

Draft Environmental Assessment

EMS Young Street Facility
TMK: 2-4-005: 023
1426 Young Street, Honolulu, O`ahu, Hawai`i

Prepared by:

AM Partners, Inc.
1100 Alakea Street, Suite 800
Honolulu, Hawai`i 96813

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Emergency Medical Service (EMS) Young Street Facility Honolulu, O`ahu, Hawai`i

PROJECT SUMMARY

Proposed Action	Construct a one-story 3,200 SF building housing two ambulance units, the District Chief offices and conference room, and 10 parking stalls.
Proposing Agency & Accepting Authority	Department of Design and Construction City and County of Honolulu 650 South King Street, 11 th Floor Honolulu, Hawai`i 96813 Contact: Curtis Kushimaejo Phone: (808) 527-6332 • Fax: (808) 523-4000
Agent	AM Partners, Inc. 1100 Alakea Street, Suite 800 Honolulu, Hawai`i 96813 Contact: Roland Libby Phone: (808) 526-2828 ext. 248 • Fax: (808) 538-0027
Tax Map Key	2-4-005:023
Address:	1426 Young Street
Land Ownership	City & County of Honolulu
Land Area	14,690 Square Feet
Existing Use	On-grade parking & temporary offices in trailers
State Land Use District	Urban
Development Plan Area	Primary Urban Center (PUC)
Zoning Designation	BMX-3
Special District	Not in Special District
Special Management Area (SMA)	Not within the SMA
FEMA FIRM Zone	Zone X, outside the 500 year floodplain
Anticipated Determination:	Finding of No Significant Impact (FONSI)

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Section 1 Introduction

1.1 Purpose and Objectives

The applicant, the Department of Design & Construction of the City and County of Honolulu, proposes to develop an Emergency Medical Services Facility at its Young Street property. This Environmental Assessment (EA) is prepared in pursuant to and in accordance with the requirements of Chapter 343 Hawaii Revised Statutes (HRS), and Chapter 200 of Title 11, Department of Health Administrative Rules. The action that triggers this assessment is the use of City & County owned land to build the project and public funds in the planning, design and construction of the proposed structure. Federal funds may be used to implement this project; therefore, this EA is intended to satisfy relevant provisions of the National Environmental Policy Act (NEPA).

1.2 Project Location

The proposed project is on TMK: 2-4-05: 023 and consists of approximately 14,690 square feet of land at 1426 Young Street within the Makiki District in the Primary Urban Center (PUC) (Exhibit 1)

1.3 Land Ownership

The City and County of Honolulu owns the project site. EMS has operated from trailers on the site for several years.

Section 2.0 Project Background

2.1 History of the Project

The Department of Emergency Services of the City & County of Honolulu was established in 1908. By July 1977, the City had an operational emergency medical services (EMS) system as defined by federal standards. Since then, the EMS program for the island of O`ahu has been recognized for its a program of excellence and has been held as an example for the rest of the country. The City & County of Honolulu has 18 ambulance units under two districts. All its ambulance units are designated as advanced life support units and are staffed at a minimum by a paramedic and an emergency medical technician. Two rapid response paramedic units also provide additional coverage for West O`ahu and the Windward side of the island.

2.2 Services Provided

Honolulu's paramedics serve the entire island of O`ahu 24 hours a day, seven days a week. Each year, they respond to more than 66,000 calls for medical emergencies and traumatic injuries. In the City's continuing efforts to maintain and improve emergency medical services, it proposes to locate a permanent ambulance and district chief facility at the Young Street property. This will replace the temporary trailer facilities now located at the Young Street property.

Five ambulance units serve the Honolulu District. In this urban district, the State requires at least 90 percent of all calls to have a minimum response time of 10 minutes. Of the five ambulance units, two units are housed at the Young Street facility: Metro 1 and Makiki EMS Units. Metro I is a 24-hour EMS unit that responds to an average of 525 calls per month. Makiki is a 16-hour EMS unit (from 0700 to 2300 daily) that responds to an average of 400 calls per month.

Section 3.0

Construction Activities

3.1 Proposed Design and Construction

The one-story project will have an approximate gross area of 3,200 square feet. It will have two driveways. One is for the ingress and egress for ambulances, the district chief and to access the 10 staff parking stalls located at the rear of the property. The other driveway is dedicated for the egress of the facility's two ambulance units. The project site plan, floor plan, section and elevations are shown in Exhibit 2.

The building structure is expected to be simple and straightforward. Conventional spread footings bearing directly on the medium stiff clayey silt will be used to support the proposed building. The building's slabs-on-grade will require only the standard four-inch gravel cushion and vapor barrier while the slabs-on grade subjected to vehicular loading will be underlain by a minimum of six inches of base course in lieu of the standard gravel cushion. No piles or unusual structural elements that require the use of noise-producing or movement-generating equipment will be utilized.

Additional landscaping along the parcel's boundaries will be introduced to the site as shown in the attached drawings. The type and quantity of vegetation is not known at this time. However, it is likely that City & County will use drought tolerant, native and indigenous plants in the project's landscaping design.

3.2 Construction Schedule

The project is expected to be under construction for approximately eight months. This includes demolition, building construction and landscaping/paving work. Construction will begin once all construction and building permit requirements are granted.

3.3 Estimated Cost

The project cost is estimated at \$3.0 Million, which includes planning, design and construction.

Section 4

Description of the Affected Environment

4.1 Physical Environment

4.1.1 Climate. The Honolulu area has abundant sunshine, persistent trade winds and relatively constant temperatures. It also has moderate humidity and infrequent severe storms. The prevailing trade winds are northeasterly with 90 percent frequencies during the summer months and to 50 percent during the winter season. The average annual wind velocity is at 10 miles per hour. The mean temperature during winter ranges from 73 degrees Fahrenheit to 82 degrees during summer. The mean annual rainfall is 23 inches with most of the rain occurring between November and April. The relative humidity ranges between 56 and 72 percent.

The proposed project will not have a significant effect on the surrounding climate conditions. The project will provide adequate landscaping to assist in the mitigation of any localized increases in temperature due to roadways, parking and related structures.

4.1.2 Topography, Geology, Soils. The subject parcel and surrounding areas are relatively flat and contain no unique or unusual topographic features. The site elevations range from 20 to 25 feet above sea level and an average slope of zero to two percent.

Referred to as the Honolulu Plain, O`ahu's south central coast is underlain with a broad elevated coral reef. This has been partly covered by alluvium carried down from the mountains. This inter-bedding of coral and alluvial deposits influenced the hydrological character of O`ahu's leeward coastline. This interface constitutes a zone of low permeability known as "caprock," which prevents the seaward movement of potable water from the basaltic aquifers.

The soils report prepared for the project indicate that borings drilled through existing asphaltic concrete (AC) pavement consisted of two inches of AC underlain by about four to six inches of base material. The pavement section was underlain by dark brown clayey silt. The clayey silt, which has a low expansion potential, was in a medium stiff condition and extended down to the maximum depths drilled. Groundwater was encountered in all borings at depths of about 17.5 feet. Data from the U.S. Department of Agriculture Soil Conservation Service classifies the soil as Makiki Clay Loam (MkA). The soil is strongly acid to medium acid. Its permeability is moderately rapid, runoff is slow, and the erosion hazard is slight.

4.1.3 Hydrology. There are no surface water bodies on or near the subject parcel. The nearest surface water body is Makiki Stream which courses beneath the mauka bound lane of Kalakaua Avenue, then is exposed again in an open channel on the makai side of King Street where it runs parallel to Kalakaua Avenue. Makiki Stream, a tributary of the Ala Wai Stream system, is not mentioned in the Hawaii Stream Assessment. No impact is expected on the stream or any body of water.

The property is on FIRM Zone X, outside the 500 year flood plain (FIRM Map 0365).

4.1.4 Terrestrial Flora and Fauna. The subject parcel is a highly altered urban environment providing little habitat for any terrestrial flora or fauna. The limited landscaped areas on the site include plant material found within developed lots.

4.1.5 Scenic and Visual Resources. No significant coastal visual resources are in the vicinity. The proposed project will not significantly impact the scenic and visual resources of the surrounding areas.

4.1.6 Historical, Cultural and Archaeological Resources. The project site does not contain any known sites of historic or cultural significance and is not listed on either the Hawaii or National Registers of Historic Places. An archaeological and cultural impact evaluation for the proposed project is attached in Exhibit 3. This report notes that there will be no adverse impact to historical or cultural resources with the implementation of the project.

Should any unidentified archaeological resources be encountered during construction, all work will cease and the Historic Preservation Office will be contacted for review and approval of mitigation measures.

4.1.7 Noise Quality. Potential noise impacts are expected from construction activities and during the operational phase of the proposed facility. Construction impacts will be temporary and localized, and are the normal result of construction related activity. The State Department of Health administers rules and regulation relating to the hours during which construction is permitted and the noise levels permitted.

Noise generated during the operation of the facility is expected from the nature of the critical services provided by the facility. The facility is expected to operate 24 hours per day; however, use is compatible with existing surrounding uses, and sirens generated by the ambulances when responding to an emergency will not pose any negative impact. In any event, all project activities shall comply with the Administrative Rules of the State Department of Health, Chapter 11-46, on "Community Noise Control."

4.1.8 Air Quality. The major factor affecting air quality in the area is vehicular traffic. The proposed project will not significantly add more to the emission levels already noted in the busy intersections near the project site.

4.1.9 Water Quality and Water Services. The project site has waterlines maintained by the Board of Water Supply (BWS), in sizes suitable for delivering the required quantity of water for domestic use and fire protection. The subject parcel is served by potable water from the Board of Water Supply's Honolulu District. The existing water system consists of an 8-inch and a 24-inch water line along Young Street. The specific engineering requirements will be addressed during the design phase of the project.

Fire Protection is provided by fire hydrants along Young Street. All water connectivity, fire apparatus accessibility and protection plans will be reviewed and approved by BWS, the Fire Department and DPP prior to construction.

The existing off-site water system is adequate to accommodate the proposed project. The BWS approved Reduced Pressure Principle back flow Prevention Assemblies will be installed where appropriate. No adverse impacts are anticipated on surface water or ground water since the project does not include injection wells or cesspools. Any runoff or wastewater disposal required for the project will be done in full compliance with County, State and Federal guidelines.

4.1.10 Wastewater. The existing sewer system consists of an eight-inch sewer main along Young Street. Sewage is ultimately conveyed to the San Island Sewage Treatment Plant. The engineering details of the new service lines and required laterals will be addressed during the design phase of the project. It is likely that a new Sewer Connection Permit will be required and will be submitted for review and approval prior to construction.

The applicant will coordinate with appropriate City and State agencies to obtain review and approval of all plans for the proposed project, including identification and approval of

connections to the City's waste water system. No adverse impacts are anticipated to the existing service.

4.1.11 Hazardous Materials/Hazardous Waste. Hazardous materials or hazardous waste is not found within the premises of the site. The current uses of the site preclude its use as storage for hazardous materials and waste.

During the early 1990s, the subject parcel was part of the aborted Pawa'a Redevelopment Project. The Pawa'a Redevelopment Project's Final Environmental Impact Statement includes an exhaustive study of the site and its surroundings but does not mention the presence of hazardous materials at Parcel 23, the site of the proposed facility.

4.2 Socio-Economic Environment

4.2.1 Population Data. The project site is within Honolulu's Primary Urban Center (PUC). The PUC extends from the core of historic downtown Honolulu to Pearl City in the west and Waialae-Kahala in the east. The shorelines of East Mamala Bay and Pearl Harbor define PUC's southern edge while the Koolau Range frames its northern boundary. The PUC defines metropolitan Honolulu, which is considered a mature urban center. It is home to almost half of Oahu's population (estimated at 895,600 in 2005) and three-quarters of its jobs.

No significant change in the population size or mix is expected to occur due to this project. However, the median age of the area's population is expected to increase reflecting the trend statewide.

4.2.2 Surrounding Land Use and Community Character. The parcel is zoned BMX3 and the maximum allowable building height is 150 feet. The proposed one-story building is consistent with the current zoning. The other parcels on the same block facing Young Street consist of commercial buildings and high-rise residential structures. The parcels across Young Street are owned by the State of Hawaii and are used by the State Department of Agriculture. Pawa'a Park, on a City-owned parcel, is located Diamond Head of the State-owned facilities on the same block.

4.3 Public Facilities and Services

4.3.1 Schools and Recreational Facilities. The public schools that are close to the site are Kaahumanu Elementary School, Washington Intermediate School and McKinley High School. Several private schools are also near the proposed project.

Active recreational areas near the proposed project are Cartwright Field, Makiki District Park and Sheridan Park. Passive recreational areas are the newly built Pawa'a Park on Young Street and Thomas Square adjacent to Victoria Street. The largest park that serves the area is Ala Moana Beach Park, considered a regional park which is both an active and passive recreational area.

The schools and recreational facilities located in close to the project site will benefit from the proposed project.

4.3.2 Police and Fire Protection. The project is located within Beat 53 of the Honolulu Police Department's District 1 that extends from Kalihi Street to Punahou Street. District 1 headquarters is located at the main police headquarters at Alapai Street.

The Pawaa Fire Station provides fire services for the area. The fire station is located makai of the project site on the intersection of Makaloa and Kaheka Streets, and is the primary station for the vicinity. There are three secondary fire stations for the project area: The McCully Fire Station located on the corner of University Avenue and Date Street, the Makiki Fire Station, located on the corner of Piikoi Street and Wilder Avenue, and the Kakaako Fire Station, located on Queen Street near South Street. The services provided by the facility complements police and fire protection.

4.3.3 Medical and Health Facilities. Straub Hospital and Kapiolani Children's & Women's Medical Center are located less than a mile from the proposed project while Queen's Medical Center is about 1.25 miles away. These three medical facilities provide a full range of services including a 24-hour emergency service. Other medical facilities that provide emergency care include Kaiser Permanente's Honolulu Clinic.

4.3.4 Transportation and Accessibility. The parcel is accessible from Young Street, a two-way, two-lane street running in the Ewa-Diamond Head direction. On-street parking is allowed in designated areas along both sides of Young Street. Access to Young Street is via Keeaumoku Avenue or Kalakaua Avenue.

Public bus service is provided by a municipal island-wide bus system. The major bus routes servicing the area runs on the Diamond Head direction on King Street and in the Ewa direction on Beretania Street. Young Street lies parallel between King and Beretania Streets.

No significant change in vehicular traffic volume or type is expected to occur due to this project. The emergency vehicles to be housed in the facility are now parked on the existing parcel so that disruption to traffic caused by the ambulances that is expected, already exists. The number of privately owned vehicles that may be driven and parked at the proposed project's parking lot at the rear of the parcel is insignificant to alter the current traffic flow.

