land was sold for the sum of $2.6 million. The second transaction in 2001 occurred in June. The unknown party appears to have granted the land to Honolulu Design Center LLC, the next known owner of the proposed Ola Ka ʻIlima Artspace Lofts project.[15] In 2006, Honolulu Design Center LLC deeded the land to Evershine X.[16] Evershine X held the land for four years. In 2010, Evershine X deeded the entire proposed Ola Ka ʻIlima Artspace Lofts project to the Hawaiʻi Community Development Authority, the current owner.

2.3 Previous Archaeology

Previous archaeological work within Kewalo ʻIli has primarily consisted of cultural resources management studies conducted over the last 20 years. These studies recorded several archaeological *site* types including human burials, isolated cultural deposits, and buried wetland deposits interpreted as remnants of traditional Hawaiian fishponds. The following summary reviews the previous archaeological studies in the vicinity of the proposed Ola Ka ʻIlima Artspace Lofts project in chronological order.

In 1992, an archaeological assessment was conducted at the former location of Kapiʻolani Community College, on the present grounds of McKinley High School (fig. 5, *a*). The assessment recommended archaeological monitoring for any future construction projects

[11] Hawaiʻi State Bureau of Conveyances, book 1558, pages 126–127.

[12] Necrology, James Wilson Glover, in *Proceedings of the Hawaiian Academy of Science, Thirty-Second Annual Meeting, 1956–1957*, `http://evols.library.manoa.hawaii.edu/bitstream/handle/10524/2152/PHAS1957.pdf;jsessionid=E66263008A8536788105FE19B6731FE8?sequence=1`, accessed January 2, 2014.

[13] Land Court Documents 1756448 and 1756449.

[14] Instrument number 0100025530.

[15] Deed, instrument number 0100097941.

[16] Deed, document number A2006017390.

within the parcel [6].

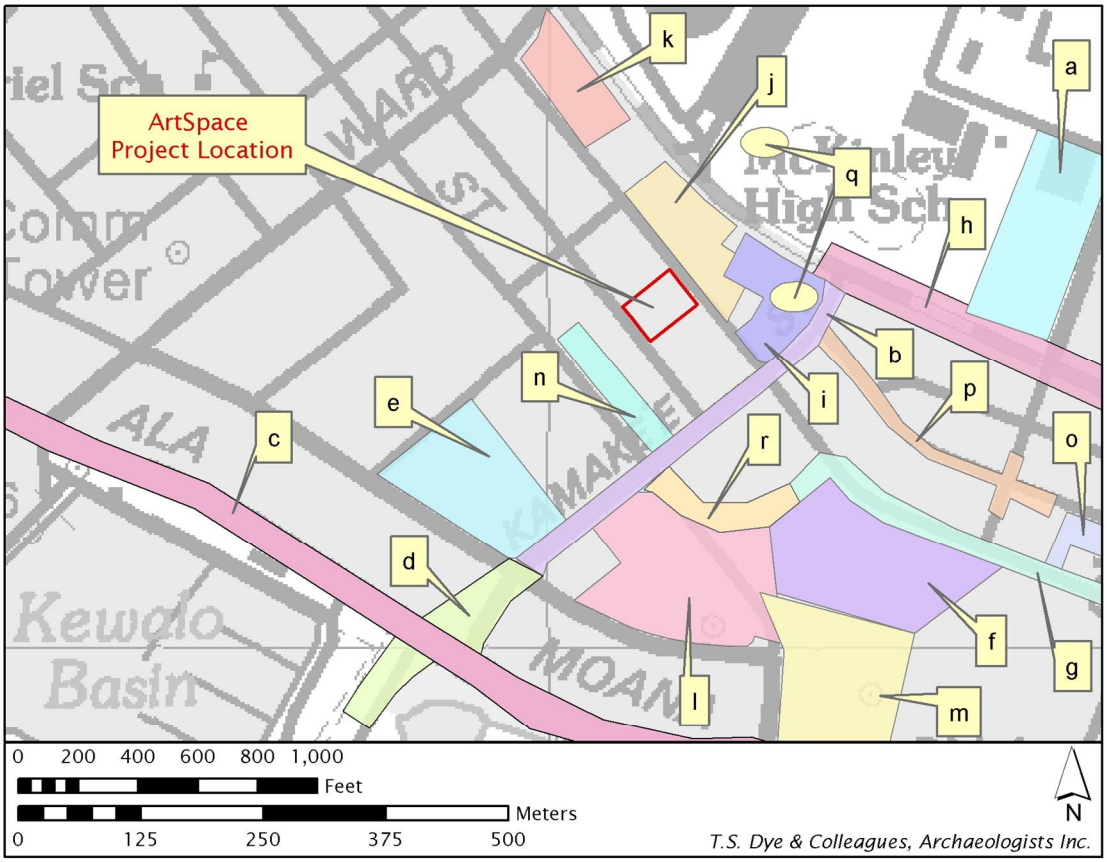


Figure 5: Previous archaeological investigations in the vicinity of the proposed Ola Ka ʻIlima Artspace Lofts project on a portion of the 1998 USGS Honolulu Quadrangle topographic map: *a*, Chiogioji and Hammatt [6]; *b*, Winieski and Hammatt [46]; *c*, Petrey et al. [32]; *d*, Souza et al. [38]; *e*, Winieski and Hammatt [47]; *f*, O'Hare et al. [26], Tulchin and Hammatt [44], Hammatt [15], and Runyon et al. [36]; *g*, O'Hare et al. [27]; *h*, O'Leary and Hammatt [28]; *i*, Clark and Gosser [7], Gosser et al. [12]; *j*, O'Leary and Hammatt [29], Pammer and Hammatt [30]; *k*, Monahan [22], Tome et al. [42]; *l*, Bell et al. [4], Sroat and McDermott [39]; *m*, Carney and Hammatt [5]; *n*, Yamauchi et al. [48]; *o*, Runyon et al. [34]; *p*, Altizer et al. [1]; *q*, Park and Collins [31]; *r*, Thurman et al. [41].

Archaeological monitoring was conducted for the Kakaʻako Improvement District 4 Project in 2000 [46]. Two isolated historic burials, recorded as site 50-80-14-5598, were documented in a sand deposit located beneath Kamakeʻe Street, between Kawaiahaʻo and Waimanu Streets (fig. 6). No traditional Hawaiian artifacts or artifacts of cultural patrimony were collected during the project, but historic-era trash was present within the fill materials documented in the area (fig. 5, *b*).

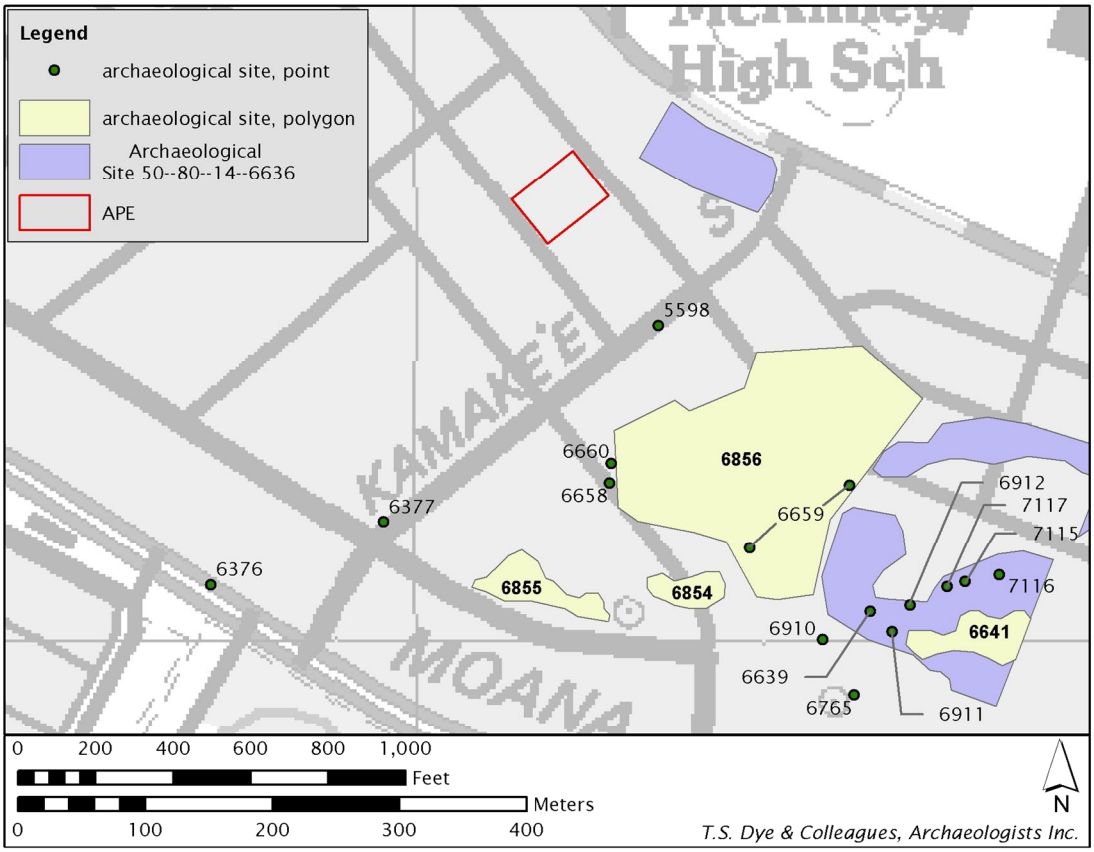


Figure 6: Map of sites within the general vicinity of the proposed Ola Ka ʻIlima Artspace Lofts project plotted on a portion of the 1998 USGS Honolulu Quadrangle topographic map. Archaeological site numbers are all preceded by 50-80-14- (e.g. site 50-80-14-6376). One site mentioned in the text is not illustrated, site 50-80-14-6378. No illustration of the location of this site was found in the reviewed literature. Runyon et al. [34:83], however, mention that site 50-80-14-6378 is located at a construction base yard located near the intersection of Kapiʻolani Boulevard and Pensacola Street.

In 2000, archaeological monitoring was conducted for the Kakaʻako ID-7 construction project located along Kamakeʻe Street near Ala Moana Boulevard [38]. Three human burials were encountered during the project, all having been disturbed during excavation activities (fig. 5, *d*). The first, recorded as site 50-80-14-6376, was a single human cranium, inadvertently discovered by construction personnel in the base yard spoil pile (fig. 6). The second, recorded as site 50-80-14-6377, is the remains of an adult encountered in the natural beach sand during excavations for a box drain. The third, recorded as site 50-80-14-6378, consisted of a *femur* and rib fragments recovered from the base yard.

Due to the fragmentary state of the remains, no age, sex, or ethnicity determinations were made. No artifacts or subsurface deposits were documented during the project.

Also in 2000, archaeological monitoring was carried out at the Ward Village Phase II project [47]; this development is the current location of Ward Theaters (fig. 5, *e*). No artifacts, subsurface deposits, or human burials were encountered during the project. The typical stratigraphic profile observed during this project consisted of fill material overlying a buried A-horizon which, in turn, overlies a natural marshland and basal sand in the northwestern and southwestern portion of the project area.

Over a period of nine years from 2003 to 2011, several studies were conducted in support of the development of the Koʻolani Condominium project located south of the intersection of Waimanu and Pensacola Streets (fig. 5, *f*). In 2003, an archaeological inventory survey was conducted for the Koʻolani Condominium project [26]. During the survey, 13 backhoe trenches were excavated. The archaeological inventory survey identified three historic properties. Site 50-80-14-6636 was assigned to a layer of *clay* interpreted as having been deposited in a wetland environment (fig. 6). This site number was initially assigned to a remnant wetland deposit at a 6 ac. lot bound by Pensacola, Kamaile, and Piʻikoi Streets and Kapiʻolani Boulevard [25]. At that location, the wetland had been modified by the construction of an embankment that was revealed by excavation in the approximate location shown on an 1884 map [25:16]. However, the site boundaries were not established at that time and it was speculated instead that the site "probably extends across the entire project area" [25:69]. Sites 50-80-14-6639 and -6641 were both recorded as trash pits dating to the early twentieth century (fig. 6). No traditional Hawaiian artifacts or human burials were encountered during the project.

Additional work for the Koʻolani Condominium project archaeological inventory survey was conducted in 2005 and reported as an addendum to the original fieldwork [44]. Eight additional backhoe trenches were excavated. Two of the archaeological sites documented during the original archaeological inventory survey were relocated and further documented. They were site 50-80-14-6636, the remnant wetland deposit, and site 50-80-14-6641, an historic-era trash pit. No additional historic properties were identified and no traditional Hawaiian artifacts or human burials were encountered.

Archaeological monitoring for the Koʻolani Condominium project occurred in 2008 [15]. Three new historic properties were identified during monitoring, sites 50-80-14-6910, -6911, and -6912 (fig. 6). Site 50-80-14-6910 and -6912 are each single burials. Site 50-80-14-6911 is a cluster of 16 historic-era coffin burials. The burials were found within a 100 m^2 area and the burial cluster is interpreted as a possible unmarked historic cemetery. All of the burials were determined to be significant under Criteria D and E; eight of the coffin burials were left in place and most of the others were reinterred close to them. No traditional Hawaiian artifacts or artifacts of cultural patrimony were collected during the project. Additionally, historic trash dating to the 1920s and 1930s was documented in the fill material, but the deposit was determined to be ineligible for listing on the Hawaiʻi Register of Historic Places and no site number was assigned. A *paleosol* with pit features that shows in a photograph of the representative stratigraphy at site 50-80-14-6911 [15:44] appears not to have been identified as such during the archaeological monitoring.

Site 50-80-14-6636, recorded previously as a wetland deposit, is called here a "culture layer" [15:ii], a "cultural layer" [15:1], and a "wetland stratum" [15:37]. Boundaries of site 50-80-14-6636 are not indicated in the report.

Five historic properties were identified during an archaeological inventory survey for the Waihonua at Kewalo project [36]. The identified sites include two that were previously identified elsewhere—sites 50-80-14-6641, and -6636—and three that were newly identified—sites 50-80-14-7115, -7116, and -7117 (fig. 6). Site 50-80-14-6641 was described as "a layer of burnt trash" [36:ii] that was previously identified during an archaeological inventory survey for the Koʻolani Condominium project [44], where the site was described as an historic trash pit. The three new historic properties were described as follows. Site 50-80-14-7115 is described as a buried A-horizon containing pit features. These deposits contained both traditional Hawaiian and historic-era artifacts. Site 50-80-14-7116 was a sediment deposit interpreted as an historic-era pond. Site 50-80-14-7117 was a cluster of historic-era burials located on the west side of the Koʻolani Condominium project area.

In 2004, archaeological monitoring was conducted for emergency sewer line repairs along Kapiʻolani Boulevard [28]. A total of five 60 cm deep trench excavations were monitored. Only fill materials were encountered and no cultural materials were collected during the project (fig. 5, *h*).

Between 2004 and 2006, archaeological work was conducted in support of a public storage facility located on the corner of Kapiʻolani Boulevard and Kamakeʻe Street (fig. 5, *i*) [7; 12]. An archaeological inventory survey that included the excavation of 45 backhoe trenches was conducted in 2004. The trenches in the northern portion of the public storage facility parcel contained fill materials which overlay an organic deposit interpreted as *loko wai* sediments. The *loko wai*, which was also identified on a nineteenth-century map, was designated site 50-80-14-6636, which had earlier been assigned to the Kewalo wetland.

> Originally O'Hare et al. [25:69] recorded Site 6636 as the "early 20th century land surface that underlays the dredged fill materials from the Kewalo and Ala Wai Canal reclamation projects . . . " and assigned it significance "A" and "D." The site was assigned criterion "A" because it was assumed the wetland was associated with "the development of the Waikīkī wetland agricultural complex" [25:69]. While there is precedent to assign criterion "A" to specific properties significant to the subsistence economy of pre-Contact populations, there is no evidence that the lands under consideration (either the current project area or the O'Hare et al. project area) were part of the complex. To the contrary, the lack of a consistent fresh water source necessary for irrigated agriculture suggests that the area would not have been viable for kalo cultivation; those areas were restricted to locations along Mānoa, Nuʻuanu, and possibly Makiki Streams.
>
> However, the pond recorded in the project area is a culturally modified feature within the natural wetland environment, and does merit consideration

> under criterion "D" since it has yielded important information concerning the past use of the property and general data concerning the nature of land use and land use change in the Kewalo area. [7:52]

In the southern portion of the parcel, fill materials overlay a buried A-horizon devoid of cultural materials. Both the buried A-horizon and the pond sediment layers overlay the natural sand and *gley* soils of the area. Four historic-era artifacts dating to the turn of the twentieth century were collected from deposits of fill materials but no traditional Hawaiian artifacts of human remains were encountered during the project.

Archaeological monitoring was conducted for additions to the Public Storage facility along the corner of Kamakeʻe and Waimanu Streets [12]. A total of 17 backhoe excavations were monitored and consisted of nine linear trenches and eight rectangular excavations. Fill layers were observed in every trench excavated and the same buried A-horizon described by Clark and Gosser was observed directly under the fill in the three excavations closest to Waimanu Street. The fill layers and A-horizon overlay the natural sand and gley soils of the area. No cultural materials or features were observed in any of the trenches.

Work for the Moana Vista project located on Kapiʻolani Boulevard, near Cummins Street, was conducted in 2005; additional work was later conducted in 2010 (fig. 5, *j*). In 2005, an archaeological inventory survey was conducted for the 4 ac. Moana Vista project parcel [29]. Twenty-four backhoe trenches were excavated which yielded a typical profile consisting of fill materials overlying gleyed sand that was present to the *water table*. No cultural materials of any kind were identified. In 2010, an archaeological assessment, including backhoe test excavations, was conducted for 0.26 ac. of the Moana Vista project parcel [30]. Four backhoe trenches were excavated which yielded no cultural materials of any kind. The project represents the closest archaeological investigation to the Artspace parcel.

Work for several parcels at the corner of Ward Avenue and Kapiʻolani Boulevard was conducted in 2005 and 2007 (fig. 5, *k*). In 2005, an archaeological assessment including backhoe test excavations was conducted for three parcels measuring approximately 1.35 ac. [22]. Nine backhoe trenches exposed only fill material to a maximum depth of 190 cm below ground surface. No cultural materials of any kind were identified. This work was followed by archaeological monitoring for auger hole drilling within an adjacent 0.48 ac. parking lot that had not been covered by the archaeological assessment [42]. This work found a typical profile consisting of fill materials overlying clay. No cultural materials of any kind were found. Unlike similar deposits that were encountered further east, the clay was not assigned an archaeological site number.

In 2006, archaeological monitoring was conducted for the Queen Street Extension project (fig. 5, *g*). Three historic properties were documented during the project [27]. Site 50-80-14-6658 is a cluster of 28 burials with associated historic-era grave goods (fig. 6). Seventeen of the 28 burials were determined to be of Hawaiian ethnicity. Site 50-80-14-6659 consisted of two human burials. The age and ethnicity of the individuals recovered at site 50-80-14-6659 could not be determined. Site 50-80-14-6660 is an historic-era trash layer that was deposited in the early 1900s.

Work at the Ward Village Shops, located near the intersection of Auahi Street and Queen Street, was conducted between 2006 and 2012 (fig. 5, *l*). In 2006, an archaeological inventory survey was conducted for the Victoria Ward Village Shops project [4]. A total of 86 backhoe trenches were excavated during the project resulting in the identification of three historic properties. The first is site 50-80-14-6854, interpreted as a subsurface cultural layer which contained a juvenile pig skeleton, remnants of a historic privy, historic and prehistoric artifacts, and five previously identified human burials. The second is site 50-80-14-6855, interpreted as a subsurface traditional Hawaiian cultural layer which contained pit features and six previously identified human burials. The third is site 50-80-14-6856, a remnant of historic fishpond Kolowalu that was part of Land Commission Grant 3194. This work was followed by archaeological monitoring conducted in 2008. The archaeological monitoring resulted in the identification of 50 additional burials from sites 50-80-14-6854 and -6855.[17] A portion of site 50-80-14-6856, Kolowalu pond, was also encountered during the project. A supplemental archaeological inventory survey for the Ward Village Shops Phase II project was conducted in 2012 [39]. During the project, previously recorded site 50-80-14-6855 was encountered and documented. No new historic properties or burials were documented during the project.

In 2007, archaeological monitoring for road resurfacing and the installation of light poles along Ala Moana Boulevard and Nimitz Highway was conducted (fig. 5, *s*). No historic properties, cultural deposits, or burials were documented during the project [32].

In 2008, archaeological monitoring was conducted for the removal of a civil defense siren on Kamakeʻe Street and the installation of a new civil defense siren on the grounds of McKinley High School (fig. 5, *q*). Only fill materials were encountered at the removal location [31]. Three fill layers were observed in the new excavation location with the bottom-most layer containing historic artifacts. None of the artifacts was dated, but they have been attributed to the first half of the twentieth century. The fill sediments overlay an intact organic layer present between 85 and 95 cm below surface. The layer was interpreted as being *loko wai* sediments similar to those documented by Clark and Gosser [7]. Surprisingly, given that Clark and Gosser [7] had confined use of site 50-80-14-6636 to the pond feature identified on an historic map, the *loko wai* sediments discovered during the archaeological monitoring were assigned as an additional component of this site. The sand and gley soils underneath the pond sediments contained no features or cultural materials.

Also in 2008, archaeological monitoring was conducted for the Hokua Tower Project located on Ala Moana Boulevard (fig. 5, *m*). An isolated human mandible fragment and an historic-era trash pit designated site 50-80-14-6765 were documented during the project [5]. No traditional Hawaiian artifacts or significant cultural deposits were encountered.

In 2009, an archaeological inventory survey was conducted for the Queen Street Parks project (fig. 5, *r*). An addition to site 50-80-14-6856, interpreted as Kolowalu fishpond sediments, was documented during the project [41]. The site was originally documented during construction for the Ward Shops. A total of 31 historic-era artifacts was collected

[17] Results of the archaeological monitoring were synthesized by Sroat and McDermott [39]. At the time that they were writing the inventory survey addendum, two archaeological monitoring reports for the Ward Village Shops were in progress, indicated as Thurman et al. (no date) and Burke (2012), with no additional citation information.

from secondary fill deposits during the project. No human remains or traditional Hawaiian artifacts were encountered during the project.

In 2011, archaeological monitoring was conducted for the Kamakeʻe and Queen Street traffic signal project (fig. 5, *n*). A sandy loam A-horizon was observed under fill deposits during the project [48]. No cultural materials or subsurface deposits were documented during the project.

Also in 2011, an archaeological inventory survey for the Senior Residence at Piʻikoi was conducted (fig. 5, *o*). A total of 13 backhoe trenches were excavated during the project [34]. Wetland deposits were observed in all of the excavated trenches and these were assigned to site 50-80-14-6636. Each of the trenches exposed a stratigraphic profile commonly observed in Kewalo, with fill materials overlying a buried A-horizon which overlies a wetland deposit and gleyed soils. No cultural materials were collected and no subsurface deposits were documented during the project.

Also in 2011, archaeological monitoring was conducted for improvements associated with the Kapiʻolani Area Revised Sewer System project (fig. 5, *p*). During the project, a remnant wetland deposit was encountered in a trench located east of McKinley High School and assigned to the ubiquitous site 50-80-14-6636 [1]. Historic artifacts and two historic trash pits were encountered in trench excavations in the area of Kalākaua Avenue, more than a mile from the current project area. No new historic properties were documented and no traditional Hawaiian artifacts or human remains were collected or documented during the project.

3 Methods

The principal investigator for the archaeological inventory survey was Thomas S. Dye. Fieldwork was conducted under the direction of Dye and carried out by Carl E. Sholin. The drilling of boreholes was carried out by Bureau Veritas and their subcontractors. Backhoe excavation was carried out by Charlie Souza of Charlie's Backhoe Services.

The archaeological inventory survey of the proposed Ola Ka ʻIlima Artspace Lofts project took place during two phases of fieldwork. The first phase consisted of archaeological observations of sediment borings carried out by Bureau Veritas at 25 locations. This work took place between July 10, 2012 and July 19, 2012. The second phase consisted of the systematic excavation of six trenches within the proposed Ola Ka ʻIlima Artspace Lofts project. This work was conducted between December 4, 2013 and December 26, 2013.

Since no previous archaeological inventory survey had been conducted for the proposed Ola Ka ʻIlima Artspace Lofts project, the archaeological observations made during the first phase were a precautionary measure during the sediment sampling and testing conducted by Bureau Veritas. During this phase, Sholin monitored the drilling of 25 holes. He observed and recorded stratigraphic profiles in a field notebook based on sediments removed from the boreholes.

During the archaeological inventory phase, two tasks were completed: a pedestrian survey of the proposed Ola Ka ʻIlima Artspace Lofts project, and the systematic excavation and documentation of six trenches. The pedestrian survey covered 100 percent of the proposed Ola Ka ʻIlima Artspace Lofts project.

The trench locations were based on two considerations. First was the location of foundation elements with a potential to have an adverse effect on historic properties. These were primarily the locations of piles that will extend through the fill material (fig. 7). The second consideration was the orientation of the trenches along a *mauka/makai* axis. This was done to maximize the probability that the excavations would encounter landforms suited to traditional Hawaiian human burial. In the case of the proposed Ola Ka ʻIlima Artspace Lofts project, the landform most suited to human burial is a beach berm of calcareous sand. This landform is typically long and narrow, and oriented parallel to the coastline. The *mauka/makai* orientation of the trenches thus maximizes the probability of intersecting a buried beach berm whose orientation is expected to parallel Kawaiahaʻo and Waimanu Streets.

In the field, it was determined that Trench 7 was positioned under the parking lot fence and consequently could not be excavated. In addition, Trench 1 was positioned immediately adjacent to the neighboring building, which posed dangers of undermining that building's foundation. A portion of Trench 1 and the full lengths of Trenches 2–6 were excavated by backhoe. Typically the trenches were 50 m long, 0.75 m wide, and extended to the water table. Trench depths ranged from 120–260 cm below ground surface. On average, the water table was reached 213 cm below ground surface.

Trenches were documented using a handheld Global Positioning System (GPS) rover unit, a Nikon digital camera, and a field notebook. The locations of the trenches were recorded using the handheld GPS rover. The locations of the trenches were also hand drawn on a plan map of the existing parking lot grid. Photographs were taken and described in the field notebook. The photograph descriptions included the subject of the photo and the orientation of the frame. At minimum, photographs were taken of the location of each trench in relation to the surrounding landscape, and of the trench stratigraphic profiles. Photographs of the stratigraphic profiles were recorded in 5 m increments along each trench. Stratigraphic profiles were recorded in the field notebook using the method described by Harris [17]. Identified deposits were given a *unit of stratification number*, referred to here as a *context*. Stratigraphic profiles recorded the relative position of deposits, as well as their depths below ground surface, and the depth of the water table. Stratigraphic profiles were recorded at 5 m intervals along the length of each trench. A list of bags, which itemized and described all materials collected from the proposed Ola Ka ʻIlima Artspace Lofts project, was also kept in the field notebook. Finally, a daily log, which detailed the daily field activities was kept in the field notebook.

Several tasks were completed in the laboratory. GPS positions were differentially corrected using data from the base station CORS, KOKOLE POINT 6 (KOK6). Differential correction resulted in sub-meter accuracy for 65.5 percent of the collected positions, and accuracy better than 2 meters for 88.1 percent of the collected positions.

Contexts, bags, and artifacts were entered into the T. S. Dye & Colleagues, Archaeologists database. Stratigraphic profiles were drafted using vector graphics software. Collected sediments were described for color, with reference to Munsell® Soil Color Chart [13], and for texture, with reference to Thien [40]. Collected artifacts, which were limited to diagnostic items recovered from fill materials, were washed, sorted by material, and identified.

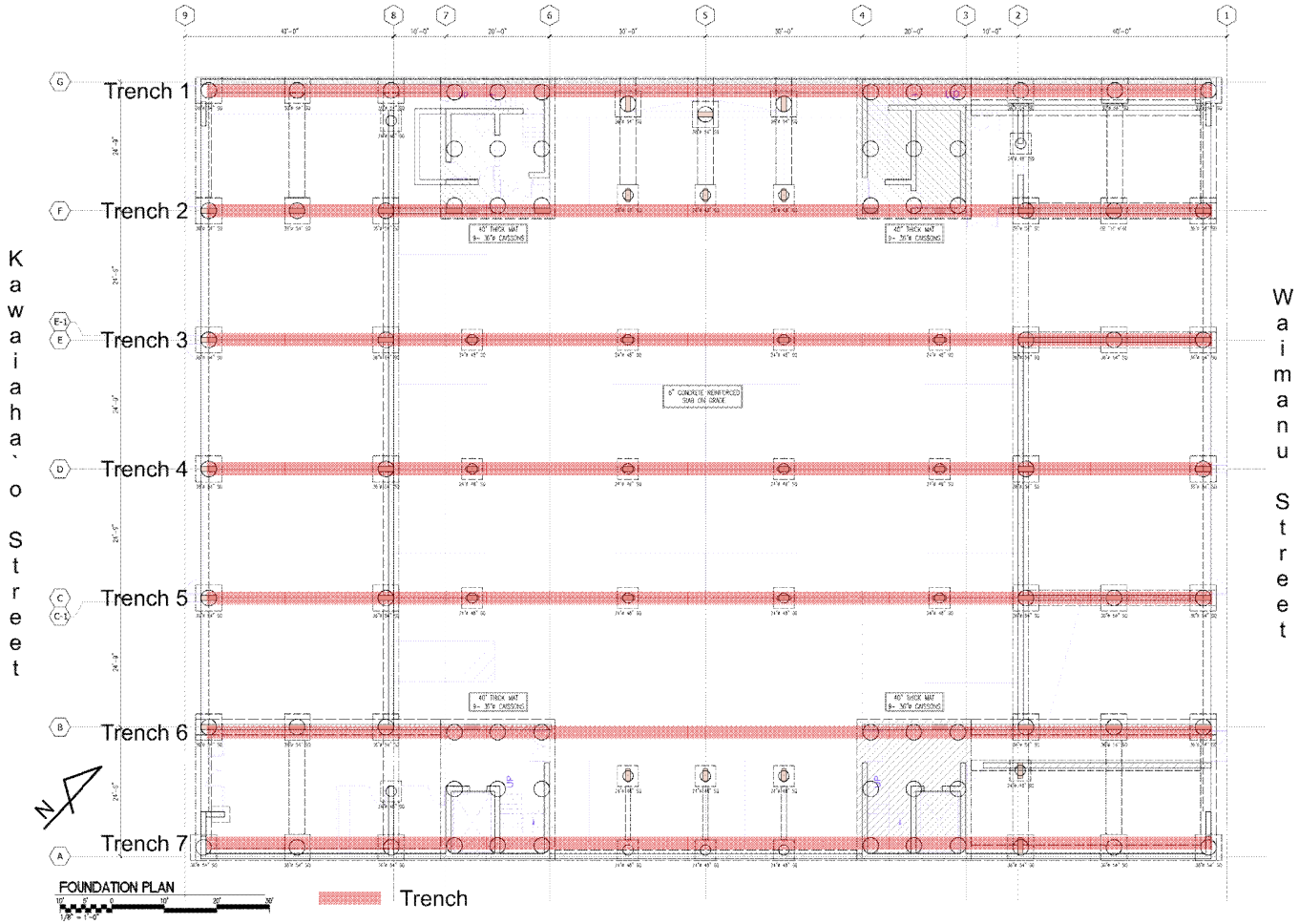


Figure 7: Planned locations of Trenches 1–7 in relation to the foundation plan of the proposed Ola Ka ‘Ilima Artspace Lofts project. The trenches are laid out to coincide with elements of the foundation with the potential to have an adverse effect on historic properties.

3.1 Consultation

T. S. Dye & Colleagues, Archaeologists consulted with the O'ahu Island Burial Council and with potential descendants prior to carrying out the inventory survey excavations described in this report. T. S. Dye & Colleagues, Archaeologists, along with Artspace and the PA'I Foundation, went before the O'ahu Island Burial Council on November 14, 2012. T. S. Dye & Colleagues, Archaeologists, without Artspace or the PA'I Foundation, went before the O'ahu Island Burial Council two additional times, informally on November 13 and as an agenda item on December 12, 2013. In addition, T. S. Dye & Colleagues, Archaeologists was represented at a meeting of potential descendants at the Hawaii Community Development Authority (HCDA) offices on the evening of June 18, 2013. No historic properties were identified as a result of the consultation.

3.2 Disposition of Collections

All collected materials are currently being housed by T. S. Dye & Colleagues, Archaeologists. They shall be held by T. S. Dye & Colleagues, Archaeologists until final disposition is determined.

4 Field Results

Fieldwork was conducted during two phases of the investigation. The first phase was archaeological monitoring for the drilling of sediment boreholes and the second phase was the excavation of the test trenches. Section 4.1 outlines the results of the sediment boring. It is followed by section 4.2, which reports the results of the test trench excavations.

4.1 Borehole Excavations

Several boreholes were excavated throughout the project location for a variety of planning purposes (fig. 8) and their depths ranged from 3 ft. below ground surface to 70+ ft. below ground surface. Since it was very unlikely to discover cultural materials beneath the level of the water table, deep boreholes were only monitored to a depth of approximately 10 ft. below ground surface. Observations of the boreholes established that fill materials were present throughout the proposed Ola Ka 'Ilima Artspace Lofts project, overlying a thin deposit of sandy clay and naturally deposited marine sand. No cultural materials of any kind were observed during the archaeological monitoring for the borehole drilling.

4.2 Trench Excavations

Six trenches were excavated throughout the proposed Ola Ka 'Ilima Artspace Lofts project (fig. 8). The stratigraphic profiles yielded by these excavations were relatively uniform, indicating a common depositional history across the parcel. Each of the six trench excavations revealed a typical profile consisting of asphalt surface material, fill materials, a thin deposit of clay, and basal marine sand within which the water table was found. In

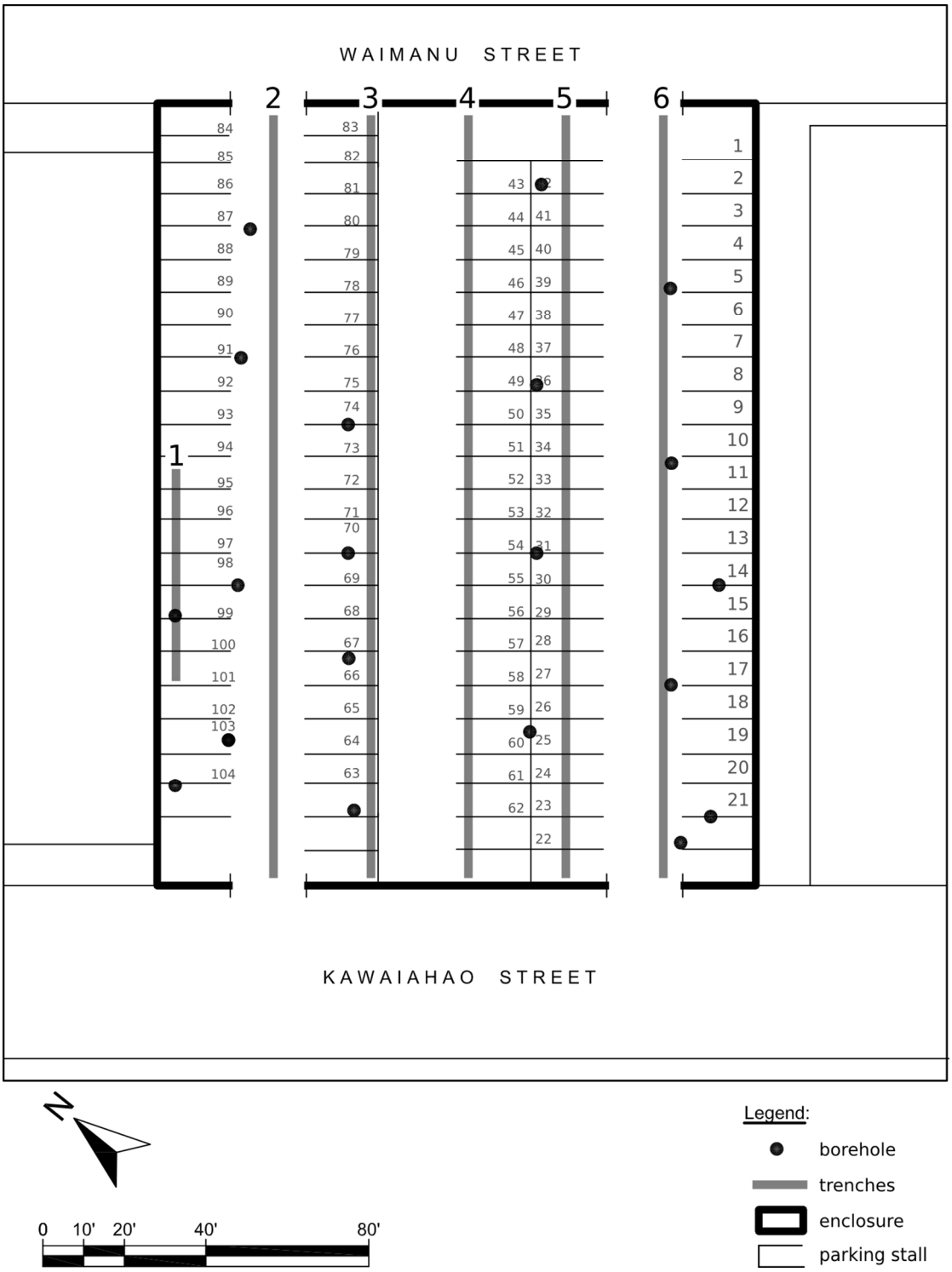


Figure 8: Map of the test trenches and boreholes in relation to the existing parking lot stalls. Base image courtesy of Bureau Veritas, North America.

several of the trenches, the backhoe operator, Charlie Souza, felt solid material beneath the sand. Consistently, throughout the proposed Ola Ka ʻIlima Artspace Lofts project, this solid material was beneath the water table and was not directly observed.