4.3.5 Water and Sewer. The subject parcel is served by potable water from the Board of Water Supply's Honolulu District. The existing water system consists of an 8-inch and a 24-inch water line along Young Street. The specific engineering requirements will be addressed during the design phase of the project. Fire Protection is provided by fire hydrants along Young Street. All water connectivity, fire apparatus accessibility and protection plans will be reviewed and approved by BWS, the Fire Department and DPP prior to construction.

The existing sewer system consists of an eight-inch sewer main along Young Street. Sewage is ultimately conveyed to the Sand Island Sewage Treatment Plant. The engineering details of the new service lines and required laterals will be addressed during the design phase of the project. It is likely that a new Sewer Connection Permit is required and will be submitted for review and approval prior to construction.

The applicant will coordinate with appropriate City and State agencies to obtain review and approval of all plans for the proposed project, including identification and approval of

connections to the City's waste water system. No adverse impacts are anticipated to the existing service.

4.3.6 Ground Drainage. Surface runoff is collected through drain inlets located at the two corners of Young Street at its intersection with Keeaumoku Street. Another two drain inlets are located at the corner of Keeaumoku and King Streets, and these four drain inlets are connected to a box culvert system located along Keeaumoku Street by an 18-inch drain line and a 24-inch drain line.

4.3.7 Solid Waste. No significant amounts of solid waste will be generated by the project once it becomes operational. Solid waste disposal from the site will be handled by the responsible City agency.

4.3.8 Electrical, Telephone, Gas and Cable Service. Electrical, telephone, gas and cable conduits are currently available. A 12-kilovolt (kV) electrical line along Young Street is the source of electric power for the area. Aerial telephone lines are also located along Young Street. A six-inch gas line is located along Young Street. Overhead cable television lines are located along Young Street as well as an underground cable main.

Section 5.0

Relationship to Federal, State and City & County Land Use Plans and Policies

5.1 Federal

The Americans with Disabilities Act (ADA) of 1990 provides guidelines for development of accessibility to buildings and facilities by individuals with disabilities. The proposed project will apply these guidelines during the design and construction and operation of the facility.

5.2 State of Hawaii

5.2.1 Hawaii State Plan. The Hawaii State Plan (Chapter 226, Hawaii Revised Statutes) provides a guide for the future of Hawaii by setting forth a broad range of goals, objectives, and policies. These serve as guidelines for growth and development of the State of Hawaii. The proposed project is consistent with the Hawaii State Plan.

5.2.2 State Functional Plans. The Hawaii State Functional Plan (Chapter 226) provides a management program that allows judicious use of the States natural resources to improve current conditions and attend to various societal issues and trends. The proposed project is generally consistent with the State Functional Plans.

5.2.3 State Land Use Law. The State Land Use Commission classifies the subject property as Urban. The proposed project conforms to the State Urban classification of Chapter 205, Hawaii Revised Statutes and State of Hawaii Land Use Commission Rules (Hawaii Revised Statutes, Chapter 205; Hawaii Administrative Rules, Title 15, Subtitle 3, Chapter 15).

5.2.4 Coastal Zone Management Act. The proposed project is not located on the coastline or shoreline and does not involve coastal resources. In any event, the facility will be

designed in a manner that will not negatively impact the coastline, its resources and the surrounding community.

5.3 City & County of Honolulu

5.3.1 General Plan. The City & County General Plan provides a statement of long range social, economic, environmental, and design objectives for the Island of Oahu. It also includes a statement of polices necessary to meet these objectives. The proposed project is consistent with, and supports the objectives and policies of the General Plan.

5.3.2 Primary Urban Center (PUC) Development Plan. Land use and growth for the City and County of Honolulu is guided through a three-tier system. First adopted by resolution in 1977, the first tier is the General Plan, a concise document consisting primarily of statements of objectives and policies. The second tier consists of the Development Plans and Sustainable Communities Plans. These plans, which address eight geographic areas of O`ahu, are adopted and revised by ordinance. The land use issues of the subject parcel are discussed in the Primary Urban Center (PUC) Development Plan that was approved by the City Council in June 2004. The third tier of the system consists of implementing ordinances, including the Land Use Ordinance (LUO) or Honolulu's zoning code, that constitute the principal means of implementing the land use initiatives. The proposed facility is allowable in the parcel's BMX3 zone.

The plan recognizes the PUC as an economic center of importance to the State and envisions Honolulu to be "the Pacific's leading city and travel destination." The plan enumerates key land use policies to make it happen. The proposed project supports the strengthening of Honolulu's civic and public safety facilities in general, and its emergency response services in particular, to maintain Honolulu's reputation as the premier urban leader and travel destination in the Pacific.

Section 6.0

Alternatives to the Proposed Action

6.1 No Action

The No-Action alternative would result in lost opportunity to provide an efficient and viable system to provide emergency medical response services to the Island of O`ahu.

6.2 Alternative Sites

No alternative sites were considered.

6.3 Alternative Uses

EMS has operated from trailers on the site for several years. There are no alternative uses for the site except for its current function.

6.4 Recommended Action

The recommended action is to proceed with the proposed project on the site.

Section 7.0 Summary of Impacts

7.1 Summary of Impacts

7.1.1 Physical Impacts. No long term negative physical impacts are anticipated with the implementation of the proposed action. Short-term construction related impacts are anticipated but should be adequately mitigated through the use of sound construction practices.

Beneficial impacts include the provision of ambulance service to serve and assist residents of the Primary Urban Center.

7.1.2 Impacts on Public Facilities and Services. The proposed project will not have significant adverse primary or secondary impacts on public facilities and services but will enhance the City's emergency medical response services.

7.1.3 Socio Economic Impacts. No long-term negative impacts are anticipated to the socio-economic environment as a result of the proposed action. A short-term benefit of the project is the creation of employment in the planning, design and construction industries. The long-term benefits are the provision of a permanent home for the area's emergency medical response services.

7.2 Need for an Environmental Impact Statement (EIS)

Because no long-term adverse impacts are anticipated to the proposed project, it is expected that an Environmental Impact Statement is not required.

7.3 Significance

According to the Department of Health Rules (Chapter 11-200-12), an applicant must determine whether an action may have a significant impact on the environment. These would include (1) all phases of the project; (2) its expected primary and secondary consequences; (3) its cumulative impact with other projects; and (4) its short and long-term effects. The Rules establish a Significance Criterion to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any of the following criteria.

1. *Involves an irrevocable commitment to loss or destruction of any natural or cultural resources.* The project will not require the loss or destruction of any natural or cultural resource.
2. *Curtails the range of beneficial uses of the environment.* The project will be built on previously developed land. Therefore, it will not negatively impact other beneficial uses such as for recreation.
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 project does not conflict with any long term environmental policies, goals and guidelines.

4. *Substantially affects the economic or social welfare of the community or State.* The project will have a significant positive effect on the economic and social welfare of the community by providing an emergency service facility within the Primary Urban Center.
5. *Substantially affects public health.* The project will improve public health by the provision of ambulance services.
6. *Involves substantially secondary impacts, such as population changes or effects on public facilities.* The project will not have significant adverse secondary impacts on public facilities.
7. *Involves a substantial degradation of environmental quality.* The project will not substantially degrade environmental quality.
8. *Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions.* The project is part of an island-wide system of emergency medical services, but the development will not have a considerable impact on the environment.
9. *Substantially affect a rare, threatened or endangered species or its habitat.* The project will not affect rare or threatened species or habitat.
10. *Detrimentially affects air or water quality or ambient noise levels.* The project will not detrimentally impact air or water quality. However, ambulance sirens will generate noise that is to be expected in an urban setting.
11. *Affects or is likely to suffer damage by being located in an environmentally sensitive area such as flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater or coastal waters.* The project is not located in an environmentally sensitive area.
12. *Substantially affects vistas and view planes identified in County or State plans or studies.* The project will not impact any scenic or view planes.
13. *Requires substantial energy consumption.* The project will not require substantial energy consumption to complete or to operate.
14. *Adheres to the concepts of environmental justice.* The project will not displace any racial groups or populations but will exist to serve all regardless of racial or ethnic backgrounds.

Section 8

Necessary Permits and Approvals

8.1 Federal

No Federal permits are required.

8.2 State of Hawaii

The State requires the preparation of an Environmental Assessment. If the State provisions are addressed, the applicant can determine that an Environmental Impact Statement (EIS) will not be required, and can then issue a FONSI (Finding of No Significant Impact) for this project.

8.3 City & County of Honolulu

The City's Public Infrastructure Map (PIM) is in the process of being amended to reflect the proposed action.

Prior to obtaining the building permit, it will be necessary to secure all applicable reviews and approval from regulating agencies:

- Grading, Grubbing, and Stockpiling
- Permit to Excavate Public Right of Way
- Sewer Connection
- Connection to the City's Storm Sewer System
- Building Permits for Building, Electrical, Plumbing, Sidewalk/Driveway
- Certificate of Occupancy
- Water Connection/Facilities Charges

Section 9.0

Preparation of the Draft Environmental Assessment: Pre-Consultation Responses

The following agencies and individuals responded to the project's letter of consultation. Copies of the responses are enclosed in Exhibit 4.

State Agencies

Hawaii Department of Land & Natural Resources, Historic Preservation Division

Hawaii Department of Agriculture

Hawaii Department of Business Economic Development & Tourism

City & County of Honolulu Agencies

C&C Honolulu Department of Facility Maintenance

C&C Honolulu Department of Planning & Permitting

C&C Police Department

Makiki/Lower Punchbowl/Tantalus Neighborhood Board No. 10 (portion of minutes of meeting)

Private Sector

Vernita J. Turpin

Section 10

References

Hawaii Department of Business, Economic Development & Tourism. THE STATE OF HAWAII DATA BOOK 2000. Honolulu, 2001.

Honolulu Department of Planning and Permitting. PRIMARY URBAN CENTER DEVELOPMENT PLAN. Honolulu, June 2004.

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Wilson Okamoto & Associates, Inc. FINAL ENVIRONMENTAL IMPACT STATEMENT: PAWAA REDEVELOPMENT PROJECT, Volume 1. Honolulu, November 1993.

Exhibit 1
Location Map

Environmental Assessment

EMS Young Street Facility
TMK: 2-4-005: 023
1426 Young Street, Honolulu, O`ahu

HONOLULU, OAHU, HAWAII

FOR PROPERTY ASSESSMENT PURPOSES
SUBJECT TO CHANGE

ZONE	2
SEC.	4
PLAT	05
FIRST TAXATION DISTRICT	
DEPARTMENT OF TAXATION PROPERTY TECHNICAL OFFICE TAX MAPS BRANCH TAX MAP	
SCALE 1" = 50 FT.	

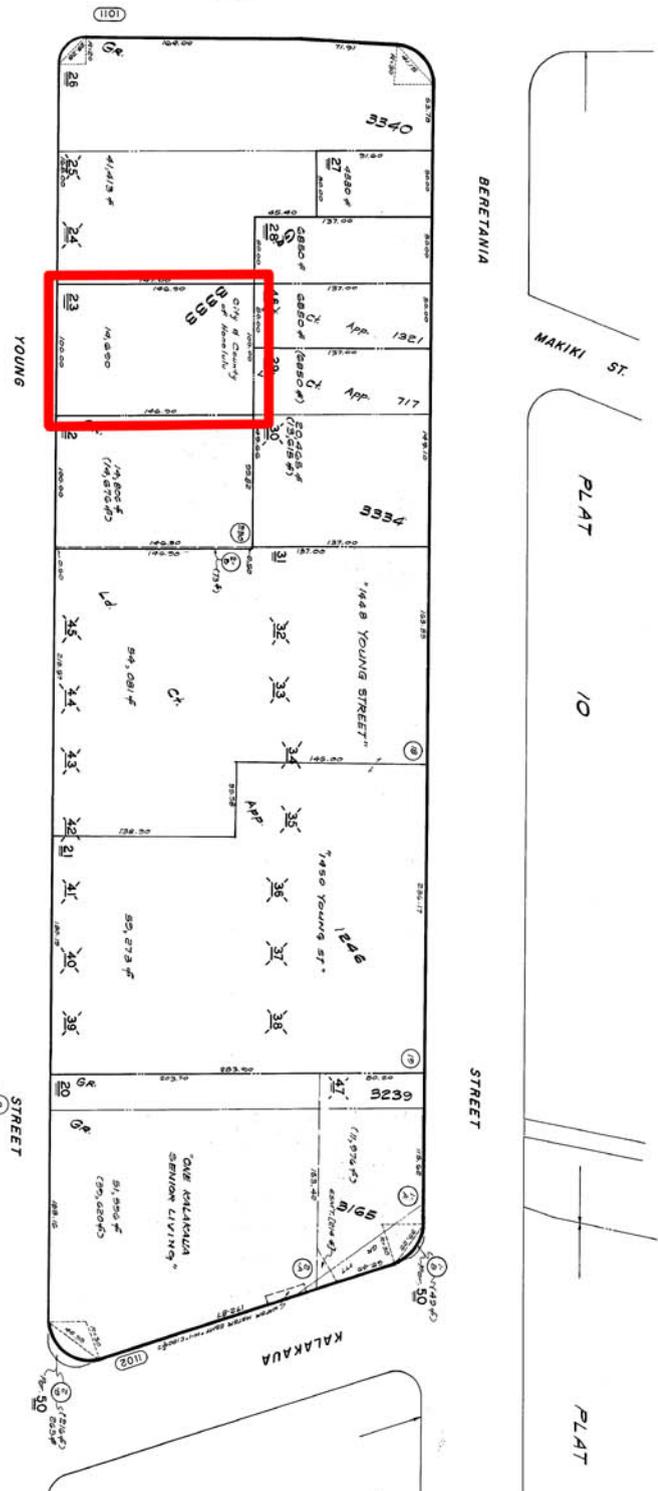
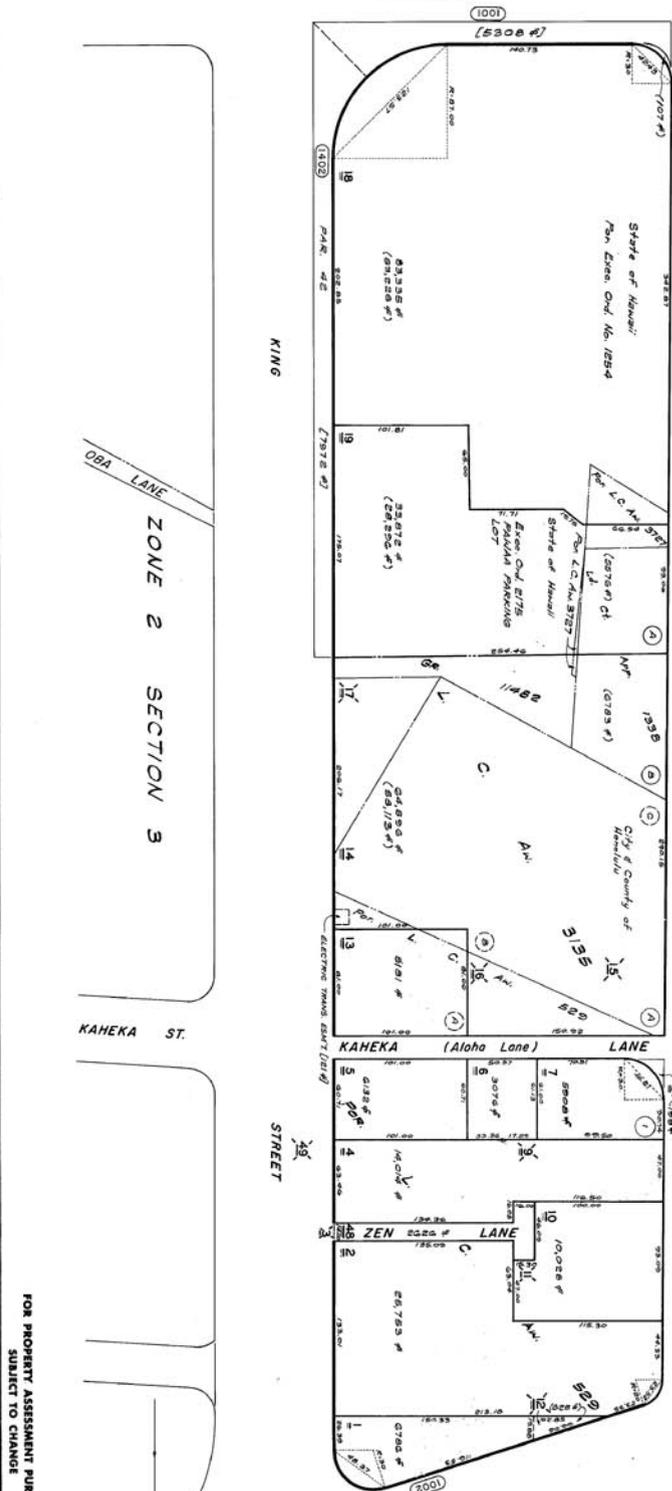


Exhibit 2
Schematic-Level Drawings

Environmental Assessment

EMS Young Street Facility
TMK: 2-4-005: 023
1426 Young Street, Honolulu, O`ahu







EAST ELEVATION



WEST ELEVATION

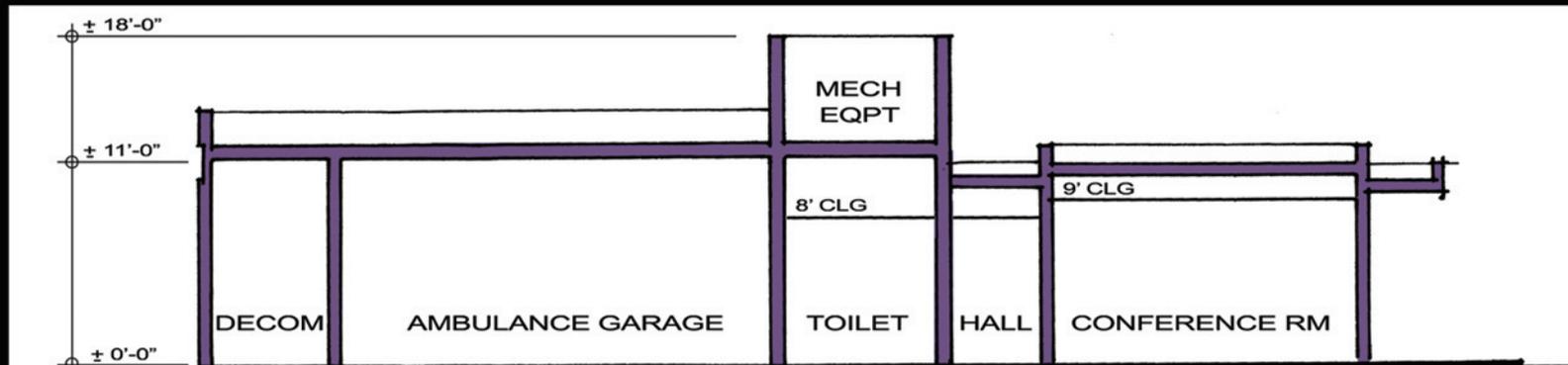


NORTH ELEVATION





SOUTH ELEVATION



SECTION

Exhibit 3
**Archaeological Literature Review &
Field Inspection**

Environmental Assessment

**EMS Young Street Facility
TMK: 2-4-005: 023
1426 Young Street, Honolulu, O`ahu**

**Archaeological Literature Review and Field Inspection
of a 14,690 SF Parcel at 1426 Young Street in Honolulu,
Makiki Ahupua‘a, Kona District, Island of O‘ahu
TMK: (1) 2-4-005: 023**

DRAFT

**Prepared for
DesignLab**

**by
Rodney Chiogioji, B.A.
and
Hallett H. Hammatt, Ph.D.**

**Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i
(Job Code: HONO 78)**

December 2005

O‘ahu Office
P.O. Box 1114
Kailua, Hawai‘i 96734
Ph.: (808) 262-9972
Fax: (808) 262-4950

www.culturalsurveys.com

Maui Office
16 S. Market Street, Suite 2N
Wailuku, Hawai‘i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Management Summary

Reference	Archaeological Literature Review and Field Inspection of a 14,690 SF Parcel at 1426 Young Street in Honolulu, Makiki Ahupua'a, Kona District, Island of O'ahu (Hammatt 2005)
Date	December 2005
Project Number (s)	Cultural Surveys Hawai'i, Inc. (CSH) Job Code:HONO 78
Investigation Permit Number	The fieldwork for this investigation was carried out under archaeological permit number 0508 issued by the Hawai'i State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR).
Project Location	1426 Young Street; TMK: (1) 2-4-005:023. The project area is depicted on the 1998 USGS 7.5 Minute Series topographic map, Honolulu Quadrangle
Land Jurisdiction	City and County of Honolulu
Project Description	The City and County of Honolulu proposes to construct an Emergency Medical Service (EMS) facility comprising a two-story, 5,400 square-foot structure that will house two ambulance units, offices, a conference room and 10 parking stalls.
Historic Preservation Regulatory Context	The project is subject to Hawai'i State environmental and historic preservation review legislation [Hawai'i Revised Statutes (HRS) Chapter 343 and HRS 6E-8/Hawai'i Administrative Rules (HAR) Chapter 13-13-275, respectively.
Document Purpose	This investigation is not an archaeological inventory survey, per the requirements of HAR Chapter 13-276; however, through detailed historical, cultural, and archaeological background research, and a field inspection of the project area, this investigation identifies historic properties that may be affected by the project. The document is intended to facilitate the project's planning and support the project's historic preservation review compliance.
Fieldwork Effort	Field inspection of the project area was accomplished by Rodney Chiogioji on December 4, 2005 and required one person-day.
Summary of Findings	Historic documentation indicates that the project area in traditional Hawaiian times was a dryland environment supporting habitation sites and dryland agriculture situated amid marshlands, ponds, and taro <i>lo'i</i> . However, this original landscape was displaced by the development of urban Honolulu beginning in the late 19 th century. Field inspection indicated that the project area is entirely asphalt paved and accommodates trailers, ambulances, and other vehicles. No historic properties associated with traditional Hawaiian culture were observed on any portion of the project area.

Recommendations	<p>It is recommended that no further archaeological investigation is warranted for the project area.</p> <p>It should be noted, however, that subsurface properties associated with former traditional Hawaiian activities in the project area, such as artifacts and cultural layers, may be present despite the decades of urban development in Honolulu. As a precautionary measure, personnel involved in future development activities in the project area should be informed of the possibility of inadvertent cultural finds, and should be made aware of the appropriate notification measures to follow (including consultation with the State Historic Preservation Division and, as may be appropriate, with O'ahu community cultural organizations).</p>
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Section 1 Introduction

1.1 Project Background

At the request of DesignLab, Cultural Surveys Hawai'i, Inc. has completed this archaeological literature review and field inspection report of a 14,690 sq.ft. parcel at 1426 Young Street in Honolulu, , Kona District, O'ahu Island (TMK (1) 2-4-005: 023) (Figures 1 & 2).

The property is owned by the City & County of Honolulu. Existing use of the property is on-grade parking and temporary offices in trailers for the Emergency Medical Service (EMS). The City & County of Honolulu is proposing to construct a two-story 5,400 sq.ft. building housing two ambulance units , a District Chief facility and conference room, and 10 parking stalls for EMS.

Based on historical, cultural, and archaeological background research, and a field inspection of the project area, this report presents documentation of past land use within the project area and in the surrounding portion of Honolulu.

This report is not an archaeological inventory survey, per the requirements of HAR Chapter 13-276; however, through detailed historical, cultural, and archaeological background research, and a field inspection of the project area, this investigation seeks to identify cultural resources that may be affected by the project. The document is intended to facilitate the project's planning and support the project's historic preservation compliance.

1.2 Scope of Work

The scope of work for this investigation includes:

1. Historical and previous archaeological background research to include study of archival sources, historic maps, Land Commission Awards and previous archaeological reports to construct a history of land use and to determine if archaeological sites have been recorded on or near this property.
2. Field inspection of the project area to identify any surface archaeological features and to investigate and assess the potential for impact to such sites. This assessment will identify any sensitive areas that may require further investigation or mitigation before the project proceeds.
3. Preparation of a report to include the results of the historical research and the fieldwork with an assessment of archaeological potential based on that research, with recommendations for further archaeological work, if appropriate. It will also provide mitigation recommendations if there are archaeologically sensitive areas that need to be taken into consideration.

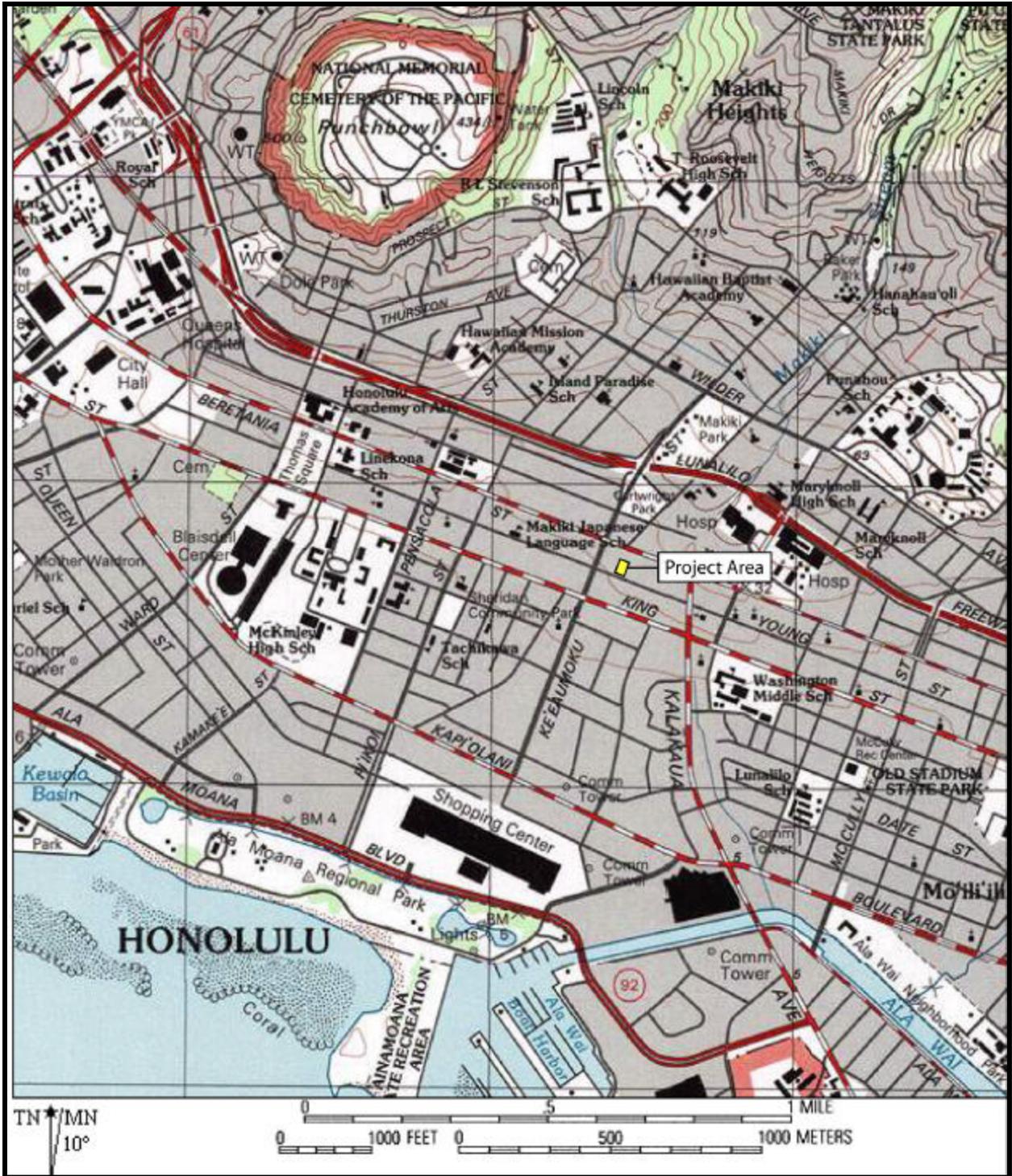


Figure 1. 1998 USGS 7.5 Minute Series topographic map, Honolulu Quadrangle, showing project area location