In each trench, the asphalt layer was designated Context 1, the fill layer was designated Context 2, the clay was designated Context 3, the sand was designated Context 4, and the deposit of solid material beneath the water table was designated Context 9 (fig. 9; table 1).

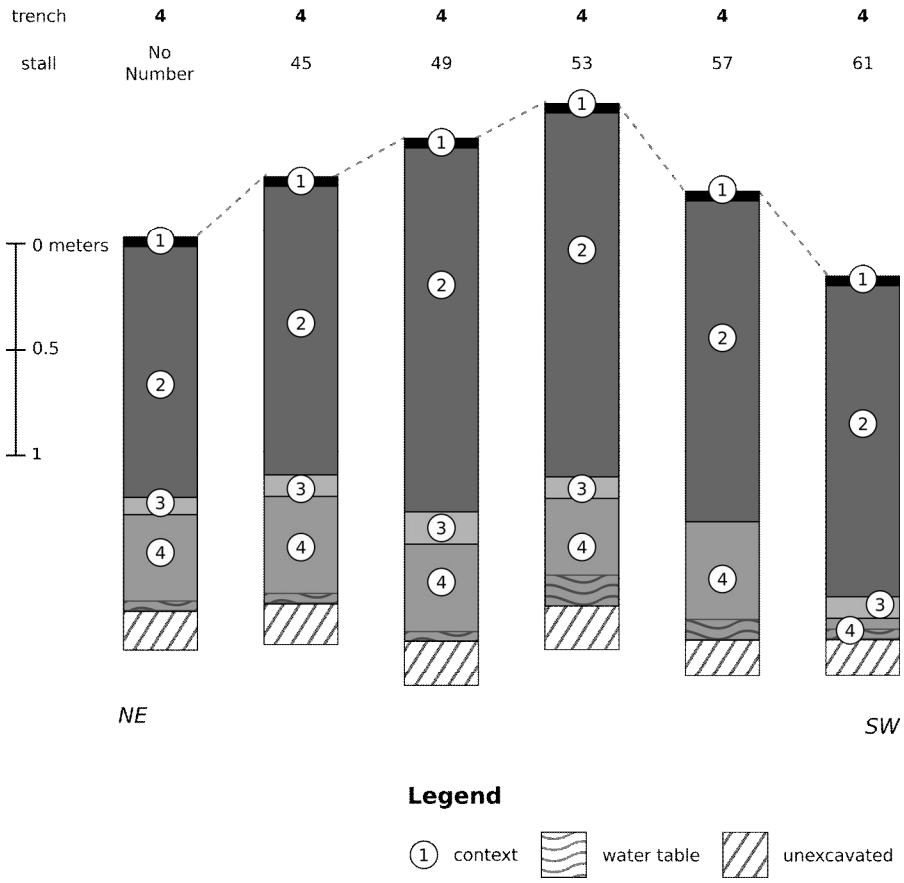


Figure 9: The typical site stratigraphy as observed at Trench 4.

Table 1: Sediment descriptions for Trench 4 stratigraphic profiles

Context	Depth*	Description	Interpretation
Trench 4, No Stall Number			
1	0–5	Black (10YR 2/1) asphalt pavement; *non-sticky*, non-plastic; *abrupt*, *smooth* lower boundary	Fill material deposition event

* Centimeters below surface.

Continued on next page

Continued from previous page

Context	Depth*	Description	Interpretation
2	5–120	Brown (10YR 4/3) marine and terrestrial very gravelly loamy sand; *slightly sticky*, *slightly plastic*; abrupt, smooth lower boundary	Fill material deposition event
3	120–130	Light gray (10YR 7/2) terrestrial clay; gley; *very sticky*, *very plastic*; abrupt, smooth lower boundary	Natural deposition process
4	130–175+	Light brownish gray (10YR 6/2) marine *coarse sand*; gley; non-sticky, non-plastic; base of excavation	Natural deposition process
Trench 4, Stall 45			
1	0–5	Black (10YR 2/1) asphalt pavement; non-sticky, non-plastic; abrupt, smooth lower boundary	Fill material deposition event
2	5–140	Brown (10YR 4/3) marine and terrestrial very gravelly loamy sand; slightly sticky, slightly plastic; abrupt, smooth lower boundary	Fill material deposition event
3	140–150	Light gray (10YR 7/2) terrestrial clay; gley; very sticky, very plastic; abrupt, smooth lower boundary	Natural deposition process
4	150–200+	Light brownish gray (10YR 6/2) marine coarse sand; gley; non-sticky, non-plastic; base of excavation	Natural deposition process
Trench 4, Stall 49			
1	0–5	Brown (10YR 4/3) marine and terrestrial very gravelly loamy sand; slightly sticky, slightly plastic; abrupt, smooth lower boundary	Fill material deposition event
2	5–175	Brown (10YR 4/3) marine and terrestrial very gravelly loamy sand; slightly sticky, slightly plastic; abrupt, smooth lower boundary	Fill material deposition event
3	175–190	Light gray (10YR 7/2) terrestrial clay; gley; very sticky, very plastic; abrupt, smooth lower boundary	Natural deposition process
4	190–235+	Light brownish gray (10YR 6/2) marine coarse sand; gley; non-sticky, non-plastic; base of excavation	Natural deposition process
Trench 4, Stall 53			
1	0–5	Black (10YR 2/1) asphalt pavement; non-sticky, non-plastic; abrupt, smooth lower boundary	Fill material deposition event
2	5–175	Brown (10YR 4/3) marine and terrestrial very gravelly loamy sand; slightly sticky, slightly plastic; abrupt, smooth lower boundary	Fill material deposition event

* Centimeters below surface.

Continued on next page

Continued from previous page

Context	Depth*	Description	Interpretation
3	175–185	Light gray (10YR 7/2) terrestrial clay; gley; very sticky, very plastic; abrupt, smooth lower boundary	Natural deposition process
4	185–235+	Light brownish gray (10YR 6/2) marine coarse sand; gley; non-sticky, non-plastic; base of excavation	Natural deposition process
Trench 4, Stall 57			
1	0–5	Black (10YR 2/1) asphalt pavement; non-sticky, non-plastic; abrupt, smooth lower boundary	Fill material deposition event
2	5–155	Brown (10YR 4/3) marine and terrestrial very gravelly loamy sand; slightly sticky, slightly plastic; abrupt, smooth lower boundary	Fill material deposition event
4	155–210+	Light brownish gray (10YR 6/2) marine coarse sand; gley; non-sticky, non-plastic; base of excavation	Natural deposition process
Trench 4, Stall 61			
1	0–5	Black (10YR 2/1) asphalt pavement; non-sticky, non-plastic; abrupt, smooth lower boundary	Fill material deposition event
2	5–150	Brown (10YR 4/3) marine and terrestrial very gravelly loamy sand; slightly sticky, slightly plastic; abrupt, smooth lower boundary	Fill material deposition event
3	160–170	Light gray (10YR 7/2) terrestrial clay; gley; very sticky, very plastic; abrupt, smooth lower boundary	Natural deposition process
4	170–180+	Light brownish gray (10YR 6/2) marine coarse sand; gley; non-sticky, non-plastic; base of excavation	Natural deposition process

* Centimeters below surface.

Asphalt, Context 1, was present as a surface pavement throughout the project area (fig. 10). It was typically 5 cm thick and was deposited relatively recently. The asphalt deposit, Context 1, overlay fill materials, Context 2.

A deposit of fill materials, Context 2, was present beneath the asphalt, Context 1, and above a deposit of clay, Context 3. The Context 2 fill material deposit consisted primarily of mixed marine dredge material. Context 2 fill material represented the highest volume of material that was observed. The Context 2 deposit ranged from 115 cm to 170 cm thick. As many as five applications of this fill material could be distinguished within Context 2; the primary distinguishing characteristic of fill material deposition events was sediment color which ranged from light gray (10YR 7/2) to very dark gray (10YR 3/1). Typically, however, the fill material was brown (10YR 4/3). Late nineteenth-century and early to mid-twentieth-century artifacts were present throughout the Context 2 deposit. All of these materials were recovered from the backhoe spoil, and could therefore not be correlated to a specific fill event. In any case, fill materials are secondary deposits

Figure 10: Photograph of the typical stratigraphic profile, as observed at Trench 4, stall 53. The frame looks east. The scale is in 10 cm increments.

by definition and their artifact content is not directly associated with the event of their application. The fill material deposit, Context 2, overlay clay, Context 3.

A deposit of clay, Context 3, was present beneath the fill material, Context 2, and above a deposit of sand, Context 4. The Context 3 clay deposit was thin relative to Contexts 3 and 4. It was 5–10 cm thick and was absent in isolated areas of the parcel. The clay ranged in color from greenish gray (5BG 6/1) to light gray (10YR 7/2). The bluish color of much of the clay indicates that the material typically remains wet and is likely intermittently saturated due to tidal fluctuation, infiltration of rain water, or a combination of these two variables.

Several artifacts were found in association with the Context 3 clay deposit, including pieces of wood, compacted wood chips, and miscellaneous historic-era refuse. The compacted wood chips were observed in the northern portion of Trench 3, stalls 79–81. They were present at the interface of the Context 3 clay and the Context 2 fill material (fig. 11). Miscellaneous historic-era artifacts were observed and collected from Trench 2, stall 103. They included a thick gauge ferrous wire, composite tar and metal slag, and milled wood (fig. 12). Two of these objects were collected. These objects were observed within the Context 3 clay deposit; however, it seems unlikely that the low-energy clay deposition formed around these materials. They are thus interpreted as later intrusions into the soft clay. Regardless of how their presence in the Context 3 clay deposit is interpreted, their stratigraphic position indicates that they are among the earliest historic-era materials deposited at the proposed Ola Ka ʻIlima Artspace Lofts project. The clay, Context 3, overlay calcareous marine sand, Context 4.

A deposit of calcareous marine sand, Context 4, was present beneath the clay, Context 3, and above a deposit of solid material believed to be a natural coral limestone deposit. The marine sand deposit was 45–55 cm thick. The material ranged in texture from coarse to medium grained, and in color from greenish gray (10G 6/1) to light brownish gray (10YR 6/2). Sand removed from above the water table was wet and often greenish gray

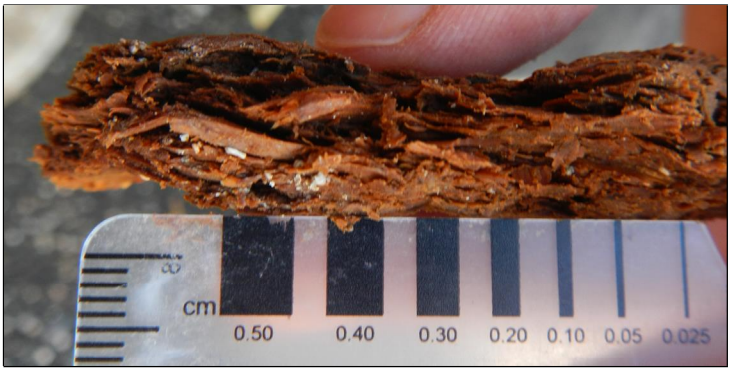


Figure 11: Detail photograph of wood chips from Context 2.

Figure 12: Historic-era materials observed within the Context 3 clay deposit: *left*, composite tar and metal slag; *middle*, milled wood; *right*, thick gauge ferrous wire. The scale is in 10 cm increments.

in color. This indicates that, like the Context 3 clay, the Context 4 sand was within the range of water table fluctuation. No deposit of Context 4 sand that might represent a buried beach berm was exposed by the trenches. The sand deposit, Context 4, overlay solid material, Context 9.

A deposit of solid material, Context 9, was present beneath the sand, Context 4. Context 9 was not visually observed because it was obscured by the turbid water at the bottom of the trench. The deposit was felt under the teeth of the backhoe and is believed to be natural marine limestone, a geologic deposit typical for coastal O‘ahu (see sec. 2.1).

No human bones or traditional Hawaiian cultural materials were observed in any of the proposed Ola Ka ‘Ilima Artspace Lofts project excavations.

5 Laboratory Results

A total of 35 artifacts were collected during the project. All of the artifacts collected were determined to be associated with the historic era. The artifacts collected were grouped into five categories by their material type and include glass, ceramic, metal, organic matter, and rock.

5.1 Material Types

Glass was the most abundant material category and represented 40 percent of the artifact assemblage. This is likely due to several factors, including the physical properties of glass that make it resistant to chemical decomposition and the propensity of archaeologists to collect glass artifacts for their diagnostic characteristics. Diagnostic characteristics of glass artifacts include color, shape, marks from the manufacturing process, and maker's marks. Combinations of these characteristics make individual artifacts diagnostic of specific time periods. The dating of the collected glass artifacts is discussed in detail in section 5.2.

Ceramic was the second most abundant material category and represented 34 percent of the artifact assemblage. Like glass, the high occurrence of ceramic artifacts can be attributed to its resistance to chemical decomposition, and the propensity of archaeologists to collect ceramics for their diagnostic characteristics. Diagnostic characteristics of ceramic artifacts include shape, material, firing temperature, decoration, and manufacturer's maker's marks. The ceramics collected represent household ceramics and included fragments of plates, a cup, and a *jar*.

The ceramics can be divided further by the materials used to make them and the temperature at which they were fired. This includes 3 categories: earthenware, stoneware, and porcelain. Earthenware is made from porous clay that is fired at a relatively low temperature and, due to its porosity, always has a surface glaze. Stoneware is made from clay and other minerals fired at a high temperature. It is not porous and can be used either glazed or unglazed. Porcelain is made from kaolin clay and fired at a very high temperature. It can be distinguished from other ceramics because it is translucent when held to the light while the other ceramic types are not.

Ceramics in the assemblage can also be classified by their decorative techniques. There are four decorative categories present in the assemblage: hand painted, gilded, and transfer. Hand-painted ceramics are easily discernible by the irregular strokes indicative of hand painting and usually come in floral and concentric line patterns. Gilded ceramics use gold leaf and gold powder to decorate the surface of the ceramic. Gilding is usually seen as a line around the rim of the vessel, but can also be seen in design form on vessels as well. Transfer uses transfer printing, a process where the design is engraved on a copper plate, then transferred to tissue paper with ink and applied to the surface of the ceramic. Some ceramics may exhibit a combination of these different decorative techniques.

Two brick fragments were also included in the ceramic assemblage. Bricks are classified as a type of ceramic because they are fired at a high temperature and are usually made

from combinations of clay, lime, and sand and may also have inclusions of crushed rock within them to increase strength and durability. Bricks are important because they have the potential to possess diagnostic characteristics that include manufacturer's marks and changes in manufacturing practices over time.

Organic materials made up 11 percent of the assemblage. Collected organic materials included leather straps, and medium-sized mammal bone. All organic remains were found within a fill material context and are believed to be historic in age. Some of the organic materials were modified. Holes were punched in the leather straps, and parallel striae on one of the bones suggests that it was cut with a mechanical band saw. Since the organic remains were recovered from a secondary context, they are of limited analytical use. They were collected primarily as manuports that were atypical of the material types most commonly seen at the proposed Ola Ka 'Ilima Artspace Lofts project. Despite its limited analytical use, the medium mammal bone pieces do demonstrate that where bone was present within the proposed Ola Ka 'Ilima Artspace Lofts project, bone was found.

Metal artifacts made up approximately 6 percent of the assemblage. None of the metal artifacts could be identified to a specific type. This is due to a couple of factors, including the fast deterioration rate of metal objects in the relatively wet climate of Honolulu, and also because metal objects seemed to represent discarded construction materials. Metal objects from Context 3 were of particular note because they were found beneath the fill materials within the clay. This is significant because it suggests that they were among the first deposited and intruded secondarily into the clay deposit.

Rock represented approximately 6 percent of the assemblage. The rock class included pieces of cf. anthracite coal[18] and one piece of volcanic rock. Both of the rocks were collected because they represented exotic material manuports. There are no coal deposits in the Hawaiian Islands, so it had to have been imported. The volcanic rock is also a likely import. It was of greenish gray color, microcrystalline texture, and had several small (0.1 mm diameter) black phenocrysts. It was collected because the color and texture of the rock appeared atypical of the basaltic volcanic rocks in the Hawaiian Islands.

The remaining 3 percent of the assemblage is one object, a cake of composite cf. tar and metal slag.

5.2 Dates of Artifact Manufacture

Approximately 94 percent of the artifacts collected came from within the Context 2 fill materials used for land reclamation. The remaining 6 percent came from Context 3, a deposit of natural gleyed clay just below the fill and above the Context 4 natural marine sand. The artifacts collected from Context 2 are secondarily deposited components of the fill material. Similarly, artifacts from the Context 3 natural clay are interpreted as being secondarily deposited intrusions from the Context 2 fill materials above them. The artifacts recovered from the Context 2 fill materials represent three general time

[18]The classification of coal is up for debate within the geologic community. Strictly defined, rock is an aggregate of inorganic material originating from within the earth. Similarly, coal is an aggregate material originating from the earth; however, it is predominantly composed of carbon and is therefore organic. For the purpose of this discussion, coal is considered a rock.

periods: 1880–1900, 1910–1930, and 1955–1960. Seventy-seven percent of the artifacts collected were attributed to these time periods. The remaining 23 percent that could not be attributed to a specific time period included artifacts of leather, slag, and corroded and rusty metal.

5.2.1 1880–1900

The first time period represented is the late nineteenth century, between 1880 and 1900. Fifteen of the artifacts, or 42 percent of the assemblage, dated to this time period. Exact dates could not be determined for the artifacts because of their fragmented nature, but the ceramic and glass artifacts do have time-specific diagnostic characteristics that suggest that they are from this time period. Artifacts from this time period were primarily encountered in the northwest portion of the proposed Ola Ka ʻIlima Artspace Lofts project, in Trenches 2 and 3 (see fig. 8, p. 23).

A free-blown dark olive green (black) glass bottle base with a kick-up and a distinct pontil mark with an associated air bubble was collected (fig. 13). The pontil mark, lack of side seams, and irregularity of the bottle base all indicate that the bottle was free blown. Most free-blown bottles predate 1860; however, west coast glass houses located mostly in the area of San Francisco produced free-blown bottles well into the 1880s.[19] This trend was due to several factors, including a lack of competition from European and east coast glass houses, unskilled labor, and the inability to retain workers. Also, most black glass bottles date between 1840 and 1880, but due to the reasons stated above and a geographic monopoly of the area, black glass bottles were produced up until the turn of the century by west coast glass houses, most of which supplied Hawaiʻi. Due to these characteristics, it is likely that the bottle dates to the late nineteenth century. Three additional black glass bottle fragments were collected and likely date to this time period as well.

Seven fragments of ceramic (fig. 14) and two brick fragments were collected in association with the black glass bottle fragments. None of the ceramic or brick fragments had any maker's marks. Four of the fragments are transfer, with three fragments in cobalt blue and one in green. One of the cobalt blue fragments has the distinctive Blue Willow pattern. The Blue Willow pattern is one of the most popular and most reproduced ceramic patterns of all time. It has been used for over 200 years. The pattern was extremely popular during the latter half of the 1800s and the turn of the century. It was so popular, an opera highlighting the story of the pattern debuted in 1901 and a silent film was made about the pattern in 1914.

One of the six fragments is semi-porcelain and has gilding and a hand-painted floral motif. Most floral motifs of this kind used decals for the leaves of the floral pattern after the turn of the century. The decal was patented in the mid-1890s and consists of a decal applied to the ceramic and coated with an over glaze. Also, semi-porcelain became popular and widely used at the turn of the twentieth century because it was cheap and cost less to produce than porcelain. These characteristics make it likely that the ceramic fragment dates to the late nineteenth century.

[19] Society for Historical Archaeology, "Black Glass," accessed January 7, 2014, `http://www.sha.org/bottle/colors.htm#BlackGlass`.

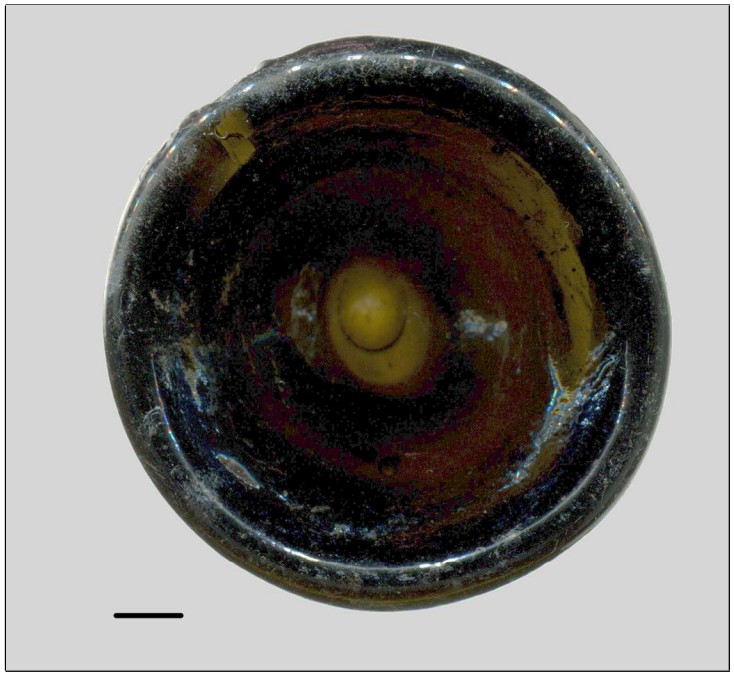


Figure 13: Detail photograph of a late nineteenth-century bottle base. Note the irregular thickness of the rim, as well as the pontil and bubble in the center of the bottle. This bottle was collected from Trench 2, stall 99, Context 3. The scale is 1 cm.

One of the brick fragments collected has volcanic inclusions within it which indicate it was locally made. The brick is large, somewhat irregular in shape, and has no maker's mark. Generally, older bricks tend to be larger as the size of bricks decreased over time. It is likely to date to the late nineteenth century as well due to size, irregularity, lack of a maker's mark, and its association with other other materials from this time period.

5.2.2 1910–1930

The second time period represented in the assemblage is between 1910 and 1930. Two of the artifacts, or 6 percent of the assemblage, dated to this time period. These artifacts were found together in the southeast portion of the proposed Ola Ka 'Ilima Artspace Lofts project in Trench 6.

A square, clear glass extract bottle with the maker's mark "J/A/F/&/Co." embossed on three of the four side panels was collected (fig. 15, *right*). The base has a triangular maker's mark with illegible letters or numbers within it and an "I" below it. The bottle was produced on an Owens Automatic Bottle Machine and has a suction scar on its base and a threaded top for a metal screw cap [43]. The bottle would have been produced for the J. A. Folger Company of San Francisco, California and would have been distributed between 1910 and 1929. The J. A. Folger Company maker's mark was discontinued in 1929.

A second small, square, clear glass bottle with maker's mark "P in a circle logo/52/7" was collected (fig. 15, *left*). The bottle would have been produced by the Pierce Glass Company and the P in a circle logo was used by the company between 1905 and 1987.[20]

[20] "Owens machine suction scars," accessed January 7, 2014, `http://www.sha.org/bottle/bases.htm`.

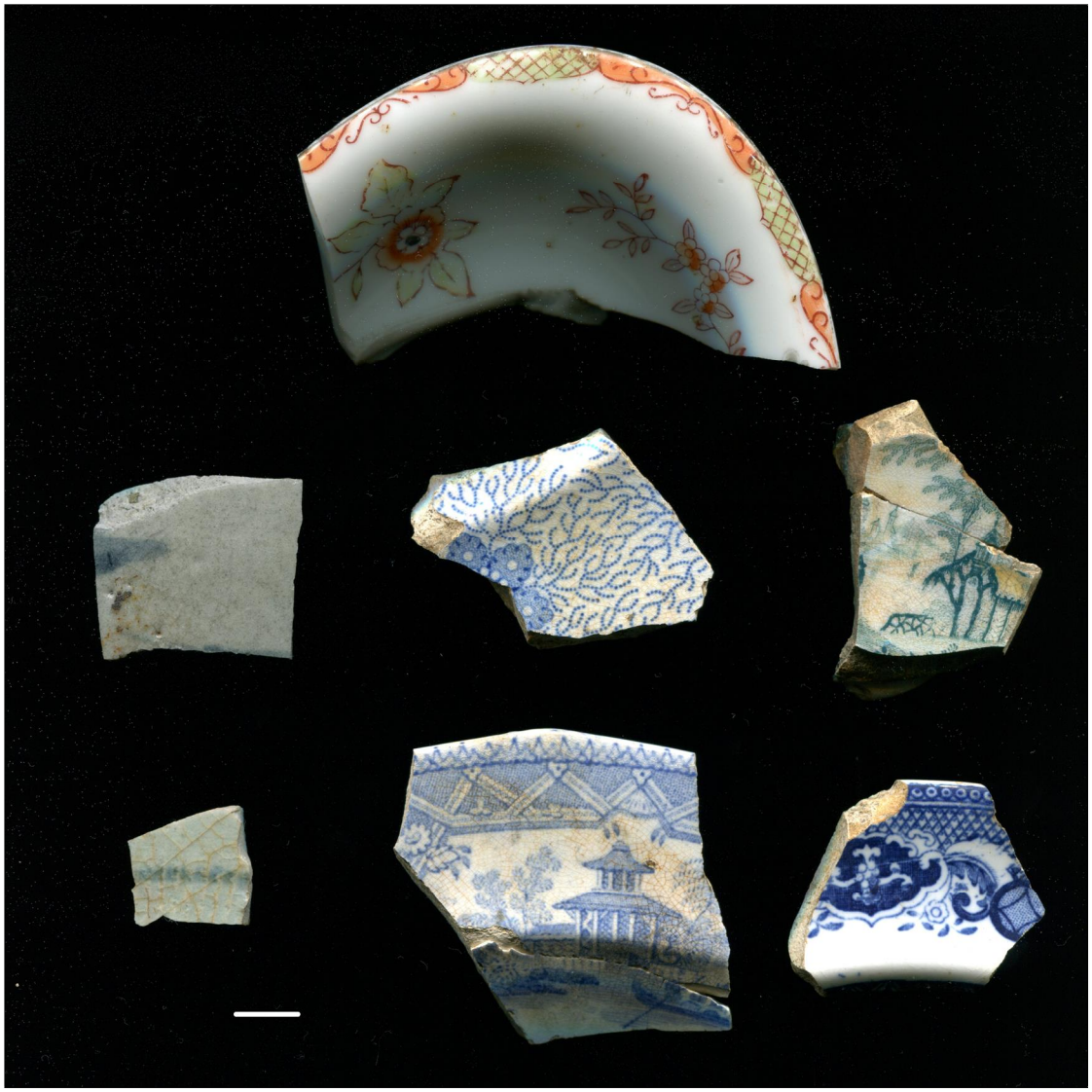


Figure 14: Photograph of nineteenth-century ceramic sherds. The scale is 1 cm.

The bottle would have also been produced on an Owens Automatic Bottle Machine and has a suction scar on its base and has a cork style closure. Due to these characteristics the bottle likely dates between 1910 and 1930.

5.2.3 1955–1960

The third time period represented in the assemblage is the late 1950s. Nine of the artifacts, or 26 percent of the assemblage, dated to this time period. Artifacts from this time period were encountered at the northwest portion of the Ola Ka ʻIlima Artspace Lofts area, in Trenches 1 and 3. These artifacts included glass bottles, as well as two ceramic vessels.

Figure 15: Photograph of early twentieth-century glass bottles: *left*, Pierce Glass Company bottle; *right*, J. A. Folger bottle. The scale is 1 cm.

A clear glass ketchup bottle with maker's mark "20/I in a circle logo/7/3-1/Duraglas/1735-EP" was collected (fig. 16). The bottle is machine made and has fluting around the shoulder and would have had a metal screw cap and a paper label. The bottle was produced by the Owens-Illinois Glass Company and the maker's mark/date code indicates that it was produced in the Oakland, California factory in 1957 [20].

A clear glass crown top Canada Dry soda bottle with maker's mark "MG/8312/57/4" was collected (fig. 16). The bottle is machine made and has stippling and an applied color label. The maker's mark indicates that the bottle would have been produced by the Maywood Glass Company of Compton, California in 1957.

A melted clear glass soda bottle base with maker's mark "23/I in a circle logo/57/Duraglas/25" was collected. The bottle is machine made and has stippling and an applied color label. The bottle was produced by the Owens-Illinois Glass Company and the maker's mark/date code indicates that it was produced in the Los Angeles, California factory in 1957 [20].

A brown glass crown top beer bottle with maker's mark "8A/TMC logo/57/G" was collected (fig. 16). The bottle would have had a paper label and the shoulder is embossed with lettering that reads "NO DEPOSIT/*/NO RETURN/NOT TO BE REFILLED" and the base and heel of the bottle have stippling. The maker's mark indicates that the bottle would have been produced by the Thatcher Glass Manufacturing Co. Inc in 1957 [21].

A complete milk glass cold cream jar, a melted cold cream jar fragment, a machine-made glass handle fragment, a semi-porcelain saucer fragment, and a semi-porcelain lid were

Figure 16: Photograph of mid-twentieth-century glass containers. The scale is in 1 cm and 2 cm units.

collected. None of these artifacts had any datable characteristics, but their association with the bottles mentioned above makes it likely that they also date to the late 1950s.

Mid-twentieth-century ceramic artifacts included two porcelain pottery sherds. The sherds included one small shallow sauce dish, and one small vessel lid. The sauce dish was hand painted with cobalt blue and pink glazes depicting vegetation. The vessel lid is transfer printed with red and black glazes and gilded; the design depicts tropical vegetation and geometric patterns. The primary distinguishing factor that grouped these two ceramic sherds into the 1955–1960 time period was their association with mid-twentieth-century glass artifacts. These types of ceramic pottery can be found in Japanese curio shops in the present day. Despite having no temporally diagnostic characteristics of their own, their association with the historic glass artifacts makes it likely that they were deposited at the same time.

6 Summary and Conclusions

Subsurface archaeological inventory survey at the proposed Ola Ka ʻIlima Artspace Lofts project was carried out in two phases. The first phase observed excavation of boreholes designed to collect information for engineering studies. The second phase excavated six trenches placed where the proposed building foundation had the potential to adversely

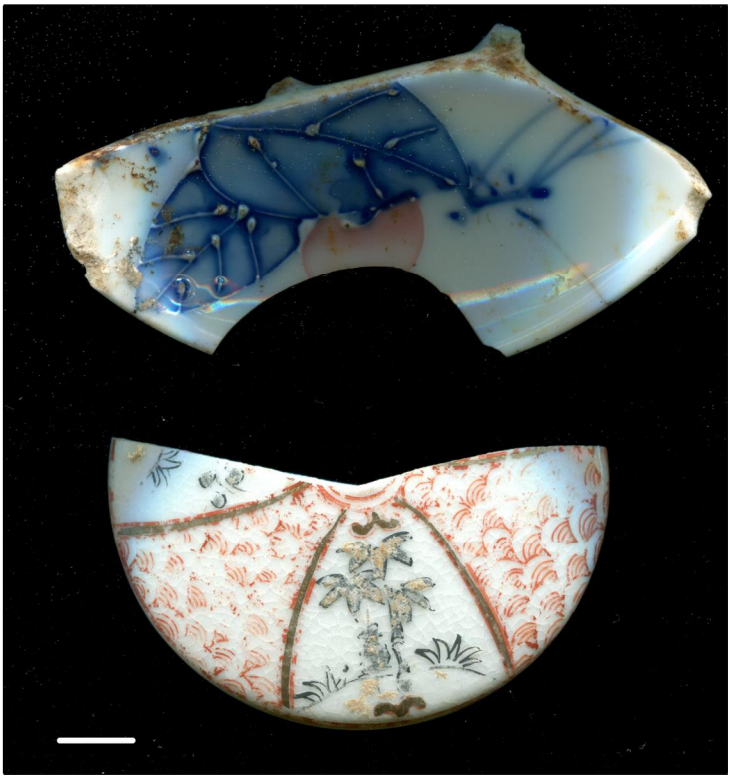


Figure 17: Photograph of mid-twentieth-century ceramics. The scale is 1 cm.

affect historic properties, and oriented to maximize the discovery probability of a landform suitable for traditional Hawaiian burial.

No historic properties were identified by the inventory survey. In addition, no deposit that might indicate a buried beach berm was identified. Given the nature of a beach berm—a linear feature parallel to the coastline—the negative results of the inventory survey excavations indicate that it is extremely unlikely that a buried beach berm suitable for traditional Hawaiian burial is present at the proposed Ola Ka ʻIlima Artspace Lofts project.

Prior to the late nineteenth century, the proposed Ola Ka ʻIlima Artspace Lofts project was a natural marsh environment where cultural activities left no discernible trace. This marsh environment began to form about 3,500 years ago, when the sea began to recede from its mid-Holocene high stand. The proposed Ola Ka ʻIlima Artspace Lofts project was likely underwater at this time, but as the sea level receded, calcareous sand identified in the field as Context 4 was deposited on the hard foundation identified in the excavations as Context 9. By the time Polynesians settled Hawaiʻi in about the eleventh century AD [2; 8], the proposed Ola Ka ʻIlima Artspace Lofts project, and the Kewalo region in general, would have been a low, marshy environment, similar to the one noted on nineteenth-century maps of the area. Because water in the marsh was subject to tidal fluctuations, fine materials were constantly sorted and deposited near the surface as clay, which was observed during the fieldwork and recorded as Context 3.

There is much confusion about this natural wetland deposit in the archaeological literature.

Elsewhere in Kewalo, natural wetland sediments have been identified as an archaeological site, site 50-80-14-6636, and described as the subsurface remnants of the Kewalo wetland [25:54]. At the location where this site number was assigned, a long berm was present both in the excavations and on a nineteenth-century map. The long berm is plausibly associated with efforts to manage the Kewalo wetland for agricultural or other uses. On this basis, site 50-80-14-6636 was determined eligible for listing on the Hawai'i Register of Historic Places under Criteria A and D, and recommended eligible for the National Register of Historic Places under Criterion D [16:vi]. Inexplicably, the site number was assigned and significance determined without establishing the boundaries of site 50-80-14-6636. This omission has led to considerable confusion in the literature. Clark and Gosser [7] ignored the presence of the long berm at the original site 50-80-14-6636 location and argued against assigning a site number to the Kewalo wetland because it is a natural landscape feature and not a result of human activity. Their excavations revealed the remnants of a man-made pond in the approximate location of a pond shown on a nineteenth-century map, and they assigned site 50-80-14-6636 to this cultural feature of the landscape. Natural sediments associated with the Kewalo wetland were also identified, but these were not assigned a site number. A second source of confusion has been the practice of assigning exposures of the natural Kewalo wetland deposits that lack evidence of human activity to site 50-80-14-6636 as components of that site [e.g., 1; 15; 16; 24; 26; 31; 36; 44]. Other investigations that exposed the wetland deposit have not added components to site 50-80-14-6636 [e.g., 22; 42]. Finally, several other sites have been identified within the boundaries of site 50-80-14-6636 [35:69], either as points or as polygons that partially overlap the discontiguous natural wetland components of the site.

Recently, an irregularly shaped, "interpolated site boundary" for site 50-80-14-6636 was proposed [16:385]. This version of site 50-80-14-6636 assigns a feature designation to the long sand berm, ignores the pond described by Clark and Gosser [7], fails to note the work of Park and Collins [31], takes in only a portion of the area shown as wetland on nineteenth-century maps, and includes several other identified and numbered sites [35:69]. These site boundaries include several natural wetland components. As their number increased, it became impossible to sustain the determination that the site was associated with events that have made an important contribution to the broad patterns of our history, and a recommendation was made to determine that the site, as currently defined, be considered significant for its information content, Criterion D [16:424]. The specific kinds of information the site might be expected to yield include 'pre-Contact to early twentieth century habitation, and agricultural and aquacultural use of the former Kewalo wetland" [16:425].

The various uses of site 50-80-14-6636 identified by archaeologists include "agriculture, aquaculture, and habitation" [16:212]. However, these uses were identified at particular cultural features established within the wetland and do not pertain to the wetland, per se. There is quite a bit of evidence that the wetland sediments represent a natural deposit

of a kind commonly found on low-lying Pacific island coastlines after a drop in local sea level. Pollen identifications indicate the wetland supported a sedge marsh into the historic period, when pollen from historically introduced plants, such as *kiawe*, was deposited [24:171–174]. There is some evidence that the sedge marsh grew drier over time [16:422], but pollen identifications do not indicate agricultural uses of the wetland as a whole. Wood charcoal pieces from wetland sediments have been identified to include a temperate hardwood and likely represent either historic-era deposits or mixed deposits with traditional Hawaiian and historic-era components; the single traditional Hawaiian artifact, a piece of volcanic glass, was recovered from the same context that yielded the wood charcoal. The rest of the artifacts recovered from the wetland deposits are historic-era materials that date to "the late 1800s to early 1900s" [16:422]; these likely represent the first stage of fill material application that has since reclaimed the marsh. Analysis of snail shells indicates a coastal location typical of a marsh, but has not yielded information on cultural activities.

Following the period in which the proposed Ola Ka ʻIlima Artspace Lofts project was an open wetland, several applications of fill material were laid. Based solely on the historic-era artifacts that were found, we can say with certainty that the project area was filled as late as 1957, the date of the most recent artifact (see sec. 5). Most of the assemblage, however, is from an earlier date and suggests that the earliest filling occurred prior to 1957. Traditional histories and land conveyance records shed additional light on the transformation of the proposed Ola Ka ʻIlima Artspace Lofts project to its present state. In the early to mid-nineteenth century, the proposed Ola Ka ʻIlima Artspace Lofts project was owned by the Kamakeʻe family and their descendants. Specific land use information from this time period is sparse but it is likely that the land remained relatively undeveloped. By the turn of the twentieth century, the land was subdivided and sold for housing and commercial purposes. By 1911, the proposed Ola Ka ʻIlima Artspace Lofts project was actively used as a lumberyard. It is very likely that the first filling of the proposed Ola Ka ʻIlima Artspace Lofts project occurred prior to this date. The fieldwork observed thick, isolated pockets of wood chips and construction debris at the interface between the clay and the fill materials. These deposits may be related to the use of the land for the lumberyard; however, this correlation is tenuous. In any case, through the remainder of the twentieth century, the proposed Ola Ka ʻIlima Artspace Lofts project was used for other commercial purposes, first as a construction base yard and more recently as a parking lot.

No historic properties were discovered during the archaeological inventory survey for the proposed Ola Ka ʻIlima Artspace Lofts project. Therefore, it is recommended that a determination of "no historic properties affected" be made for the proposed Ola Ka ʻIlima Artspace Lofts project.

The absence of a beach berm at the proposed Ola Ka ʻIlima Artspace Lofts project indicates that traditional Hawaiian burials are unlikely to be present. Because most of the traditional Hawaiian land surface that will be disturbed by construction was investigated during the archaeological inventory survey, it is recommended that no archaeological monitoring be carried out. In the unlikely event that human remains are inadvertently discovered during construction of the proposed Ola Ka ʻIlima Artspace Lofts project, all

work in the vicinity of the find should stop and the State Historic Preservation Division (SHPD) should be contacted. Construction work in the vicinity of the find can resume once a plan for treating the inadvertently discovered remains has been implemented.

A Stratigraphic Contexts

Context	Unit	Description
1	project area	Ground surface across the project area. It consists of asphalt pavement which overlies Context 2 fill material.
2	Trenches 1–6	A thick deposit of fill material beneath an asphalt pavement, Context 1, and above natural sediment, Contexts 3 and 4.
3	Trenches 2–6	A deposit of natural gleyed clay beneath the fill, Context 2, and above natural marine sand, Context 4.
4	Trenches 2–6	A deposit of natural marine sand beneath clay, Context 3, or fill, Context 2, and present to the base of the excavation.
5	Trench 1	Sand deposit beneath Context 2 and above Context 6.
6	Trench 1	Clay beneath Context 2 and above Context 7.
7	Trench 1	Sand beneath Context 6 and above Context 8.
8	Trench 1	Back clay beneath Context 7 and present to the base of the excavation.
9	project area	A deposit of solid material beneath the Context 4 sand and beneath the water table. This deposit was not visually observed; it was observed by Charlie Souza, who mentioned feeling solid material at the base of the excavation with the backhoe bucket.

B Field Catalog

Catalog	Site	Unit	Context	Contents
1	No site number	No unit	2	Sediment
2	No site number	No unit	3	Sediment
3	No site number	No unit	4	Sediment
4	No site number	Trench 2, stall 98	2	Historic artifact
5	No site number	Trench 2, stall 99	2	Historic artifacts
6	No site number	Trench 1	6	Sediment
7	No site number	Trench 1	8	Sediment
8	No site number	Trench 1, stall 99	2	Historic artifacts
9	No site number	Trench 6, stall 16	2	Historic artifacts
10	No site number	Trench 2, stall 103	3	Historic artifacts
11	No site number	Trench 3, stall 65	2	Historic artifacts
12	No site number	Trench 6, stall 21	2	Historic artifacts
13	No site number	Trench 2, handicapped stall	2	Medium mammal bone
14	No site number	Trench 3, Stall 75	2	Historic artifacts
15	No site number	Trench 3, Stall 80	3	Bulk clay
16	No site number	Trench 5, Stall 42	2	Glass bottle base
17	No site number	Trench 5, Stall 42	3	Bulk clay
18	No site number	Trench 5, Stall 36	3	Bulk sandy clay

C Artifact List

Bag	Material	Class	Period*	#	Wt.†	Whole	Notes
Trenches 1–6, Context 2							
4	rock	*manuport*	hist.		1.0		An aphanitic volcanic rock, with small (0.1 mm) black phenocrysts
5	ceramic	base	hist.	2	12.5		Two piece refit. Footring portion of small white earthenware cup or bowl with a green transferware motif; length 4.9 cm; width 3.3 cm; thickness 0.5 cm
5	ceramic	body	hist.	1	15.0		White earthenware plate fragment with light blue floral transferware design; length 4.7 cm; width 3.5 cm; thickness 0.7 cm
5	ceramic	body	hist.	1	11.1		Gray glazed stoneware jug or jar fragment with blue hand painting; length 3.5 cm; width 3.0 cm; thickness 0.5 cm
5	ceramic	body	hist.	1	4.7		Gray glazed stoneware body sherd with blue hand painting. Unglazed on a portion; length 2.0 cm; width 1.9 cm; thickness 0.8 cm
5	ceramic	brick	hist.	1	737.0		Unmarked red brick fragment with volcanic inclusions; length 10.4 cm; width 8.6 cm; thickness 6.6 cm
5	ceramic	brick	hist.	1	538.6		Orange brick fragment with concrete attached; length 10.5 cm; width 9.6 cm; thickness 5.0 cm
5	ceramic	rim	hist.	1	41.7		Rim sherd with portion of footring. Irregularly shaped semi-porcelain vessel fragment with gilding around the edge. Floral motif and edge design hand painted on the ceramic; length 8.8 cm; width 4.9 cm; thickness 0.5 cm

* trad. = Traditional, hist. = Historic; † Weight in grams.

Continued on next page

Continued from previous page

Bag	Material	Class	Period*	#	Wt.†	Whole	Notes
5	ceramic	rim	hist.	1	8.3		White earthenware plate fragment with blue willow transferware design; length 4.2 cm; width 3.5 cm; thickness 0.4 cm
5	coal	manuport	hist.	3	62.4		Possibly anthracite coal. Largest specimen measured; length 5.4 cm; width 3.4 cm; thickness 3.1 cm
5	glass	bottle	hist.	1	263.6		Handblown dark olive green bottle base. Has pontil rod scar with associated air bubble. Would have held wine or spirits; height 3.8 cm; diameter 9.1 cm; thickness 0.8 cm
5	glass	bottle	hist.	1	50.6		Handblown dark olive green bottle base fragment; length 5.3 cm; width 5.2 cm; thickness 1.4 cm
5	glass	bottle	hist.	1	37.7		Dark olive green bottle fragment. Patinated; length 6.0 cm; width 4.7 cm; thickness 0.5 cm
8	ceramic	lid	hist.	1	25.3		Gilded semi-porcelain lid with orange fan and black bamboo motif decal. Concentric line around outside of lid. No maker's mark; width 3.4 cm; diameter 7.3 cm; thickness 0.6 cm
8	ceramic	saucer	hist.	1	22.6		Hand-painted semi-procelain with leaf motif. Has a portion of the footring; length 9.1 cm; width 4.3 cm; thickness 0.4 cm
8	glass	bottle	hist.	1	334.1		Clear glass Canada Dry soda bottle, maker's mark "MG/8312/57/4." Machine-made bottle with stippling and applied color label. Produced in 1957 by the Maywood Glass Company of Compton, California; height 20.0 cm; diameter 5.8 cm; thickness 0.6 cm

* trad. = Traditional, hist. = Historic; † Weight in grams.

Continued on next page

Continued from previous page

Bag	Material	Class	Period*	#	Wt.†	Whole	Notes
8	glass	bottle	hist.	1	206.3	✓	Brown glass beer bottle, maker's mark "8A/TMC Logo/57/G," shoulder embossed "NO DEPOSIT/*/NO RETURN/NOT TO BE REFILLED." Crown top machine-made bottle with stippling. Produced by the Thatcher Manufacturing Glass Company in 1957. Would have had a paper label; height 19.0 cm; diameter 6.5 cm; thickness 0.6 cm
8	glass	bottle	hist.	1	117.1		Melted clear glass soda bottle base, maker's mark "23/I in circle logo/57/Duraglas/25." Machine-made bottle with applied color label and stippling. Produced by the Owens-Illinois Glass Company in 1957 in the Los Angeles, California factory; height 5.9 cm; width 7.7 cm; thickness 0.5 cm
8	glass	handle	hist.	1	46.6		Machine-made clear glass handle; length 7.3 cm; width 5.3 cm; thickness 1.4 cm
8	glass	jar	hist.	1	37.6		Melted milk glass cold cream bottle fragment, maker's mark "62." Threaded for metal lid. The "62" is the likely year of production as it is located on the right middle side of the base; height 2.9 cm; diameter 5.3 cm; thickness 0.8 cm
8	glass	jar	hist.	1	425.2		Milk glass cold cream jar, maker's mark "18-2" on base. Machine-made with threaded top for metal lid; height 8.7 cm; diameter 8.5 cm; thickness 0.8 cm

* trad. = Traditional, hist. = Historic; † Weight in grams.

Continued on next page

Continued from previous page

Bag	Material	Class	Period*	#	Wt.†	Whole	Notes
9	ceramic	plate	hist.	3	17.7		Three piece refit. White earthenware blue transferware plate rim fragment with pagoda motif; length 5.2 cm; width 5.1 cm; thickness 0.6 cm
9	glass	bottle	hist.	1	21.0		Small olive green bottle base with smooth rounded bottom. Patinated; diameter 4.0 cm; thickness 1.5 cm
11	glass	bottle	hist.	1	275.8		Clear glass ketchup bottle, maker's mark "20/I in circle logo/7/3-1/Duraglas/1735-EP." Machine-made with screw top and stippling. Fluted around the shoulder and would have had a paper label. Produced by the Owens-Illinois Glass Company in 1957 at the Oakland, California factory; height 21.0 cm; diameter 6.5 cm; thickness 0.5 cm
12	bone	manuport	hist.	1	141.7		Saw-cut medium-sized mammal bone, likely bovine; length 7.6 cm; width 4.6 cm
12	glass	bottle	hist.	1	170.1	✓	Square clear glass extract bottle, maker's mark "J/A/F/&/C" embossed on three of the four side panels. The base has a triangular maker's mark with illegible letters or numbers within it and an "I" below. Bottle is machine-made, is threaded for a metal screw cap and has a suction scar on the base. The bottle was produced for J. A. Folger and Company of San Francisco, California and was distributed between 1910 and 1929; height 12.6 cm; length 4.3 cm; width 4.2 cm

* trad. = Traditional, hist. = Historic; † Weight in grams.

Continued on next page

Continued from previous page

Bag	Material	Class	Period*	#	Wt.†	Whole	Notes
12	glass	bottle	hist.	1	48.1		Small, square clear glass bottle, maker's mark "P in a circle logo/52/7." Produced by the Pierce Glass Company. The P in a circle logo was used between 1905 and 1987. The bottle has a large circular scar on the base showing it is machine-made and would have had a cork closure. Due to these characteristics it is likely to date to the 1920s or 30s; height 6.7 cm; length 2.5 cm; width 2.5 cm
13	bone	manuport	hist.	1			Medium mammal bone, likely cf. *Sus scrofa*
14	bone	manuport	hist.				Spiral fractured medium mammal bone, likely bovine
14	ceramic	body	hist.	1	11.1		A hand-painted, semi-porcelain body sherd with floral motif on one side and concentric line on the reverse side; length 4.1 cm; width 2.2 cm; thickness 0.7 cm
14	leather	strap	hist.	2	37.1		Leather strap fragment with ferrous metal and a fragment of thin hole punched leather. Measurements are of largest piece; length 10.7 cm; width 2.6 cm; thickness 0.4 cm
14	metal	unidentified	hist.	1	114.2		Ferrous metal slag material; length 5.5 cm; height 5.7 cm; width 3.0 cm
16	glass	bottle	hist.	1	88.0		Dark olive green bottle base fragment. Bottle was likely hand blown into a mold. No identifying marks, no mold seams, and air bubbles within the glass; height 3.5 cm; thickness 0.7 cm; diameter 6.3 cm

* trad. = Traditional, hist. = Historic; † Weight in grams.

Continued on next page

Continued from previous page

Bag	Material	Class	Period*	#	Wt.†	Whole	Notes
Trenches 2–6, Context 3							
10	composite	slag	hist.	1	310.1		A cake of composite cf. tar and metal slag; length 14.7 cm; width 7.1 cm; thickness 4.5 cm
10	metal	wire	hist.	1	66.8		Thick, bent, and heavily rusted metal wire; length 16.1 cm; thickness 0.7 cm

* trad. = Traditional, hist. = Historic; † Weight in grams.

Glossary

abrupt A transition between *horizon*s that is 0.5 cm or greater but still less than 2 cm. See also horizon.

clay Fine earth particles less than 0.002 mm.

coarse sand Fine earth particles ranging from 0.5 mm to less than 1 mm.

context A unit of stratification associated with a natural or cultural process or event.

detritus Material produced by the disintegration and weathering of rocks that has been moved from its site of origin, or a deposit of such material.

femur An anatomical term which in humans refers to the upper leg bone.

fill Any sediment deposited by any agent so as to fill or partly fill a valley, sink, or other depression.

gley A soil horizon in which the material is bluish gray or blue-gray, more or less sticky, compact, and often structureless. It is developed under the influence of excessive moisture. See also horizon.

horizon A subdivision of soil.

horizontal feature interface Associated with upstanding units of stratification and marks the interfacial levels to which the units have been destroyed.

jar A vessel with a restricted neck.

manuport A natural object found in an unnatural position, having been carried there by man.

non-sticky Little or no soil adheres to fingers, after release of pressure.

paleosol A soil of the past, often buried.

pre-contact Prior to AD 1778 and the first written records of the Hawaiian Islands made by Captain James Cook and his crew.

project The archaeological investigation, including laboratory analyses and report preparation. See also undertaking.

sand Detrital material ranging in size from 0.5 mm to 2 mm in diameter. See also *detritus*.

significance A quality of a historic property that possesses integrity of location, design, setting, materials, workmanship, feeling, and association. The qualities are set out in SHPD administrative rule §13-275-6, *Evaluations of Significance*.

site The fundamental unit of archaeological investigation, a location that exhibits material evidence of past human activity.

slightly plastic A 6 mm diameter roll of the soil will support itself if held on end, but a 4 mm diameter roll of soil will not.

slightly sticky Soil adheres to both fingers, after release of pressure. Soil stretches little on separation of fingers.

smooth A soil boundary which is planar with few or no irregularities.

undertaking Any action with the potential for an adverse effect on significant historic properties. See also project.

unit of stratification number A number assigned to each natural and man-made layer, upstanding stratum, and vertical and *horizontal feature interface*. Once numbered, each unit will automatically have a set of stratigraphic relationships which must be defined and recorded.

very plastic A 2 mm diameter roll of soil will support itself if held on end.

very sticky Soil adheres to both fingers after release of pressure. Soil stretches greatly on separation of fingers.

water table Locus of points in soil water at which the pressure is equal to atmospheric pressure.

Hawaiian Terms

ahupuaʻa Traditional Hawaiian land division, usually extending from the uplands to the sea.

aliʻi ʻai moku Chief who rules a *moku*.

ʻāpana Piece, slice, portion, fragment, section, land division, lot, district, sector.

hale House, building, station, hall.

ʻili A land section, next in importance to *ahupuaʻa*, and usually a subdivision of an *ahupuaʻa*.

kalo The taro, *Colocasia esculenta*, was a staple food in traditional Hawaiʻi and all parts of the plant were used. The rootstock was baked or steamed, then eaten sliced or pounded to make *poi*, raw taro was also grated and mixed with coconut milk to make desserts, the leaves, leaf stems and flowers were also used in cooking. Medicinally the leaves and rootstock were used to treat many ailments. The plant was also used ritually, as bait for fish, glue, and to make dye.

kānāwai Law, code, rule, statute.

kauā Outcast, pariah, slave, untouchable, menial; a caste which lived apart and was drawn on for human sacrifices.

kiawe The algaroba tree, *Prosopis* sp., a legume from tropical America, first planted in Hawaiʻi in 1828.

loʻi A single irrigated taro patch; irrigated terrace, especially for taro.

loʻi kalo Irrigated taro patch. See also *loʻi*.

loko wai Freshwater pond or lake.

Māhele The mid-nineteenth century land division responsible for the introduction of fee

simple land title in Hawai'i.

makai Seaward.

mauka Inland, upland, toward the mountain.

moku District, island, section; forest, grove.

poi The Hawaiian staff of life, made from cooked taro corms, or rarely breadfruit, pounded and thinned with water.

Abbreviations

ac. A unit of land area equal to 4,840 square yards (0.405 hectare).

AD *Anno Domini*, the Christian era in the Gregorian calendar, starting from the year AD 1 as the calculated year in which Christ was born.

cm The centimeter, a derived unit of length in the International System of Units, equal to 10^{-2} m. See also m.

GPS Global Positioning System, operated by the government of the United States. The term is often used for the unit used to communicate with the GPS.

in. A unit of linear measure equal to one twelfth of a foot (2.54 cm).

km The kilometer, a derived unit of length in the International System of Units, equal to 10^{3} m. See also m.

m The meter, a base unit of length in the International System of Units, equal to the length of the path traveled by light in vacuum during a time interval of 1/299,792,458 of a second.

SHPD The State Historic Preservation Division of the Hawai'i Department of Land and Natural Resources, a government agency responsible for implementing the National Historic Preservation Act of 1966, as amended, and Chapter 6E of the Hawai'i Revised Statutes.

SHPO The appointed official in each state and territory charged with administering the national historic preservation program mandated by the National Historic Preservation Act of 1966.

Bibliography

1. Altizer, K., D. F. Borthwick, and H. H. Hammatt (2011, May). *Archaeological Monitoring Report for the Kapi'olani Area Revised Sewer System, Honolulu Ahupua'a, Kona District, Island of O'ahu, TMK: (1) 2-3-04, 05, 07, 09, 10, 13, 14, 17, 18, 22, 35, 36, 38, and 41.* Kailua, HI: Cultural Surveys Hawaii.

2. Athens, J. S., T. M. Rieth, and T. S. Dye (2014). A paleoenvironmental and archaeological model-based age estimate for the colonization of Hawai'i. *American Antiquity 79*(1), 144–155.

3. Barrère, D. (1994). *The King's Mahele: The Awardees and Their Lands.* Hawai'i: Dorothy B. Barrère.

4. Bell, M. J., M. J. McDermott, and O. L. O'Leary (2006). *Archaeological Inventory Survey Report for the Victoria Ward Village Shops Project, Waikiki Ahupuaʻa, Kona District, Oʻahu Island TMK: [1] 2-3-5:013-017, 022 & 023.* Kailua, HI: Cultural Surveys Hawaii.

5. Carney, M. and H. H. Hammatt (2008). *An Archaeological Monitoring Report for the Hokua Tower Project Parcel on Ala Moana Boulevard Kakaʻako/Kewalo District, Waikiki Ahupuaʻa. Island of O'ahu. TMK (1) 2-03-005: 001, 002, 003, por. 024, 026 and 027.* Kailua, HI: Cultural Surveys Hawaii.

6. Chiogioji, R. and H. H. Hammatt (1992). *An Archaeological Assessment of a 5.33 Acre Parcel in the Kapiʻolani Business District, Honolulu, Island of Oʻahu (TMK: (1) 2-3-09:Portion 01).* Kailua, HI: Cultural Surveys Hawaii.

7. Clark, S. D. and D. Gosser (2005, May). *A Subsurface Archaeological Inventory Survey of TMK 2-3-003:075, 085, and 086, Waikīkī Ahupuaʻa, Kona District, Oʻahu, Hawaiʻi.* Prepared for Public Storage. Honolulu: Pacific Consulting Services, Inc.

8. Dye, T. S. (2011). A model-based age estimate for Polynesian colonization of Hawaiʻi. *Archaeology in Oceania 46*, 130-138.

9. Fitzpatrick, G. L. (1986). *The Early Mapping of Hawaiʻi.* Honolulu: Editions Limited.

10. Foote, D. E., E. L. Hill, S. Nakamura, and F. Stephens (1972). *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii.* Washington, DC: U.S. Department of Agriculture, Soil Conservation Service in cooperation with the University of Hawaii Agricultural Experiment Station.

11. Giambelluca, T. W. and T. A. Schroeder (1998). Climate. In S. P. Juvik and J. O. Juvik (Eds.), *Atlas of Hawaiʻi* (Third ed.)., pp. 49-59. Honolulu: University of Hawaii Press.

12. Gosser, D., R. C. Nees, and S. D. Clark (2006, May). *Archaeological Monitoring Report of TMK 2-3-003:075, 085 and 086, Waikīkī Ahupuaʻa, Kona District, Oʻahu, Hawaiʻi.* Prepared for Public Storage, Inc. Honolulu: Pacific Consulting Services, Inc.

13. GretagMacbeth (2000). *Munsell® Soil Color Charts.* New Windsor, NY: GretagMacbeth.

14. Grossman, E. E. and C. H. Fletcher, III (1998). Sea level higher than present 3500 years ago on the Northern Main Hawaiian Islands. *Geology 26*(4), 363-366.

15. Hammatt, H. H. (2008, June). *Archaeological Monitoring Report for the Koʻolani Project on Waimanu Street, Kakaʻako/Kewalo, Waikīkī Ahupuaʻa, Kona District, Island of Oʻahu, TMK (1) 2-3-004, 005, 006, & 007.* Prepared for Case, Lombardi and Pettit. Kailua, HI: Cultural Surveys Hawaii.

16. Hammatt, H. H. (2013, August). *Final Archaeological Inventory Survey Report for City Center (Section 4) of the Honolulu High-Capacity Transit Corridor Project, Kalihi, Kapālama, Honolulu, and Waikīkī Ahupuaʻa, Honolulu (Kona) District, Island of Oʻahu, TMK: [1] 1-2, 1-5, 1-7, 2-1, 2-3 (Various Plats and Parcels).* Prepared for City and County of Honolulu and Federal Transit Administration. Kailua, HI: Cultural Surveys Hawaii.

17. Harris, E. C. (1989). *Principles of Archaeological Stratigraphy* (Second ed.). London: Academic Press.

18. Kamakau, S. M. (1991). *Tales and Traditions of the People of Old: Na Moʻolelo a ka Poʻe Kahiko.* Honolulu: Bishop Museum Press. Translated from the Newspapers *Ka Nupepa Kuokoa* and *Ke Au Okoa* by Mary Kawena Pukui. Arranged and edited by Dorothy B. Barrère.

19. Kamehiro, S. L. (2009). *The Arts of Kingship, Hawaiian Art and National Culture of the Kalākaua Era.* Honolulu: University of Hawaiʻi Press.

20. Lockhart, B. (2004, Summer). The dating game: Owens-Illinois Glass Company. *Bottles and Extras*, 24–27.

21. Lockhart, B., P. Schulz, C. Serr, and B. Lindsey (2007, July–August). The dating game: Thatcher Glass Mfg. Co. *Bottles and Extras*, 2–14.

22. Monahan, C. M. (2005, May). *An Archaeological Assessment Report of Three Parcels Measuring Approximately 1.35 Acres in Waikiki Ahupuaʻa, ʻIli of Kewalo, Kona (Honolulu) District, Island of Oʻahu, Hawaiʻi [TMK: (1) 2–3–003:73 and 96].* Prepared for POSEC Hawaii, Inc. Honolulu: Scientific Consulting Services.

23. Monmonier, M. (1991). *How to Lie with Maps* (2 ed.). Chicago: University of Chicago Press.

24. Morriss, V., N. Hunkin, and M. J. McDermott (2013, June). *Final Archaeological Survey for the Ala Moana Center ʻEwa Mall Expansion Project, Kalia, Waikiki Ahupuaʻa, Honolulu (Kona) District, Oʻahu Island TMK: (1) 2–3–038:001 por.* Prepared for General Growth Properties. Kailua, HI: Cultural Surveys Hawaii.

25. O'Hare, C. R., D. F. Borthwick, and H. H. Hammatt (2003, November). *An Archaeological Inventory Survey of a Property in Waikiki Ahupuaʻa, ʻIli of Kewalo, Kona District, Oʻahu, (1) 2–3–010, 028, 048, 050, 52–56.* Prepared for Evershine X. Kailua, HI: Cultural Surveys Hawaii.

26. O'Hare, C. R., A. R. Bush, D. F. Borthwick, and H. H. Hammatt (2004). *Archaeological Inventory Survey for the Koʻolani Condominium Project, Honolulu Ahupuaʻa, Kona District, Oʻahu (TMK [1] 2–3–04, 05, 06, & 07).* Kailua, HI: Cultural Surveys Hawaii.

27. O'Hare, C. R., A. R. Bush, and H. H. Hammatt (2006). *Archeological Monitoring Report Kakaʻako Community Improvement District 10, Honolulu Ahupuaʻa, Kona District, Oʻahu (TMK (1) 2–3–04, 05, 06, and 07).* Kailua, HI: Cultural Surveys Hawaii.

28. O'Leary, O. L. and H. H. Hammatt (2004). *Archaeological Monitoring Report for the Emergency Phase Rehabilitation of Streets: Unit 9, Phase I Kapiʻolani Boulevard from Kalakaua Avenue to Kamakeʻe Street, Honolulu Ahupuaʻa, Kona District, Oʻahu (TMK: 2–3–3, 4, 7, 9, 10, 15, 16, 21, 22, 35, 39, 40, & 41).* Kailua, HI: Cultural Surveys Hawaii.

29. O'Leary, O. L. and H. H. Hammatt (2006). *Archaeological Inventory Survey for the Approximately 4-Acre Moana Vista Project Area on Kapiʻolani Boulevard, Kakaʻako Ahupuaʻa, Kona District, Oʻahu Island, TMK (1) 2-3-003: 084*. Kailua, HI: Cultural Surveys Hawaii.

30. Pammer, M. F. and H. H. Hammatt (2010, June). *Archaeological Assessment for an Approximately 0.26-Acre Moana Vista Project Area on Kapiʻolani Boulevard, Kakaʻako Ahupuaʻa, Kona District, Oʻahu Island, TMK: (1) 2-3-003, 084*. Prepared for Group Pacific (Hawaii). Kailua, HI: Cultural Surveys Hawaii.

31. Park, V. and S. L. Collins (2008, November). *Archaeological Monitoring Report for Ground-Disturbing Activities in Connection with the State Civil Defense Disaster Warning and Communications Devices, Waikiki Ahupuaʻa, Kona District, O'ahu Island, Hawaiʻi TMK (1) 2-3-009: 001 & 2-3-030*. Prepared for Commerical Electric, Inc. Honolulu: Pacific Consulting Services, Inc.

32. Petrey, W., A. Hazlett, D. F. Borthwick, and H. H. Hammatt (2009). *Archaeological Monitoring Report for the Nimitz Highway and Ala Moana Boulevard Resurfacing Project, Honolulu Ahupuaʻa, Kona District, Oʻahu Island, TMK: (1) 2-1-014 and 027*. Kailua, HI: Cultural Surveys Hawaii.

33. Pukui, M. K., S. H. Elbert, and E. T. Mookini (1974). *Place Names of Hawaii*. Honolulu: University of Hawaii Press.

34. Runyon, R., D. F. Borthwick, and H. H. Hammatt (2012, September). *Archaeological Inventory Survey Report for the Senior Residence at Piʻikoi Kakaʻako, Waikiki Ahupuaʻa, Kona District, Island of Oʻahu*. Prepared for Kewalo Development LLC. Kailua, HI: Cultural Surveys Hawaii.

35. Runyon, R., D. F. Borthwick, and H. H. Hammatt (2013, May). *Archaeological Monitoring Plan for the Senior Residence at Piʻikoi, Kakaʻako Ahupuaʻa, Kona District, Oʻahu Island, TMK: (1) 2-3-007:026 & 049*. Prepared for Kewalo Development LLC. Cultural Surveys Hawaii.

36. Runyon, R., D. Thurman, C. R. O'Hare, D. F. Borthwick, and H. H. Hammatt (2011). *Archaeological Inventory Survey Report for the Koʻolani Phase II Project, Kakaʻako, Waikiki Ahupuaʻa, Honolulu (Kona) District, Island of Oʻahu, TMK: (1) 2-3-006:017*. Kailua, HI: Cultural Surveys Hawaii.

37. Sherrod, D. R., J. M. Sinton, S. E. Watkins, and K. M. Brunt (2007). Geologic Map of the State of Hawaiʻi, Sheet 3—Island of Oʻahu. U.S. Geological Survey.

38. Souza, K. E., M. P. Perzinski, and H. H. Hammatt (2002). *An Archaeological Monitoring Report for the Kakaʻako Improvement District 7 Project (TMK (1) 2-1-58, 2-3-01 thru 05)*. Kailua, HI: Cultural Surveys Hawaii.

39. Sroat, E. and M. J. McDermott (2012, July). *Supplemental Archaeological Inventory Survey Report for the Ward Village Shops Phase 2 Project, Waikīkī Ahupuaʻa, Honolulu (Kona) District, Oʻahu Island, TMK: [1] 2-3-005:013-017, 022 & 023*. Prepared for Victoria Ward Limited. Kailua, HI: Cultural Surveys Hawaii.

40. Thien, S. (1979). A flow diagram for teaching texture-by-feel analysis. *Journal of Agronomic Education 8*, 54–55.

41. Thurman, D., K. Altizer, C. R. O'Hare, D. W. Shideler, and H. H. Hammatt (2009). *Archaeological Inventory Survey Report for the Queen Street Parks, Kakaʻako, Honolulu District, Oʻahu Island, TMK: (1) 2-3-004:075, 076*. Kailua, HI: Cultural Surveys Hawaii.

42. Tome, G., C. Dagher, and R. L. Spear (2007, August). *An Archaeological Monitoring Report for a Single Parcel Measuring Approximately 0.48 Acres in Waikīkī Ahupuaʻa, ʻIli of Kewalo, Kona (Honolulu) District, Island of Oʻahu, Hawaiʻi [TMK: (1) 2-3-003:096]*. Prepared for POSEC Hawaii. Honolulu: Scientific Consulting Services.

43. Toulouse, J. H. (1971). *Bottle Makers and Their Marks*. New York: Thomas Nelson & Sons.

44. Tulchin, T. and H. H. Hammatt (2005). *Addendum to an Archaeological Survey for the Koʻolani Condominium Project, Honolulu Ahupuaʻa, Kona District, Island of Oʻahu (Portions of TMKs (1) 2-3-04:073, 2-3-05:027, 2-3-06:014, 2-3-07:002)*. Kailua, HI: Cultural Surveys Hawaii.

45. Wiener, F. B. (1982). German sugar's sticky fingers. *Hawaiian Journal of History 16*, 15–47.

46. Winieski, J. and H. H. Hammatt (2000). *An Archaeological Monitoring Report for Kakaʻako Improvement District 4, Honolulu, Oʻahu, Hawaiʻi (TMK: (1) 2-3-02:001)*. Kailua, HI: Cultural Surveys Hawaii.

47. Winieski, J. and H. H. Hammatt (2001). *Archaeological Monitoring Report for Ward Village Phase II, (Ward Theaters) Kakaʻako, Honolulu, Oʻahu, Hawaiʻi (TMK: (1) 2-3-02:001)*. Kailua, HI: Cultural Surveys Hawaii.

48. Yamauchi, J. S., L. Medina, I. A. Masterson, and H. H. Hammatt (2011). *Archaeological Monitoring Report for the Queen and Kamakeʻe Traffic Signal Project, Kakaʻako, Honolulu District, Oʻahu Island, TMK: (1) 2-3-002: 001; 2-3-003: 087, 103, and 2-3-004: 80 por.* Kailua, HI: Cultural Surveys Hawaii.

APPENDIX F

RESIDENTIAL RENTAL MARKET STUDY

Ola Ka Ilima Artspace Lofts

1025 Waimanu Street

Residential Rental Market Study

Prepared by
Colliers International- Hawaii
Research and Consulting
June 25, 2013

220 S. King Street
Suite 1800
Honolulu, HI 96813
808.524.2666
www.colliers.com

Table of Contents

Colliers International Research and Consulting Statement of Qualifications 2

Development Site Description 5

Project Description 7

Real Estate Market Conditions 8
- Residential Real Estate Market 9
- New Development 12

Affordable Housing Market Overview 14
- Affordable Housing Inventory 14
- Rents 18
- Vacancy Rates 19

Demographic Analysis 20
- Household Demographics 21
- Target Market Size 23

Market Analysis 24
- Market Demand 24

Community Facility Analysis 28
- Proposed Community Services Overview 28
- Market Inventory 29

Colliers International-Hawaii Statement of Qualifications

THE GLOBAL DIFFERENCE

Colliers International operates globally – as one organization, and one brand, speaking with one voice. With more than 15,000 professionals in over 480 offices in 61 countries, Colliers International has become the premiere real estate services organization in the world. Colliers Hawaii Consulting ("CHC") is the Hawaii office of Colliers International. Our local knowledge combined with our global reach provides us with unparalleled expertise. The blending of "big picture" real estate advisory services with practical local market consulting gives our clients the timely market analysis needed to make well-informed strategic decisions.

ABOUT COLLIERS HAWAII CONSULTING & ADVISORY SERVICES

CHC is the largest commercial real estate brokerage, third party property management and real estate advisory services company in Hawaii. The CHC Consulting & Research team ("CHC") is one of the company's primary lines of business and is dedicated to commercial real estate research, analysis and maximizing the profitability of real property. Our goal is to provide a fully integrated solution that responds to our client's needs. CHC has been engaged by a wide range of developers, investors, governmental agencies and planners to assist in their analysis and review of potential developments. From master-planned mixed use residential and commercial communities to single tenant build-to-suits, CHC expertise is relied upon.

OUR LOCAL EXPERTISE

Since 1973, CHC has been actively involved in thousands of lease and sales transactions and thoroughly understands the dynamics of the commercial real estate market place. This transaction data forms the foundation of our real estate knowledge and experience. The cultural diversity and unique business customs of Hawaii make it a challenging marketplace to navigate. CHC's in-depth local market intelligence and far-reaching community network enables us to provide our clients with the essential tools to more effectively manage and avoid potential pitfalls.

Colliers INTERNATIONAL

RESUMES/EXPERIENCE

Michael Y. Hamasu, Director of Consulting and Research

COMPANY EXPERIENCE

Michael brings to Colliers Hawaii Consulting, Inc. over 24 years of marketing and marketing research experience. Michael has directed research efforts at commercial brokerages with a focus on providing information to assist in strategic decision making for real estate investors and brokerage clientele. This effort reported on nearly 600 million square feet of commercial/industrial properties in the San Francisco Bay Area.

Having been quoted in the *Wall Street Journal, USA Today, Real Estate Forum* and *Commercial Property News* as well as other regional publications, Michael has been recognized for his detailed analysis of the commercial real estate marketplace. Further, he has managed the primary and secondary research efforts in the collection of commercial office, retail and industrial market information and statistics. These market factors such as: vacancy rates, absorption, net effective rents, and sales comparables are evaluated and used to advise developers, investors, property owners, and tenants on current and future market conditions.