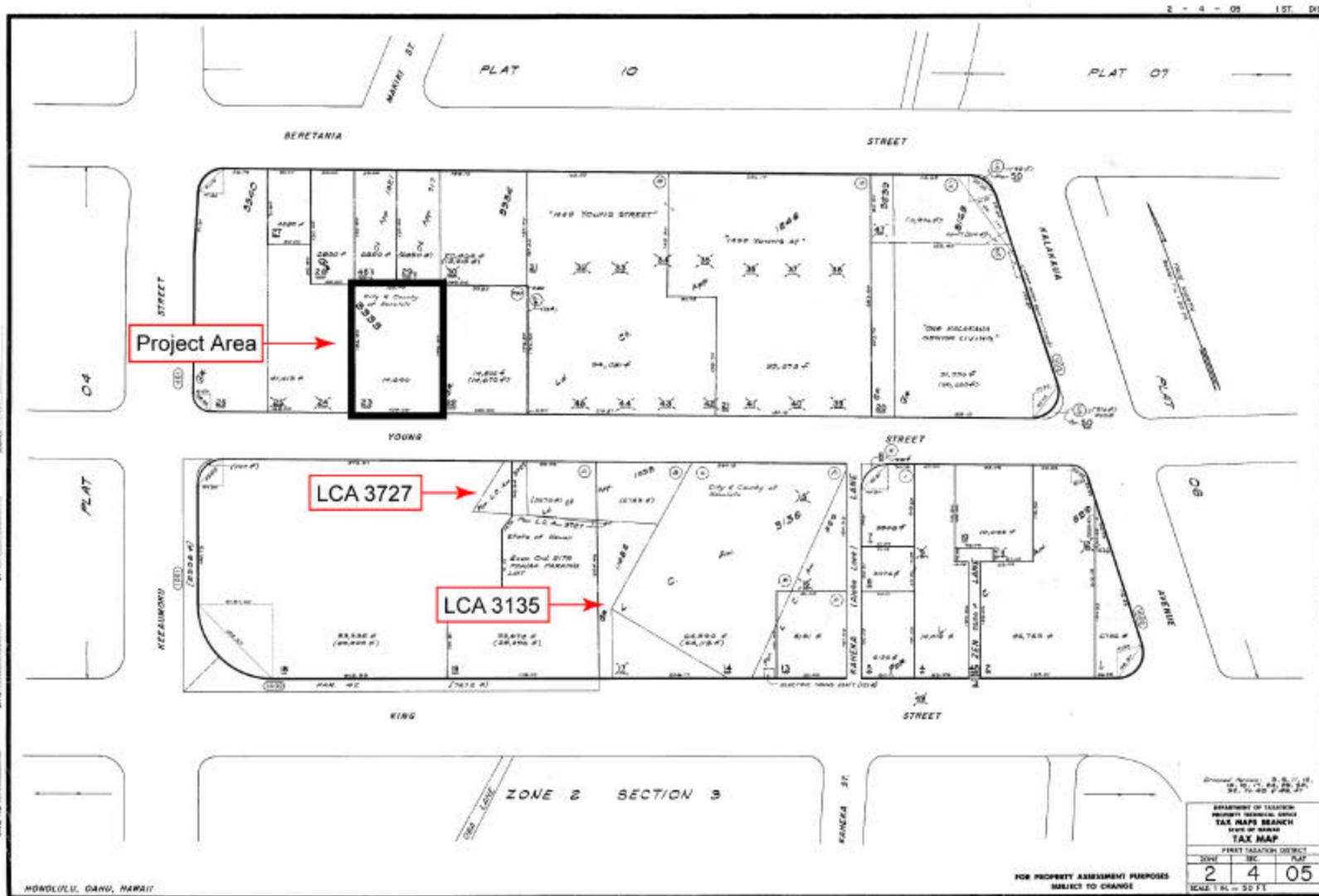


Figure 2. Tax map (2-4-05) showing project area and locations of adjacent Land Commission Awards

1.3 Methods

The project area was field inspected by Cultural Surveys Hawai'i on December 3, 2005. Archaeological reports, historical documents, maps, and photographs were researched at: the Hawai'i State Archives; the Survey Office of the Department of Accounting and General Services; the Hawai'i State Library; the Bernice Pauahi Bishop Museum archives and library; Hamilton Library at the University of Hawai'i at Manoa; the Mission Houses Museum Library; the State Historic Preservation Division (SHPD) library; and the library of Cultural Surveys Hawai'i.

Section 2 Historical and Cultural Background

Makiki Ahupua'a is located *mauka* (inland) of downtown Honolulu on the south side of O'ahu, with Pauoa Valley to the west and Manoa Valley to the east. The upper (*mauka*) boundary begins at the cinder cone called Pu'u 'Ohi'a (Tantalus); the *ahupua'a* terminates on King Street at the lower (*makai*) boundary. This last boundary is probably a post-contact phenomenon, since most pre-Contact *ahupua'a* extended from the mountains to the sea.

Currently Makiki is considered a land section within the Ahupua'a of Waikiki which encompasses the former land units of Makiki, Kalawahine, and Kewalo, which were once considered separate *ahupua'a* or *'ili*. For the purposes of this literature review investigation, the present project area will be discussed in terms of the historical and cultural background of Makiki Ahupua'a.

2.1 Description of Makiki Valley

The earliest description of Makiki was made by a visitor to the islands in the early nineteenth century. In 1831, the Prussian explorer vessel, *Prinzess Louis*, anchored in the harbor of Honolulu. On board was Dr. Franz Julius Ferdinand Meyen, a 27 year old botanist, who during the next six days toured the southern coast of O'ahu from Diamond Head to Pearl Harbor, collecting plant and animal species and making notes on the scenes of Hawaiian life that he observed. Early maps indicate the densely populated areas of Honolulu and Waikiki and the sparse, barren nature of the slopes of Puowaina (Punchbowl) past Pu'u Kakea to Pu'u 'Ohia (Tantalus) (Figures 3 and 4).

After making a successful trek up Nu'uuanu Valley, Meyen next planned an expedition to Pu'u Kakea (Sugarloaf). Meyen observed:

The excursion which we had planned for today, July 27th, took us by the foot of the extinct volcano which lies on the eastern end of the city and is called Puwaina [Puowaina]. This old cone rises to a height of 400 feet and is completely round. . . . Since the mountain has at present been converted into a fortification, not everyone has access to it but it is not supposed to be difficult to obtain permission. . . . The fortifications consist almost solely of ten or twelve cannons of high but unequal caliber which range over the harbor but cannot be aimed. Every time the current ruler leaves the island of Oahu and again when he returns, he is saluted with these cannons [Pultz 1981:39].

Meyen observed the barren and arid nature of the area along the plain and lower slopes of Punchbowl:

The flat valley of Honolulu through which we hiked on the excursion as well as the entire slope of Puowaina and the ridge which we had just climbed were completely barren up to an elevation of 600 to 700 feet-covered only by low herbage scorched by the sun. . . .

On our way we also saw a little piece of land which was covered with dry taro. It was a damp place. Nearby we came across a spring. They had formed the earth around the root of each plant into a little hollow so that moisture could collect there. . . .

The top of Mount Kakea, [now known as Sugarloaf], which we reached right after noon time, is bare of all arboraceous vegetation. Bushes six to seven feet in height and connected by an extremely dense grown of *Dracaena* and *Convolvulus* cover the whole area. The last stretch of the way to the summit was so densely covered with plants that we first had to cut a path through them [Pultz 1981:39-43].

After resting and breaking for lunch, the excursion party decided to return to Honolulu by a different route, traveling on the west side of the ridge that they had followed to Pu'u Kakea. The slopes of this ridge were thickly forested, as described by Meyen:

Nowhere again, neither on Oahu nor in Brazil nor in Manila, did we see such a charming picture of nature. We saw here the greatest profusion of the gayest tropical vegetation complemented by the picturesque forms of the mountains. Numerous *Musaceae*, some casually planted, other wild, covered the slope of the mountain. Among them were the fragrant and aromatic *Scitamineae* which were already mentioned above (p. 21), and also the short, shrub-like ferns intertwined and covered with vines which had blossoms of the most wonderful colors. Beneath that were the various greens of the *Cyperaceae*, which cover the lowest parts of the transversal valley, as well as the loveliest arrangement of the individual clusters of shrub-like and arboraceous vegetation on the slope of the mountain ridge and on the top of the mountain close by. All this taken together made such a glorious and friendly impression that we were often not capable of going on. Had it only been possible to have a view of this region - even if only a small portion of it - copied by a talented artist! [Pultz 1981:44].

Meyen also observed the natives gathering the stone called *makiki*, which was used to make the stone portion of an octopus lure. The name of the *ahupua'a* is named for this special type of stone.

As soon as the valley became wider the beautiful vegetation disappeared. The slopes of the mountains were covered only with low grasses, the huts of the Indians became more numerous and here and there large boulders appeared again. The end of a low ridge which runs through the center of this transversal valley had been artificially cleared of vegetation and of the cover of humus. The rock which came to light here is a very attractively colored basalt conglomerate. The Indians were just then busy chipping flat pieces from this rock which they wanted to use to hunt octopus. The rock on the sides of the valley, however, is the usually porous basalt which is found all around Honolulu. Here and there one can find caves in this rock, some of which are inhabited [Pultz 1981:46].



Figure 3. 1825 Map by Carl Malden, showing population centers at Honolulu and Waikiki

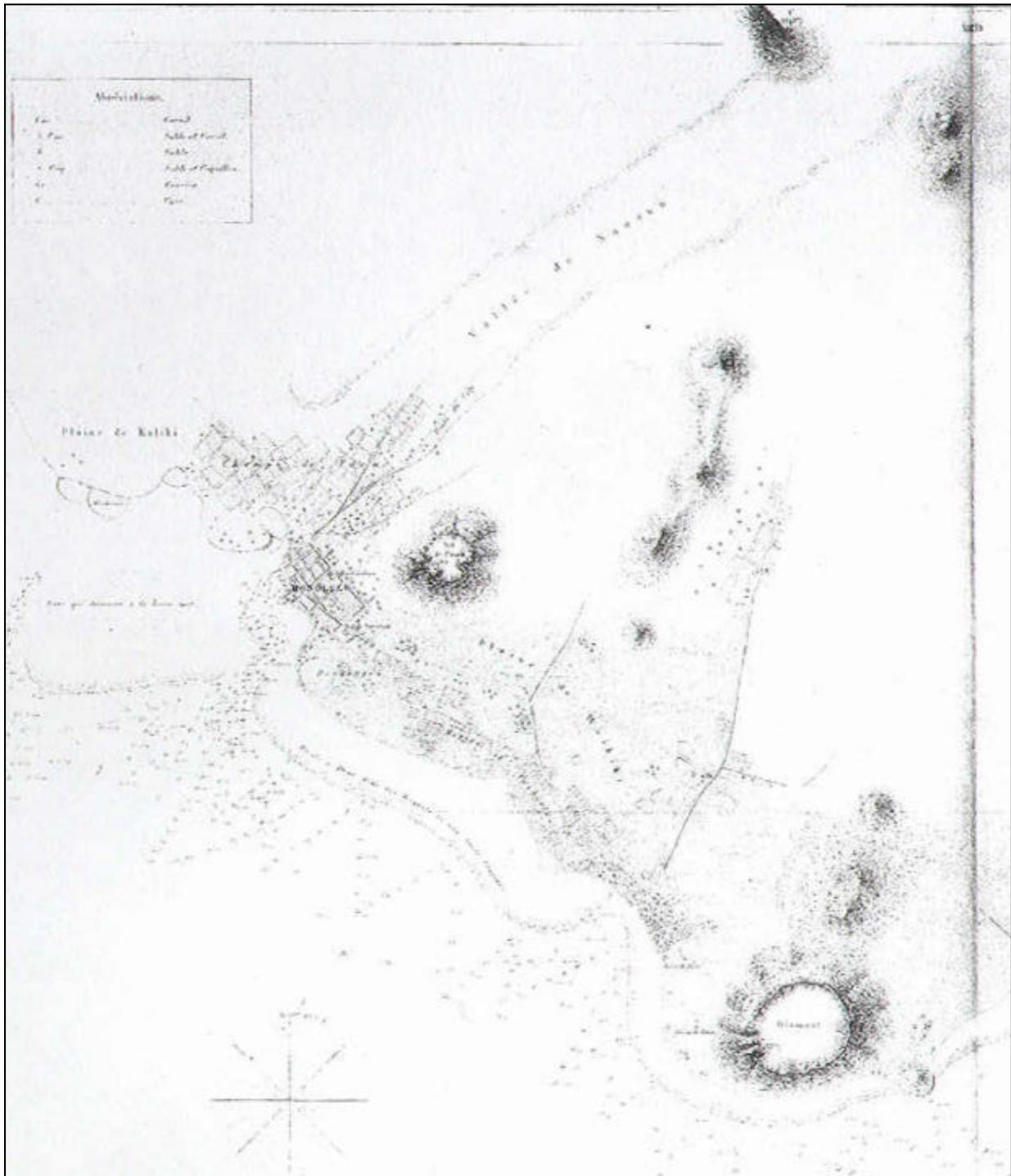


Figure 4. 1855 La Passe Map of southeast O'ahu; Puowaina on left foreground; Pu'u 'Ualaka'a, Pu'u Kakea, and Pu'u 'Ohia in center

Meyen also noted that many formerly forested areas were being turned into pastures, either intentionally cleared by man or eaten away by the roaming cattle. Meyen reported:

In the course of our excursion we saw the mountains everywhere covered with grazing horses and horned cattle. . . . The island of Oahu has more than 2000 head of horned cattle of which 1000 head belong to the Spaniard Don Francisco Marin. . . . There is also a great number of horses on these islands and already every reasonably well-to-do person, man or woman, keeps a riding horse. Yet, as welcome as the increase in this most useful domestic animal is, the joy in it will soon disappear when it is realized that this increase, as well as the expanded cultivation of meadows, is in exact proportion to the decrease in true agriculture.

Everywhere one hears the complaint that in former times a far greater quantity of field-produce was cultivated than now. . . . Many and very extensive fields through which we have just wandered and which are presently being used as pasture land were formerly covered with sweet potatoes. Today one can still see the remaining traces of their cultivation. They say that in the days of Kamehameha a great part of the Honolulu Valley was used for the cultivation of field-produce. Now there are meadows there and the valley is far less productive than in former times [Pultz 1981:46-47].

2.2 Boundary of Makiki Ahupua'a

2.2.1 Pre-Contact Boundary of Makiki

As noted above, the present boundary of Makiki Ahupua'a extends from Pu'u 'Ohi'a (Tantalus) on the inland (*mauka*) point and terminates on a portion of the present-day King Street, between Ward and Punahou Streets. The land area on the *makai* side of King Street in this section of Honolulu is called Pawa'a. This means that the modern *ahupua'a* of Makiki is totally land-locked. Carpenter and Yent (1994:10) believe that it is very unlikely that the present boundary of Makiki is the same as the pre-Contact boundary. It is more likely that the *ahupua'a* once extended from the mountains to the sea, which is the general pattern for *ahupua'a* boundaries since this allowed the natives access to a wide range of resources. The boundary of the *ahupua'a* may have been cut off at King Street when the town of Honolulu began to expand in the early nineteenth century from the oldest portion of the town near the harbor to lands north and east of the original village.