Nanette C. Vinton, Research Consultant/Real Estate Analyst

COMPANY EXPERIENCE

Nanette brings more than 15 years experience in consulting and brokerage to the commercial and residential real estate industries. Her consulting experience includes numerous financial and market analyses, as well as feasibility studies and valuations of various institutional grade properties and developments in Hawaii and the mainland. On the brokerage front, she has managed and performed the marketing, valuation, and due diligence processes of real estate assets in the $5 million to $50 million plus range and has been involved in the sale of over $150 million of various commercial real estate assets in Hawaii.

CLIENT LIST

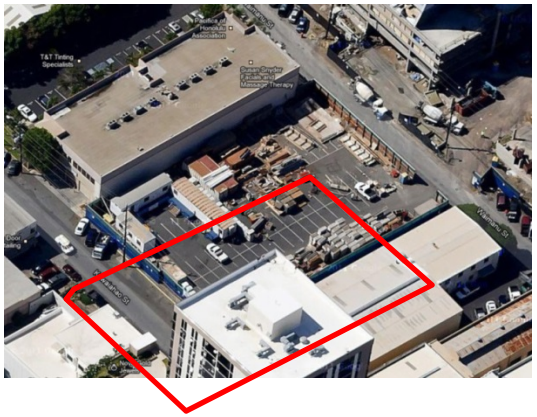
CHC has worked for a long list of notable clientele which include:

A&B Properties
American Savings Bank
Bank of Hawaii
Brookfield Development
Castle & Cooke
Central Pacific Bank
Credit Suisse
DeBartolo Development
Department of Business, Economic Development and Tourism
Department of Hawaiian Home Lands
Department of Land and Natural Resources
Department of the Navy
Department of Planning & Permitting
DFS Hawaii
Don Quijote
DR Horton
Easter Seals
First Hawaiian Bank
Forest City Hawaii
Hawaiian Telcom
Hawaii Pacific Health
HCDA
HHFDC
HMSA
Hunt Development Group
Jacoby Development
James Campbell Corporation
Kamehameha Schools
Kisco Senior Care
The MacNaughton Group
McDonald's Restaurants of Hawaii
Mid Pac Petroleum
Outrigger Properties
Office of Hawaiian Affairs
PRI
Queen Emma Land Company
Robertson Properties, Inc.
REIT Management & Research, LLC
Servco Pacific

Development Site Description

The 600-acre Kaka'ako District is bounded by Piikoi, King, Punchbowl Streets and Ala Moana Boulevard. The Hawaii Community Development Authority ('HCDA") was established by the legislature in 1976 to govern the redevelopment of this urban Honolulu region. Lawmakers found that Kaka'ako was significantly underdeveloped and foresaw the need to direct the redevelopment of Kaka'ako.

The Ola Ka Ilima Artspace Lofts development site is located in the heart of Kakaako between Waimanu Street and Kawaihao Street. Situated on 30,000 square feet of land, the site is zoned KAK, with potential uses inclusive of commercial and residential.



TMK# 1-2-3-3-40
Address: 1025 Waimanu Street
Zoning: KAK
Land Size: 30,000 Sq. ft.
Tenure: Fee Simple
Owner: HCDA

Development Site Description

Parcel Map

Project Description

Rendering of Ola Ka Ilima Artspace Lofts

Project Details

Owner/Developer: Artspace Projects
Type of development : Mixed-use nonprofit arts complex
Number of residential units: 80
Community space: 4,000 square feet for PA'I Arts & Culture Center; a 3,500 square foot community room; and 2,000 square feetfor arts-related businesses
Green space: 10,000 square foot green courtyard with playground and work space
Type of units: One, two, and three bedroom apartments
Affordability: Units range from 50% to 60% of area median income
Total project cost: Approximately $40 million
Estimated construction period: July 2014 — Dec. 2015

Ola Ka Ilima Artspace will include 80 units of affordable live/work space for low-income artists and their families. Residential units will feature high ceilings, large windows, durable surfaces, large doors, and wide hallways to accommodate a variety of creative activities. Each of the residential units will be larger than a typical affordable unit to allow for ample workspace. Like all Artspace projects, this building will be multi-ethnic, multi-generational, and multi-disciplinary.

Ola Ka Ilima Artspace will have more than 20,000 square feet of community and green space, including an outdoor gardening area and a community room, available to residents, partnering non-profit organizations, and the surrounding community for rehearsals, exhibitions, performances and events.

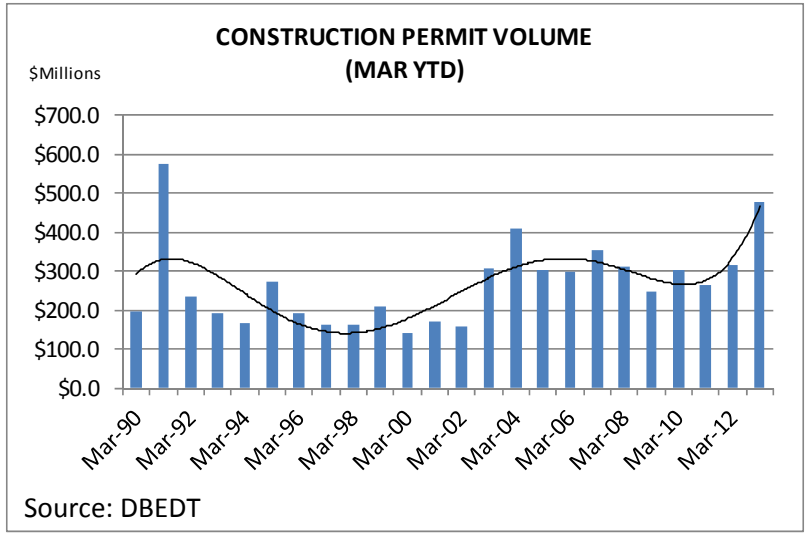
Approximately 4,000 square feet will be reserved for **PA'I Arts & Culture Center**, for Native Hawaiian dancers, musicians, visual artists, cultural practitioners and others who are interested in experiencing Native Hawaiian cultural traditions.

Real Estate Market Conditions

Real estate typically is very cyclical. When the economy is growing at a rapid pace encountering strong job growth, residential home sales begin to pick up and spur additional construction activity.

Over the past two decades, Honolulu encountered two very noticeable cycles. One following the Japanese Bubble in the early 1990s and the second cycle preceding and following the Great Recession in 2008. For the residential condo market (which best represents the residential market in the Kakaako region), sales prices rose dramatically between 1997 to 2005, only to fall quickly between 2005 to 2009.

Currently, economists anticipate solid gains in median home prices over the mid-term time horizon with sales prices likely to exceed those achieved during the last boom cycle. Construction activity is on an upswing, as the first quarter 2013 permit volume jumped by more than 50%.



Real Estate Market Conditions

RESIDENTIAL REAL ESTATE MARKET

According to the Hawaii Housing Planning Study, 2011 Inventory Report, there were approximately 336,900 housing units on Oahu in 2010. Housing growth has been minimal at an average growth rate of less than 1% annually since 1990. As a result, occupancy rates have historically been above 90%.

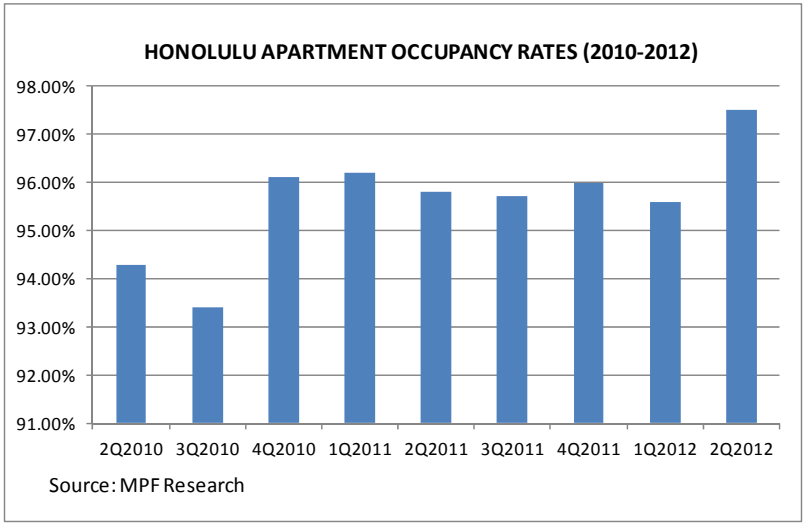
Multi-Family Market

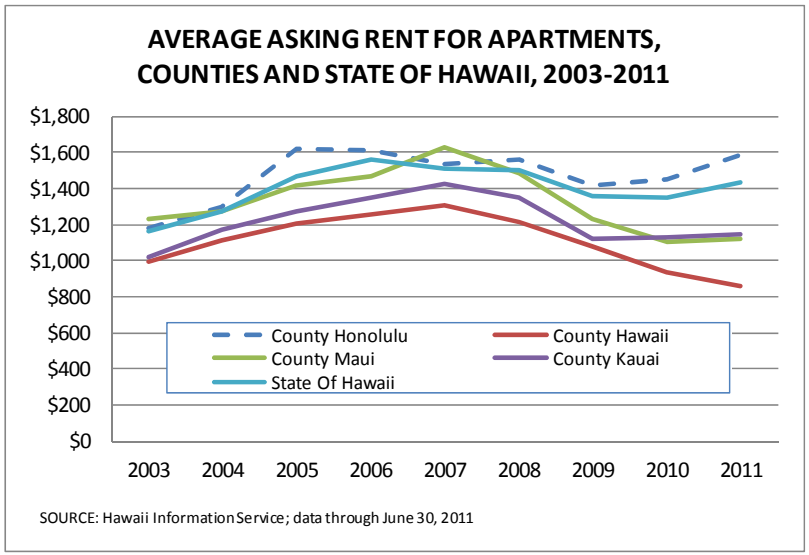
Multi-family units account for approximately 45% of the total unit count. In 2010, there were more than 43,000 apartment units and an estimated 100,000 condominium units on Oahu. The majority of this density is in the primary urban center of Honolulu where there are roughly 21,000 apartment units and 48,000 condo units.

Rental Market

Oahu's rental market has historically been tight as homeownership rates have always been below national averages due to high home prices. 2012 numbers reflect occupancy rates of less than 5%.

Average asking rents for apartments on Oahu are typically the highest in the state and have hovered around $1,400 to $1,600 per month over the past decade.

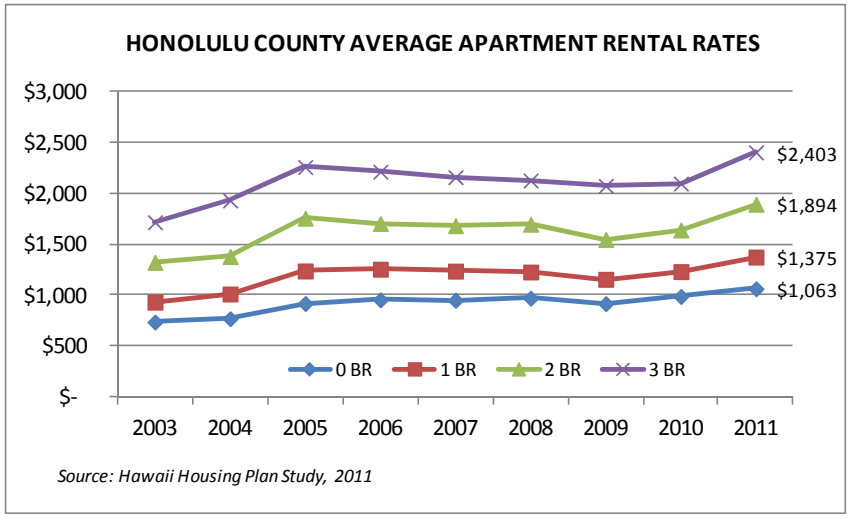


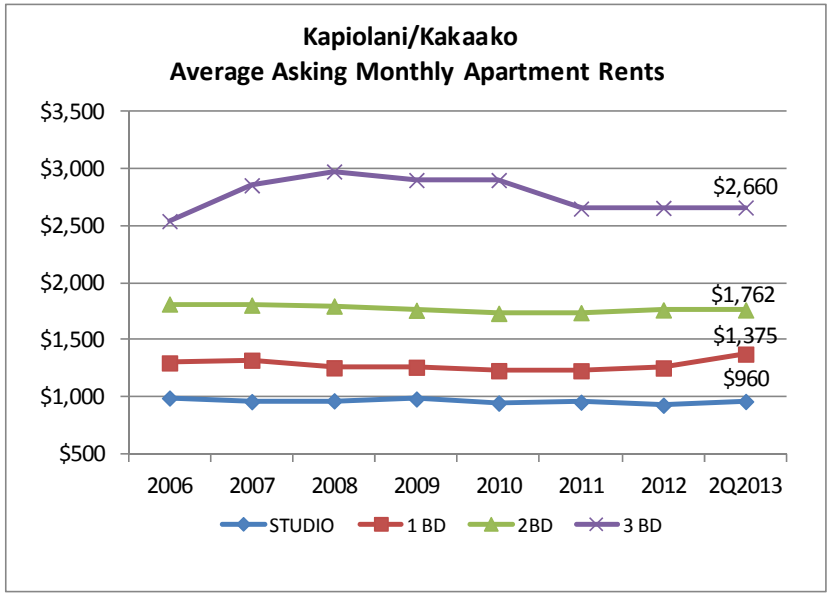


Real Estate Market Conditions

After dipping slightly during the recent recession, asking rents have increased since 2010. Average monthly asking rents by apartment type for 2011 range from about $1,400 for a 1-bedroom unit to $2,400 for a 3-bedroom unit.

Apartments in the subject market area of Kapiolani/Kakaako range from older, low-rise walk-up buildings to individual units in high-rise, luxury towers. The data reflects only a limited number of 3-bedroom units available for rent. **Monthly rents average $1,375 for a 1-bedroom unit to $2,660 for a 3-bedroom unit.**



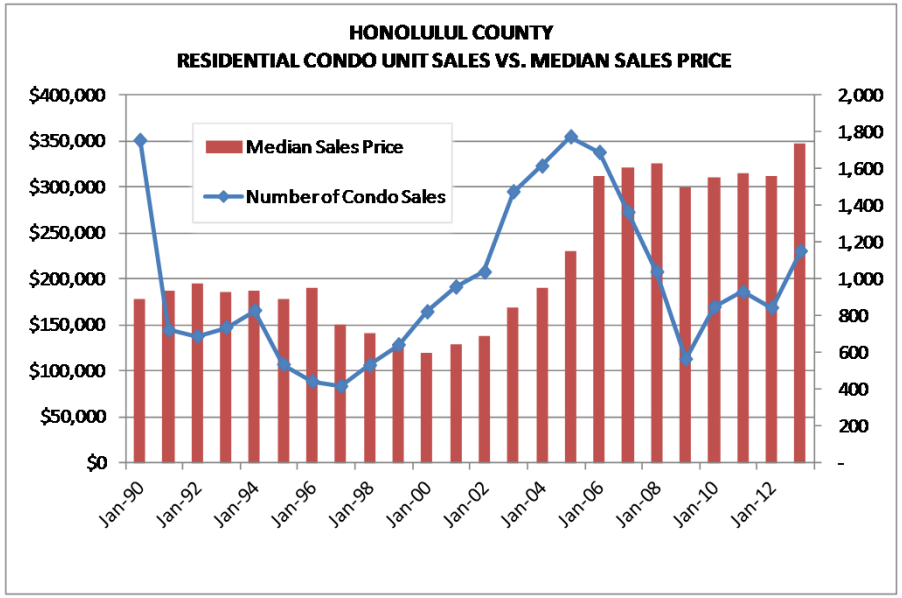


Real Estate Market Conditions

Condo Market

There are nearly 48,000 condominiums in the primary urban core of Honolulu. The majority of this inventory was built in the1970s. The Honolulu condo market consists primarily of high-rise buildings ranging from older affordable/low-income properties to newer, modern luxury towers.

Condo sales peaked in the mid-2000s when several luxury high-rise buildings were delivered to the market. The strengthening economy and strong residential sales market has pushed median sales prices upward and prompted additional urban core condo development.



Real Estate Market Conditions

NEW DEVELOPMENT

The Kakaako area has been earmarked by the State as a major redevelopment district. Major landowners in the area such as Kamehameha Schools, Howard Hughes, and General Growth Properties have extensive redevelopment plans for their land holdings in the area.

Between 2013 and 2017, there is a projected 4,938 units of housing that are anticipated to be added to the residential inventory. All of these projects are located within a three-mile radius of the Artspace site. Of these projects, several are slated as affordable housing. These projects will be discussed in more detail in the Affordable Housing Market Overview section of this report.

TABLE 1 - PLANNED AND PROPOSED RESIDENTIAL DEVELOPMENTS

				Projected Delivery (Units)					
Project / Site	Location	Target Markets		2013	2014	2015	2016	2017	Total
Rentals									
Waihonua/1226 Waimanu/affordable	Ala Moana	Affordable	Rentals Senior	-	-	64	-	-	64
Halekuwila Place	Kakaako Mauka	Affordable	Rentals	-	-	204	-		196
690 Pohukaina	Kakaako/Center	Market	Rentals Workforce	-	-	-	804	-	804
690 Pohukaina/Lofts	Kakaako/Center	Market	Rentals Workforce	-	-	-	80	-	80
			Total Rentals	-	-	268	884	-	1,144
For Sale									
Waihonua at Kewalo/market	Ala Moana	Market	Middle	-	-	300	-	-	300
Symphony Place	Kapiolani	Market	Upper	-	-	311	-	-	311
Symphony Place	Kapiolani	Affordable	Upper	-	-	96	-	-	96
Imperial Plaza	Kakaako Mauka	Affordable	Upper	-	-	-	217	-	217
Advertiser Site	Kakaako Mauka	Affordable	Upper	-	-	635	-	-	635
Advertiser Site II	Kakaako Mauka	Affordable	Upper	-	-	-	-	400	400
2121 Kuhio	Waikiki	Market	High	-	-	-	459	-	459
One Ala Moana	Ala Moana	Market	High	-	-	-	206	-	206
Ward Village	Kakaako	Market	High	-	-	-	-	100	100
Waikiki Palms/Hobron TH	Waikiki/Ewa	Market	Upper	-	-	116	-	-	116
Keeaumoku Center	Sheridan District	Market	Middle	-	-	-	-	200	200
The Collection (former CompUSA site)	Kakaako	Market	Upper	-	-	-	-	300	300
1291 Kapiolani (Piikoi/1.4 ac)	Ala Moana	Market	Upper	-	-	-	-	200	200
Aala Park Clone	Iwilei	Market	Affordable/TOD	-	-	-	-	100	100
TOD/1.1 acres	Queen	Market	Middle	-	-	-	-	100	100
			Total For Sale	-	-	1,458	882	1,400	3,740
			Total Planned / Proposed	**-**	**-**	**1,726**	**1,766**	**1,400**	**4,884**

Kakaako/Ala Moana High-Rise Condo/Apartment Inventory

Copyright © 2012 Colliers International
This document has been prepared by Colliers International for advertising and general information only. Colliers International makes no guarantees, representations or warranties of any kind, expressed or implied, regarding the information including, but not limited to, warranties of content, accuracy and reliability. Any interested party should undertake their own inquiries as to the accuracy of the information. Colliers International excludes unequivocally all inferred or implied terms, conditions and warranties arising out of this document and excludes all liability for loss and damages arising there from. This publication is the copyrighted property of Colliers International and/or its licensor(s). All rights reserved. (12/12)

Affordable Housing Market Overview

AFFORDABLE HOUSING INVENTORY

The affordable housing inventory on Oahu consists of more than 14,400 units (elderly, family – government assisted, family –public housing). Since 2007, more than 3,800 affordable rental housing units were constructed on Oahu, with the majority of these being public sector and elderly housing. According to the Honolulu General Plan Update Affordable Housing Trend Report (September 2010), the factors inhibiting the availability of affordable housing are high cost of production, added development risk from a difficult permitting process and fragmented financing, maintenance and management problems, and regulatory and infrastructure barriers.

Colliers has determined that the primary trade area for tenants to the Ola Kallima Artspace Lofts would be within a three-mile radius of the site. These residents would most likely already reside in the urban Honolulu area. As shown in Table 2, there are nearly 4,000 affordable housing family units with a 30% - 60% of AMI affordability requirement. Nearly 60% of these units are in public housing projects.

Unit Types

The inventory in the primary market area consists primarily of 2-bedroom units (39%) and 3-bedroom units (29%). One-bedroom units account for about 19% of the primary market family housing inventory.

Affordable Housing Market Overview

TABLE 2 - AFFORDABLE HOUSING INVENTORY (FAMILY HOUSING - 30% TO 60% AMI)

Primary Market Area

Project Name	Street Address	Total Units	Target Income (% of AMI)	Type	Unit Mix 1BR	2BR	3BR	4BR+
Banyan Street Manor	1122 Banyan St	55	60	F	12	43	0	0
Beretania North - Kukui Tower	35 N. Kukui St	380	60	F	(1)	(1)	0	0
Birch Street Apartments	916-920 Birch/919 Alder	53	60	F	0	53	0	0
Kewalo Apartments	1407 Kewalo St	32	50	F	0	32	0	0
Kukui Gardens Makai	1305 Liliha St	389	60	F	(1)	(1)	(1)	(1)
Maunakea Tower	1245 Maunakea St	380	60	F	255	125	0	0
Old Vineyard Street	265 S. Vineyard St	32	50	F	11	10	1	0
Palolo Homes	2170 Ahe St	306	30/50/60	F	25	129	84	68
Hauiki Homes	Meyers St	46	50	F(PH)	0	20	16	10
Kaahumanu Homes	Alokele & Kaiwula St	152	50	F(PH)	0	116	36	0
Kalakaua Homes	1545 Kakakaua Ave	221	50	F(PH)	127	58	36	0
Kalihi Valley Homes	2250 Kalena Dr	373	50	F(PH)	58	60	135	120
Kamehameha Homes	1541 Haka Dr	221	50	F(PH)	0	62	123	36
Kuhio Homes	Ahonui	134	50	F(PH)	20	32	37	45
Kuhio Park Terrace Apts	1475 Linapuni St	556	60	F(PH)	48	300	206	2
Mayor Wright Home	521 N. Kukui St	364	50	F(PH)	24	114	168	58
Palolo Valley Homes	2107 Ahe St	118	50	F(PH)	8	34	40	36
Puahala Homes	Ahiahi Pl	128	50	F(PH)	14	58	28	28
	Total	**3,940**			**602**	**1,246**	**910**	**403**
				Share	***19%***	***39%***	***29%***	***13%***
	Total Family Housing (F)	**1,627**			**303**	**392**	**85**	**68**
	Total Family Housing (PH)	**2,313**			**299**	**854**	**825**	**335**

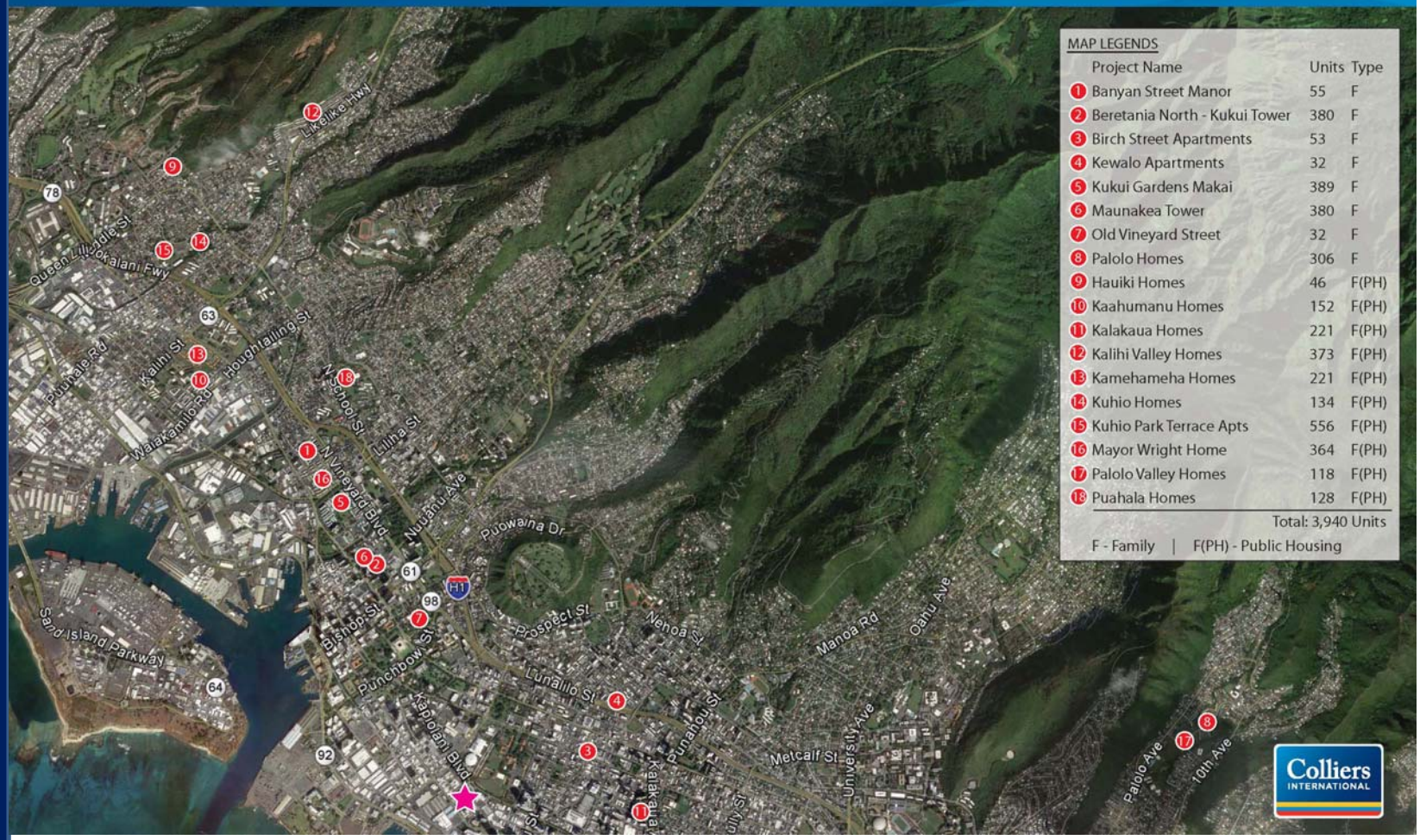
Source: Hawaii Housing Finance & Development Corporation

F - Family - government-assisted housing F(PH) - Public Housing

(1) Unit count not available.

There are 3,940 affordable family housing units targeted towards households with 30% to 60% AMI in the primary market area.

1025 Waimanu Street - Affordable Housing Inventory (50% - 60% AMI)*



MAP LEGENDS

	Project Name	Units	Type
1	Banyan Street Manor	55	F
2	Beretania North - Kukui Tower	380	F
3	Birch Street Apartments	53	F
4	Kewalo Apartments	32	F
5	Kukui Gardens Makai	389	F
6	Maunakea Tower	380	F
7	Old Vineyard Street	32	F
8	Palolo Homes	306	F
9	Hauiki Homes	46	F(PH)
10	Kaahumanu Homes	152	F(PH)
11	Kalakaua Homes	221	F(PH)
12	Kalihi Valley Homes	373	F(PH)
13	Kamehameha Homes	221	F(PH)
14	Kuhio Homes	134	F(PH)
15	Kuhio Park Terrace Apts	556	F(PH)
16	Mayor Wright Home	364	F(PH)
17	Palolo Valley Homes	118	F(PH)
18	Puahala Homes	128	F(PH)
		Total: 3,940	Units

F - Family | F(PH) - Public Housing

Affordable Housing Market Overview

As mentioned earlier in this report, there are a few new/planned developments near the proposed Artspace site.

Halekauwila Place
Halekauwila Place is being developed by Stanford Carr Developments, under the name Halekauwila Partners LLC. Located adjacent to Mother Walden Park and the 690 Pohukaina site, Halekauwila Place is planned for delivery in 2015.

Funded in part with US Department of Housing and Urban Development (HUD) through their Low Income Housing Tax Credit (LIHTC) program in addition to a loan from Hawaii Housing Finance and Development Corporation, Halekauwila Place will be a 204-unit apartment high-rise comprised of studios (26), one (72), two (82) and three bedroom (23) units. Rents will be targeted for families with a 60% adjusted median income with monthly rents projected for studios at about $1,042 and $1,548 for a three-bedroom unit.

690 Pohukaina
The State of Hawaii selected Forest City Development to build their signature affordable housing development, 690 Pohukaina. Under this private public partnership, Forest City plans to build an 804 unit residential development including 390 affordable rentals, 390 market rate rentals, and 24 luxury rentals units. This twin tower project with a projected height of 650 feet, would include commercial retail space, office space and civic /community space. Forest City is currently underway with the entitlement and permitting process, as well as negotiating the 65-year ground lease for the site.

However, the affordable housing is targeted toward a family of four earning $80,000 to $100,000 a year which equates to more than 50%-60% AMI.

680 Ala Moana Blvd
As a part of their Kakaako master plans, Kamehameha Schools recently completed their redevelopment and conversion of a former office building into affordable rental housing. Six-Eighty Ala Moana Boulevard is now a 54 unit loft studio and one-bedroom apartment complex that was put on the market for lease in October of 2012. All units have pricing ranging from $1,100 to $1,400 per month and fall within HUD guidelines for 60% AMI. The response to the new project was overwhelming with prospective tenants camped out the day before applications for the units became available.

Affordable Housing Market Overview

HOUSING AFFORDABILITY

As shown in Table 3, based on the 2013 Honolulu County HUD median household income of $97,900 for a family of four, a household with 50% - 60% AMI can afford to pay a range of $918 to $1,527 in rent per month for a one- to three-bedroom apartment. This is lower than using a market benchmark rate of 30% of household income which yields a $1,224 to $1,467 per month rent range and significantly lower than current market rents of $1,400 to $2,700 per month for the Kapiolani/Kakaako area.

TABLE 3 - HOUSING AFFORDABILITY BASED ON PERCENT OF MEDIAN HOUSEHOLD INCOME

	Percent of Oahu median household income						
	30%	50%	60%	80%	100%	120%	140%
Household income:							
Annual (1)	$ 29,400	$ 49,000	$ 58,700	$ 78,300	**97,900**	$ 117,500	$ 137,100
Monthly	$ 2,450	$ 4,080	$ 4,890	$ 6,530	$ 8,160	$ 9,790	$ 11,430
RENT							
Rental rate % of monthly income(2)	30%	30%	30%	30%	30%	30%	30%
Maximum monthly rent	$735	$1,224	$1,467	$1,959	$2,448	$2,937	$3,429
Affordable Rent Guidelines (3)							
1-Bedroom	$ 550	$ 918	$ 1,102	$ 1,468	$ 1,837	$ 2,024	$ 2,572
2-Bedroom	$ 661	$ 1,102	$ 1,323	$ 1,762	$ 2,205	$ 2,646	$ 3,087
3-Bedroom	$ 763	$ 1,273	$ 1,527	$ 2,036	$ 2,546	$ 3,055	$ 3,564
PURCHASE							
Home purchase assumptions:							
Maximum monthly payment (2)	$740	$1,220	$1,470	$1,960	$2,450	$2,940	$3,430
Maximum mortgage amount (4)	$159,000	$265,000	$317,000	$423,000	$528,000	$634,000	$740,000

(1) As determined by the U. S. Department of Housing and Urban Development for Honolulu County in 2013, assuming a household size of four.
(2) Based on 30% of monthly income.
(3) Per 2013 HUD Guidelines for Honolulu County. Monthly rents include the cost of the following utilities: water, sanitary sewage services, electricity and gas (where applicable).
(4) Based on a 30-year mortgage with a 3.50% interest rate, with 30% of gross household income available for payment of mortgage principal, interest, maintenance fees, real property tax and insurance.

Colliers INTERNATIONAL

Affordable Housing Market Overview

In comparison, this amount would equal the monthly mortgage payment for $265,000 to $317,000 mortgage loan. With condominiums priced in excess of $300,000 and single family homes in excess of $600,000, households that are unable to secure a down payment or afford the monthly mortgage payments are priced out of the market.

AFFORDABLE HOUSING VACANCY RATES

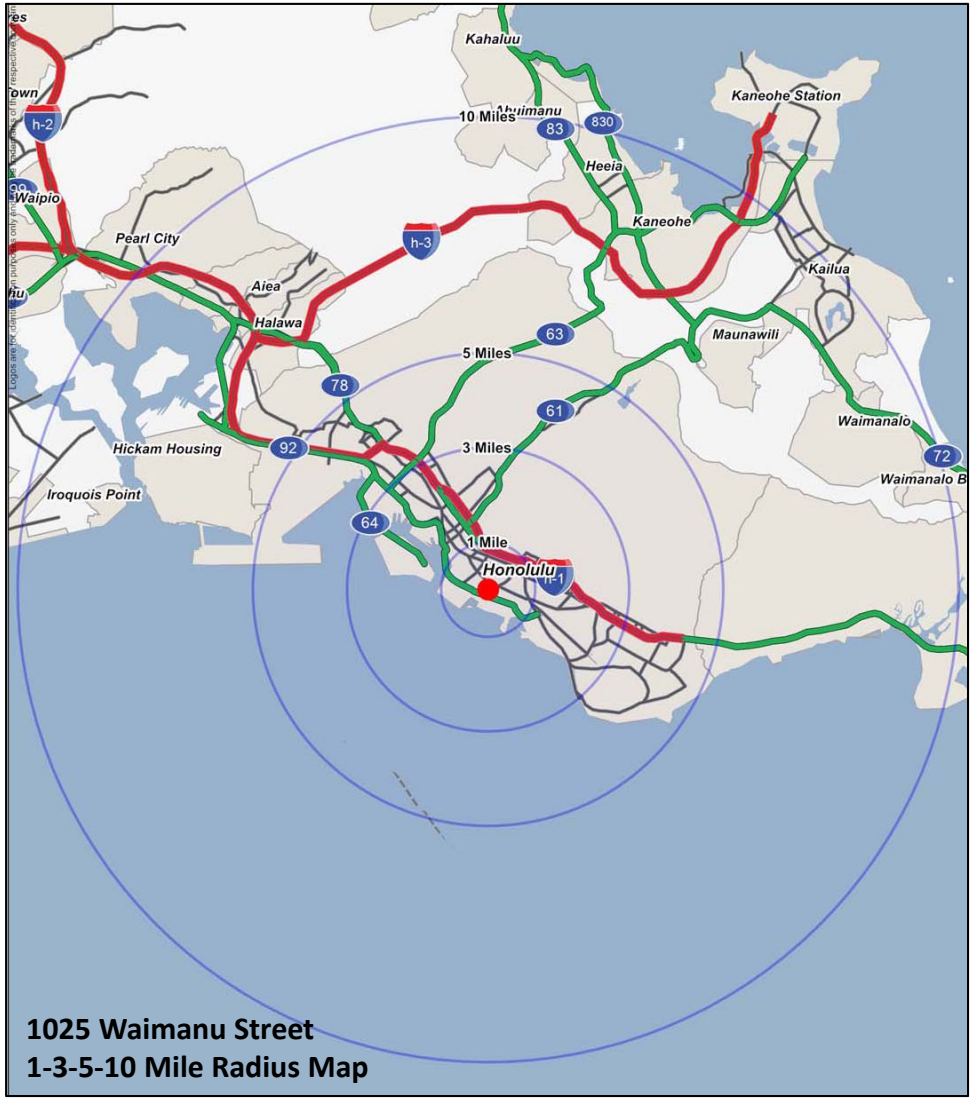
While there is no publicly available information on the vacancy and turnover rates of affordable housing units, we assume that they are at least in line (if not lower) with the overall residential rental market as shown on page 9 and are less than 5.0%. High demand and low inventory has enabled new projects to lease up quickly.

Demographic Analysis

Colliers has determined that the primary trade area for tenants of the Ola Kallima Artspace Lofts would be within a three-mile radius of the site. This area stretches from the Likelike Highway/Kalihi to the north and Waikiki to the south, incorporating some of the outlying areas to the east. The target household would most likely already reside in the urban Honolulu area.

The secondary market area would reach out further into some suburban areas within a 10-mile radius. This expanded area reaches to Pearl City to the west, Kaneohe and Kailua in Windward Oahu to the north, and Hawaii Kai and Waimanalo to the east.

In essence though, the uniqueness of the proposed Artspace development could reach a target market extending across the entire island.



1025 Waimanu Street
1-3-5-10 Mile Radius Map

Demographic Analysis

HOUSEHOLD DEMOGRAPHICS – TRADE AREAS

The island of Oahu is the most populated among the Hawaii island chain with nearly one million residents. Urban Honolulu has the highest density of population on the island. As reflected in the numbers in Table 4 below, the primary trade area accounts for 21% of the total island population and 28% of the total households. The expansion into the secondary trade area covers more than half the island's population and households.