2.2.2 Mid Nineteenth Century Boundary

The official boundary of Makiki in the mid-nineteenth century was defined on Boundary Certificate #33, dated September 4, 1869. In her doctoral dissertation, Stephanie Fitzpatrick (1989) researched all Boundary Commission Reports concerning Makiki. The following summary on the former boundaries of Makiki Ahupua'a is based mainly on her extensive work in this area.

Makiki today is considered an *ahupua'a* between Manoa on the east and Pauoa to the west. It consists of the *ili* of Makiki, Kalawahine, and Kewalo. However in boundary commission

reports of the mid-nineteenth century, the *ahupua'a* of Makiki is defined as only including Makiki *'ili*. Kalawahine and Kewalo are not considered part of Makiki. In other records, Makiki is considered an *'ili* of Wakiki or as an *'ili* of Honolulu, as were the other lands mentioned above. According to an 1869 boundary definition, the western boundary of Makiki seems to be the same as the western boundary of Waikiki, indicating the *'ili* of Makiki is within the *ahupua'a* of Waikiki (Fitzpatrick 1989:463).

2.3 Mid-1800s - Land Commission Awards

2.3.1 Kalawahine

The modern definition of Kalawahine as a land unit is:

The place above Roosevelt High School, Honolulu. Place named for a deity who guarded water sources. (TM.) In the last century 25 land parcels with this name were awarded to Hawaiians. *Lit.* the day [of] women [Pukui et al 1974:76].

Kalawahine was considered an *'ili* of Honolulu. It consisted of three *'ili lele* sections, which are discontinuous land sections. A *makai* section was near the coast at Iwilei and a central section was located in Nu'uaniu Valley near the general area of Foster Botanical Gardens. The third, *mauka*, section was between the land sections of Kewalo (to the west) and Makiki (to the east), with Kanaha Stream as part of the western boundary. Thus only the *mauka* section is part of the Makiki Watershed and part of the current study area. The western boundary of this section is indicated by a dry stream gulch called Kahawai O Ko Po'opo'o. This seems to be the same as the intermittent stream, Kanaha Stream (Kolb et al. 1993:5).

Twenty-five Land Commission Awards for commoner lands (*kuleana*) were awarded in Kalawahine. Twenty four were awarded in the Nu'uaniu *'ili* and one was awarded in the Iwilei section. None were awarded in the Kanaha Stream section. Since the only water source in this area is the intermittent Kanaha Stream, this area may have been marginal for cultivation and may not have been heavily inhabited.

The *'ili lele* as a whole was awarded to High Chief Aaron Keli'ahonui during the Great Mahele. Boundary commission reports testify that sweet potatoes were once grown in Kalawahine near the land of Naihi Kukui, which was on the boundary between Makiki and Kalawahine. Naihi Kukui was a Hawaiian who sailed with Lihiliho in 1823. His daughter, Kalama married King Kamehameha III in 1837 (Kamakau 1992:256, 341). His land was incorporated in to the award of Keli'ahonui during the Mahele, inherited by Keli'ahonui's second wife, Kekauonohi, at his death, and then inherited by Kekauonohi's surviving husband, Levi Ha'alelea.

After the death of Ha'alelea, sometime prior to 1867, his wife A. A. Ha'alelea inherited the land. There were many boundary disputes, and by 1873 Mrs. Ha'alelea owned only the *'ili'aina* of Iwilei, six lots in Nu'uaniu, and 293.5 acres in the Kanaha Stream section. In 1875, Mrs. Ha'alelea sold all of her land to J.H. Coney, her son-in-law. There are few records for the use of this land. An 1873 map of Makiki Valley by W.D. Alexander (see Figure 11) shows all roads end at Punchbowl, at the southern (*makai*) tip of Kalawahine, which suggests that the land was not heavily utilized in this period. The surveyor C.T. Lyons (Boundary Commission I:225) mentions

that there was a settlement called Pi'iwai in the adjacent *ahupua'a* of Kewalo at this time, at which people who worked in Makiki and Kewalo lived. This settlement is not shown on any map, but it could be at the southern (*makai*) end of the *ahupua'a* of Kalwahine on the eastern slope of Punchbowl where the present day settlement of Pi'ikoi is located (Kolb et al. 1993:17).

In 1907, Laura A. Coney, the widow of J. H. Coney, sold the *mauka* parcel to William Giffard, who sold the parcel to the Territory of Hawai'i in the same year. The Territory occasionally leased some of the lands, but the greatest portion of the parcel was utilized by squatters to grow potatoes. The U.S. Congress passed a bill in 1934 "to amend Sections 203 and 207 of the Hawaiian Homes Commission Act." This act set apart lands in Kalawahine, Kewalo, and 'Auwaiolimu to be incorporated into the Hawaiian Home Lands, which could be developed into residential lots by native Hawaiians through leases of 99 years. In 1935, a survey of the area identified 240 people on 109 parcels; some of these parcels were in Kewalo.

In 1950, squatters and leasers who still occupied land on the Kalawahine slopes were relocated so that the land could be developed by the Honolulu Board of Water Supply (1935) for a new pump station. They were given first choice for new homestead parcels that were being developed to the west. In 1990, some of the land reverted back to the Hawaiian Home Lands.

2.3.2 Kulaokahu'a, Lower Makiki

Makiki's lower portion was in an area known as "The Plains". This seems to have consisted of area in the lands of Kaka'ako, Kewalo, Makiki, Pawa'a, and Mo'ili'ili (Fitzpatrick 1989:25). A survey of this area was mapped by a government surveyor, Theophilus Metcalf, in 1846, who labeled the area as Kulaokahu'a, which translates as "the plain of the boundary" (Pukui et al. 1974:123). In 1865, John Papa 'I'i identified Kulaokahu'a as a "play ground, where the 'maika' etc. was played" (Boundary Commissioners Record Book, Kewalo, cited in King 1989:26). *Maika* is a Hawaiian sport which uses a disc-shaped stone, called an '*ulu maika*, for a bowling type of game. This flat plain would be a favorable place to play this sport. Pukui et al. state that the name *makiki* comes from the type of stone used to make octopus lures. This is the same type of stone that was used to make '*ulu maika*, and Fitzpatrick (1989:29) has speculated that the name of the *ahupua'a* may have originated from its association with the *maika* sport rather than, or addition to, the making of octopus lures.

The Kulaokahu'a Plains were awarded to the Crown in March of 1848 (Chinen 1961:54) during the Great *Mahele*. These Crown lands, set aside for Kamehameha II, were leased to a private individual. The *mauka* section was later divided into lots and sold to private individuals between 1877 and 1882.

Gilman (1909; 90-91) described this area in the 1940s as past the town of Honolulu. It was "Kulaokahua, or the Plains, a dry, dusty waster without a shrub to relieve its barrenness. T. Blake Clark has noted that "the settling of the Plains did not come until the 1880s, after water was brought from Makiki Valley" (1939:12). In 1892, Thrum noted that to get to Manoa "for nearly a mile the road leads by or along pasture fields with no visage of tree or shrub . . .and passes along Round Top of Ualakaa" (Thrum 1892:110).

There was enough water around Makiki Stream to grow taro in irrigated fields, or *lo'i*, and there was at least one major '*auwai*, or irrigation ditch. From 1840 to 1875, only a few unpaved roads were in the area, probably along the present course of King, Young, Beretania, and

Punahou Streets. These roads or horse paths “ran a straggling course which changed as often as the dust piled up deep” (Clark 1939:12).

About 1830, Queen Ka'ahumanu ordered that a wall should be built in the Makiki area to keep cattle from the inland residential areas. The stone wall also marked a path across Makiki which was first called Stonewall Street; presently this former path is covered by Wilder Avenue. The Queen wished to form a gateway at Punahou through this wall, and wanted two large stones on each side of the gate. The workers tried to move a large rock called Pohakuloa, which was either on Rocky Hill in Manoa or on the side of Round Top ('Ualaka'a) at the boundary of Makiki and Manoa Ahupua'a. The stone would not move at first, so a *kahuna* was consulted. The *kahuna* suggested that a *luau*, or feast, be prepared with certain foods. After the *luau*, the stone was moved easily to its new spot. This stone was worshipped “in the old days by Hawaiian women, who prayed for the endowment of their children with wisdom and Strength (Sterling and Summers 1978:283). It was shaped like a “mammoth taro leaf” and was used to bless pregnant women and their unborn children (Alexander and Dodge 1941:45). This rock was broken up later, sometime between 1854 and 1859, when the road to Manoa was widened. The wall along Wilder Avenue still remains (Fitzpatrick 1989:316).

There were several horse paths criss-crossing the Kulaokahu'a Plains. In the 1840s, it was described as “nothing but a most exceedingly dreary parcel of land with here and there a horse trail as path-way (Gilman 1909:91). The flat plains were also perfect for horse racing, and the area between present-day Pi'ikoi and Makiki Streets were a well-known racing track (Peterson 1984:371).

2.3.3 Upper Makiki Valley

Land Commission Award documentation (Table 1) for the Makiki Valley (north of King Street) indicates a concentration of awards in the lower valley areas primarily along Kanealole and Moleka Streams (Figures 13 and 14). In terms of land use, the two dominant dry and wet agriculture crops in Makiki seem to have been taro and sweet potato. Pu'u 'Ualaka'a (Round Top) was “famous in the annals of Hawaiian agriculture because here Kamehameha I established his own plantation [of sweet potatoes] on the steep slopes above Manoa” (Handy 1940:156). Dr. F. J. F. Meyen, a German botanist, visited the Makiki Valley area in 1831 and described habitation and agricultural features in the valleys along streams.

2.4 Late 19th Century to Present

During the second half of the 19th century, several large grants were awarded to foreigners (Table 2), especially lands south of King Street. One large land grant was awarded in the back of Makiki Valley to H.W. Schmidt, who attempted to grow coffee trees, but was unsuccessful (Carpenter and Yent 1994:17).

Another attempt at coffee cultivation was made by J.M. Herring, who purchased several acres (portions of Royal Patents 3216, 3830, 3863, 4519, and 7410) along Kanealole and Moleka Streams between 1864 and 1876. Mr. Herring built a house in the lower valley on the Maunalaha side of Moleka Stream, and a carriage road to his house, and modified some of the original Hawaiian agricultural terraces for his planting areas. Resident squatters, growing potatoes, begin to appear in the Makiki valley dating from 1897, pushing small-scale agriculture endeavors into

the valley areas. An 1897 Monsarrat map indicates extensive residential development in the lower part of Nu'uaniu valley, and around the base of Punchbowl to Makiki valley. Also observed on the 1897 map is Makiki Cemetery.

Table 1. Land Commission Awards and Royal Patents for Makiki

LCA #	Royal Patent #	Claimant	Land came from:	Land Name	Land Claimed	Acres
MA 11	6715	Keawehano		'Ili of Poloke	2 'apana; an 'ili'aina	119.99
MA 19	5584	Kanehiwa		Half of Kahaumakaawe 'Ili	1 'apana	3.25
MA 24		Kauliokamoa		Kaiwiokaihu; one along upper Maunalaha Stream, one along Makiki Stream	2 'apana	
95	6305	Hannah A. Holmes Jones	From husband J.C. Jones, who received it in 1825 from Kalaimoku	Makiki	1 kula	8.02
591	2387	John Meek	Houselot from Boki in 1817; From Kamehameha III in 1840	Makiki	Cattle Pen; <i>kula</i> ; area enclosed by a wall; inside were two houses built in 1826	1.73
1423		Z. Kaauwai	From Kamehameha III	Kauhikio	'Ili kupono, mo' o aina; kalo, fishpond	5.72
1447	4432	Kahue	From Kane in 1843	Hamohamo	2 'apana; houselot and 1 lo'i	0.39
2900	4310	T. Kaoi		Pawa'a	Houselot	0.42
3135	6924	James Walker	From Nauia, in 1829	Pawa'a	1 'apana, three houses on <i>kula</i> land	1.15
3727		Manuwai	From Meleana in 1828	Pawa'a	house lot	
3746B	3863	Nahina	From La'au, got from 'I'i in time of Ka'ahumanu	Kupahee (Maunalaha Stream)	1 'apana; mo' o' aina; kalo	0.66

LCA #	Royal Patent #	Claimant	Land came from:	Land Name	Land Claimed	Acres
4263B		Kaaiahua (or Kaahanahua)	From 'I'i during the time of Kina'u	Kanealole	Entire valley, <i>kalo</i>	0.61
4279B	5463	Ia		Pawa'a (along Kanealole Stream)	1 'apana	0.40
4283C	7410	Moo	Got land from 'I'i	Poohukini	'Ili'aina, mo'o'aina; <i>kalo</i>	0.56
4285B	3830	Mokuhanui	Land from father; land from 'I'i in time of Kina'u	Manu, Makiki (lower Moleka Stream)	'houseslot and taro land; <i>Ili'aina, mo'o'aina; kalo</i>	0.67
6486		Keohoaeae	Given to Maalo by Kina'u in time of Kaomi	Pawa'a-kai	<i>Lo'i, kula</i>	0.77
6489	4519	M. Kaihiwa	Land received from the king	Kauhikio	Four 'apana; <i>kalo, kula; 'ili kupo</i>	73.80
8241		John 'I'i		Pawa'a	1 'apana	2.59
8241	5704	John 'I'i	From Kamehameha after battle of Nu'uano	'ili of Pawa'a	5 'apana	250.80
10162	2270	Moku	Wife's 1 st husband who got it from his parent	Makiki	Houseslot (<i>kula</i>) and <i>kalo</i>	0.56
11018	3690	Wahine	From M. Kekuanaoa in the time of Kaom's disturbance	Pawa'a	Houseslot with two houses	0.42

Table 2. Original Government land owners

Grant #	Grantee	Locality	Date
153	E.W. Clark	Pawa'a, west of Punahou	1849
177	P.J. Gulick	Pawa'a, King & Beretania Sts.	1849
387	John Cummins	Pawa'a, King St.	1850
500	H.M. Whitney	Kulaokau'a, Beretania St.	1851
1290	W. Miller	Malookohana & Paaweueu	1854
1676	C.R. Bishop	Kaaihe'e	1855
2011	R Kelly	Pawa'a	1856
2057	R. Keanui	Kaiwiokaihu, Pawa'a, King St.	1856
2341	W. Miller	Malookohana, King St.	1857
2364	John 'I'i	Pawa'a (same as LCA #8441), Waikiki St.	1857
2365	G.P. Judd	Pawa'a (same as LCA#8534), King St.	1857
2609	Kahula	Pawa'a o Ma'alo, King St.	1859
2616	John 'I'i	Pawa'a o Ma'alo, Waikiki St.	1859
2745	Thomas Cummins	Pawa'a o Ma'alo, King St.	1861
2788	L. Kamehameha	Kaihuokapu'a (the snout of the pig) (31 acres), Makiki Valey	1861
2790	L. Kamehameha	Kalia (seashore)	1961
2870	L. McCully	Pawa'a, King St.	1862
3106	W.R. Seal	Kinau St.	1872

In 1901, the U.S. Congress passed an appropriation to establish an agricultural station on O'ahu for the study of agricultural produce (excluding sugar cane). A plot in the tract called Kewalo uka was originally chosen, but was later instead used for a Marine Hospital. The next tract chosen was 154 acres on the eastern slope of Punchbowl to the southern slopes of Tantalus. Sixty-two acres were reserved for a stone quarry and a public park. This park later became Makiki Cemetery. In 1904, upper Makiki Valley was acquired by the Division of Forestry for their reforestation program. They built a concrete dam midway along Kanealole Stream, which created a small reservoir and constructed a plant nursery at the *mauka* end of the access road. The Makiki State Recreation Area was established in 1957 as part of the Makiki-Tantalus State Park. This recreation area includes a wayside park along Makiki Street and the upper valley area from the wayside park on the *makai* end to Pu'u 'Ohia (Tantalus) on the *mauka* border. 'Ualaka'a State Park, located on the Maunalaaha side of Makiki Valley, is also part of the Makiki-Tantalus State Park.

A 1922 Fire Control Map (Figure 5) shows the development of roads and residential areas in the early 20th century. By 1928, the old road alignment along the eastern slope of Punchbowl was gone, and construction of the *makai* portion of 'Auwaiolimu Street has started. In 1932, Roosevelt High school was opened, and 'Auwaiolimu Street was completed to Anianiku Street. A 1943 USGS map (Figure 6) indicates that 'Auwaiolimu Street had been completed to the Puowaina-Tantalus junction. The major difference shown between the 1922 and 1945 maps is the density of residences on both old and new roads. After World War II, there was substantial development of Punchbowl and in the valley east of the crater to 'Auwaiolimu Street. The National Memorial Cemetery of the Pacific opened at Punchbowl in 1949. In 1952, Stevenson Middle School opened, while Lincoln Elementary School opened in 1956. In 2000, the population of the area encompassing Makiki, Lower Punchbowl, and Tantalus was 30,145 people (City and Co. of Honolulu 2000).

2.5 Historic Documentation of the Project Area

Historic records and maps document land use within the vicinity of the present project area from the second half of the 19th century to the 1950s.

Two mid-19th century Land Commission Award parcels were recorded in Pawa'a immediately adjacent to the project area: LCA 3135 to James Walker and LCA 3727 to Manuwai (see Figure 2 above). Mahele documents for LCA 3135 identify the parcel as the site of three houses on *kula* land. Documents for LCA 3727 identify the parcel as a house lot and also mention a "cow corral" nearby (Native Testimony vol. 3, pg 667). These documents suggest that the portion of Pawa'a that includes the present project area was a dryland environment supporting habitation sites and dryland agriculture set above surrounding marshlands that characterized the plain of Honolulu in traditional Hawaiian times.

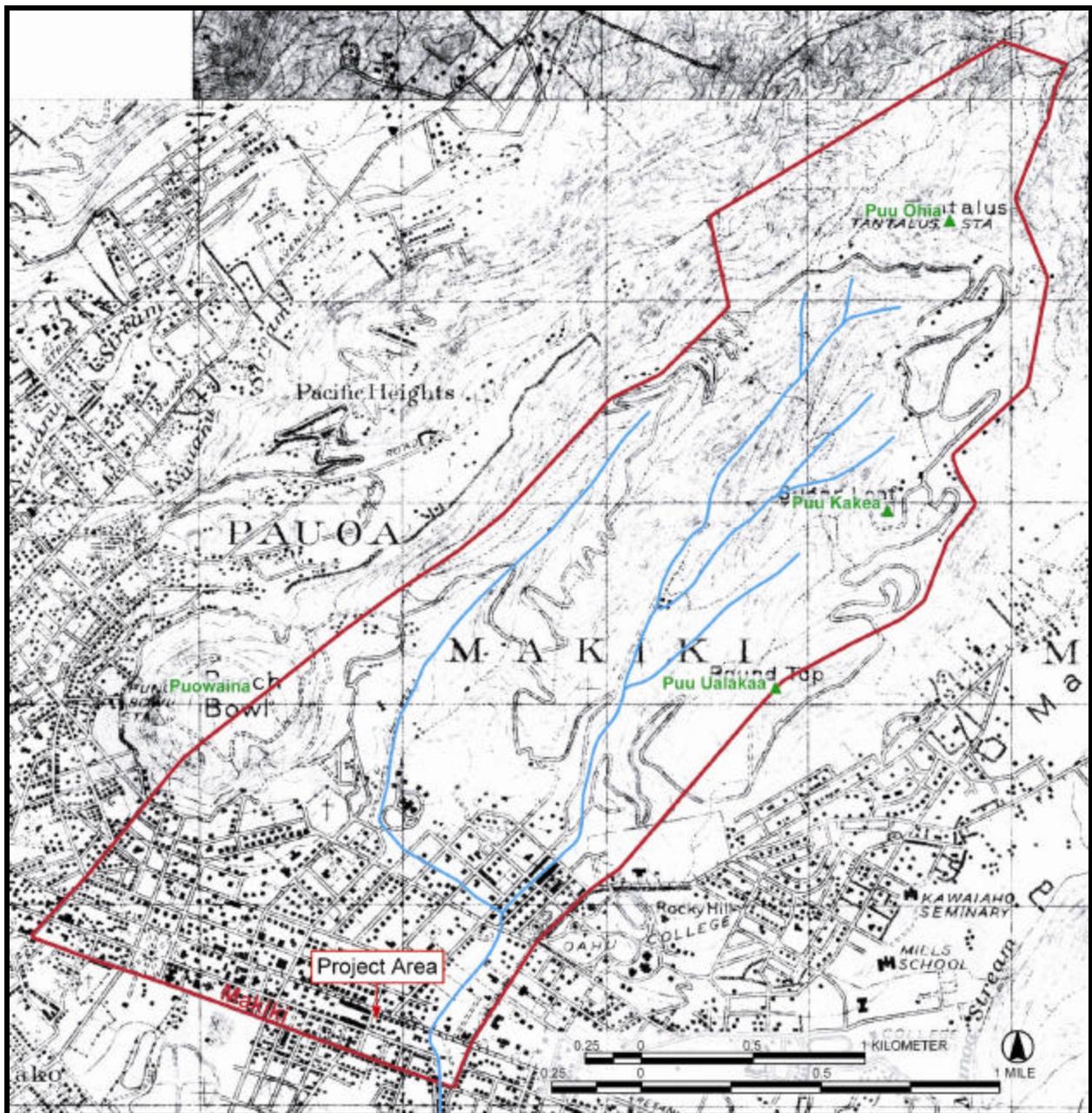


Figure 5 1922 USGS Topographic Map with Makiki Ahupua'a boundary in red showing project area location

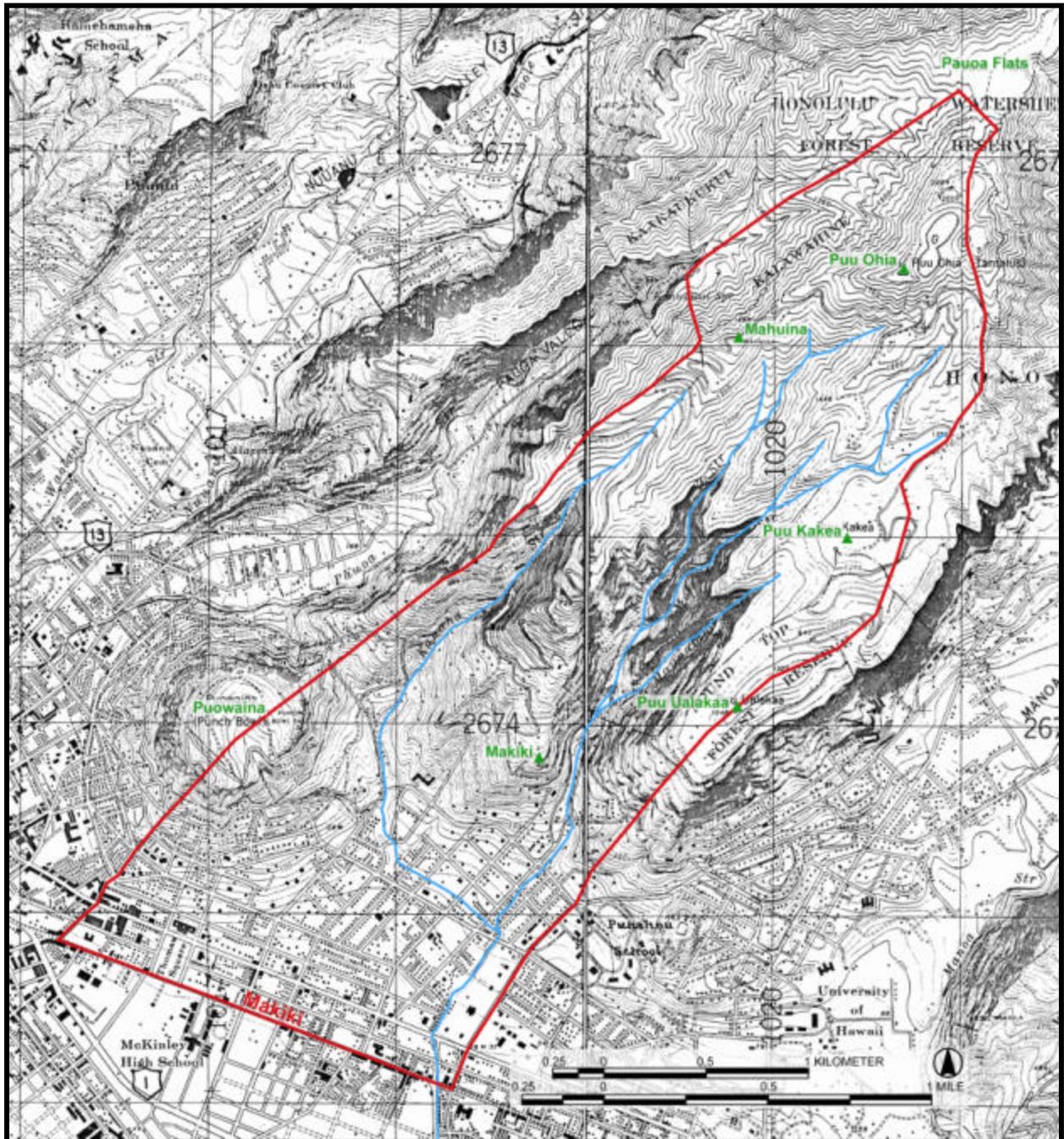


Figure 6 1943 USGS Topographic Map with boundary of Makiki Ahupua'a in red

By the end of the 19th century and the first decades of the 20th century the project area was incorporated among the grid of streets laid out as the city of Honolulu expanded east across the Honolulu plain. Figure 5 shows the alignments of the present Beretania Street, Ke'eaumoku Street, and Young Street bounding the project area. The project area itself is indicated to contain buildings, most likely wood dwelling structures.

A 1951 fire insurance map shows that the project area, by the mid-20th century, contained multiple single-story dwelling structures (Figure 7). These structures were subsequently demolished and the project area parcel was utilized as a parking area before its present use as the Emergency Medical Services facility.

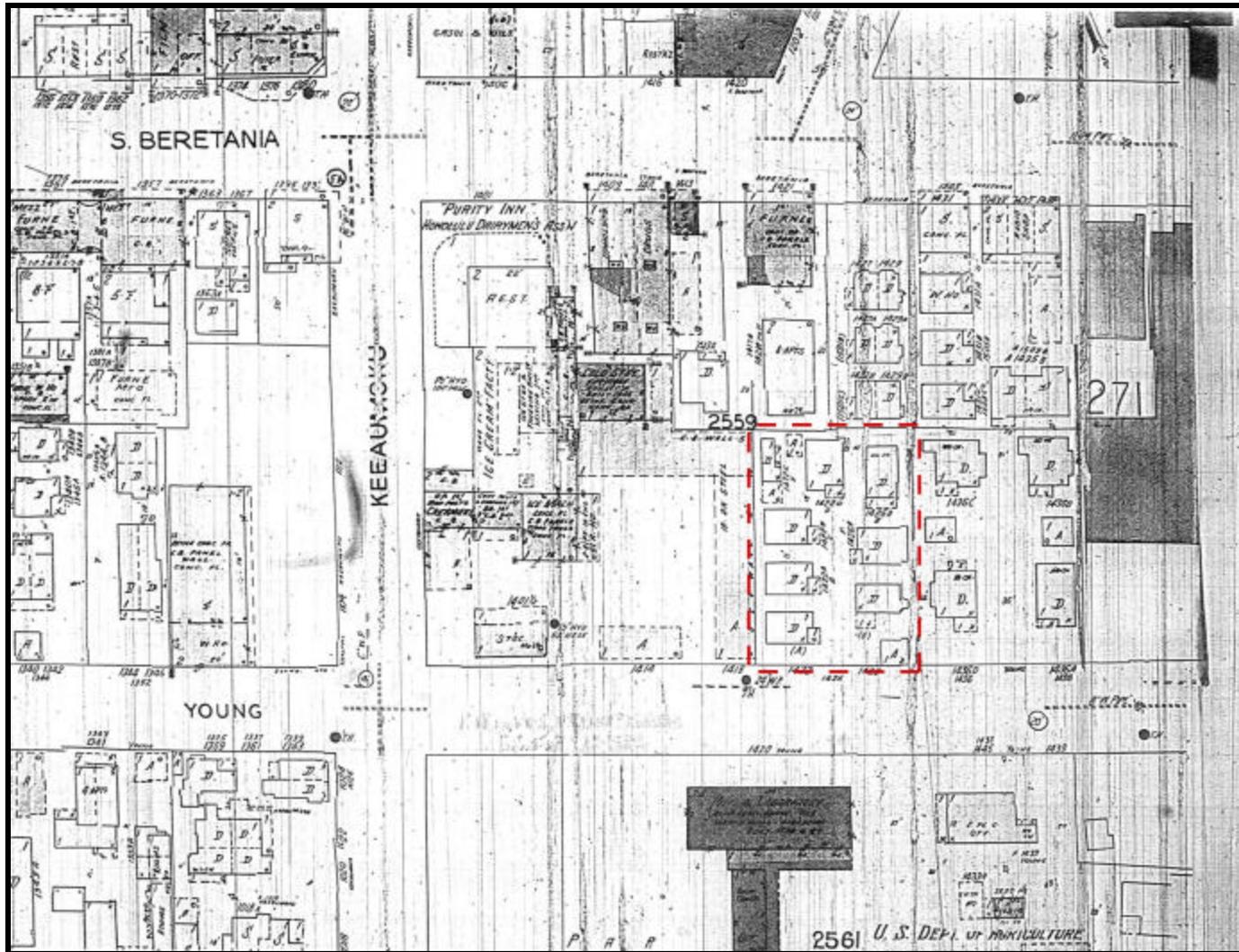


Figure 7 1951 fire insurance map showing project area (in red outline)

Section 3 Previous Archaeological Research

A review of archaeological literature in the library of the State Historic Preservation Division indicates that no inventory-level archaeological study has been conducted within the present project area.