TABLE 4 - HOUSEHOLD DEMOGRAPHICS - TRADE AREA

	3 Miles (Primary)	10 Miles (Secondary)	Oahu
Estimated Population (2013)	205,238	543,150	973,988
Projected Annual Growth (2013-2018)	10,851	28,957	51,905
Estimated Households (2013)	88,784	195,854	317,953
Projected Annual Growth (2013-2018)	4,218	9,296	15,085
Estimated Median Household Income (2013)	$53,579	$70,854	$74,133
Projected Median Household Income (2018)	$56,968	$75,844	$79,418
Average Household Size	2.2	2.7	3.0
1-Person Household	34,892	54,556	72,495
2-Person Household	28,608	61,077	93,622
3-Person Household	11,738	31,777	54,655
4 or more Person Household	13,546	48,444	97,181
Family Households	44,511	125,125	222,676

Source: Regis demographic research.

Demographic Analysis

Income Distribution

A breakdown of the income ranges for households in the primary and secondary markets are shown in Table 5. An estimated 60,285 households (68% of total HH) in the primary area make less than 80% of AHI under HUD guidelines. Roughly the same amount of households in the secondary market also fall in this category (60,388 HH).

The household income distribution data from this table was used to determine the total households (market demand) for the 30% to 60% AMI categories.

TABLE 5 - INCOME DISTRIBUTION MARKET AREA HOUSEHOLDS

2013 Income distribution	Midpoint	As a percent of Oahu median (rounded)	Estimated 2013 Households Number	Distribution
PRIMARY MARKET				
$0 - $34,999	$17,500	0% - 35%	30,897	34.8%
$35,000 - $49,999	42,500	35% - 50%	14,117	15.9%
$50,000 - $74,999	62,500	50% - 80%	15,271	17.2%
$75,000 - $99,999	87,500	80% - 100%	10,743	12.1%
$100,000 - $124,999	112,500	100% - 125%	6,748	7.6%
$125,000 - $149,999	137,500	125% - 150%	3,285	3.7%
$150,000 - $199,999	175,000	150% - 200%	2,575	2.9%
$200,000 +	--	200% +	5,238	5.9%
Total			88,784	100%
SECONDARY MARKET				
$0 - $34,999	$17,500	0% - 35%	27,303	25.5%
$35,000 - $49,999	42,500	35% - 50%	14,669	13.7%
$50,000 - $74,999	62,500	50% - 80%	18,416	17.2%
$75,000 - $99,999	87,500	80% - 100%	14,240	13.3%
$100,000 - $124,999	112,500	100% - 125%	10,814	10.1%
$125,000 - $149,999	137,500	125% - 150%	5,889	5.5%
$150,000 - $199,999	175,000	150% - 200%	5,354	5.0%
$200,000 +	--	200% +	10,493	9.8%
Total			107,070	100%
2013 estimated median income		**$97,900**		

Source: Compiled by Colliers International from Regis demographic research.

Demographic Analysis

TARGET MARKET SIZE

Table 6 shows the total market area households by income group. Colliers has assumed that those households making less than 80% of AMI would be renters. Households with incomes above the 80% of AMI threshold are considered homeowners or potential homebuyers. The potential market demand for housing with 30% to 60% of AMI requirements in the primary and secondary trade areas is nearly 50,000 households. The primary and secondary markets are projected to grow 1.1% annually for a total of 13,500 additional households by 2018. This would equate to growth of 3,375 households in the 30% to 60% AMI category based on the existing percentage share of 25%. Due to the already high pent-up demand figures and minimal projected new development, our analysis has not included this additional growth.

TABLE 6 - TOTAL MARKET AREA HOUSEHOLDS BY INCOME GROUP (2013)

	RENTERS				HOMEOWNERS/BUYERS			TOTAL
	Below 30%	30% to 50%	50% to 60%	60% to 80%	80% to 120%	120% to 140%	140% and over	
PRIMARY MARKET								
Households	26,192	18,823	5,090	10,181	16,141	3,321	9,127	88,874
As a percent of total	29%	21%	6%	11%	18%	4%	10%	100%
SECONDARY MARKET								
Households	22,806	19,166	6,139	12,277	22,891	5,696	18,203	107,178
As a percent of total	21%	18%	6%	11%	21%	5%	17%	100%
TOTAL MARKET AREA								
Households	48,998	37,989	11,229	22,458	39,033	9,017	27,330	196,052
As a percent of total	25%	19%	6%	11%	20%	5%	14%	100%

There are 49,218 households in the target market areas with 30% to 60% AMI.

Colliers INTERNATIONAL

Market Analysis

MARKET DEMAND

Because of the severe shortage of affordable housing and a limited amount of development over the next two years, there is high demand for new inventory. For the primary market area, the 1226 Waimanu Street and Halekauwila Place projects are projected to deliver 268 units in 2015.

Effect on Market Area

The ratio of the existing affordable inventory to net income qualified renter demand for the primary market is 26.3% and 21.2% for the secondary market. Because the penetration rate is significantly below 100%, there is substantial potential unmet demand.

As shown in Table 7, there is a large shortage of over 17,000 units in the primary trade area and nearly 20,000 units in the secondary trade area through 2015. The bulk of this shortage is for households making between 30% and 50% of AMI.

TABLE 7 - ESTIMATED MARKET DEMAND (2013-2015)
Households with 30% - 60% AMI

PRIMARY MARKET	30% - 50% AMI	50% - 60% AMI	TOTAL
Households (Demand)	18,823	5,090	23,913
Existing Family Housing Units	1,923	1,915	3,838
Existing Elderly Units	1,650	792	2,442
Subject Property Units	40	40	80
Planned Inventory Units (2014-2015)	64	204	268
Total Units by 2015	3,677	2,951	6,628
Residual Demand (HH)	15,146	2,139	17,285
SECONDARY MARKET			
Households (Demand)	19,166	6,139	25,305
Existing Family Housing Units	2,523	2,531	5,054
Existing Elderly Units	0	310	310
Subject Property Units	40	40	80
Planned Inventory Units (2014-2015)	0	0	0
Total Units by 2015	2,563	2,881	5,444
Residual Demand (HH)	16,603	3,258	19,861
TOTAL MARKET DEMAND (HH)	**31,749**	**5,397**	**37,146**

There is unfilled market demand of over 37,000 units for affordable housing targeting 30% to 60% AMI households in the primary and secondary markets.

Colliers INTERNATIONAL

Market Analysis

Unit Demand

More than two-thirds of the existing affordable housing stock are two- and three-bedroom units. One-bedroom units account for about 19% of the total existing inventory. We allocated the residual market unit demand based on these percentages to determine the demand by unit type.

From this allocation, we assumed that the majority of demand captured by the Ola Ka Ilima Artspace units would be from the primary market area. The proposed unit mixture for the subject project was assumed. Thus, if 56 units or 70% of the 80 A Ola Ka Ilima Artspace units were captured by primary trade area residents, this would equate to a 0.3% capture rate of the total primary market residual or potential demand. If the remaining units were captured by secondary market residents, that would equal 0.1% of residual demand. In total, the project would capture 0.2% of the projected pent-up demand.

TABLE 8 - ESTIMATED MARKET DEMAND BY UNIT TYPE
Households with 30% - 60% AMI

			Unit Breakdown		
	Total	**Capture Rate**	**1BR**	**2BR**	**3BR**
Existing Inventory Unit Mix			19%	39%	29%
Primary Market					
Residual Demand (HH)	17,285		2,884	5,970	4,360
Subject Property Capture	56	0.3%	34	17	6
Secondary Market					
Residual Demand (HH)	19,861		3,782	7,829	5,718
Subject Property Capture	24	0.1%	14	7	2
TOTAL PROJECT DEMAND	**80**		48	24	8
Share of Total Market Demand		*0.2%*	*0.7%*	*0.2%*	*0.1%*

The Ola Ka Ilima Artspace project would only need to capture 0.2% of the pent-up demand for targeted households.

Market Analysis

Project Absorption

Due to extremely tight market conditions and being a new development, Colliers estimates that the units at Ola Ka Ilima will absorb quickly. Many affordable housing projects have minimal vacancies or waitlists.

The newest affordable housing project is the 680 Ala Moana Boulevard apartment conversion. Discussions with property management revealed that the 52 project units were quickly absorbed within four months of opening. This would equate to 13 units per month being absorbed.

However, we would expect some additional downtime for the subject development due to its unique target market of low-income artists. Based on an absorption rate of 10 to 13 units, the subject project units would lease-up less than a year.

Rent Analysis

Average monthly rents for apartments in the Kakaako/Kapiolani area for the 2nd quarter of 2013 are as follows:

1-bedroom: $1,375
2-bedroom: $1,762
3-bedroom: $2,660

TABLE 9 - AVERAGE MONTHLY RENTS - NEW/PLANNED AFFORDABLE HOUSING PROJECTS

Project Name	Total Units	Target Income (% of AMI)	Average Monthly Gross Rent		
			1BR	2BR	3BR
680 Ala Moana	52	60	$1,407	N/A	N/A
Halekauwila Place	204	60	$1,116	$1,339	$1,548

Monthly rents for new/planned competitive projects are lower than market rents, with the exception of 680 Ala Moana Boulevard that has a slightly higher asking rent.

The projected absorption of Ola Ka Ilima Artspace units is between 10 to 13 units per month.

Colliers INTERNATIONAL

Market Analysis

The maximum allowable rents under HUD guidelines for households in the 30%, 50%, and 60% AMI categories are shown in Table 10. These rates are approximately 30% to 80% of market rents. Therefore, the project should be able to obtain the maximum allowable rents.

TABLE 10 - RENTAL RATE ANALYSIS

Unit Type	HH Size (persons)	Max. Gross Income/Year	Max. Allowable Rent/Month	% of Market Rent	Utility Adjustment (1)	Max. Adjusted Rent
30% of AHI						
1 Bedroom	1.5	$22,025	$551	40%	$194	$357
2 Bedroom	3.0	$26,450	$661	38%	$240	$421
3 Bedroom	4.5	$30,525	$763	29%	$285	$478
50% of AHI						
1 Bedroom	1.5	$36,750	$919	67%	$194	$725
2 Bedroom	3.0	$44,100	$1,103	63%	$240	$863
3 Bedroom	4.5	$59,073	$1,477	56%	$285	$1,192
60% of AHI						
1 Bedroom	1.5	$44,100	$1,103	80%	$194	$909
2 Bedroom	3.0	$52,920	$1,323	75%	$240	$1,083
3 Bedroom	4.5	$70,888	$1,772	67%	$285	$1,487

(1) Source: 2013 HUD Allowances for Tenant- Furnished Utilities and Other Services. Includes water, sewage services, and electricity.

Maximum allowable rents under HUD guidelines are significantly lower than market rates.

Colliers INTERNATIONAL

Community Service Facility Analysis

As part of the market study, an analysis of community service facility space was performed to determine the market area demand and applicability and affordability for the proposed services to be provided at the proposed Ola Ka Ilima Artspace Lofts development.

As defined in Section 42 (d) (4) (C) (iii) of the Internal Revenue Code, the term "community service facility" means any facility designed to serve primarily individuals whose income is 60 percent or less of area median income.

PROPOSED COMMUNITY SERVICES OVERVIEW

The proposed community facilities and services at the Ola Ka Ilima Artspace Lofts will consist of 20,000 square feet of community and green space, including an outdoor gardening area and a community room. The community spaces in Artspace's buildings are available to tenants for celebrations, events, rehearsals, performances and exhibitions. Artspace partners with local nonprofits to provide financial training, professional development classes, first-time homebuyer education and other supportive services. The space is often used by neighborhood groups for meetings and by nonprofit organizations for fundraising and or planning/board meetings. A breakdown of the proposed spaces are as follows:

- Community Room (3,218 square feet)
- Outdoor Kitchen/BBQ (543 square feet)
- Workshop (1,291 square feet)
- Courtyard (9, 800 square feet)

Approximately 4,000 square feet will be reserved for PA'I Arts & Cultural Center. The Cultural Center will combine classroom space and flexible space for teaching performing Hula, Music, and other traditional practices. Through distance learning technology, the Cultural Center will be networked to audiences and artistic partners across the islands and around the world.

Community Service Facility Analysis

MARKET INVENTORY

In general, there are relatively few community service centers in urban Honolulu. School classrooms and parks often serve as venues for community group activities. Below is a selected list of area facilities which service the community. However, these facilities are available for use by the general community and are not limited to income-restricted households.

TABLE 11 - AREA COMMUNITY CENTERS

Facility	Location	Services	Size	Fees
Moiliili Community Center	2535 South King St	Japanese Language School After School/Holiday/Intersession Programs Informal Education programs Kupuna Support Program/Senior Center	2,724 sf building	Varies by program
Japanese Cultural Center	2454 S. Beretania St	Cultural Classes Community Exhibits Historical Exhibits Resource Center Kenshikan Dojo Seikoan Teahouse Mānoa Grand Ballroom	16,996 sf building	Varies by program
Makiki District Park	Corner of Wilder Ave and Makiki St	Community Gardening	160 plots	$15/year
Moiliili Community Garden	820 Coolidge St	Community Gardening	68 plots	$30/year
The Refuge (808 Urban)	683 Auahi St	Educational workshops, youth skills building mentorships, events and a retail store to encourage healthy relationships and collaboration while developing art skills.		
McKinley High School	1039 S King S	Classroom, auditorium, and cafeteria space for community use.	Various rooms for rent	$7 to $232 per hour (plus utilities) depending on facility

Community Service Facility Analysis

Community Service Facilities in Affordable Housing Projects

Community service programs and facilities targeting households with 50% - 60% AMI can often be found at affordable housing projects. Table 10 shows the services and facilities offered for use at affordable housing projects in the primary market area. Of these projects, the Beretania North – Kukui Tower and Birch Street Apartments are located within one-mile of the subject property.

TABLE 12 - COMMUNITY SERVICE FACILITIES - PRIMARY MARKET AFFORDABLE HOUSING PROJECTS

Project Name	Total Units	Target Income (% of AMI)	Type	Community Service Facilities
Banyan Street Manor	55	60	F	Rooftop farm
Beretania North - Kukui Tower	380	60	F	Computer learning center Community Room
Birch Street Apartments	53	60	F	Private Park with Picnic, BBQ areas and Tot Lot
Kukui Gardens Makai	389	60	F	On-site Head-Start childcare
Palolo Homes	306	30/50/60	F	Palolo Ohana Learning Center - computer lab, classrroms, meeting areas, reading room, demo kitchen.
Kuhio Homes	134	50	F(PH)	Fitness Center, Satellite Health Clinic, Early Head Start Program, Teen Center, After School Programs
Kuhio Park Terrace Apts	556	60	F(PH)	Shared services with Kuhio Homes

F - Family - government-assisted housing F(PH) - Public Housing

Future Development

The major landowners in the area have master redevelopment plans for the areas surrounding the Ola Ka Ilima Artspace site. Based on feedback from Howard Hughes and Kamehameha Schools, there are no plans for public or community spaces over the next three years. However, Kamehameha Schools has plans to develop a public gathering place probably in about five years, while Howard Hughes has no definitive plans at this time.

Community Service Facility Analysis

TO BE COMPLETED

APPENDIX G

TRAFFIC IMPACT REPORT

Traffic Impact Report

Ola Ka ‘Ilima Artspace Lofts

Prepared for:
Urban Works Inc.

Prepared by:
Wilson Okamoto Corporation

June 2013

TRAFFIC IMPACT REPORT

FOR THE

OLA KA 'ILIMA ARTSPACE LOFTS

Prepared for:
Urban Works Inc
831 Pohukaina Street, Suite E-1
Honolulu, HI 96813

Prepared by:

Wilson Okamoto Corporation
1907 S. South Beretania Street, Suite 400
Honolulu, Hawaii 96826
WOC Ref #8410-01

June 2013

TABLE OF CONTENTS

		Page
I.	Introduction	1
	A. Purpose of Study	1
	B. Scope of Study	1
II.	Project Description	1
	A. Location	1
	B. Project Characteristics	3
III.	Existing Traffic Conditions	3
	A. Area Roadway System	3
	B. Traffic Volumes and Conditions	7
	1. General	7
	a. Field Investigation	7
	b. Capacity Analysis Methodology	7
	2. Existing Peak Hour of Traffic	8
	a. General	8
	b. Waimanu Street and Ward Avenue	8
	c. Kapiolani Boulevard and Ward Avenue	10
	d. Kapiolani Boulevard and Kamakee Street	10
	e. Waimanu Street and Kamakee Street	11
IV.	Projected Traffic Conditions	11
	A. Site-Generated Traffic	11
	1. Trip Generation Methodology	11
	2. Trip Distribution	13
	B. Through-Traffic Forecasting Methodology	13
	C. Total Traffic Volumes Without Project	13
	D. Total Traffic Volumes With Project	17
V.	Traffic Impact Analysis	17
VI.	Recommendations	19
VII.	Conclusion	19

LIST OF FIGURES

FIGURE 1	Location Map
FIGURE 2	Project Site Plan
FIGURE 3	Existing Lane Configurations
FIGURE 4	Existing Peak Hours of Traffic
FIGURE 5	Distribution of Site-Generated Vehicles
FIGURE 6	Year 2015 Peak Hours of Traffic Without Project
FIGURE 7	Year 2015 Peak Hours of Traffic With Project

LIST OF APPENDICIES

APPENDIX A	Existing Traffic Count Data
APPENDIX B	Level of Service Definitions
APPENDIX C	Capacity Analysis Calculations
	Existing Peak Hour Traffic Analysis
APPENDIX D	Capacity Analysis Calculations
	Year 2015 Peak Hour Traffic Analysis Without Project
APPENDIX E	Capacity Analysis Calculations
	Year 2015 Peak Hour Traffic Analysis With Project

I. INTRODUCTION

A. Purpose of Study

The purpose of this study is to identify and assess the traffic impacts resulting from the proposed Ola Ka 'Ilima Artspace Lofts along Waimanu Street in Honolulu on the island of Oahu. The project is a mixed-use development providing living and working space for artists and their families, as well as, space for community events and gatherings.

B. Scope of Study

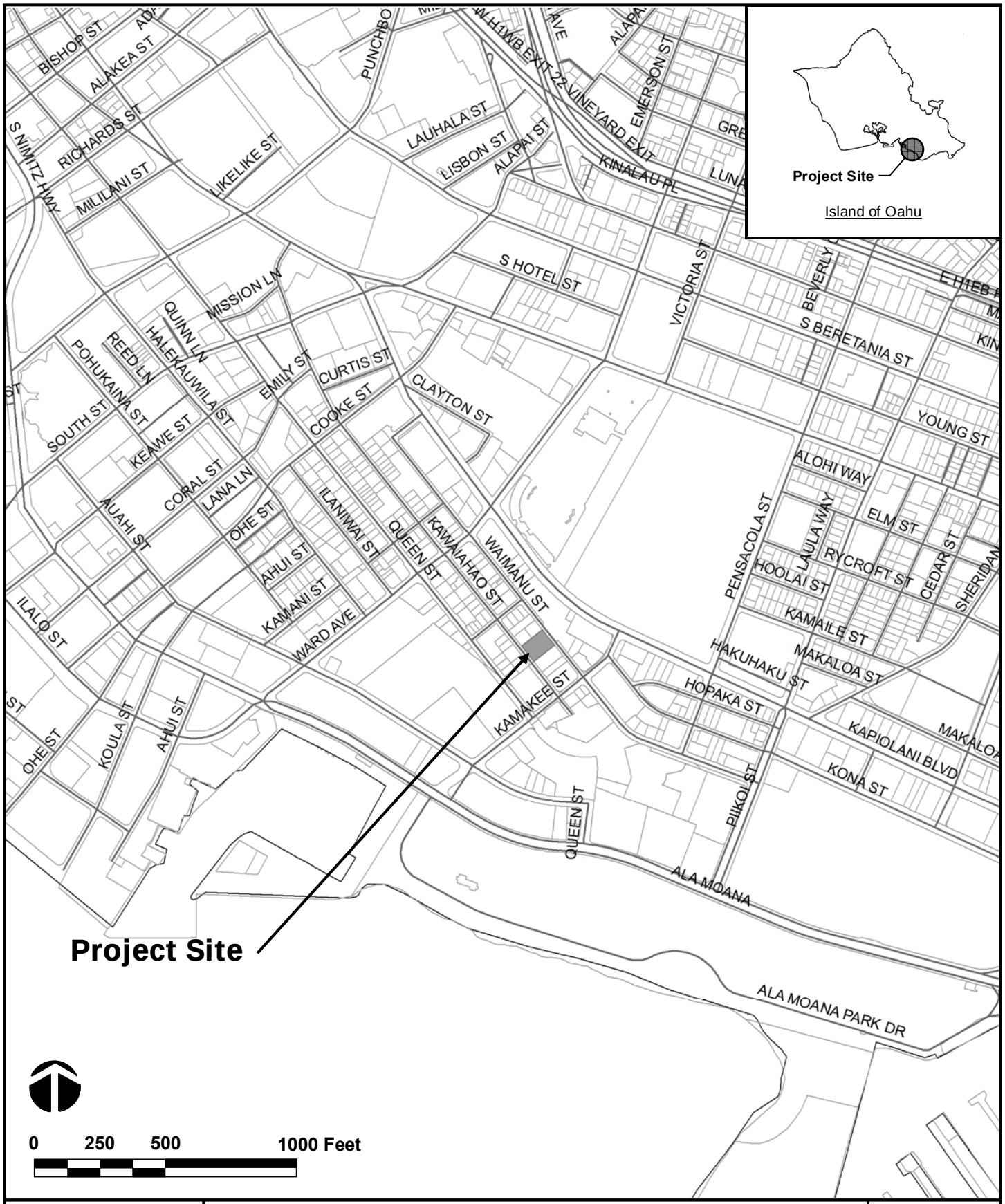
This report presents the findings and conclusions of the traffic study, the scope of which includes:

1. Description of the proposed project.
2. Evaluation of existing roadway and traffic operations in the vicinity.
3. Analysis of future roadway and traffic conditions without the proposed project.
4. Analysis and development of trip generation characteristics for the proposed project.
5. Superimposing site-generated traffic over future traffic conditions.
6. The identification and analysis of traffic impacts resulting from the proposed project.
7. Recommendations of improvements, if appropriate, that would mitigate the traffic impacts resulting from the proposed project.

II. PROJECT DESCRIPTION

A. Location

The proposed project will be located adjacent to Waimanu Street between Ward Avenue and Kamakee Street in Honolulu on the island of Oahu (see Figure 1). The project site is bounded by Waimanu Street to the north, Kawaiahao Street to the south, and commercial/industrial uses to the east and west. Access to the proposed project will be provided via new driveways off Waimanu Street.



WILSON OKAMOTO CORPORATION ENGINEERS - PLANNERS	OLA KA ILIMA ARTSPACE LOFTS LOCATION AND VICINITY MAP	FIGURE 1

B. Project Characteristics

The proposed project is a mixed-use nonprofit arts complex that includes approximately 80 affordable residential units providing living and working space for artists and their families. In addition, the project will include the following:

- 4,000 square foot PA'I Arts & Culture Center for Native Hawaiian dancers, musicians, visual artists, cultural practitioners and others interested in experiencing Native Hawaiian cultural traditions
- 3,500 square foot community room that is available to residents, partnering non-profit organizations, and the surrounding community for rehearsals, exhibitions, performances, and events
- 2,000 square feet of space for arts-related businesses
- 10,000 square-foot green courtyard with a playground and work space

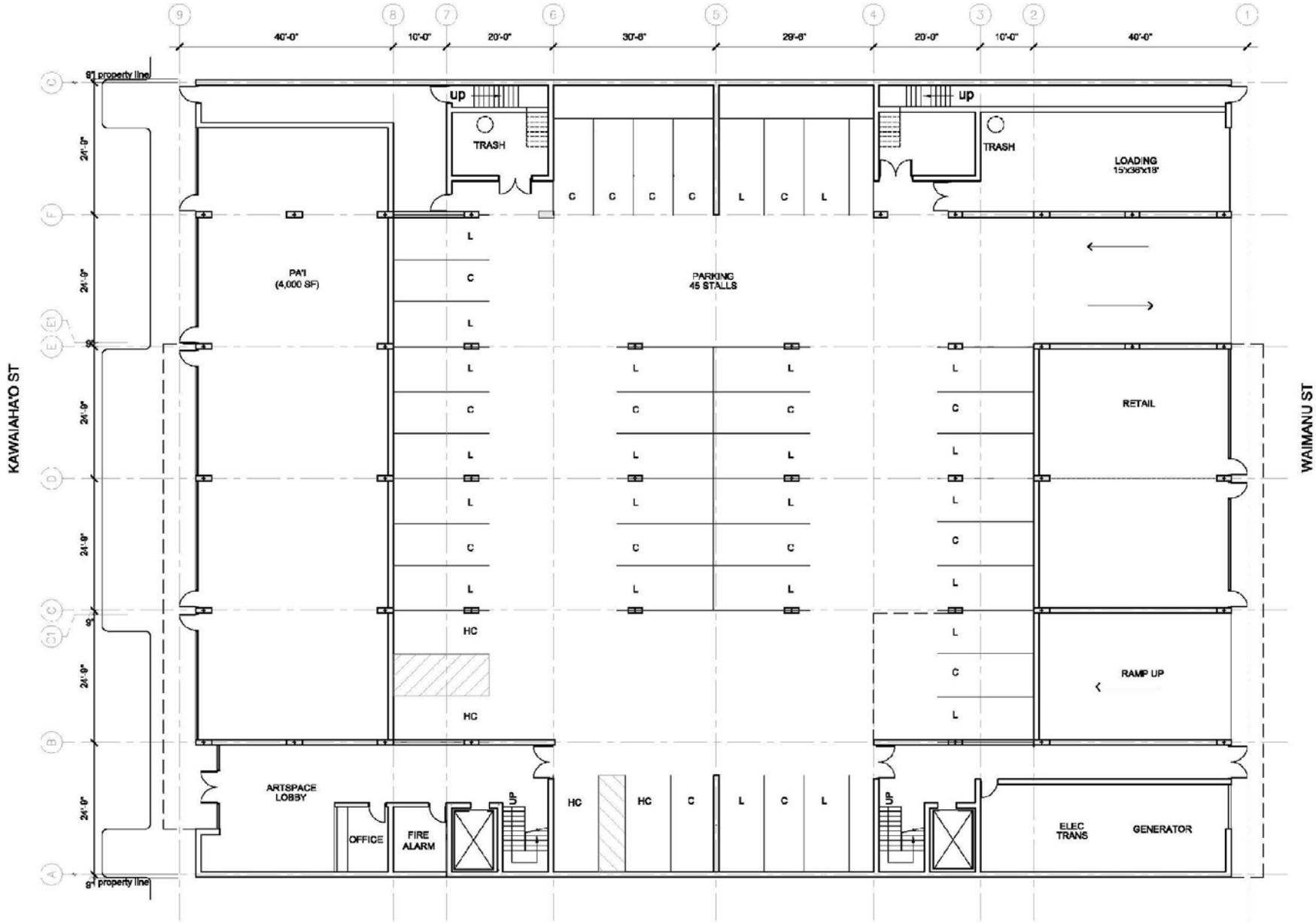
Parking will be provided on-site with access to the project provided via new driveways off Waimanu Street. The proposed development is expected to be completed and occupied by the Year 2015. Figure 2 shows the proposed project site plan.

III. EXISTING TRAFFIC CONDITIONS

A. Area Roadway System

The project site is located adjacent to Waimanu Street between Ward Avenue and Kamakee Street. In the vicinity of the project site, Waimanu Street is a two-lane, two-way roadway generally oriented in the east-west direction. At the intersection with Ward Avenue, both approaches of Waimanu Street have one stop-controlled lane that serves all traffic movements (see Figure 3). In the vicinity of the project site, Ward Avenue is a predominantly four-lane, two-way roadway generally oriented in the north-south direction. At the intersection with Waimanu Street, the northbound approach of Ward Avenue has an exclusive left-turn lane, two through lanes, and a shared through and right-turn lane while the southbound approach has an exclusive left-turn lane, one through lane, and a shared through and right-turn lane.

North of the intersection with Waimanu Street, Ward Avenue intersects Kapiolani Boulevard. At this signalized intersection, the northbound approach of Ward Avenue has exclusive turning lanes and two through lanes while the southbound approach has an exclusive left-turn lane, one through lane, and a shared

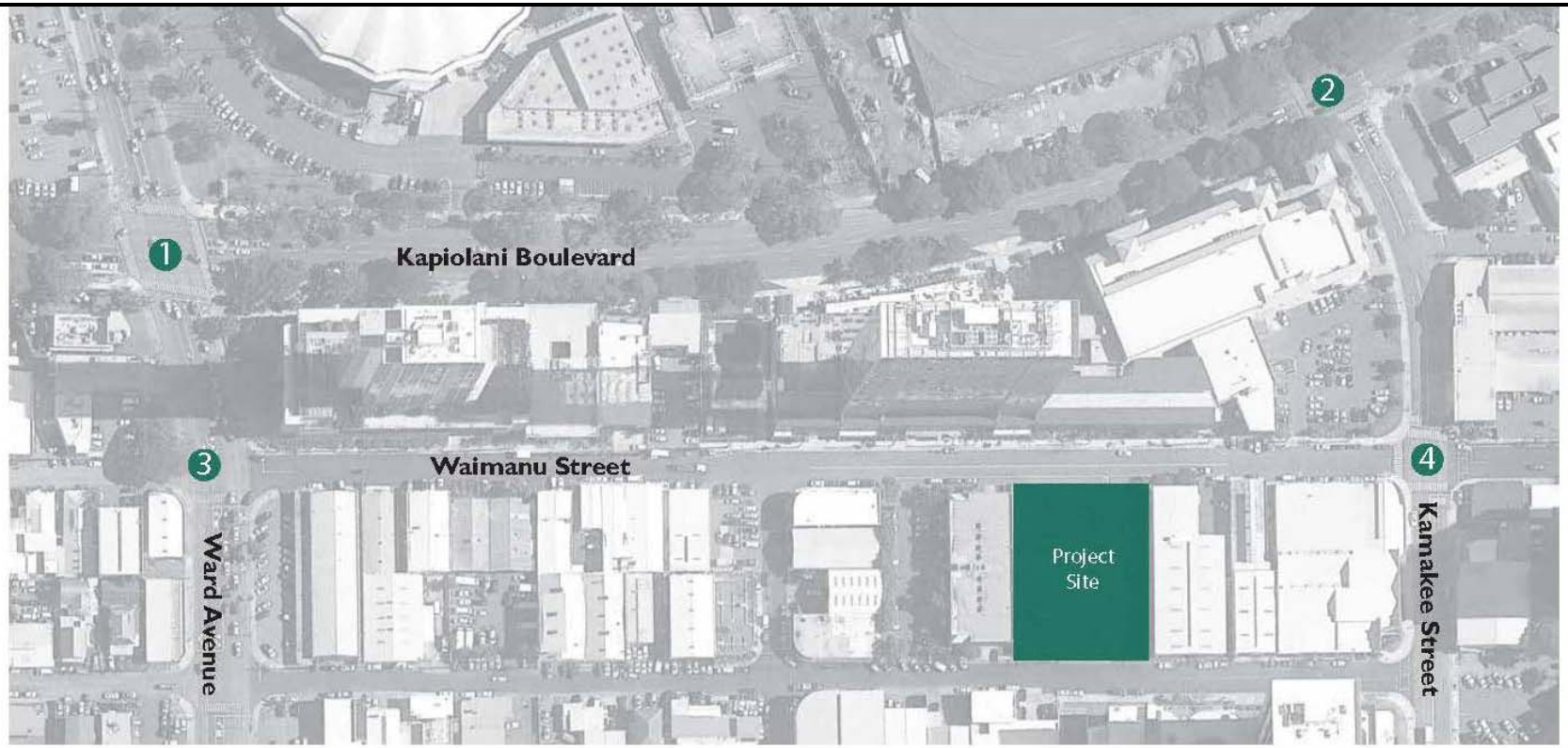


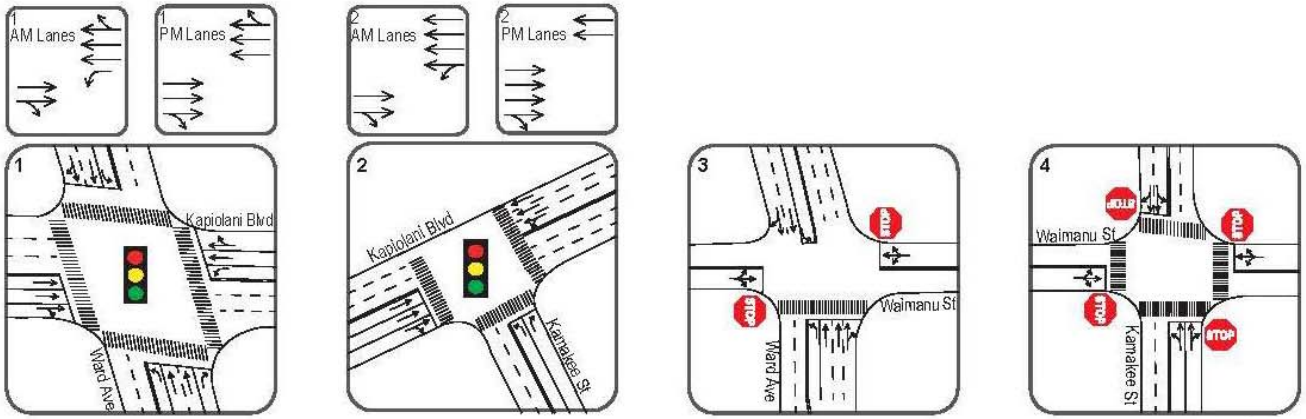
WILSON OKAMOTO CORPORATION
ENGINEERS - PLANNERS

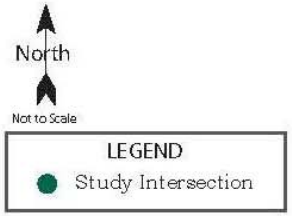
OLA KA ILIMA ARTSPACE LOFTS

PROJECT SITE PLAN

FIGURE
2







WILSON OKAMOTO CORPORATION ENGINEERS - PLANNERS	**OLA KA ILIMA ARTSPACE LOFTS**	FIGURE 3
	EXISTING LANE CONFIGURATIONS	

through and right-turn lane. In the vicinity of the project site, Kapiolani Boulevard is a predominantly six-lane, two-way roadway that serves as one of the major east-west roadways through Honolulu. At the intersection with Ward Avenue, the eastbound approach of Kapiolani Boulevard has two through lanes and a shared through and right-turn lane while the westbound approach has an exclusive left-turn lane, one through lane, and a shared through and right-turn lane. During the morning peak period, contra-flow operations are implemented along Kapiolani Boulevard. During this period, the eastbound approach has one through lane and a through and right-turn lane while the westbound approach has an exclusive left-turn lane, two through lanes, and a shared through and right-turn lane. During the afternoon peak period, left-turn traffic movements are prohibited on the westbound approach and the exclusive left-turn lane is utilized as an additional westbound through lane.

Southeast of the intersection with Ward Avenue, Kapiolani Boulevard intersects Kamakee Street. At this signalized T-intersection, the eastbound approach of Kapiolani Boulevard has two through lanes and a shared through and right-turn lane while the westbound approach has a shared left-turn and through lane and two through lanes. During the morning peak period, contra-flow operations are implemented along Kapiolani Boulevard. During this period, the eastbound approach has one through lane and a through and right-turn lane while the westbound approach has a shared left-turn and through lane and three through lanes. During the afternoon peak period, the westbound approach has two through lanes with left-turn traffic movements prohibited while the eastbound approach has three through lanes and a through and right-turn lane. Kamakee Street is a predominantly four-lane, two-way roadway generally oriented in the north-south direction. At the intersection with Kapiolani Boulevard, the Kamakee Street approach has exclusive left-turn and right-turn lanes.

South of the intersection with Kapiolani Boulevard, Kamakee Street intersects Waimanu Street. At this all-way stop-controlled intersection, both approaches of Kamakee Street have a shared left-turn and through lane, and a shared through and

right-turn lane. Both approaches of Waimanu Street have one lane at this intersection that serves all traffic movements.

B. Traffic Volumes and Conditions

1. General

a. Field Investigation

Field investigations were conducted in April and October 2011, as well as, April 2013 in the vicinity of the proposed development. These investigations consisted of assessments of existing site conditions (i.e., traffic flow and queuing) and manual turning movement count surveys between the morning peak hours of 6:00 AM and 9:00 AM, and the afternoon peak hours of 3:00 PM and 6:00 PM at the following intersections:

- Waimanu Street and Ward Avenue
- Kapiolani Boulevard and Ward Avenue
- Kapiolani Boulevard and Kamakee Street
- Waimanu Street and Kamakee Street

Appendix A includes the existing traffic count data.

b. Capacity Analysis Methodology

The highway capacity analysis performed in this study is based upon procedures presented in the "Highway Capacity Manual", Transportation Research Board, 2000, and the "Synchro" software, developed by Trafficware. The analysis is based on the concept of Level of Service (LOS).

LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS "A" through "F". LOS "A" represents ideal or free-flow traffic operating conditions and LOS "F" represents unacceptable or potentially congested traffic operating conditions. LOS "B", "C", "D", and "E" represent the intermediate traffic operational characteristics between the two extremes of LOS "A" and LOS "F". The LOS definitions are included in Appendix B.

"Volume-to-Capacity" (v/c) ratio is another measure indicating the relative traffic demand to the roadway carrying capacity. A v/c ratio of one (1.00) indicates that the roadway is operating at or near capacity. A v/c ratio of greater than 1.00 generally indicates that the traffic demand exceeds the road's carrying capacity.

2. Existing Peak Hour Traffic

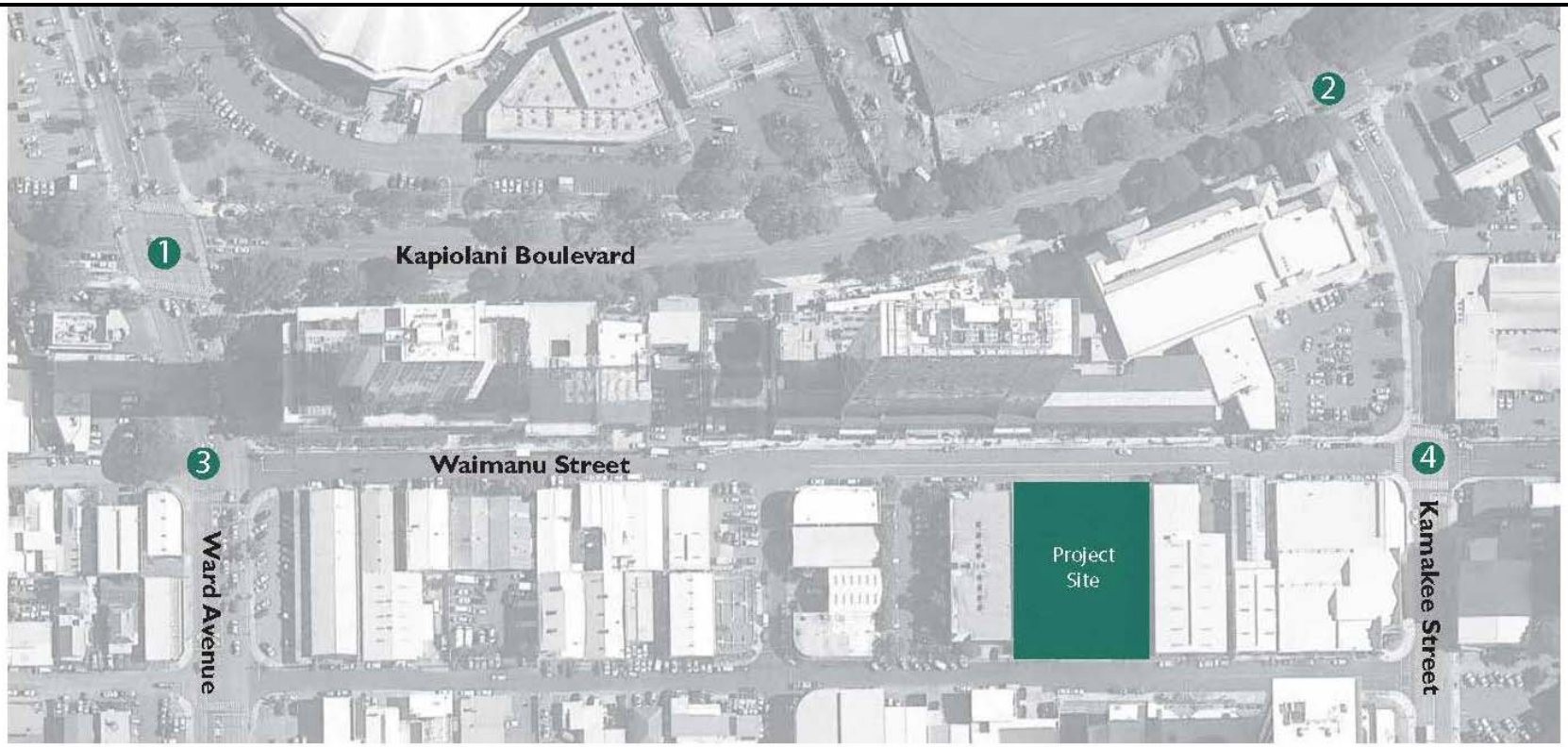
a. General

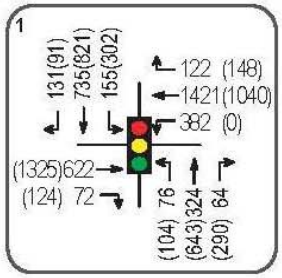
Figure 4 shows the existing AM and PM peak hour traffic volumes and operating traffic conditions. The AM peak hour of traffic generally occurs between 7:15 AM and 8:15 AM in the vicinity of the proposed project. In the afternoon, the PM peak hour of traffic generally occurs between the hours of 4:30 PM and 5:30 PM. The analysis is based on the absolute peak hour time periods for each intersection to identify the traffic impacts resulting from the proposed project. LOS calculations are included in Appendix C.

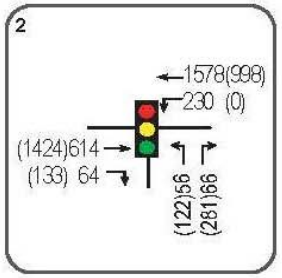
b. Waimanu Street and Ward Avenue

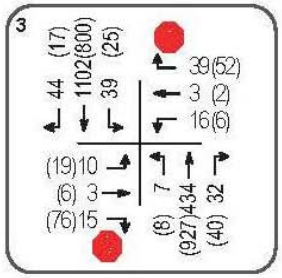
At the intersection with Ward Avenue, Waimanu Street carries 28 vehicles eastbound and 58 vehicles westbound during the AM peak hour of traffic. During the PM peak period, traffic volumes are higher with 101 vehicles traveling eastbound and 60 vehicles traveling westbound. The eastbound approach of Waimanu Street operates at LOS "C" during both peak periods while the westbound approach operates at LOS "B" and LOS "C" during the AM and PM peak periods, respectively.

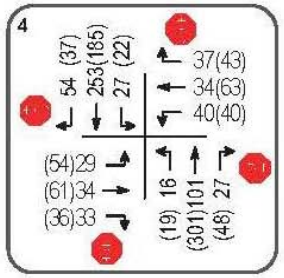
The Ward Avenue approaches of the intersection carry 473 vehicles northbound and 1,185 vehicles southbound during the AM peak hour of traffic. During the PM peak hour of traffic, the overall traffic volume is higher with 975 vehicles traveling northbound and 842 vehicles traveling southbound. The critical movements on the Ward Avenue approaches are the northbound left-turn traffic











LEGEND
- Study Intersection
- xx A.M. Peak Hour Volume
- (xx) P.M. Peak Hour Volume

WILSON OKAMOTO CORPORATION
ENGINEERS - PLANNERS

OLA KA ILIMA ARTSPACE LOFTS

EXISTING PEAK HOURS OF TRAFFIC

FIGURE 4

movement which operates at LOS "A" during both peak periods and the southbound left-turn traffic movement which operates at LOS "A" and LOS "B" during the AM and PM peak periods, respectively.

c. Kapiolani Boulevard and Ward Avenue

At the intersection with Ward Avenue, Kapiolani Boulevard carries 694 vehicles eastbound and 1,925 vehicles westbound during the AM peak hour of traffic. During the PM peak period, the overall traffic volume is approximately the same with 1,449 vehicles traveling eastbound and 1,188 vehicles traveling westbound. The eastbound approach of Kapiolani Boulevard operates at LOS "E" and LOS "C" during the AM and PM peak periods, respectively, while the westbound approach operates at LOS "C" during both peak periods.

The Ward Avenue approaches of the intersection carry 464 vehicles northbound and 1,021 vehicles southbound during the AM peak hour of traffic. During the PM peak hour of traffic, traffic volumes are higher with 1,037 vehicles traveling northbound and 1,214 vehicles traveling southbound. Both approaches of Ward Avenue operate at LOS "D" during both peak periods.

d. Kapiolani Boulevard and Kamakee Street

At the intersection with Kamakee Street, Kapiolani Boulevard carries 678 vehicles eastbound and 1,808 vehicles westbound during the AM peak hour of traffic. During the PM peak period, the overall traffic volume is slightly higher with 1,557 vehicles traveling eastbound and 998 vehicles traveling westbound. Both approaches of Kapiolani Boulevard operate at LOS "A" during both peak periods.

The Kamakee Street approach of the intersection carries 122 vehicles and 403 vehicles northbound during the AM and PM peak periods, respectively. This approach operates at LOS "C" during both peak periods.

e. Waimanu Street and Kamakee Street

At the intersection with Kamakee Street, Waimanu Street carries 96 vehicles eastbound and 111 vehicles westbound during the AM peak hour of traffic. During the PM peak period, traffic volumes are higher with 151 vehicles traveling eastbound and 146 vehicles traveling westbound. The Waimanu Street approaches of the intersection operate at LOS "A" and LOS "B" during both peak periods, respectively.

The Kamakee Street approaches of the intersection carry 144 vehicles northbound and 334 vehicles southbound during the AM peak period. During the PM peak period, the overall traffic volume is higher with 368 vehicles traveling northbound and 244 vehicles traveling southbound. The northbound approach of Kamakee Street operates at LOS "A" and LOS "B' during the AM and PM peak periods, respectively, while the southbound approach operates at LOS "A" during both peak periods.

IV. PROJECTED TRAFFIC CONDITIONS

A. Site-Generated Traffic

1. Trip Generation Methodology

The trip generation methodology used in this study is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in "Trip Generation, 9th Edition," 2012. The ITE trip generation rates are developed empirically by correlating the vehicle trip generation data with various land use characteristics such as the number of vehicle trips generated per unit or 1,000 square feet of development. The trip generation methodology developed by ITE also includes provisions for internal trips to incorporate the effect of interactions between related land uses. For the purpose of this report, all the trips associated with the proposed land uses are conservatively assumed to be new trips to and from the project site although interaction between the land uses is anticipated due to the live-

work features of the development. Table 1 summarizes the trip generation characteristics related to the proposed Ola Ka 'Ilima Artspace Lofts applied to the AM and PM peak hours of traffic.

Table 1: Peak Hour Trip Generation

RESIDENTIAL UNITS (MID-RISE APARTMENT)		
INDEPENDENT VARIABLE: Dwelling Units = 80		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	6
	EXIT	14
	TOTAL	20
PM PEAK	ENTER	16
	EXIT	11
	TOTAL	27
CULTURAL CENTER (RECREATIONAL COMMUNITY CENTER)		
INDEPENDENT VARIABLE: 1,000 sf of Development = 4		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	5
	EXIT	3
	TOTAL	8
PM PEAK	ENTER	5
	EXIT	6
	TOTAL	11
ARTS-RELATED BUSINESSES (ARTS AND CRAFTS STORE)		
INDEPENDENT VARIABLE: 1,000 sf of Development = 2		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	0
	EXIT	0
	TOTAL	0
PM PEAK	ENTER	6
	EXIT	6
	TOTAL	12
TOTALS		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	11
	EXIT	17
	TOTAL	28
PM PEAK	ENTER	27
	EXIT	23
	TOTAL	50

2. Trip Distribution

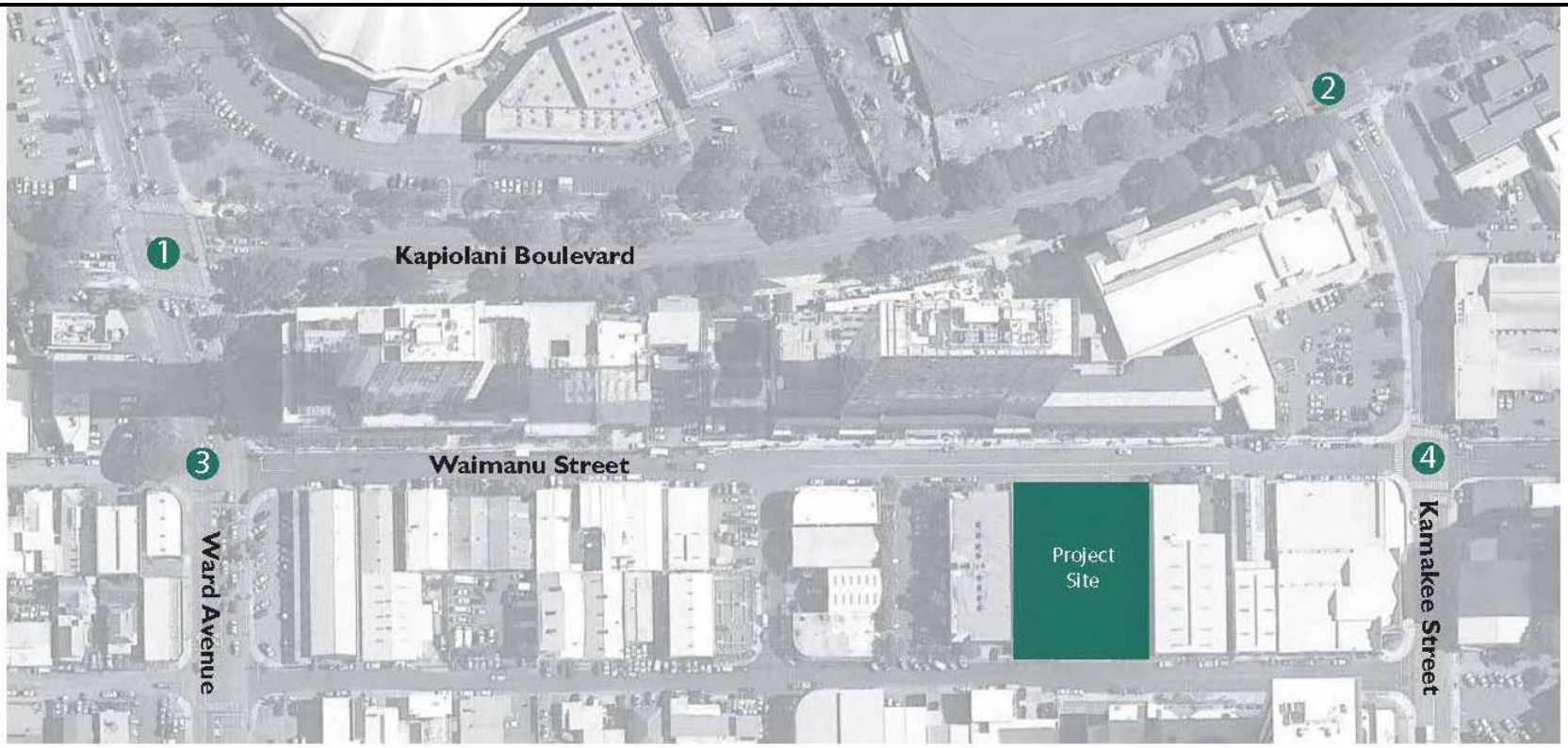
Figure 5 shows the distribution of site-generated trips at the study intersections during the AM and PM peak hours of traffic. Access for the project will be provided via driveways off Waimanu Street. The directional distribution of site-generated vehicles was based on the existing directional distribution of traffic at the study intersections. Trips were assigned to the study intersections based on the relative convenience of available routes, allowed turning movements, and their assumed origin/destination.

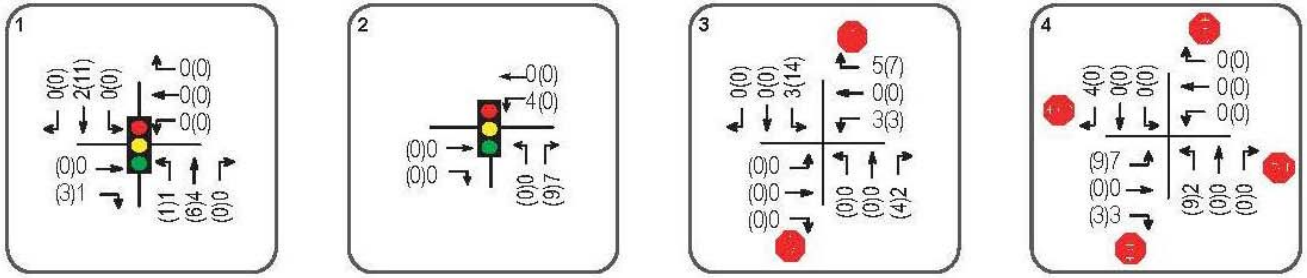
B. Through Traffic Forecasting Methodology

Typically, travel forecasts are developed based upon historical traffic count data, however traffic volumes in the project vicinity have been relatively stable over the last few years. As such, the travel forecast developed for this study conservatively assumes the existing traffic volumes along the adjacent roadways will increase at a rate of 2.0% per year. Using 2013 as the Base Year, a growth factor of 1.04 was applied to the existing traffic demands along Kapiolani Boulevard, Ward Avenue, and Kamakee Street to achieve the projected Year 2015 traffic demands.

C. Total Traffic Volumes Without Project

The projected Year 2015 AM peak hour and PM peak hour traffic volumes and operating conditions in the project vicinity without the construction of the proposed Ola Ka 'Ilima Artspace Lofts are shown on Figure 6 and summarized in Table 2. The existing levels of service are included for comparison purposes. LOS calculations are included in Appendix D.





North

Not to Scale

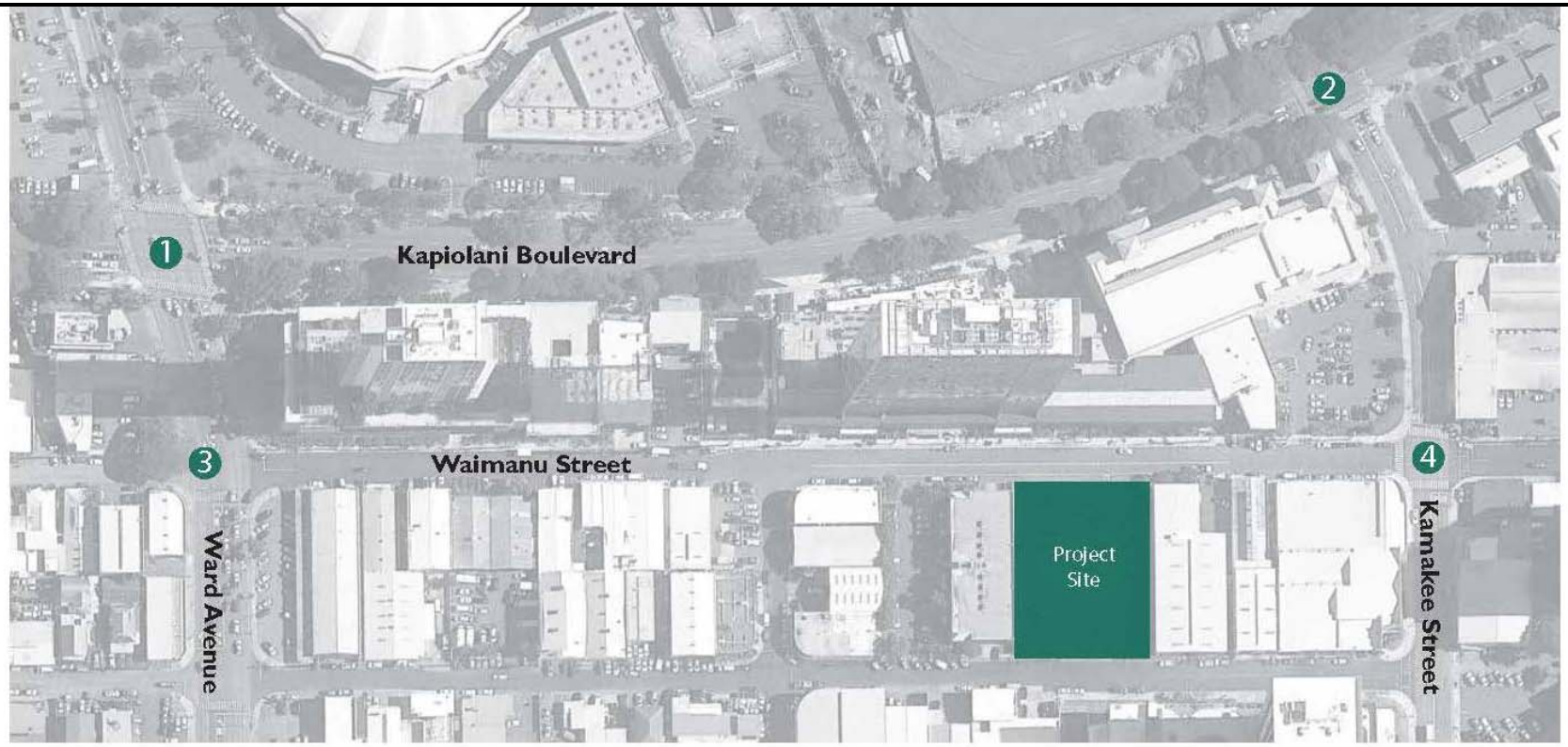
LEGEND
- Study Intersection
- xx A.M. Peak Hour Volume
- (xx) P.M. Peak Hour Volume

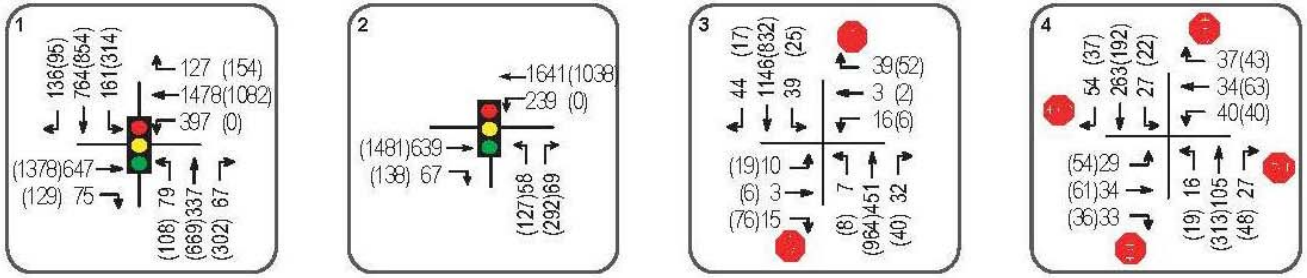
WILSON OKAMOTO CORPORATION
ENGINEERS - PLANNERS

OLA KA ILIMA ARTSPACE LOFTS

DISTRIBUTION OF SITE-GENERATED VEHICLES

FIGURE 5





North

Not to Scale

LEGEND

- Study Intersection
- xx A.M. Peak Hour Volume
- (xx) P.M. Peak Hour Volume

WILSON OKAMOTO CORPORATION
ENGINEERS - PLANNERS

OLA KA ILIMA ARTSPACE LOFTS

YEAR 2015 PEAK HOURS OF TRAFFIC WITHOUT PROJECT

FIGURE 6

Table 2: Existing and Projected (Without Project) LOS Traffic Operating Conditions

Intersection	Critical Traffic Movement/Approach		AM		PM	
			Exist	Year 2015 w/out Proj	Exist	Year 2015 w/out Proj
Waimanu St/ Ward Ave	Eastbound		C	C	C	C
	Westbound		B	B	C	C
	Northbound	LT	A	B	A	A
	Southbound	LT	A	A	B	B
Kapiolani Ave/ Ward Ave	Eastbound		E	E	C	D
	Westbound		C	C	C	C
	Northbound		D	D	D	D
	Southbound		D	E	D	D
Kapiolani Blvd/ Kamakee St	Eastbound		A	A	A	A
	Westbound		A	A	A	A
	Northbound		C	C	C	C
Waimanu St/ Kamakee St	Eastbound		A	A	B	B
	Westbound		A	A	B	B
	Northbound		A	A	B	B
	Southbound		A	A	A	A

Under Year 2015 without project conditions, traffic operations in the project vicinity are expected to deteriorate slightly due to ambient growth of traffic along the surrounding roadways. At the intersection of Kapiolani Boulevard with Ward Avenue, the southbound approach is expected to operate at LOS "E' during the AM peak period while the eastbound approach is expected to operate at LOS "D" during the PM peak period. Similarly, the northbound left-turn traffic movement at the intersection of Waimanu Street with Ward Avenue is expected to operate at LOS "B" during the AM peak period. The remaining critical movements at these intersections, as well as, the other study intersections are expected to operate at levels of service similar to existing conditions.

D. Total Traffic Volumes With Project

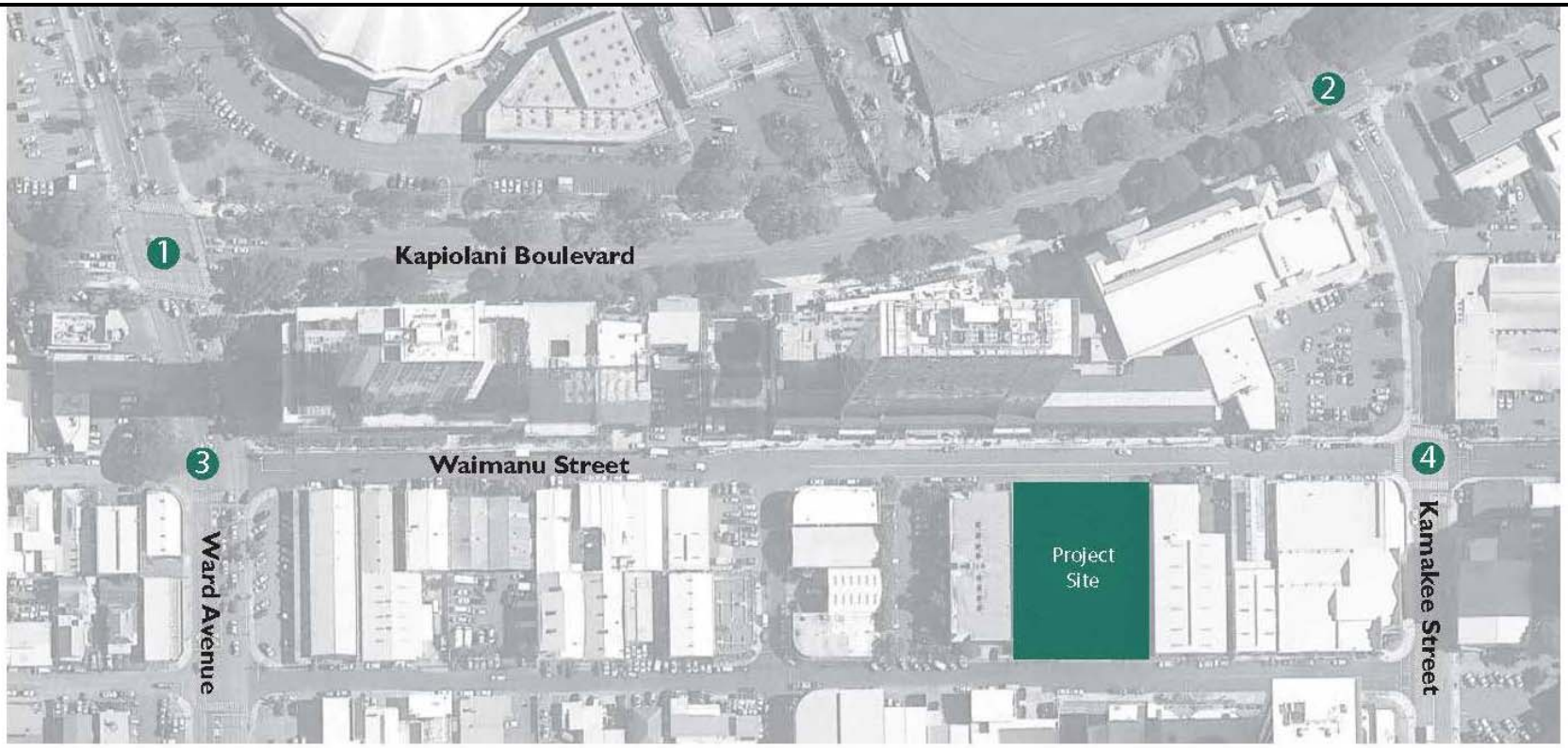
Figure 7 shows the cumulative AM and PM peak hour traffic conditions resulting from the projected external traffic and the construction of the proposed Ola Ka 'Ilima Artspace Lofts. The cumulative volumes consist of site-generated traffic superimposed over Year 2015 projected traffic demands. The traffic impacts resulting from the proposed project are addressed in the following section.

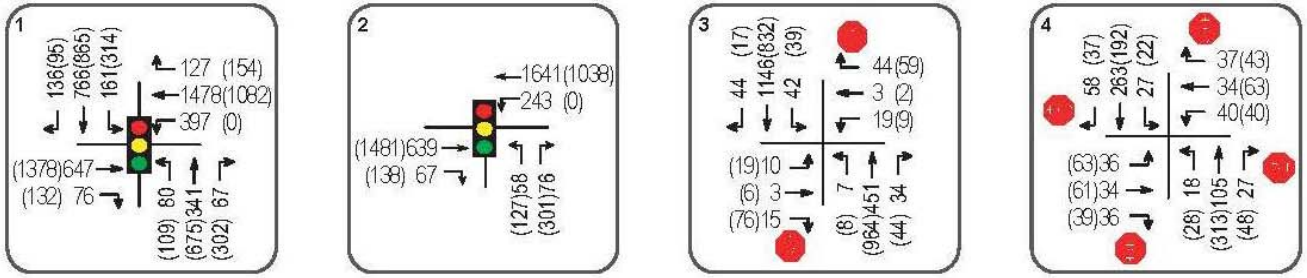
V. TRAFFIC IMPACT ANALYSIS

The Year 2015 cumulative AM and PM peak hour traffic conditions with the construction of the proposed Ola Ka 'Ilima Artspace Lofts are summarized in Table 3. The projected Year 2015 operating conditions without the proposed project are provided for comparison purposes. LOS calculations are included in Appendix E.

Table 3: Projected (With and Without Project) Traffic Operating Conditions

Intersection	Critical Traffic Movement/Approach		AM		PM	
			Year 2015		Year 2015	
			w/out Proj	w/ Proj	w/out Proj	w/ Proj
Waimanu St/ Ward Ave	Eastbound		C	C	C	C
	Westbound		B	B	C	C
	Northbound	LT	B	B	A	A
	Southbound	LT	A	A	B	B
Kapiolani Ave/ Ward Ave	Eastbound		E	E	D	D
	Westbound		C	C	C	C
	Northbound		D	D	D	D
	Southbound		E	E	D	D
Kapiolani Blvd/ Kamakee St	Eastbound		A	A	A	A
	Westbound		A	A	A	A
	Northbound		C	C	C	C
Waimanu St/ Kamakee St	Eastbound		A	A	B	B
	Westbound		A	A	B	B
	Northbound		A	A	B	B
	Southbound		A	A	A	A





North

Not to Scale

LEGEND

- Study Intersection
- xx A.M. Peak Hour Volume
- (xx) P.M. Peak Hour Volume

WILSON OKAMOTO CORPORATION
ENGINEERS - PLANNERS

OLA KA ILIMA ARTSPACE LOFTS

YEAR 2015 PEAK HOURS OF TRAFFIC WITH PROJECT

FIGURE 7

Traffic operations in the vicinity of the project are expected to remain similar to Year 2015 without project traffic conditions during both peak hours of traffic despite the increase in traffic along the surrounding roadways due to the development of the proposed Ola Ka 'Ilima Artspace Lofts. Along Waimanu Street, traffic operations at the intersection with Ward Avenue are expected to continue operating at LOS "C" or better during both peak periods while those at the intersection with Kamakee Street are expected to continue operating at LOS "A" during the AM peak period and LOS "B" or better during the PM peak period. Similarly, traffic operations at the intersection of Kapiolani Boulevard with Ward Avenue are expected to continue operating at LOS "E" or better during the AM peak period and LOS "D" or better during the PM peak period while those at the intersection with Kamakee Street are expected to continue operating at LOS "C" or better during both peak periods.

VI. RECOMMENDATIONS

Based on the analysis of the traffic data, the following are the recommendations of this study associated with the project implementation:

1. Provide sufficient driveway width to accommodate safe vehicle ingress and egress.

2. Provide adequate turning radii at all project driveways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

3. Maintain adequate sight distances for motorists to safely enter and exit all project driveways.

4. Provide adequate on-site loading and off-loading service areas and prohibit off-site loading operations.

5. Provide adequate turn-around area for delivery and refuse vehicles to maneuver on the project site to avoid vehicle reversing maneuvers onto public roadways.

6. Restrict on-street parking along the project frontage to ensure adequate sight distance for vehicles entering and exiting the project site.

VII. CONCLUSION

The proposed Ola Ka 'Ilima Artspace Lofts will be a mixed-use nonprofit arts complex that includes residential units, an Arts & Culture Center, community room, an outdoor gardening area, and space for arts-related businesses. The residential units are

anticipated to provide affordable live-work space for low-income artists and their families with units expected to be larger than the typical affordable unit to allow for ample workspace. With the implementation of the aforementioned recommendations, the critical movements at the study intersections are expected to continue operating at levels of service similar to without project conditions. In addition, with the proposed project, the total traffic volumes entering the study intersections along Kapiolani Boulevard are expected to increase by less than 1% during both peak periods while those along Waimanu Street are expected to increase by approximately 2-3% during both peak periods. These increases in the total traffic volumes are in the range of daily volume fluctuations along the surrounding roadways and represent a minimal increase in the overall traffic volumes. As such, the Ola Ka 'Ilima Artspace Lofts are not expected to have a significant impact on traffic operations in the project vicinity.