Previous archaeological research in Makiki Ahupua'a has been concentrated in the valley areas along Kanealole and Moleka Streams. The only systematic archaeological survey in the Makiki Valley area was conducted by Martha Yent and Jason Ota (1980). Five areas along Kanealole and Moleka Streams were surveyed, identifying a variety of pre-contact and historic sites including agricultural terraces, rock walls, rock shelters, a walled enclosure, a historic house site and carriage road, and retaining walls. Twenty-seven features were identified during this survey, all subsumed under one site number.

Martha Yent (1982) carried out an archaeological inspection of a short nature trail along Kanealole Stream for the Makiki Environmental Education Center, noting an old carriage road, an associated retaining wall and a c. 1950s pig pen, and a historic series of terraces and planting holes associated with a former residence.

Carol Kawachi (1988) investigated terrace facings/retaining walls in a hairpin turn of Round Top Drive, concluding they were primarily modern modifications.

Alan Carpenter and Martha Yent (1994) carried out an informal survey on Pu'u 'Ualaka'a and the Makiki Valley. A rock shelter (50-80-14-4668) above an agricultural field system near Moleka Stream, and a series of at least nine terraces (Site 50-80-14-4866) were recorded in Makiki Valley. No sites were found on Pu'u 'Ualaka'a.

Kolb et al. (1993) conducted an archaeological inventory survey of Kalawahine *ili* on the lower slopes of Tantalus ridge, between Tantalus Drive and Kalawahine Place. This pedestrian survey of the 12-acre Kalawahine parcel led to the identification of five different sites comprised of 38 features. Site 50-80-14-4434 is a terrace cluster with multiple features. Site -4443 is a double-faced terrace and -4444 is a near by paved oval area. Site -4445 is a modern dump area with an historic terrace, Site -4446.

Alan Carpenter and Martha Yent (1994) carried out an archaeological survey of ca. 90 acres of Pu'u Ualaka'a State Wayside and a discrete 3,000-foot long strip of Makiki Valley State Recreation Area. The only sites observed in the Pu'u 'Ualaka'a State Wayside transects were an old carriage road and remnants of a flume used to transport harvested macadamia nuts.

Ian Masterson and Hallett H. Hammatt (1999) conducted an archaeological inventory survey of the Kalawahine reservoir site on the hillside east of the dry streambed known as Kahawai o ka Po'opo'o. One site was recorded during the survey. Site 50-80-14-5732 is a retaining wall of 20th century construction, used for historic agriculture and erosion control.

Ralston Nagata (1999) conducted a field investigation of a cart road remnant in the Forest Reserve near the Makiki Valley State Recreation Area down near Kanealole Stream. The cart road and associated features were related to J. M. Herring, who purchased several parcels in the vicinity between 1864 and 1876 and established a coffee plantation.

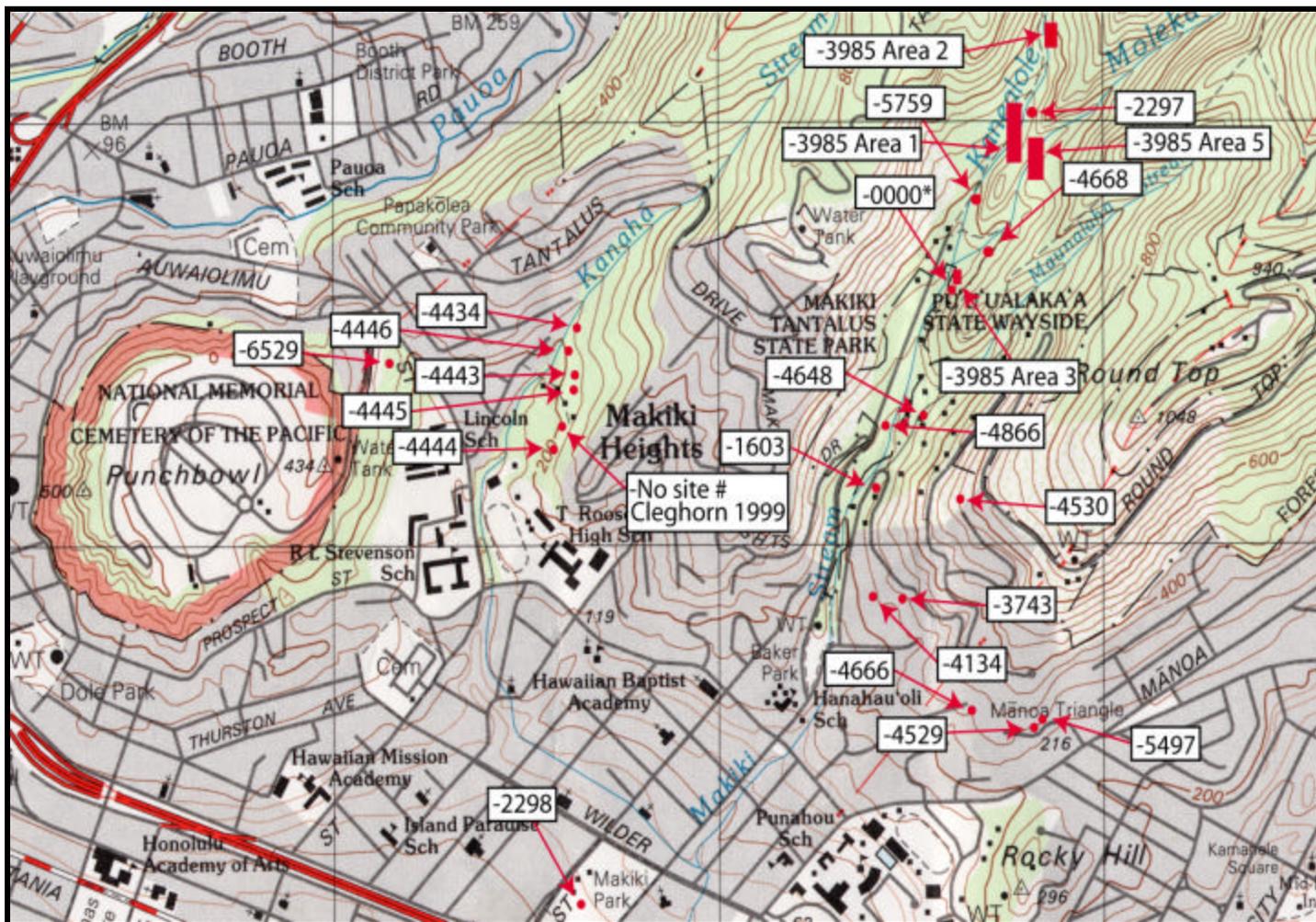


Figure 8. Portion of the USGS Topographic Map, Honolulu Quadrangle, showing archaeological sites listed in Tables 3 and 4

Table 3. Summary of archaeological studies in Makiki Ahupua'a

Reference	Type of Investigation	General Location	Findings
McCoy 1971	Memo: Burial Report	Makiki Valley Burial Shelter	Letter report on field inspection of Makiki Valley burial shelter (Site -2297).
Sterling and Summers 1978	Sites of O'ahu	Makiki	Listing of sites, legends, and land descriptions from various sources, p. 290.
Sinoto 1979	Burial Report	Makiki	Two burials (Site -2298) found at Makiki Hawaiian Sugar Planters Association Experiment Station.
Yent and Ota 1980	Archaeological Field Survey	Makiki Valley, the Kanealolo Stream and Moleka Stream systems	Sites reflect traditional settlement/subsistence pattern, agricultural fields along streams, some rock-shelter habitation. Further testing and mapping recommended to determine significance of 2 types of cultural resources: historic features along Moleka stream associated with Herring occupation of the late 1800's, agricultural features. Thirty-seven individual features recorded in one site (Site -3985).
Yent 1982	Archaeological Inspection	Makiki-Tantalus State Park	No findings during inspection of a short nature trail for the Makiki Environmental Education Center.
Bath and Smith 1988	Burial Removal Report	2034 Round Top Terrace	Inadvertent discovery of human remains (Site -3743).
Kawachi 1988	Field check	2182 Round Top Drive	No sites found.
Bath 1989	Burial Call Report	2030A Makiki St.	Inadvertent discovery of at least three individual burials (Site -4134).
Fitzpatrick 1989	History Graduate Thesis	Makiki	History of people and land in mid-19th century Makiki, includes geographical boundaries, land claims and grants.
Kawachi 1991	Memo: Unmarked Burial Under House	2123 Round Top Drive	Unmarked burial (Site -1603) found under house; skeletal remains were left in place (June 1991).

Reference	Type of Investigation	General Location	Findings
Hurst and Cleghorn 1992a	Historical Literature and Documents Search	Proposed Pawa'a Redevelopment Project	Backhoe-assisted test trenches recommended in 'ewa and Diamond Head sections to determine archaeological resources.
Hurst and Cleghorn 1992b	Addendum to Historical Literature and Documents Search	Proposed Pawa'a Redevelopment Project	Archaeological testing recommended in interior of southern area, potential cultural deposits from housing developments from mid-1800s to turn of century.
Kawachi 1992a	Burial Recovery Report	'Aina Lani Place, Round Top	Human skeletal remains found (Site 4530), see Pietrusewsky 1992c for Osteology Report.
Kawachi 1992b	Burial Report	Judd Hillside	Human skeletal remains found (Site -4529), see Pietrusewsky 1992b for Osteology Report.
Pietrusewsky 1992a	Osteology Report	Round Top: 2316 Maunalaha Road	A human skeleton found (Site -4648) at 2316 Maunalaha Road, Honolulu, O'ahu. No archaeology report found (Nov. 4, 1993).
Pietrusewsky 1992b	Osteology Report	1908 Judd-Hillside Road	Human skeletal remains found (Site -4529), see Kawachi 1992b for Archaeology Report.
Pietrusewsky 1992c	Osteology Report	'Aina Lani Place, Round Top	Human skeletal remains found (Site -4530), see Kawachi 1992a for Archaeology Report.
Dagher 1993	Burial Report	2048B 'Ualaka'a Street	Inadvertent discovery of human skeletal remains (Site -4666); reburied in same area.
Kolb et al. 1993	Inventory Survey	Kalawahine 'Ili	Very limited or no habitation prior to A.D. 1900 within the project area was found. A total of five sites (Sites 4434, 4443-4446) and 38 features, mainly agricultural, were recorded.
Carpenter and Yent 1994	Archaeological Survey	Proposed state park areas in Makiki valley and Pu'u 'Ualaka'a	Remnant agricultural terraces (Site -4866) should be preserved, 2 test trenches dug, no pond soils in Makiki State Rec. Area, no archaeological sites in Pu'u 'Ualaka'a area. C14 dates. A rock shelter (Site -4688) was tested.

Reference	Type of Investigation	General Location	Findings
Chiogioji 1997	Archaeological Assessment, Map	5 Zones, Zone 1 consists of Makiki area <i>makai</i> of Punahou school	Post-1850 urban expansion area, historic-era subsurface layers and possible scattered burials could be encountered, few known instances to date.
Jourdane 1997	Burial Report	1908 Judd-Hillside Road	Inadvertent discovery of skeletal remains (Site -5497) at Wo/Sullivan House construction. Skeletal remains are of undetermined age and ethnicity, further excavation and documentation needed.
Hammatt and Chiogioji 1998	Archaeological Assessment	2.4 km portion of H-1- from Punahou St. to Vineyard Blvd.	No further archaeological investigation is recommended.
Cleghorn 1999	New Site Report	Kalawahine Stream	Newly discovered cave at the Kalawahine Streamside Project; contained recent historic material; possible that there are buried cultural deposits. Cave was sealed. No site number was assigned.
Masterson and Hammatt 1999	Inventory Survey	Kalawahine Reservoir Site	One retaining wall, 20th century, of large boulders in SE corner of project area; no longer significant.
Nagata 1999	Evaluation, Mapping and Site Description	Carriage road within Honolulu Watershed Forest Reserve	Recommend that Na Ala Hele's proposal to utilize existing historic carriage road, (Site -5759), constructed circa 1870, for trail use be approved.
Hammatt et al. 2002	Archaeological Assessment	Tantalus: Kala'i'opua Place Road	In support of the Kala'iopua Place Road Improvements Project- concluded no permanent habitation in traditional Hawaiian times, forest resources and access will not be significantly impacted.
Rohrer et al. 2003	Archaeological Assessment	Makiki Board of Water Supply Reservoir Site	One historic road alignment and house foundation (Site - 6529) was recorded; no further archaeological work recommended.