APPENDIX A

EXISTING TRAFFIC COUNT DATA

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counter:3888,5675
Counted By:RJ,SF
Weather:Clear

File Name : WarWaiAM
Site Code : 00000006
Start Date : 4/26/2011
Page No : 1

Groups Printed- Unshifted

	Ward Avenue Southbound					Waimanu Street Westbound					Ward Avenue Northbound					Waimanu Street Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	9	128	2	1	140	5	0	9	11	25	2	51	4	2	59	1	0	0	5	6	230
06:15 AM	11	144	5	2	162	0	0	5	11	16	0	53	1	2	56	2	0	0	5	7	241
06:30 AM	8	178	2	0	188	3	0	11	13	27	0	64	3	2	69	1	0	1	3	5	289
06:45 AM	11	209	2	0	222	5	0	7	18	30	4	77	5	2	88	1	1	1	6	9	349
Total	39	659	11	3	712	13	0	32	53	98	6	245	13	8	272	5	1	2	19	27	1109
07:00 AM	7	253	6	0	266	2	0	8	5	15	1	89	3	3	96	3	1	2	14	20	397
07:15 AM	4	273	11	0	288	2	0	5	14	21	2	128	8	2	140	0	0	2	2	4	453
07:30 AM	7	253	9	1	270	3	0	14	11	28	2	136	7	4	149	5	1	2	10	18	465
07:45 AM	10	298	12	0	320	4	1	7	13	25	2	97	8	4	111	1	0	5	9	15	471
Total	28	1077	38	1	1144	11	1	34	43	89	7	450	26	13	496	9	2	11	35	57	1786
08:00 AM	10	265	13	0	288	7	0	10	10	27	1	92	10	1	104	3	1	4	8	16	435
08:15 AM	12	286	10	0	308	2	2	8	15	27	2	109	7	5	123	1	1	4	7	13	471
08:30 AM	9	263	6	0	278	2	1	7	14	24	3	105	5	2	115	3	1	6	7	17	434
08:45 AM	4	235	5	0	244	2	0	10	13	25	3	125	9	2	139	1	0	5	3	9	417
Total	35	1049	34	0	1118	13	3	35	52	103	9	431	31	10	481	8	3	19	25	55	1757
Grand Total	102	2785	83	4	2974	37	4	101	148	290	22	1126	70	31	1249	22	6	32	79	139	4652
Apprch %	3.4	93.6	2.8	0.1		12.8	1.4	34.8	51		1.8	90.2	5.6	2.5		15.8	4.3	23	56.8		
Total %	2.2	59.9	1.8	0.1	63.9	0.8	0.1	2.2	3.2	6.2	0.5	24.2	1.5	0.7	26.8	0.5	0.1	0.7	1.7	3	

	Ward Avenue Southbound				Waimanu Street Westbound				Ward Avenue Northbound				Waimanu Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	7	253	9	269	3	0	**14**	**17**	**2**	**136**	7	**145**	**5**	**1**	2	**8**	439
07:45 AM	10	**298**	12	**320**	4	1	7	12	2	97	8	107	1	0	**5**	6	**445**
08:00 AM	10	265	**13**	288	**7**	0	10	17	1	92	**10**	103	3	1	4	8	416
08:15 AM	**12**	286	10	308	2	**2**	8	12	2	109	7	118	1	1	4	6	444
Total Volume	39	1102	44	1185	16	3	39	58	7	434	32	473	10	3	15	28	1744
% App. Total	3.3	93	3.7		27.6	5.2	67.2		1.5	91.8	6.8		35.7	10.7	53.6		
PHF	.813	.924	.846	.926	.571	.375	.696	.853	.875	.798	.800	.816	.500	.750	.750	.875	.980

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counter:3888,5675
Counted By:RJ,SF
Weather:Clear

File Name : WarWaiPM
Site Code : 00000006
Start Date : 4/26/2011
Page No : 1

Groups Printed- Unshifted

	Ward Avenue Southbound					Waimanu Street Westbound					Ward Avenue Northbound					Waimanu Street Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	8	216	7	0	231	4	0	11	11	26	4	209	6	3	222	2	1	7	8	18	497
03:15 PM	7	195	8	0	210	8	0	13	20	41	0	216	14	2	232	1	2	12	4	19	502
03:30 PM	8	188	3	0	199	2	2	17	23	44	1	221	8	4	234	0	2	14	10	26	503
03:45 PM	11	191	5	1	208	3	0	13	18	34	3	253	18	5	279	3	2	21	6	32	553
Total	34	790	23	1	848	17	2	54	72	145	8	899	46	14	967	6	7	54	28	95	2055
04:00 PM	5	174	3	0	182	5	1	14	13	33	3	252	6	0	261	6	1	12	9	28	504
04:15 PM	6	161	3	0	170	1	0	13	13	27	4	230	5	2	241	5	1	20	5	31	469
04:30 PM	9	179	4	0	192	2	0	16	25	43	1	236	11	5	253	4	4	20	7	35	523
04:45 PM	8	195	6	0	209	1	1	14	9	25	0	231	7	3	241	6	2	20	9	37	512
Total	28	709	16	0	753	9	2	57	60	128	8	949	29	10	996	21	8	72	30	131	2008
05:00 PM	7	203	2	0	212	3	1	14	19	37	1	246	11	2	260	6	1	29	4	40	549
05:15 PM	7	180	3	1	191	0	0	16	18	34	3	229	9	4	245	4	2	18	10	34	504
05:30 PM	3	222	6	0	231	2	0	8	15	25	4	221	13	0	238	3	1	9	10	23	517
05:45 PM	6	247	7	0	260	2	0	14	16	32	3	197	7	4	211	2	2	3	2	9	512
Total	23	852	18	1	894	7	1	52	68	128	11	893	40	10	954	15	6	59	26	106	2082
Grand Total	85	2351	57	2	2495	33	5	163	200	401	27	2741	115	34	2917	42	21	185	84	332	6145
Apprch %	3.4	94.2	2.3	0.1		8.2	1.2	40.6	49.9		0.9	94	3.9	1.2		12.7	6.3	55.7	25.3		
Total %	1.4	38.3	0.9	0	40.6	0.5	0.1	2.7	3.3	6.5	0.4	44.6	1.9	0.6	47.5	0.7	0.3	3	1.4	5.4	

	Ward Avenue Southbound				Waimanu Street Westbound				Ward Avenue Northbound				Waimanu Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**8**	195	**6**	209	1	**1**	14	16	0	231	7	238	**6**	**2**	20	28	491
05:00 PM	7	203	2	212	**3**	1	14	**18**	1	**246**	11	**258**	6	1	**29**	**36**	**524**
05:15 PM	7	180	3	190	0	0	**16**	16	3	229	9	241	4	2	18	24	471
05:30 PM	3	**222**	6	**231**	2	0	8	10	**4**	221	**13**	238	3	1	9	13	492
Total Volume	25	800	17	842	6	2	52	60	8	927	40	975	19	6	76	101	1978
% App. Total	3	95	2		10	3.3	86.7		0.8	95.1	4.1		18.8	5.9	75.2		
PHF	.781	.901	.708	.911	.500	.500	.813	.833	.500	.942	.769	.945	.792	.750	.655	.701	.944

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counter:TU-0649, TU-0654
Counted By:GC, MM
Weather:Clear

File Name : KapWar AM
Site Code : 00000001
Start Date : 10/12/2011
Page No : 1

Groups Printed- Unshifted

	Ward Avenue Southbound					Kapiolani Boulevard Westbound					Ward Avenue Northbound					Kapiolani Boulevard Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	14	88	17	0	119	34	75	4	6	119	6	24	6	15	51	0	39	4	6	49	338
06:15 AM	19	85	15	9	128	43	131	7	12	193	11	27	4	10	52	0	48	9	10	67	440
06:30 AM	21	125	18	5	169	58	181	16	15	270	15	41	6	9	71	0	74	14	7	95	605
06:45 AM	23	132	28	6	189	73	278	21	14	386	17	77	18	10	122	0	99	20	9	128	825
Total	77	430	78	20	605	208	665	48	47	968	49	169	34	44	296	0	260	47	32	339	2208
07:00 AM	15	131	20	17	183	89	336	17	17	459	21	96	17	16	150	0	118	10	16	144	936
07:15 AM	28	141	14	16	199	100	391	20	11	522	18	91	6	16	131	0	86	14	4	104	956
07:30 AM	42	172	33	15	262	92	394	34	27	547	20	92	13	13	138	0	150	14	10	174	1121
07:45 AM	35	163	36	8	242	102	421	31	19	573	20	91	15	18	144	0	148	19	7	174	1133
Total	120	607	103	56	886	383	1542	102	74	2101	79	370	51	63	563	0	502	57	37	596	4146
08:00 AM	40	178	24	8	250	91	332	28	14	465	14	58	19	12	103	0	160	21	1	182	1000
08:15 AM	38	222	38	12	310	97	274	29	16	416	22	83	17	12	134	0	164	18	5	187	1047
08:30 AM	36	154	29	6	225	63	183	15	19	280	16	111	23	9	159	0	153	11	3	167	831
08:45 AM	44	152	25	14	235	68	208	23	7	306	17	72	34	12	135	0	114	16	4	134	810
Total	158	706	116	40	1020	319	997	95	56	1467	69	324	93	45	531	0	591	66	13	670	3688
Grand Total	355	1743	297	116	2511	910	3204	245	177	4536	197	863	178	152	1390	0	1353	170	82	1605	10042
Apprch %	14.1	69.4	11.8	4.6		20.1	70.6	5.4	3.9		14.2	62.1	12.8	10.9		0	84.3	10.6	5.1		
Total %	3.5	17.4	3	1.2	25	9.1	31.9	2.4	1.8	45.2	2	8.6	1.8	1.5	13.8	0	13.5	1.7	0.8	16	

	Ward Avenue Southbound				Kapiolani Boulevard Westbound				Ward Avenue Northbound				Kapiolani Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**42**	172	33	247	92	394	**34**	520	20	**92**	13	125	0	150	14	164	1056
07:45 AM	35	163	36	234	**102**	**421**	31	**554**	20	91	15	**126**	0	148	19	167	**1081**
08:00 AM	40	178	24	242	91	332	28	451	14	58	**19**	91	0	160	**21**	181	965
08:15 AM	38	**222**	**38**	**298**	97	274	29	400	**22**	83	17	122	0	**164**	18	**182**	1002
Total Volume	155	735	131	1021	382	1421	122	1925	76	324	64	464	0	622	72	694	4104
% App. Total	15.2	72	12.8		19.8	73.8	6.3		16.4	69.8	13.8		0	89.6	10.4		
PHF	.923	.828	.862	.857	.936	.844	.897	.869	.864	.880	.842	.921	.000	.948	.857	.953	.949

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counter:TU-0649, TU-0654
Counted By:GC, MM
Weather:Clear

File Name : KapWar PM
Site Code : 00000002
Start Date : 10/12/2011
Page No : 1

Groups Printed- Unshifted

	Ward Avenue Southbound					Kapiolani Boulevard Westbound					Ward Avenue Northbound					Kapiolani Boulevard Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	51	180	18	7	256	0	260	46	24	330	29	162	50	16	257	0	216	28	7	251	1094
03:15 PM	59	205	25	3	292	0	259	34	13	306	36	169	56	8	269	0	219	32	12	263	1130
03:30 PM	56	125	41	10	232	0	279	42	17	338	30	195	63	18	306	0	263	48	19	330	1206
03:45 PM	43	163	22	2	230	0	280	35	21	336	42	166	65	12	285	0	223	35	15	273	1124
Total	209	673	106	22	1010	0	1078	157	75	1310	137	692	234	54	1117	0	921	143	53	1117	4554
04:00 PM	54	126	33	4	217	0	220	34	20	274	32	183	57	19	291	0	253	29	6	288	1070
04:15 PM	59	190	30	8	287	0	241	30	12	283	44	185	68	9	306	0	305	18	20	343	1219
04:30 PM	61	145	17	6	229	0	271	35	24	330	22	190	76	15	303	0	336	27	1	364	1226
04:45 PM	70	221	22	12	325	0	262	37	29	328	39	147	62	17	265	0	301	28	9	338	1256
Total	244	682	102	30	1058	0	994	136	85	1215	137	705	263	60	1165	0	1195	102	36	1333	4771
05:00 PM	86	242	30	9	367	0	285	33	31	349	28	163	71	17	279	0	357	28	5	390	1385
05:15 PM	85	213	22	21	341	0	222	43	39	304	15	143	81	45	284	0	331	41	13	385	1314
05:30 PM	64	242	20	15	341	0	190	37	20	247	27	170	54	12	263	0	346	23	14	383	1234
05:45 PM	54	153	26	12	245	0	308	30	27	365	24	146	54	14	238	0	243	31	11	285	1133
Total	289	850	98	57	1294	0	1005	143	117	1265	94	622	260	88	1064	0	1277	123	43	1443	5066
Grand Total	742	2205	306	109	3362	0	3077	436	277	3790	368	2019	757	202	3346	0	3393	368	132	3893	14391
Apprch %	22.1	65.6	9.1	3.2		0	81.2	11.5	7.3		11	60.3	22.6	6		0	87.2	9.5	3.4		
Total %	5.2	15.3	2.1	0.8	23.4	0	21.4	3	1.9	26.3	2.6	14	5.3	1.4	23.3	0	23.6	2.6	0.9	27.1	

	Ward Avenue Southbound				Kapiolani Boulevard Westbound				Ward Avenue Northbound				Kapiolani Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	61	145	17	223	0	271	35	306	22	**190**	76	**288**	0	336	27	363	1180
04:45 PM	70	221	22	313	0	262	37	299	**39**	147	62	248	0	301	28	329	1189
05:00 PM	**86**	**242**	**30**	**358**	0	**285**	33	**318**	28	163	71	262	0	**357**	28	**385**	**1323**
05:15 PM	85	213	22	320	0	222	**43**	265	15	143	**81**	239	0	331	**41**	372	1196
Total Volume	302	821	91	1214	0	1040	148	1188	104	643	290	1037	0	1325	124	1449	4888
% App. Total	24.9	67.6	7.5		0	87.5	12.5		10	62	28		0	91.4	8.6		
PHF	.878	.848	.758	.848	.000	.912	.860	.934	.667	.846	.895	.900	.000	.928	.756	.941	.924

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counted By:JL, GC
Counter:D4-3888, D4-5674
Weather:Clear

File Name : KapKee AM
Site Code : 00000001
Start Date : 4/24/2013
Page No : 1

Groups Printed- Unshifted

	Southbound	Kapiolani Boulevard Westbound					Kamakee Street Northbound					Kapiolani Boulevard Eastbound					
Start Time	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	0	20	117	0	1	138	4	0	6	6	16	0	45	8	5	58	212
06:15 AM	0	28	177	0	0	205	11	0	8	6	25	0	71	11	11	93	323
06:30 AM	0	32	260	0	2	294	8	0	13	6	27	0	76	8	6	90	411
06:45 AM	0	42	316	0	1	359	24	0	12	10	46	0	121	15	17	153	558
Total	0	122	870	0	4	996	47	0	39	28	114	0	313	42	39	394	1504
07:00 AM	0	51	319	0	0	370	16	0	15	9	40	0	115	14	19	148	558
07:15 AM	0	47	403	0	0	450	11	0	22	4	37	0	133	10	33	176	663
07:30 AM	0	60	402	0	4	466	20	0	15	11	46	0	157	14	50	221	733
07:45 AM	0	60	382	0	4	446	13	0	15	9	37	0	159	23	90	272	755
Total	0	218	1506	0	8	1732	60	0	67	33	160	0	564	61	192	817	2709
08:00 AM	0	63	391	0	2	456	12	0	14	12	38	0	165	17	47	229	723
08:15 AM	0	60	335	0	4	399	16	0	24	8	48	0	155	24	40	219	666
08:30 AM	0	62	275	0	5	342	19	0	30	5	54	0	143	18	9	170	566
08:45 AM	0	47	214	0	2	263	14	0	34	11	59	0	175	28	15	218	540
Total	0	232	1215	0	13	1460	61	0	102	36	199	0	638	87	111	836	2495
Grand Total	0	572	3591	0	25	4188	168	0	208	97	473	0	1515	190	342	2047	6708
Apprch %		13.7	85.7	0	0.6		35.5	0	44	20.5		0	74	9.3	16.7		
Total %	0	8.5	53.5	0	0.4	62.4	2.5	0	3.1	1.4	7.1	0	22.6	2.8	5.1	30.5	

	Southbound	Kapiolani Boulevard Westbound				Kamakee Street Northbound				Kapiolani Boulevard Eastbound				
Start Time	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 07:15 AM														
07:15 AM	0	47	**403**	0	450	11	0	**22**	33	0	133	10	143	626
07:30 AM	0	60	402	0	**462**	**20**	0	15	**35**	0	157	14	171	**668**
07:45 AM	0	60	382	0	442	13	0	15	28	0	159	**23**	**182**	652
08:00 AM	0	**63**	391	0	454	12	0	14	26	0	**165**	17	182	662
Total Volume	0	230	1578	0	1808	56	0	66	122	0	614	64	678	2608
% App. Total		12.7	87.3	0		45.9	0	54.1		0	90.6	9.4		
PHF	.000	.913	.979	.000	.978	.700	.000	.750	.871	.000	.930	.696	.931	.976

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counted By:GC, JL
Counter:D4-3889, D4-3890
Weather:Clear

File Name : KapKee PM
Site Code : 00000001
Start Date : 4/24/2013
Page No : 1

Groups Printed- Unshifted

	Southbound	Kapiolani Boulevard Westbound					Waimanu Street Northbound					Kapiolani Boulevard Eastbound					
Start Time	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	0	38	177	0	0	215	32	0	60	10	102	0	205	15	22	242	559
03:15 PM	0	2	213	0	2	217	15	0	57	17	89	0	272	27	20	319	625
03:30 PM	0	0	212	0	10	222	22	0	49	25	96	0	263	23	43	329	647
03:45 PM	0	3	214	0	0	217	31	0	66	13	110	0	321	34	19	374	701
Total	0	43	816	0	12	871	100	0	232	65	397	0	1061	99	104	1264	2532
04:00 PM	0	3	298	0	10	311	27	0	76	19	122	0	306	30	31	367	800
04:15 PM	0	2	256	0	4	262	13	0	66	15	94	0	345	24	22	391	747
04:30 PM	0	2	243	0	8	253	32	0	57	11	100	0	323	29	23	375	728
04:45 PM	0	1	285	0	7	293	27	0	68	24	119	0	369	32	24	425	837
Total	0	8	1082	0	29	1119	99	0	267	69	435	0	1343	115	100	1558	3112
05:00 PM	0	2	232	0	0	234	36	0	100	24	160	0	364	28	23	415	809
05:15 PM	0	4	238	0	3	245	27	0	56	22	105	0	368	44	26	438	788
05:30 PM	0	53	169	0	11	233	30	0	65	15	110	0	340	27	22	389	732
05:45 PM	0	35	178	0	4	217	27	0	53	26	106	0	350	23	19	392	715
Total	0	94	817	0	18	929	120	0	274	87	481	0	1422	122	90	1634	3044
Grand Total	0	145	2715	0	59	2919	319	0	773	221	1313	0	3826	336	294	4456	8688
Apprch %		5	93	0	2		24.3	0	58.9	16.8		0	85.9	7.5	6.6		
Total %	0	1.7	31.2	0	0.7	33.6	3.7	0	8.9	2.5	15.1	0	44	3.9	3.4	51.3	

	Southbound	Kapiolani Boulevard Westbound				Waimanu Street Northbound				Kapiolani Boulevard Eastbound				
Start Time	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Entire Intersection Begins at 04:30 PM														
04:30 PM	0	2	243	0	245	32	0	57	89	0	323	29	352	686
04:45 PM	0	1	**285**	0	**286**	27	0	68	95	0	**369**	32	401	**782**
05:00 PM	0	2	232	0	234	**36**	0	**100**	**136**	0	364	28	392	762
05:15 PM	0	**4**	238	0	242	27	0	56	83	0	368	**44**	**412**	737
Total Volume	0	9	998	0	1007	122	0	281	403	0	1424	133	1557	2967
% App. Total		0.9	99.1	0		30.3	0	69.7		0	91.5	8.5		
PHF	.000	.563	.875	.000	.880	.847	.000	.703	.741	.000	.965	.756	.945	.949

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counted By:MD
Counter:D4-5677
Weather:Clear

File Name : WaiKam AM
Site Code : 00000002
Start Date : 4/24/2013
Page No : 1

Groups Printed- Unshifted

	Kamakee Street Southbound					Waimanu Street Westbound					Kamakee Street Northbound					Waimanu Street Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	1	25	2	5	33	1	3	3	4	11	0	3	5	1	9	5	3	0	8	16	69
06:15 AM	1	29	3	1	34	2	2	6	11	21	3	10	4	2	19	2	2	5	9	18	92
06:30 AM	0	36	3	5	44	6	2	2	2	12	2	13	4	1	20	6	4	2	4	16	92
06:45 AM	1	50	5	6	62	5	6	4	6	21	3	14	2	4	23	7	4	0	10	21	127
Total	3	140	13	17	173	14	13	15	23	65	8	40	15	8	71	20	13	7	31	71	380
07:00 AM	4	46	8	7	65	10	4	8	7	29	1	18	4	2	25	6	9	4	12	31	150
07:15 AM	4	44	11	13	72	6	14	14	12	46	2	15	7	3	27	5	8	11	22	46	191
07:30 AM	3	50	7	6	66	9	11	10	3	33	4	22	6	3	35	4	14	11	15	44	178
07:45 AM	4	72	13	8	97	11	12	5	10	38	1	18	11	6	36	6	6	9	14	35	206
Total	15	212	39	34	300	36	41	37	32	146	8	73	28	14	123	21	37	35	63	156	725
08:00 AM	4	66	17	9	96	13	13	8	7	41	3	16	5	4	28	3	3	7	12	25	190
08:15 AM	8	62	11	6	87	8	9	12	12	41	2	21	6	4	33	7	11	10	12	40	201
08:30 AM	8	57	15	4	84	11	4	8	10	33	9	30	7	10	56	12	8	3	14	37	210
08:45 AM	7	68	11	2	88	8	8	9	6	31	2	34	9	5	50	7	12	13	14	46	215
Total	27	253	54	21	355	40	34	37	35	146	16	101	27	23	167	29	34	33	52	148	816
Grand Total	45	605	106	72	828	90	88	89	90	357	32	214	70	45	361	70	84	75	146	375	1921
Apprch %	5.4	73.1	12.8	8.7		25.2	24.6	24.9	25.2		8.9	59.3	19.4	12.5		18.7	22.4	20	38.9		
Total %	2.3	31.5	5.5	3.7	43.1	4.7	4.6	4.6	4.7	18.6	1.7	11.1	3.6	2.3	18.8	3.6	4.4	3.9	7.6	19.5	

	Kamakee Street Southbound				Waimanu Street Westbound				Kamakee Street Northbound				Waimanu Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	4	66	**17**	**87**	**13**	**13**	8	**34**	3	16	5	24	3	3	7	13	158
08:15 AM	**8**	62	11	81	8	9	**12**	29	2	21	6	29	7	11	10	28	167
08:30 AM	8	57	15	80	11	4	8	23	**9**	30	7	**46**	**12**	8	3	23	172
08:45 AM	7	**68**	11	86	8	8	9	25	2	**34**	**9**	45	7	**12**	**13**	**32**	**188**
Total Volume	27	253	54	334	40	34	37	111	16	101	27	144	29	34	33	96	685
% App. Total	8.1	75.7	16.2		36	30.6	33.3		11.1	70.1	18.8		30.2	35.4	34.4		
PHF	.844	.930	.794	.960	.769	.654	.771	.816	.444	.743	.750	.783	.604	.708	.635	.750	.911

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu, Hi 96826

Counted By:HV
Counter:D4-5677
Weather:Clear

File Name : WaiKam PM
Site Code : 00000002
Start Date : 4/24/2013
Page No : 1

Groups Printed- Unshifted

	Kamakee Street Southbound					Waimanu Street Westbound					Kamakee Street Northbound					Waimanu Street Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	5	44	18	9	76	11	8	11	9	39	6	64	9	5	84	7	4	11	21	43	242
03:15 PM	4	24	12	5	45	3	4	15	6	28	8	51	6	2	67	7	12	6	27	52	192
03:30 PM	9	37	8	11	65	10	11	7	5	33	10	52	8	6	76	7	11	11	37	66	240
03:45 PM	2	43	6	3	54	6	8	11	6	31	5	72	9	8	94	7	14	6	17	44	223
Total	20	148	44	28	240	30	31	44	26	131	29	239	32	21	321	28	41	34	102	205	897
04:00 PM	5	34	5	10	54	17	10	13	13	53	10	68	11	8	97	14	12	6	16	48	252
04:15 PM	2	28	13	5	48	10	9	8	11	38	6	62	4	7	79	15	16	9	30	70	235
04:30 PM	4	27	9	10	50	8	13	7	14	42	4	71	15	5	95	12	16	15	21	64	251
04:45 PM	3	36	10	7	56	16	21	11	11	59	6	71	9	13	99	14	10	16	30	70	284
Total	14	125	37	32	208	51	53	39	49	192	26	272	39	33	370	55	54	46	97	252	1022
05:00 PM	7	39	6	9	61	11	9	10	10	40	1	91	7	8	107	15	14	8	14	51	259
05:15 PM	6	47	9	10	72	7	16	8	13	44	5	62	14	7	88	14	15	3	17	49	253
05:30 PM	6	63	12	5	86	6	17	14	13	50	7	77	18	9	111	11	22	9	18	60	307
05:45 PM	5	47	14	9	75	6	6	10	11	33	8	61	8	4	81	8	15	5	21	49	238
Total	24	196	41	33	294	30	48	42	47	167	21	291	47	28	387	48	66	25	70	209	1057
Grand Total	58	469	122	93	742	111	132	125	122	490	76	802	118	82	1078	131	161	105	269	666	2976
Apprch %	7.8	63.2	16.4	12.5		22.7	26.9	25.5	24.9		7.1	74.4	10.9	7.6		19.7	24.2	15.8	40.4		
Total %	1.9	15.8	4.1	3.1	24.9	3.7	4.4	4.2	4.1	16.5	2.6	26.9	4	2.8	36.2	4.4	5.4	3.5	9	22.4	

	Kamakee Street Southbound				Waimanu Street Westbound				Kamakee Street Northbound				Waimanu Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	36	10	49	**16**	**21**	11	**48**	6	71	9	86	14	10	**16**	40	223
05:00 PM	**7**	39	6	52	11	9	10	30	1	**91**	7	99	**15**	14	8	37	218
05:15 PM	6	47	9	62	7	16	8	31	5	62	14	81	14	15	3	32	206
05:30 PM	6	**63**	**12**	**81**	6	17	**14**	37	**7**	77	**18**	**102**	11	**22**	9	**42**	**262**
Total Volume	22	185	37	244	40	63	43	146	19	301	48	368	54	61	36	151	909
% App. Total	9	75.8	15.2		27.4	43.2	29.5		5.2	81.8	13		35.8	40.4	23.8		
PHF	.786	.734	.771	.753	.625	.750	.768	.760	.679	.827	.667	.902	.900	.693	.563	.899	.867

APPENDIX B

LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE DEFINITIONS

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) criteria are given in Table 1. As used here, control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue to the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position, including deceleration of vehicles from free-flow speed to the speed of vehicles in the queue.

The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. If the degree of saturation is greater than about 0.9, average control delay is significantly affected by the length of the analysis period.

Table 1: Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (Sec/Veh)
A	≤10.0
B	>10.0 and ≤15.0
C	>15.0 and ≤25.0
D	>25.0 and ≤35.0
E	>35.0 and ≤50.0
F	>50.0

"Highway Capacity Manual," Transportation Research Board, 2000.

LEVEL OF SERVICE DEFINITIONS

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average control delay per vehicle, typically a 15-min analysis period. The criteria are given in the following table.

Table 1: Level-of-Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (sec/veh)
A	≤10.0
B	>10.0 and ≤20.0
C	>20.0 and ≤35.0
D	>35.0 and ≤55.0
E	>55.0 and ≤80.0
F	>80.0

Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group.

Level of Service A describes operations with low control delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.

Level of Service B describes operations with control delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.

Level of Service C describes operations with control delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.

Level of Service D describes operations with control delay greater than 35 and up to 55 sec per vehicle. At level of service D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

"Highway Capacity Manual," Transportation Research Board, 2000.

Level of Service E describes operation with control delay greater than 55 and up to 80 sec per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.

Level of Service F describes operations with control delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

"Highway Capacity Manual," Transportation Research Board, 2000.

APPENDIX C

CAPACITY ANALYSIS CALCULATIONS
EXISTING PEAK HOUR TRAFFIC ANALYSIS

HCM Unsignalized Intersection Capacity Analysis
3: Ward Ave & Waimanu St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	3	15	16	3	39	7	434	32	39	1102	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	3	15	16	3	40	7	443	33	40	1124	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											316	
pX, platoon unblocked	0.76	0.76	0.76	0.76	0.76		0.76					
vC, conflicting volume	1430	1716	585	1132	1722	164	1169			476		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	946	1321	0	557	1329	164	605			476		
tC, single (s)	*6.5	*5.5	*5.9	*6.5	*5.5	*5.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	98	98	95	98	96	99			96		
cM capacity (veh/h)	197	166	829	347	165	893	740			1083		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	29	59	7	177	177	121	40	750	420
Volume Left	10	16	7	0	0	0	40	0	0
Volume Right	15	40	0	0	0	33	0	0	45
cSH	322	537	740	1700	1700	1700	1083	1700	1700
Volume to Capacity	0.09	0.11	0.01	0.10	0.10	0.07	0.04	0.44	0.25
Queue Length 95th (ft)	7	9	1	0	0	0	3	0	0
Control Delay (s)	17.2	12.5	9.9	0.0	0.0	0.0	8.5	0.0	0.0
Lane LOS	C	B	A				A		
Approach Delay (s)	17.2	12.5	0.1				0.3		
Approach LOS	C	B							

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis
3: Ward Ave & Waimanu St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	6	76	6	2	52	8	927	40	25	800	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	20	6	81	6	2	55	9	986	43	27	851	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											316	
pX, platoon unblocked	0.78	0.78	0.78	0.78	0.78		0.78					
vC, conflicting volume	1315	1959	435	1587	1947	350	869			1029		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	832	1660	0	1182	1645	350	258			1029		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	91	90	93	97	91	99			96		
cM capacity (veh/h)	175	71	843	92	73	646	1013			671		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	107	64	9	394	394	240	27	567	302
Volume Left	20	6	9	0	0	0	27	0	0
Volume Right	81	55	0	0	0	43	0	0	18
cSH	357	346	1013	1700	1700	1700	671	1700	1700
Volume to Capacity	0.30	0.18	0.01	0.23	0.23	0.14	0.04	0.33	0.18
Queue Length 95th (ft)	31	17	1	0	0	0	3	0	0
Control Delay (s)	19.4	17.7	8.6	0.0	0.0	0.0	10.6	0.0	0.0
Lane LOS	C	C	A				B		
Approach Delay (s)	19.4	17.7	0.1				0.3		
Approach LOS	C	C							

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
1: Ward Ave & Kapiolani Blvd

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	622	72	382	1421	122	76	324	64	155	735	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		0.95		1.00	0.91		1.00	0.95	1.00	1.00	0.95	
Frt		0.98		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3484		1770	5025		1770	3539	1583	1770	3459	
Flt Permitted		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		3484		1770	5025		1770	3539	1583	1770	3459	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	655	76	402	1496	128	80	341	67	163	774	138
RTOR Reduction (vph)	0	7	0	0	8	0	0	0	52	0	13	0
Lane Group Flow (vph)	0	724	0	402	1616	0	80	341	15	163	899	0
Turn Type		NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)		25.9		28.6	59.5		7.0	26.4	26.4	15.3	34.7	
Effective Green, g (s)		25.9		28.6	59.5		7.0	26.4	26.4	15.3	34.7	
Actuated g/C Ratio		0.22		0.25	0.51		0.06	0.23	0.23	0.13	0.30	
Clearance Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		776		435	2573		106	804	359	233	1032	
v/s Ratio Prot		c0.21		c0.23	0.32		0.05	0.10		c0.09	c0.26	
v/s Ratio Perm									0.01			
v/c Ratio		0.93		0.92	0.63		0.75	0.42	0.04	0.70	0.87	
Uniform Delay, d1		44.3		42.7	20.4		53.8	38.4	35.0	48.3	38.6	
Progression Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		18.0		25.3	0.5		25.8	0.4	0.0	8.8	8.2	
Delay (s)		62.3		68.0	20.9		79.6	38.8	35.1	57.1	46.8	
Level of Service		E		E	C		E	D	D	E	D	
Approach Delay (s)		62.3			30.2			44.9			48.4	
Approach LOS		E			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	116.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Ward Ave & Kapiolani Blvd

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1325	124	0	1040	148	104	643	290	302	821	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		0.91			0.91		1.00	0.95	1.00	1.00	0.95	
Frt		0.99			0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		5020			4990		1770	3539	1583	1770	3486	
Flt Permitted		1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		5020			4990		1770	3539	1583	1770	3486	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1440	135	0	1130	161	113	699	315	328	892	99
RTOR Reduction (vph)	0	9	0	0	15	0	0	0	81	0	8	0
Lane Group Flow (vph)	0	1566	0	0	1276	0	113	699	234	328	983	0
Turn Type		NA			NA		Prot	NA	Perm	Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)		41.3			41.3		11.9	27.8	27.8	24.8	40.7	
Effective Green, g (s)		41.3			41.3		11.9	27.8	27.8	24.8	40.7	
Actuated g/C Ratio		0.38			0.38		0.11	0.26	0.26	0.23	0.37	
Clearance Time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1903			1892		193	903	404	403	1302	
v/s Ratio Prot		c0.31			0.26		0.06	0.20		c0.19	c0.28	
v/s Ratio Perm									0.15			
v/c Ratio		0.82			0.67		0.59	0.77	0.58	0.81	0.76	
Uniform Delay, d1		30.5			28.2		46.2	37.6	35.4	39.9	29.8	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		3.0			1.0		4.5	4.2	2.0	11.9	2.5	
Delay (s)		33.5			29.2		50.6	41.8	37.4	51.8	32.3	
Level of Service		C			C		D	D	D	D	C	
Approach Delay (s)		33.5			29.2			41.5			37.1	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	35.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	108.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
2: Kamakee St & Kapiolani Blvd

5/31/2013

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	614	64	230	1578	56	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.86	1.00	1.00
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3489			6367	1770	1583
Flt Permitted	1.00			0.77	0.95	1.00
Satd. Flow (perm)	3489			4926	1770	1583
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	627	65	235	1610	57	67
RTOR Reduction (vph)	6	0	0	0	0	61
Lane Group Flow (vph)	686	0	0	1845	57	6
Turn Type	NA		Perm	NA	NA	custom
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)	50.4			50.4	6.3	6.3
Effective Green, g (s)	50.4			50.4	6.3	6.3
Actuated g/C Ratio	0.76			0.76	0.09	0.09
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2636			3722	167	149
v/s Ratio Prot	0.20					
v/s Ratio Perm				c0.37	c0.03	0.00
v/c Ratio	0.26			0.50	0.34	0.04
Uniform Delay, d1	2.5			3.2	28.3	27.5
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.1	1.2	0.1
Delay (s)	2.5			3.3	29.5	27.6
Level of Service	A			A	C	C
Approach Delay (s)	2.5			3.3	28.5	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	4.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	66.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1424	133	0	998	122	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.86			0.95	1.00	1.00
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	6326			3539	1770	1583
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	6326			3539	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1499	140	0	1051	128	296
RTOR Reduction (vph)	12	0	0	0	0	16
Lane Group Flow (vph)	1627	0	0	1051	128	280
Turn Type	NA			NA	NA	custom
Protected Phases	4			8		
Permitted Phases					2	2
Actuated Green, G (s)	33.9			33.9	17.5	17.5
Effective Green, g (s)	33.9			33.9	17.5	17.5
Actuated g/C Ratio	0.55			0.55	0.29	0.29
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	3492			1953	504	451
v/s Ratio Prot	0.26			c0.30		
v/s Ratio Perm					0.07	c0.18
v/c Ratio	0.47			0.54	0.25	0.62
Uniform Delay, d1	8.3			8.8	16.9	19.1
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.3	0.3	2.5
Delay (s)	8.4			9.0	17.2	21.6
Level of Service	A			A	B	C
Approach Delay (s)	8.4			9.0	20.3	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	10.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	61.4	Sum of lost time (s)	10.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
4: Waimanu St & Kamakee St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	29	34	33	40	34	37	16	101	27	27	253	54
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	32	37	36	44	37	41	18	111	30	30	278	59

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	105	122	73	85	169	198
Volume Left (vph)	32	44	18	0	30	0
Volume Right (vph)	36	41	0	30	0	59
Hadj (s)	-0.11	-0.09	0.15	-0.21	0.12	-0.18
Departure Headway (s)	5.2	5.2	5.7	5.3	5.4	5.1
Degree Utilization, x	0.15	0.18	0.12	0.13	0.25	0.28
Capacity (veh/h)	633	636	599	638	635	675
Control Delay (s)	9.1	9.3	8.2	7.9	9.1	8.9
Approach Delay (s)	9.1	9.3	8.0		9.0	
Approach LOS	A	A	A		A	

Intersection Summary			
Delay	8.9		
Level of Service	A		
Intersection Capacity Utilization	32.5%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Waimanu St & Kamakee St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	54	61	36	40	63	43	19	301	48	22	185	37
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	62	70	41	46	72	49	22	346	55	25	213	43

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	174	168	195	228	132	149
Volume Left (vph)	62	46	22	0	25	0
Volume Right (vph)	41	49	0	55	0	43
Hadj (s)	-0.04	-0.09	0.09	-0.14	0.13	-0.17
Departure Headway (s)	5.9	5.9	6.1	5.8	6.3	6.0
Degree Utilization, x	0.29	0.28	0.33	0.37	0.23	0.25
Capacity (veh/h)	554	555	567	589	536	563
Control Delay (s)	11.3	11.1	10.8	11.0	10.0	9.8
Approach Delay (s)	11.3	11.1	10.9		9.9	
Approach LOS	B	B	B		A	

Intersection Summary			
Delay	10.7		
Level of Service	B		
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX D

CAPACITY ANALYSIS CALCULATIONS
PROJECTED YEAR 2015 PEAK HOUR TRAFFIC
ANALYSIS WITHOUT PROJECT

HCM Unsignalized Intersection Capacity Analysis
3: Ward Ave & Waimanu St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	3	15	16	3	39	7	451	32	39	1146	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	3	15	16	3	40	7	460	33	40	1169	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											316	
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	1480	1779	607	1172	1785	170	1214			493		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	976	1373	0	565	1382	170	622			493		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	97	98	94	97	95	99			96		
cM capacity (veh/h)	138	103	814	283	102	845	717			1067		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	29	59	7	184	184	125	40	780	435
Volume Left	10	16	7	0	0	0	40	0	0
Volume Right	15	40	0	0	0	33	0	0	45
cSH	234	439	717	1700	1700	1700	1067	1700	1700
Volume to Capacity	0.12	0.13	0.01	0.11	0.11	0.07	0.04	0.46	0.26
Queue Length 95th (ft)	10	12	1	0	0	0	3	0	0
Control Delay (s)	22.5	14.5	10.1	0.0	0.0	0.0	8.5	0.0	0.0
Lane LOS	C	B	B				A		
Approach Delay (s)	22.5	14.5	0.1				0.3		
Approach LOS	C	B							

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: Ward Ave & Waimanu St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	6	76	6	2	52	8	964	40	25	832	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	20	6	81	6	2	55	9	1026	43	27	885	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											316	
pX, platoon unblocked	0.77	0.77	0.77	0.77	0.77		0.77					
vC, conflicting volume	1363	2032	452	1644	2020	363	903			1068		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	863	1737	0	1230	1721	363	264			1068		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	90	90	92	97	91	99			96		
cM capacity (veh/h)	163	63	831	82	64	634	994			648		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	107	64	9	410	410	248	27	590	313
Volume Left	20	6	9	0	0	0	27	0	0
Volume Right	81	55	0	0	0	43	0	0	18
cSH	333	322	994	1700	1700	1700	648	1700	1700
Volume to Capacity	0.32	0.20	0.01	0.24	0.24	0.15	0.04	0.35	0.18
Queue Length 95th (ft)	34	18	1	0	0	0	3	0	0
Control Delay (s)	20.9	18.9	8.7	0.0	0.0	0.0	10.8	0.0	0.0
Lane LOS	C	C	A				B		
Approach Delay (s)	20.9	18.9	0.1				0.3		
Approach LOS	C	C							

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
1: Ward Ave & Kapiolani Blvd

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	647	75	397	1478	127	79	337	67	161	764	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		0.95		1.00	0.91		1.00	0.95	1.00	1.00	0.95	
Frt		0.98		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3484		1770	5025		1770	3539	1583	1770	3459	
Flt Permitted		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		3484		1770	5025		1770	3539	1583	1770	3459	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	681	79	418	1556	134	83	355	71	169	804	143
RTOR Reduction (vph)	0	8	0	0	8	0	0	0	56	0	12	0
Lane Group Flow (vph)	0	752	0	418	1682	0	83	355	15	169	935	0
Turn Type		NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)		27.0		29.9	61.9		7.8	25.6	25.6	16.0	33.8	
Effective Green, g (s)		27.0		29.9	61.9		7.8	25.6	25.6	16.0	33.8	
Actuated g/C Ratio		0.23		0.25	0.52		0.07	0.22	0.22	0.14	0.29	
Clearance Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		793		446	2624		116	764	341	238	986	
v/s Ratio Prot		c0.22		c0.24	0.33		0.05	0.10		c0.10	c0.27	
v/s Ratio Perm									0.01			
v/c Ratio		0.95		0.94	0.64		0.72	0.46	0.04	0.71	0.95	
Uniform Delay, d1		45.1		43.4	20.3		54.3	40.5	36.8	49.0	41.5	
Progression Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		20.2		27.2	0.5		18.8	0.4	0.1	9.6	17.3	
Delay (s)		65.3		70.6	20.9		73.1	40.9	36.8	58.6	58.8	
Level of Service		E		E	C		E	D	D	E	E	
Approach Delay (s)		65.3			30.7			45.6			58.8	
Approach LOS		E			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	45.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	118.5	Sum of lost time (s)	20.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Ward Ave & Kapiolani Blvd

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1378	129	0	1082	154	108	669	302	314	854	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		0.91			0.91		1.00	0.95	1.00	1.00	0.95	
Frt		0.99			0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		5020			4990		1770	3539	1583	1770	3486	
Flt Permitted		1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		5020			4990		1770	3539	1583	1770	3486	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1498	140	0	1176	167	117	727	328	341	928	103
RTOR Reduction (vph)	0	9	0	0	15	0	0	0	81	0	7	0
Lane Group Flow (vph)	0	1629	0	0	1328	0	117	727	247	341	1024	0
Turn Type		NA			NA		Prot	NA	Perm	Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)		42.0			42.0		11.8	29.1	29.1	25.6	42.9	
Effective Green, g (s)		42.0			42.0		11.8	29.1	29.1	25.6	42.9	
Actuated g/C Ratio		0.38			0.38		0.11	0.26	0.26	0.23	0.38	
Clearance Time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1887			1876		186	921	412	405	1338	
v/s Ratio Prot		c0.32			0.27		0.07	0.21		c0.19	c0.29	
v/s Ratio Perm									0.16			
v/c Ratio		0.86			0.71		0.63	0.79	0.60	0.84	0.77	
Uniform Delay, d1		32.2			29.6		47.9	38.4	36.2	41.1	30.0	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		4.4			1.2		6.5	4.6	2.5	14.6	2.7	
Delay (s)		36.6			30.9		54.4	43.0	38.7	55.7	32.7	
Level of Service		D			C		D	D	D	E	C	
Approach Delay (s)		36.6			30.9			42.9			38.4	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	111.7	Sum of lost time (s)	15.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	639	67	239	1641	58	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.86	1.00	1.00
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3489			6367	1770	1583
Flt Permitted	1.00			0.76	0.95	1.00
Satd. Flow (perm)	3489			4899	1770	1583
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	652	68	244	1674	59	70
RTOR Reduction (vph)	6	0	0	0	0	64
Lane Group Flow (vph)	714	0	0	1918	59	6
Turn Type	NA		Perm	NA	NA	custom
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)	54.3			54.3	6.5	6.5
Effective Green, g (s)	54.3			54.3	6.5	6.5
Actuated g/C Ratio	0.77			0.77	0.09	0.09
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2675			3757	162	145
v/s Ratio Prot	0.20					
v/s Ratio Perm				c0.39	c0.03	0.00
v/c Ratio	0.27			0.51	0.36	0.04
Uniform Delay, d1	2.4			3.2	30.2	29.3
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.1	1.4	0.1
Delay (s)	2.5			3.3	31.6	29.4
Level of Service	A			A	C	C
Approach Delay (s)	2.5			3.3	30.4	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	4.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	70.8	Sum of lost time (s)	10.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1481	138	0	1038	127	292
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.86			0.95	1.00	1.00
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	6326			3539	1770	1583
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	6326			3539	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1559	145	0	1093	134	307
RTOR Reduction (vph)	12	0	0	0	0	13
Lane Group Flow (vph)	1692	0	0	1093	134	294
Turn Type	NA			NA	NA	custom
Protected Phases	4			8		
Permitted Phases					2	2
Actuated Green, G (s)	36.5			36.5	19.1	19.1
Effective Green, g (s)	36.5			36.5	19.1	19.1
Actuated g/C Ratio	0.56			0.56	0.29	0.29
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	3519			1969	515	460
v/s Ratio Prot	0.27			c0.31		
v/s Ratio Perm					0.08	c0.19
v/c Ratio	0.48			0.56	0.26	0.64
Uniform Delay, d1	8.8			9.3	17.8	20.3
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.3	0.3	2.9
Delay (s)	8.9			9.7	18.1	23.2
Level of Service	A			A	B	C
Approach Delay (s)	8.9			9.7	21.6	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	65.6	Sum of lost time (s)	10.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	29	34	33	40	34	37	16	105	27	27	263	54
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	32	37	36	44	37	41	18	115	30	30	289	59

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	105	122	75	87	174	204
Volume Left (vph)	32	44	18	0	30	0
Volume Right (vph)	36	41	0	30	0	59
Hadj (s)	-0.11	-0.09	0.15	-0.20	0.12	-0.17
Departure Headway (s)	5.2	5.2	5.7	5.3	5.4	5.1
Degree Utilization, x	0.15	0.18	0.12	0.13	0.26	0.29
Capacity (veh/h)	628	631	597	635	635	673
Control Delay (s)	9.2	9.3	8.3	7.9	9.2	9.0
Approach Delay (s)	9.2	9.3	8.1		9.1	
Approach LOS	A	A	A		A	

Intersection Summary			
Delay	8.9		
Level of Service	A		
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Waimanu St & Kamakee St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	54	61	36	40	63	43	19	313	48	22	192	37
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	62	70	41	46	72	49	22	360	55	25	221	43

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	174	168	202	235	136	153
Volume Left (vph)	62	46	22	0	25	0
Volume Right (vph)	41	49	0	55	0	43
Hadj (s)	-0.04	-0.09	0.09	-0.13	0.13	-0.16
Departure Headway (s)	6.0	6.0	6.1	5.9	6.3	6.0
Degree Utilization, x	0.29	0.28	0.34	0.38	0.24	0.26
Capacity (veh/h)	548	550	566	586	534	559
Control Delay (s)	11.4	11.2	11.0	11.3	10.1	9.9
Approach Delay (s)	11.4	11.2	11.2		10.0	
Approach LOS	B	B	B		A	

Intersection Summary			
Delay	10.9		
Level of Service	B		
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX E

CAPACITY ANALYSIS CALCULATIONS
PROJECTED YEAR 2015 PEAK HOUR TRAFFIC
ANALYSIS WITH PROJECT

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	3	15	19	3	44	7	451	34	42	1146	44
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	10	3	15	19	3	45	7	460	35	43	1169	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											316	
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	1492	1787	607	1179	1792	171	1214			495		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	990	1383	0	574	1390	171	621			495		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	97	98	93	97	95	99			96		
cM capacity (veh/h)	134	102	814	278	101	843	717			1065		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	29	67	7	184	184	127	43	780	435
Volume Left	10	19	7	0	0	0	43	0	0
Volume Right	15	45	0	0	0	35	0	0	45
cSH	228	439	717	1700	1700	1700	1065	1700	1700
Volume to Capacity	0.13	0.15	0.01	0.11	0.11	0.07	0.04	0.46	0.26
Queue Length 95th (ft)	11	13	1	0	0	0	3	0	0
Control Delay (s)	23.0	14.7	10.1	0.0	0.0	0.0	8.5	0.0	0.0
Lane LOS	C	B	B				A		
Approach Delay (s)	23.0	14.7	0.1				0.3		
Approach LOS	C	B							

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
3: Ward Ave & Waimanu St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	6	76	9	2	59	8	964	44	39	832	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	20	6	81	10	2	63	9	1026	47	41	885	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											316	
pX, platoon unblocked	0.77	0.77	0.77	0.77	0.77		0.77					
vC, conflicting volume	1400	2066	452	1676	2052	365	903			1072		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	913	1782	0	1272	1764	365	265			1072		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	89	90	87	96	90	99			94		
cM capacity (veh/h)	145	58	831	75	59	632	994			646		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	107	74	9	410	410	252	41	590	313
Volume Left	20	10	9	0	0	0	41	0	0
Volume Right	81	63	0	0	0	47	0	0	18
cSH	309	282	994	1700	1700	1700	646	1700	1700
Volume to Capacity	0.35	0.26	0.01	0.24	0.24	0.15	0.06	0.35	0.18
Queue Length 95th (ft)	38	26	1	0	0	0	5	0	0
Control Delay (s)	22.7	22.3	8.7	0.0	0.0	0.0	11.0	0.0	0.0
Lane LOS	C	C	A				B		
Approach Delay (s)	22.7	22.3	0.1				0.5		
Approach LOS	C	C							

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Signalized Intersection Capacity Analysis
1: Ward Ave & Kapiolani Blvd

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	647	76	397	1478	127	80	341	67	161	766	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		0.95		1.00	0.91		1.00	0.95	1.00	1.00	0.95	
Frt		0.98		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		3483		1770	5025		1770	3539	1583	1770	3459	
Flt Permitted		1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		3483		1770	5025		1770	3539	1583	1770	3459	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	681	80	418	1556	134	84	359	71	169	806	143
RTOR Reduction (vph)	0	8	0	0	8	0	0	0	56	0	12	0
Lane Group Flow (vph)	0	753	0	418	1682	0	84	359	15	169	937	0
Turn Type		NA		Prot	NA		Prot	NA	Perm	Prot	NA	
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)		27.0		29.9	61.9		7.8	25.7	25.7	16.0	33.9	
Effective Green, g (s)		27.0		29.9	61.9		7.8	25.7	25.7	16.0	33.9	
Actuated g/C Ratio		0.23		0.25	0.52		0.07	0.22	0.22	0.13	0.29	
Clearance Time (s)		5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		792		446	2622		116	766	343	238	988	
v/s Ratio Prot		c0.22		c0.24	0.33		0.05	0.10		c0.10	c0.27	
v/s Ratio Perm									0.01			
v/c Ratio		0.95		0.94	0.64		0.72	0.47	0.04	0.71	0.95	
Uniform Delay, d1		45.1		43.4	20.4		54.3	40.5	36.7	49.1	41.5	
Progression Factor		1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		20.9		27.2	0.5		19.9	0.5	0.1	9.6	17.3	
Delay (s)		66.0		70.7	20.9		74.3	41.0	36.8	58.6	58.8	
Level of Service		E		E	C		E	D	D	E	E	
Approach Delay (s)		66.0			30.8			45.8			58.8	
Approach LOS		E			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	45.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	118.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Ward Ave & Kapiolani Blvd

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1378	132	0	1082	154	109	675	302	314	865	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor		0.91			0.91		1.00	0.95	1.00	1.00	0.95	
Frt		0.99			0.98		1.00	1.00	0.85	1.00	0.99	
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		5019			4990		1770	3539	1583	1770	3487	
Flt Permitted		1.00			1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		5019			4990		1770	3539	1583	1770	3487	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1498	143	0	1176	167	118	734	328	341	940	103
RTOR Reduction (vph)	0	9	0	0	15	0	0	0	81	0	7	0
Lane Group Flow (vph)	0	1632	0	0	1328	0	118	734	247	341	1036	0
Turn Type		NA			NA		Prot	NA	Perm	Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases									2			
Actuated Green, G (s)		42.1			42.1		11.8	29.2	29.2	25.6	43.0	
Effective Green, g (s)		42.1			42.1		11.8	29.2	29.2	25.6	43.0	
Actuated g/C Ratio		0.38			0.38		0.11	0.26	0.26	0.23	0.38	
Clearance Time (s)		5.0			5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		1888			1877		186	923	413	404	1339	
v/s Ratio Prot		c0.33			0.27		0.07	0.21		c0.19	c0.30	
v/s Ratio Perm									0.16			
v/c Ratio		0.86			0.71		0.63	0.80	0.60	0.84	0.77	
Uniform Delay, d1		32.3			29.7		48.0	38.6	36.2	41.2	30.2	
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		4.4			1.2		6.9	4.8	2.3	14.8	2.8	
Delay (s)		36.7			30.9		54.9	43.4	38.6	56.1	33.0	
Level of Service		D			C		D	D	D	E	C	
Approach Delay (s)		36.7			30.9			43.2			38.7	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	111.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	639	67	243	1641	58	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.95			0.86	1.00	1.00
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			0.99	0.95	1.00
Satd. Flow (prot)	3489			6367	1770	1583
Flt Permitted	1.00			0.76	0.95	1.00
Satd. Flow (perm)	3489			4895	1770	1583
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	652	68	248	1674	59	78
RTOR Reduction (vph)	6	0	0	0	0	71
Lane Group Flow (vph)	714	0	0	1922	59	7
Turn Type	NA		Perm	NA	NA	custom
Protected Phases	4			8		
Permitted Phases			8		2	2
Actuated Green, G (s)	53.9			53.9	6.5	6.5
Effective Green, g (s)	53.9			53.9	6.5	6.5
Actuated g/C Ratio	0.77			0.77	0.09	0.09
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2671			3747	163	146
v/s Ratio Prot	0.20					
v/s Ratio Perm				c0.39	c0.03	0.00
v/c Ratio	0.27			0.51	0.36	0.05
Uniform Delay, d1	2.4			3.2	30.0	29.1
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.1	1.4	0.1
Delay (s)	2.5			3.3	31.4	29.3
Level of Service	A			A	C	C
Approach Delay (s)	2.5			3.3	30.2	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	4.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	10.0
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1481	138	0	1038	127	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0	5.0	5.0
Lane Util. Factor	0.86			0.95	1.00	1.00
Frt	0.99			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	6326			3539	1770	1583
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	6326			3539	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	1559	145	0	1093	134	317
RTOR Reduction (vph)	12	0	0	0	0	13
Lane Group Flow (vph)	1692	0	0	1093	134	304
Turn Type	NA			NA	NA	custom
Protected Phases	4			8		
Permitted Phases					2	2
Actuated Green, G (s)	36.7			36.7	19.7	19.7
Effective Green, g (s)	36.7			36.7	19.7	19.7
Actuated g/C Ratio	0.55			0.55	0.30	0.30
Clearance Time (s)	5.0			5.0	5.0	5.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	3496			1956	525	469
v/s Ratio Prot	0.27			c0.31		
v/s Ratio Perm					0.08	c0.19
v/c Ratio	0.48			0.56	0.26	0.65
Uniform Delay, d1	9.1			9.6	17.8	20.3
Progression Factor	1.00			1.00	1.00	1.00
Incremental Delay, d2	0.1			0.3	0.3	3.1
Delay (s)	9.2			10.0	18.0	23.4
Level of Service	A			A	B	C
Approach Delay (s)	9.2			10.0	21.8	
Approach LOS	A			A	C	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	66.4	Sum of lost time (s)	10.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
4: Waimanu St & Kamakee St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	36	34	36	40	34	37	18	105	27	27	263	58
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	40	37	40	44	37	41	20	115	30	30	289	64

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	116	122	77	87	174	208
Volume Left (vph)	40	44	20	0	30	0
Volume Right (vph)	40	41	0	30	0	64
Hadj (s)	-0.10	-0.09	0.16	-0.20	0.12	-0.18
Departure Headway (s)	5.3	5.2	5.8	5.4	5.5	5.2
Degree Utilization, x	0.17	0.18	0.12	0.13	0.26	0.30
Capacity (veh/h)	625	626	591	628	630	669
Control Delay (s)	9.3	9.4	8.4	8.0	9.2	9.2
Approach Delay (s)	9.3	9.4	8.2		9.2	
Approach LOS	A	A	A		A	

Intersection Summary			
Delay	9.0		
Level of Service	A		
Intersection Capacity Utilization	32.6%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
4: Waimanu St & Kamakee St

5/31/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	54	61	36	40	63	43	19	313	48	22	192	37
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	62	70	41	46	72	49	22	360	55	25	221	43

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	174	168	202	235	136	153
Volume Left (vph)	62	46	22	0	25	0
Volume Right (vph)	41	49	0	55	0	43
Hadj (s)	-0.04	-0.09	0.09	-0.13	0.13	-0.16
Departure Headway (s)	6.0	6.0	6.1	5.9	6.3	6.0
Degree Utilization, x	0.29	0.28	0.34	0.38	0.24	0.26
Capacity (veh/h)	548	550	566	586	534	559
Control Delay (s)	11.4	11.2	11.0	11.3	10.1	9.9
Approach Delay (s)	11.4	11.2	11.2		10.0	
Approach LOS	B	B	B		A	

Intersection Summary			
Delay	10.9		
Level of Service	B		
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX H

AGENCY MAILING LIST

Ola Ka Ilima Artspace Lofts
Draft EA
Agency Mailing List

City and County Mailing List

Kirk Caldwell, Mayor
City and County of Honolulu
530 S. King Street, Room 300
Honolulu, Hawaii 96813

Managing Director
City and County of Honolulu
530 S. King Street, Room 306
Honolulu, Hawaii 96813

Manager
Honolulu Board of Water Supply
630 S. Beretania Street
Honolulu, Hawaii 96813

Director
Department of Budget & Fiscal Services
530 S. King Street, Room 208
Honolulu, Hawaii 96813

Director
Department of Community Services
715 S. King Street, Room 311
Honolulu, Hawaii 96813

Director
Department of Design & Construction
650 S. King Street, 11th Floor
Honolulu, Hawaii 96813

Director
Department of Emergency Services
3823 Leahi Avenue
Honolulu, Hawaii 96815

Director
Department of Environmental Services
1000 Uluohia Street, Suite 308
Kapolei, Hawaii 96707

Director
Department of Facility Maintenance
1000 Uluohia Street, Suite 215
Kapolei, Hawaii 96707

Director
Department of Parks & Recreation
1000 Uluohia Street, Suite 309
Kapolei, Hawaii 96707

Director
Department of Planning & Permitting
650 S. King Street, 7th Floor
Honolulu, Hawaii 96813

Director
Department of Transportation Services
650 S. King Street, 3rd Floor
Honolulu, Hawaii 96813

Chief
Honolulu Fire Department
636 South Street
Honolulu, Hawaii 96813

Chief
Honolulu Police Department
801 S. Beretania Street
Honolulu, Hawaii 96813

Ala Moana/ Kakaako NB No. 11
c/o Neighborhood Commission
530 S. King Street, Room 406
Honolulu, Hawaii 96813

Honolulu City Council Mailing List

The Honorable Ernest Y. Martin, Chair
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

The Honorable Kymberly Marcos Pine, Member
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

The Honorable Ikaika Anderson, Member
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

The Honorable Stanley Chang, Member
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

The Honorable Ann Kobayashi, Member
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

The Honorable Carol Fukunaga, Member
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

The Honorable Joey Manahan, Member
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

The Honorable Breene Harimoto, Member
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

The Honorable Ron Menor, Member
Honolulu City Council
530 S. King Street, Room 202
Honolulu, Hawaii 96813

State of Hawaii Mailing List

Mr. Ron Okamura, Principal
McKinley High School
1039 S. King Street
Honolulu, Hawaii 96814

Mr. Christopher Daly, Principal
Kaahumanu Elementary School
1141 Kinau Street
Honolulu, Hawaii 96814

Mr. Michael Harano, Principal
Washington Middle School
1633 S. King Street
Honolulu, Hawaii 96826

Superintendent
Department of Education
P.O. Box 2360
Honolulu, Hawaii 96804

Director
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Department of Accounting & General Services
1151 Punchbowl Street
Honolulu, Hawaii 96813

Department of Agriculture
Office of the Chairperson
1428 S. King Street
Honolulu, Hawaii 96814

Department of Business, Economic Development & Tourism (DBEDT)
P.O. Box 2359
Honolulu, Hawaii 96804

DBEDT, Energy Division
P.O. Box 2359
Honolulu, Hawaii 96804

DBEDT, Office of Planning
P.O. Box 2359
Honolulu, Hawaii 96804

Department of Hawaiian Homelands
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707

Department of Health
1250 Punchbowl Street
Honolulu, Hawaii 96813

Department of Human Services
1390 Miller Street, Room 209
Honolulu, Hawaii 96813

Department of Land & Natural Resources (DLNR)
1151 Punchbowl Street
Honolulu, Hawaii 96813

DLNR, Historic Preservation Division
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Department of Public Safety
919 Ala Moana Boulevard, Room 400
Honolulu, Hawaii 96814

Hawaii Community Development Authority
461 Cooke Street
Honolulu, Hawaii 96813

Office of Hawaiian Affairs
560 N. Nimitz Highway, Suite 200
Honolulu, Hawaii 96817

UH Environmental Center
Krauss Annex 19
2500 Dole Street
Honolulu, Hawaii 96822

Office of Environmental Quality Control
235 S. Beretania Street, #702
Honolulu, Hawaii 96813

Hawaii State Library
478 S. King Street
Honolulu, Hawaii 96813

Representative Scott K. Saiki
Hawaii State Capitol, Room 434
415 S. Beretania Street
Honolulu, Hawaii 96813

Senator Brickwood Galuteria
Hawaii State Capitol, Room 221
415 S. Beretania Street
Honolulu, Hawaii 96813

Federal Mailing List

U.S. Army Corps of Engineers
Pacific Ocean Division
Building 525, Fort Shafter
Honolulu, Hawaii 96858-5440

U.S. Geological Survey
677 Ala Moana Boulevard, Suite 415
Honolulu, Hawaii 96813

U.S. Fish & Wildlife Service
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

APPENDIX I

PUBLIC FUNDING AWARDS

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

ORDINANCE 13-20

BILL 12 (2013), CD2, FD1

A BILL FOR AN ORDINANCE

RELATING TO THE EXECUTIVE CAPITAL BUDGET AND PROGRAM FOR THE FISCAL YEAR JULY 1, 2013 TO JUNE 30, 2014.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. The revenues from the following sources estimated for the fiscal year July 1, 2013 to June 30, 2014 are hereby provided and appropriated for the purposes set forth in Sections 2 through 8:

FUND CODE	SOURCE OF FUNDS	AMOUNT	TOTAL
	REVENUE BOND:		
SR	Sewer Revenue Bond Improvement Fund	$ 139,184,000	$ 139,184,000
	GENERAL OBLIGATION BONDS:		
GI	General Improvement Bond Fund	$ 110,409,300	
HI	Highway Improvement Bond Fund	196,826,000	
WB	Solid Waste Improvement Bond Fund	6,082,000	$ 313,317,300
	CAPITAL PROJECTS FUNDS:		
SW	Sewer Fund	$ 70,578,942	
PP	Parks and Playground Fund	1,361,352	
ST	State Funds	2,000,000	
AF	Affordable Housing Fund	7,601,000	
BT	Bus Transportation Fund	0	
CF	Clean Water and Natural Lands Fund	11,750,300	
GC	Golf Fund	0	
SV	Special Events Fund	0	
BK	Bikeway Fund	334,000	
HW	Highway Fund	0	
WF	Solid Waste Special Fund	5,753,002	
GN	General Fund	520,000	
HN	Hanauma Bay Nature Preserve Fund	1,087,000	
HD	Housing Development Special Fund	605,000	$ 101,590,596
	FEDERAL FUNDS:		
FG	Federal Grants Fund	$ 40,353,023	
CD	Community Development Fund	40,585,154	$ 80,938,177
	SPECIAL PROJECTS FUND:		
UT	Utilities' Share	$ 100,000	$ 100,000
	TOTAL ALL FUNDS		$ 635,130,073

A BILL FOR AN ORDINANCE

PROJECT NUMBER	FUNCTIONS, PROGRAMS & PROJECTS	WORK PHASE		SOURCE OF FUNDS		TOTAL ALL FUNDS
2013002	HOUSING PARTNERSHIP PROGRAM	6,500,000	X	6,500,000	AF	6,500,000
	Provide funds through a Request for Proposals solicitation to nonprofit agencies to undertake the development or preservation of affordable housing including the Pacific Gateway Center, if deemed feasible by the Department of Community Services.					
	KAKAAKO AFFORDABLE HOUSING FOR ARTISTS PROJECT	1,000	L	1,101,000	AF	1,101,000
		1,000	P			
	Acquire land, plan, design, construct, and inspect an affordable live/work space for low-income artists and their families in the Kakaako area.	1,000	D			
		1,000	C			
		1,000	I			
		1,096,000	X			
	TOTAL HUMAN SERVICES	$ 54,396,177		$ 54,396,177		$ 54,396,177

CAPITAL IMPROVEMENT PROJECTS

ITEM NO.	CAPITAL PROJECT NO.	TITLE	EXPENDING AGENCY	APPROPRIATIONS (IN 000'S) FISCAL YEAR 2013-2014	MOF	FISCAL YEAR 2014-2015	MOF
7.		YOUNG WOMEN'S CHRISTIAN ASSOCIATION, OAHU					
		PLANS, DESIGN AND CONSTRUCTION FOR THE PATSY T. MINK CENTER FOR BUSINESS AND LEADERSHIP. THIS PROJECT QUALIFIES AS A GRANT, PURSUANT TO CHAPTER 42F, HRS.					
		PLANS		100			
		DESIGN		100			
		CONSTRUCTION		300			
		TOTAL FUNDING	LBR	500	C		C
8.		YOUNG WOMEN'S CHRISTIAN ASSOCIATION, KAUAI					
		PLANS, LAND ACQUISITION, DESIGN AND CONSTRUCTION FOR EXPANSION AND RENOVATION FOR A NEW WOMEN'S CENTER. THIS PROJECT QUALIFIES AS A GRANT, PURSUANT TO CHAPTER 42F, HRS.					
		PLANS		1			
		LAND		1			
		DESIGN		1			
		CONSTRUCTION		397			
		TOTAL FUNDING	LBR	400	C		C
9.		OLA KA'ILIMA ARTS CENTER, LLC, OAHU					
		PLANS, DESIGN AND CONSTRUCTION FOR THE OLA KA'ILIMA ARTSPACE LOFTS PROJECT. THIS PROJECT QUALIFIES AS A GRANT, PURSUANT TO CHAPTER 42F, HRS.					
		PLANS		100			
		DESIGN		100			
		CONSTRUCTION		150			
		TOTAL FUNDING	LBR	350	C		C

HB200 HD1 SD1 CD1

Measure Title:	RELATING TO THE STATE BUDGET.
Report Title:	State Budget ($)
Description:	Appropriates positions and funds for the operating and capital improvements program budget of the Executive Branch for fiscal years 20132014 and 20142015. Effective 7/1/2013. (HB200 HD1 SD1 CD1)
Companion:	
Package:	Gov
Current Referral:	WAM
Introducer(s):	SOUKI (Introduced by request of another party)

Sort by Date		Status Text
1/17/2013	H	Pending introduction.
1/18/2013	H	Introduced and Passed First Reading
1/22/2013	H	Referred to FIN, referral sheet 2
3/4/2013	H	Bill scheduled to be heard by FIN on Wednesday, 03-06-13 2:00PM in House conference room 308.
3/6/2013	H	The committee(s) on FIN recommend(s) that the measure be deferred until 03-08-13.
3/6/2013	H	Bill scheduled for decision making on Friday, 03-08-13 2:05PM in conference room 308.
3/8/2013	H	The committees on FIN recommend that the measure be PASSED, WITH AMENDMENTS. The votes were as follows: 15 Ayes: Representative(s) Luke, Nishimoto, Johanson, Cullen, Hashem, Ing, Jordan, Kobayashi, Lowen, Onishi, Takayama, Woodson, Yamashita, Fukumoto, Ward; Ayes with reservations: none; Noes: none; and 2 Excused: Representative(s) Morikawa, Tokioka.
3/11/2013	H	Reported from FIN (Stand. Com. Rep. No. 928) as amended in HD 1, recommending passage on Second Reading and placement on the calendar for Third Reading.
3/11/2013	H	Passed Second Reading as amended in HD 1; placed on the calendar for Third Reading with none voting aye with reservations; none voting no (0) and Representative(s) Rhoads, Souki excused (2).
3/13/2013	H	Passed Third Reading with Representative(s) Fale, Ward voting aye with reservations; none voting no (0) and Representative(s) Mizuno excused (1). Transmitted to Senate.
3/14/2013	S	Received from House (Hse. Com. No. 377).
3/14/2013	S	Passed First Reading.
3/14/2013	S	Referred to WAM.
3/14/2013	S	The committee(s) on WAM has scheduled a public hearing on 03-19-13 9:00AM in conference room 211.
3/19/2013	S	The committee on WAM deferred the measure.
3/25/2013	S	The committee(s) on WAM will hold a public decision making on 03-27-13 9:00AM in conference room 211.
3/27/2013	S	The committee(s) on WAM recommend(s) that the measure be PASSED, WITH AMENDMENTS. The votes in WAM were as follows: 13 Aye(s): Senator(s) Ige, Kidani, Chun Oakland, Dela Cruz, English, Espero, Kahele, Keith-Agaran, Kouchi, Ruderman, L. Thielen, Tokuda; Aye(s) with reservations: Senator(s) Slom ; 0 No(es): none; and 0 Excused: none.
4/2/2013	S	Reported from WAM (Stand. Com. Rep. No. 1241) with recommendation of passage on Second Reading, as amended (SD 1) and placement on the calendar for Third Reading.
4/2/2013	S	Report adopted; Passed Second Reading, as amended (SD 1).

4/2/2013	S	48 Hrs. Notice 04-04-13.
4/4/2013	S	Passed Third Reading, as amended (SD 1). Ayes, 24; Aye(s) with reservations: Senator(s) Slom . Noes, 0 (none). Excused, 1 (Senator(s) Kidani). Transmitted to House.
4/4/2013	H	Returned from Senate (Sen. Com. No. 447) in amended form (SD 1).
4/5/2013	H	House disagrees with Senate amendment (s).
4/5/2013	H	House conferees appointed: Luke Chair; Cullen, Hashem, Ing, Jordan, Kobayashi, Lowen, Morikawa, Nishimoto, Onishi, Takayama, Tokioka, Woodson, Yamashita, Fukumoto, Johanson, Ward.
4/9/2013	S	Received notice of disagreement (Hse. Com. No. 459).
4/9/2013	S	Received notice of appointment of House conferees (Hse. Com. No. 473).
4/9/2013	S	Senate Conferees appointed: Ige, Chair; Kidani, Chun Oakland, Dela Cruz, English, Espero, Kahele, Keith-Agaran, Kouchi, Ruderman, L. Thielen, Tokuda, Slom.
4/9/2013	H	Bill scheduled for Conference Committee Meeting on Thursday, 04-11-13 9:30AM in conference room 309.
4/9/2013	H	Received notice of Senate conferees (Sen. Com. No. 455).
4/11/2013	H	Conference Committee Meeting will reconvene on Friday 04-12-13 2:30PM in conference room 309.
4/12/2013	H	Conference Committee Meeting will reconvene on Monday 04-15-13 9:30AM in conference room 309.
4/15/2013	H	Conference Committee Meeting will reconvene on Wednesday 04-17-13 7:00PM in conference room 309.
4/17/2013	H	Conference Committee Meeting will reconvene on Monday 04-22-13 7:00PM in conference room 309.
4/22/2013	H	Conference Committee Meeting will reconvene on Tuesday 04-23-13 7:00PM in conference room 309.
4/23/2013	H	Broadcast of hearing/briefing available. See: www.capitoltv.org
4/23/2013	H	The Conference Committee recommends that the measure be Passed, with Amendments. The votes were as follows: 17 Ayes: Representative(s) Luke, Cullen, Hashem, Ing, Jordan, Kobayashi, Lowen, Morikawa, Nishimoto, Onishi, Takayama, Tokioka, Woodson, Yamashita, Fukumoto, Johanson, Ward; Ayes with reservations: none; 0 Noes: none; and 0 Excused: none.
4/23/2013	S	The Conference committee recommends that the measure be PASSED, WITH AMENDMENTS. The votes of the Senate Conference Managers were as follows: 13 Aye(s): Senator(s) Ige, Kidani, Chun Oakland, Dela Cruz, English, Espero, Kahele, Keith-Agaran, Kouchi, Ruderman, L. Thielen, Tokuda; Aye(s) with reservations: Senator(s) Slom ; 0 No(es): none; and 0 Excused: none.
4/26/2013	H	Reported from Conference Committee (Conf Com. Rep. No. 105) as amended in (CD 1).
4/26/2013	H	Forty-eight (48) hours notice, Tuesday 04-30-13.
4/26/2013	S	Reported from Conference Committee as amended CD 1 (Conf. Com. Rep. No. 105).
4/26/2013	S	48 Hrs. Notice (as amended CD 1) 04-30-13.
4/30/2013	H	Passed Final Reading as amended in CD 1 with none voting aye with reservations; none voting no (0) and none excused (0).
4/30/2013	S	Passed Final Reading, as amended (CD 1). 25 Aye(s); Aye(s) with reservations: Senator(s) Taniguchi, Slom . 0 No(es): none. 0 Excused: none.
4/30/2013	H	Transmitted to Governor.
5/1/2013	H	Received notice of Final Reading (Sen. Com. No. 755).
5/2/2013	S	Received notice of passage on Final Reading in House (Hse. Com. No. 761).
6/20/2013	H	Act 134, on 6/18/2013 (Gov. Msg. No. 1234).
6/20/2013	S	Act 134, 6/18/2013 (Gov. Msg. No. 1234).

CAPITAL IMPROVEMENT PROJECTS

ITEM NO.	CAPITAL PROJECT NO.	TITLE	EXPENDING AGENCY	APPROPRIATIONS (IN 000'S) FISCAL YEAR 2013-2014	MOF	FISCAL YEAR 2014-2015	MOF
8.		YOUNG WOMEN'S CHRISTIAN ASSOCIATION, KAUAI					
		PLANS, LAND ACQUISITION, DESIGN AND CONSTRUCTION FOR EXPANSION AND RENOVATION FOR A NEW WOMEN'S CENTER. THIS PROJECT QUALIFIES AS A GRANT, PURSUANT TO CHAPTER 42F, HRS.					
		PLANS		1			
		LAND		1			
		DESIGN		1			
		CONSTRUCTION		397			
		TOTAL FUNDING	LBR	400	C		C
[~~9.~~		~~OLA KA'ILIMA ARTS CENTER, LLC, OAHU~~					
		~~PLANS, DESIGN AND CONSTRUCTION FOR THE OLA KA'ILIMA ARTSPACE LOFTS PROJECT. THIS PROJECT QUALIFIES AS A GRANT, PURSUANT TO CHAPTER 42F, HRS.~~					
		~~PLANS~~		~~100~~			
		~~DESIGN~~		~~100~~			
		~~CONSTRUCTION~~		~~150~~			
		~~TOTAL FUNDING~~	~~LBR~~	~~350~~	~~C~~		~~C~~]
9.		OLA KA'ILIMA ARTS CENTER, LLC, OAHU					
		PLANS, DESIGN AND CONSTRUCTION FOR THE OLA KA'ILIMA ARTSPACE LOFTS PROJECT. THIS PROJECT QUALIFIES AS A GRANT, PURSUANT TO CHAPTER 42F, HRS.					
		PLANS		100			
		DESIGN		100			
		CONSTRUCTION		150		1,500	
		TOTAL FUNDING	LBR	350	C	1,500	C