Table 4. List of previously documented archaeological sites in Makiki Ahupua'a

Site 50-80 -14-#	Brief Description	TMK #	Source
No site #	Cave site with modern use	2-4-34	Cleghorn (1999)
0000*	Series of terraces, and 2 stone-lined planting holes	2-5-19:08	Yent (1982)
1603	Unmarked burial under house	2-5-07:39	Kawachi (1991)
2297	Burial shelter, with flexed, historic burial	2-5-19:08	McCoy (1971)
2298	2 early historic period burials	2-4-22:01	Sinoto (1979)
3743	Ancient Hawaiian burial	2-5-07:43	Bath & Smith (1988)
4134	At least 3 ancient Hawaiian burials	2-5-07:07	Bath (1989)
4434	Contains 19 terraces, 2 rock shelters, 3 depressions, 5 alignments, 2 stone mounds, and 1 dump	2-4-34:08	Kolb et al. (1993)
4443	Contains 3 poorly constructed terraces	2-4-34:08	Kolb et al. (1993)
4444	Oval shaped paved area with alignment	2-4-34:08	Kolb et al. (1993)
4445	Modern dump	2-4-34:08	Kolb et al. (1993)
4446	Terrace	2-4-34:08	Kolb et al. (1993)
4529	Hawaiian burial	2-5-04:44	Kawachi (1992b) Pietrusewsky (1992b)
4530	Hawaiian burial	2-5-05:08	Kawachi (1992a) Pietrusewsky (1992c)
4648	Historic Hawaiian burial	2-5-24:24	Pietrusewsky (1992a)
4666	Burial eroding out of hillside	2-5-03:14	Dagher (1993)
4668	Rock Shelter	2-5-19:08	Carpenter & Yent (1994)
4866	Series of large terraces, at least 9	2-5-20:07	Carpenter & Yent (1994)
5497	Burial with possible burial pit	2-5-04:10	Jourdane (1997)
5759	Old carriage road and bridge remnants	2-5-19:08	Nagata (1999)
6529	Historic road alignment and house foundation	2-2-05:35	Roher et al. (2003)
3985	27 individual features, see list below	2-5-19:08	Yent & Ota (1980)
Fea. 1A	T-shaped retaining wall, 50 meters long	2-5-19:08	Yent & Ota (1980)
Fea. 1B	Agricultural complex of at least 3 low terraces	2-5-19:08	Yent & Ota (1980)
Fea. 1C	A complex of at least 7 terraces 70-80cm high and an associated semi-circular walled feature	2-5-19:08	Yent & Ota (1980)
Fea. 1D	Wooden water tank	2-5-19:08	Yent & Ota (1980)
Fea. 1E	Complex of at least 4 terraces & a rockshelter	2-5-19:08	Yent & Ota (1980)
Fea. 1F	Historic retaining wall	2-5-19:08	Yent & Ota (1980)

Site 50-80 -14-#	Brief Description	TMK #	Source
Fea. 1G	Agricultural complex of terraces and ditches	2-5-19:08	Yent & Ota (1980)
Fea. 2A	2 terraces	2-5-19:08	Yent & Ota (1980)
Fea. 2B	2 parallel rock walls	2-5-19:08	Yent & Ota (1980)
Fea. 2C	Rockshelter	2-5-19:08	Yent & Ota (1980)
Fea. 3A, same as – 0000*	2 low retaining walls	2-5-19:08	Yent & Ota (1980)
Fea. 3B, same as – 0000*	2 rock-lined planting holes	2-5-19:08	Yent & Ota (1980)
Fea. 5A	Complex of 3 terraces	2-5-19:08	Yent & Ota (1980)
Fea. 5B, same as - 5759	Old carriage road	2-5-19:08	Yent & Ota (1980)
Fea. 5C, same as – 5759	Old carriage road continued	2-5-19:08	Yent & Ota (1980)
Fea. 5D	2 parallel terraces	2-5-19:08	Yent & Ota (1980)
Fea. 5E	Rock-lined pit	2-5-19:08	Yent & Ota (1980)
Fea. 5F	Taro lo'i (terrace)	2-5-19:08	Yent & Ota (1980)
Fea. 5G	Coffee grove	2-5-19:08	Yent & Ota (1980)
Fea. 5H	Series of at least 5 stairs, or very steep terraces	2-5-19:08	Yent & Ota (1980)
Fea. 5I	Circular platform	2-5-19:08	Yent & Ota (1980)
Fea. 5J	4 terraces	2-5-19:08	Yent & Ota (1980)
Fea. 5K	Walled enclosure	2-5-19:08	Yent & Ota (1980)
Fea. 5L	2 walled depressions	2-5-19:08	Yent & Ota (1980)
Fea. 5M	Dump site	2-5-19:08	Yent & Ota (1980)
Fea. 5N	Proposed Herring Residence	2-5-19:08	Yent & Ota (1980)
Fea. 5O	Complex of terraces	2-5-19:08	Yent & Ota (1980)

*No site # listed in report, but listed as 50-80-14-0000 in SHPD database

Hammatt et al. (2002) conducted a field investigation of Kala'i'opua Place located on the north-facing slope near the junction of Tantalus Drive and Round Top Drive. No significant artifacts, features, or sites were observed.

Rohrer et al. (2003) carried out a pedestrian inspection of the entire slope area extending below Puowaina Drive on the northeast slope of Punchbowl. A single site (50-80-14-6529) consisting of two features was located within the project area. Site 50-80-14-6529 includes an historic roadbed and associated retaining wall segments as well as the remains of the foundation of an early twentieth century residence.

A number of burials have also been inadvertently found within Makiki Valley, including skeletons in burial caves (McCoy 1971), at least eight burials found under roads and houses on Round Top (Bath and Smith 1988; Bath 1989; Kawachi 1991; Kawachi 1992a, Pietrusewsky 1992a; Pietrusewsky 1992c), two from Makiki Park (Sinoto 1979), and three on the Makiki/Manoa boundary (Jourdan 1997; Kawachi 1992b; Pietrusewsky 1992b; Dagher 1993). Historic sites, such as a old carriage road (Nagata 1999), and an historic road (Rohrer et al. 2003) have also been recorded.

Section 4 Field Inspection Findings

The field inspection of the project area at 1426 Young Street was conducted on December 4, 2005 by Rodney Chiogioji under the general supervision of Hallett H. Hammatt, Ph.D. The inspection was carried out under archaeological permit number 0508 issued by the Hawai'i State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR).

All portions of the project area were accessible to visual inspection and were documented by field notes and photographs.

As noted in the Introduction above, existing use of the project area is on-grade parking and temporary offices in trailers for the Emergency Medical Service (EMS). Inspection of project area confirmed the presence of these features (Figures 9-12). The asphalt pavement appears to cover the entire 1426 Young Street parcel.

None of the dwelling structures indicated on the 1951 fire insurance map (see Figure *) above are present within the project area.

No surface historic properties of archaeological concern were observed in any portion of the project area.



Figure 9. View to north from Young Street showing trailers, vehicles, and asphalt paving in project area



Figure 10. View to north showing asphalt pavement covering entire project area



Figure 11. View to west showing ambulances parked in project area



Figure 12. View to west showing trailers in project area

Section 5 Summary and Recommendations

Early western visitors to Hawai'i characterize the land stretching between Waikiki and what is now downtown Honolulu as a vast plain comprising ponds, marshlands, trails connecting Honolulu and Waikiki, and occasional taro *lo'i* and habitation sites.

Mid 19th-century Mahele records suggest that the portion of Pawa'a that includes the present project area was a dryland environment supporting habitation sites and dryland agriculture set above surrounding marshlands and taro *lo'i* of the Honolulu plain in traditional Hawaiian times.

Historic maps of the late 19th century and early 20th century indicate that the Pawa'a lands were among the first to be urbanized by the grid of streets laid out as the city of Honolulu expanded eastward across the Honolulu plain. By the 1920s, the alignments of the present Beretania Street, Ke'eaumoku Street, and Young Street bounded the project area. The project area itself is shown on maps to contain buildings, most likely wood dwelling structures.

By the mid-20th century, the project area contained multiple single-story dwelling structures. These structures were subsequently demolished and the project area parcel was utilized as a parking area before its present use as the Emergency Medical Services facility.

Field inspection on December 4, 2005 indicated that the project area is entirely asphalt paved and accommodates trailers, ambulances, and other vehicles. No historic properties associated with traditional Hawaiian culture were observed on any portion of the project area.

Based on the above documentation and findings, it is recommended that no further archaeological investigation is warranted for the project area.

It should be noted, however, that subsurface properties associated with former traditional Hawaiian activities in the project area, such as artifacts and cultural layers, may be present despite the decades of urban development in Honolulu. As a precautionary measure, personnel involved in future development activities in the project area should be informed of the possibility of inadvertent cultural finds, and should be made aware of the appropriate notification measures to follow (including consultation with the State Historic Preservation Division and, as may be appropriate, with O'ahu community cultural organizations).

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Exhibit 4
Agency Responses

Environmental Assessment

EMS Young Street Facility
TMK: 2-4-005: 023
1426 Young Street, Honolulu, O`ahu

LINDA LINGLE
Governor



SANDRA LEE KUNIMOTO
Chairperson, Board of Agriculture

DUANE K. OKAMOTO
Deputy to the Chairperson

State of Hawaii
DEPARTMENT OF AGRICULTURE
1428 South King Street
Honolulu, Hawaii 96814-2512
Phone: (808) 973-9600 Fax: (808) 973-9613

November 30, 2005

Mr. Roland Libby, AIA
Principal
AM Partners, Inc.
1100 Alakea Street
Suite 800
Honolulu, Hawaii 96813

Dear Mr. Libby:

Subject: City and County of Honolulu
Emergency Medical Service Young Street Facility

Thank you for the opportunity to comment on the subject project. The Department of Agriculture (HDOA) requests that the following issues be addressed in the environmental assessment - increased cost of maintaining equipment, possible structural damage to the HDOA Young Street building itself, and maintaining existing on-street parking. Specifically:

1. Reducing to a minimum, fugitive demolition/construction dust and debris that may cause the premature replacement of expensive HEPA filters in the Plant Pathology Laboratory, and increase cleaning of laboratory equipment such as microscopes.
2. Assessing the possibility of structural damage to the HDOA Young Street building and Plant Pathology Laboratory's underground water holding tank and frequent recalibration of sensitive scales and gauges because of excessive ground vibration due to demolition/construction activity.



Mr. Roland Libby, AIA
November 30, 2005
Page -2-

3. Retaining existing metered parking along the makai side of Young Street for visitors to the Department. These meters are situated between Keeaumoku Street and the gate to the Department's garage.

Should you have any questions, please contact Earl Yamamoto at 973-9466, or email at earl.j.yamamoto@hawaii.gov.

Sincerely,



Sandra Lee Kunimoto
Chairperson, Board of Agriculture



DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
ACTING DEPUTY DIRECTOR

Strategic Industries Division

235 South Beretania Street, Leiopapa A Kamehameha Bldg., 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt/ert

Telephone: (808) 587-3807
Fax: (808) 587-3820

December 7, 2005

Mr. Roland Libby, AIA
Principal
AM Partners, Inc.
1100 Alakea St., Suite 800
Honolulu, Hawaii 96813

Dear Mr. Libby:

Re: Letter of Consultation
Emergency Medical Service (EMS) Young Street Facility, Oahu

Your November 16, 2005, letter asked for comments on the Draft Environmental Assessment for the Emergency Medical Service (EMS) Young Street Facility by November 30, 2005. As we explained in a phone message, it was not possible for us to meet this deadline, and we are submitting our comments late. Thank you for the opportunity to comment on this two-structure facility which will provide a 5,400 square foot, two-story building housing two ambulance units, a District Chief facility and conference room and 10 parking stalls. We would like to call your attention to: (1) State energy conservation goals, (2) energy saving design practices and technologies, and (3) recycling and recycled-content products.

1. **State energy conservation goals.** Project buildings, activities, and site grounds should be designed with energy saving considerations. The mandate for such consideration is found in Chapter 344, HRS ("State Environmental Policy") and Chapter 226 ("Hawaii State Planning Act"). In particular, we would like to call to your attention HRS 226 18(c)(4) which includes a State objective of promoting all cost-effective energy conservation through adoption of energy-efficient practices and technologies.

We recommend that you consider the City & County of Honolulu Energy Code early on in your project.

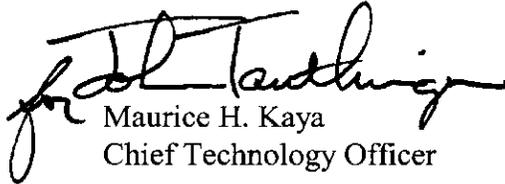
Mr. Roland Libby
December 7, 2005
Page 2

2. **Energy saving design practices and technologies.** We recommend that energy efficient design practices and technologies be specifically addressed. Energy efficiency is improved with effective building location, orientation and massing, and the placement of vegetation for shade or wind protection. Some of the methods and technologies that could be considered, as appropriate, include:
 - Minimize east- and west-facing glass;
 - Use natural ventilation to increase comfort of occupants;
 - Maximize use of natural lighting without heat gain;
 - Use high efficiency compact fluorescent lighting;
 - Use insulation/radiant barrier for an equivalent R-19 value in ceiling; use ceiling fans;
 - Use solar water heating; and
 - Use landscaping for dust control and to minimize heat gain to area.

3. **Recycling and recycled-content products.**
 - Develop a job-site recycling plan for construction and recycle as much construction and demolition waste as possible;
 - Incorporate provisions for recycling into the project – a collection system and space for bins for recyclables; and
 - Specify and use products with recycled content such as steel, concrete aggregate fill, drywall, carpet and glass tile.

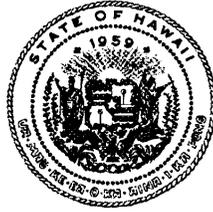
If you need clarification of any of the above, please do not hesitate to contact me.

Sincerely,



Maurice H. Kaya
Chief Technology Officer

LINDA LINGLE
GOVERNOR OF HAWAII



RECEIVED

FEB 1 2006

AM Partners Inc.

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING 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

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

January 25, 2006

Mr. Roland Libby, AIA
AM Partners, Inc.
1100 Alakea Street, Suite 800
Honolulu, Hawai'i 96813

LOG NO: 2006.0104
DOC NO: 0601CM18
Archaeology

Dear Mr. Libby:

**SUBJECT: Chapter 6E-42 Historic Preservation Review –
Letter of Consultation—Draft Environmental Assessment (DEA)
Emergency Medical Service (EMS) Young Street Facility
Honolulu Ahupua'a, Honolulu (Kona) District, Island of O'ahu
TMK (1) 2-4-005:023**

Thank you for the opportunity to review and comment on the aforementioned project, which consists of the development of a Draft Environmental Assessment (DEA) for the construction of a new, 2-story building. We received your request on November, 18, 2005, and apologize for the long response time.

We have one specific concern, which should be addressed in your DEA. Based on the documents provided, it is not possible to assess the extent and depth of subsurface excavation. Assuming that the construction of the new building does, in fact, include subsurface excavation, you will have to address this issue. As you may know, significant subsurface cultural and historic resources, including human remains and burials, have been documented throughout Honolulu. If you have any specific information as to why your project will not pose a potential threat to previously-undisturbed sediments in the proposed project area (e.g., documented depth of fill sediments exceeds anticipated depth of subsurface excavation), it would be advisable to include these observations in your report.

We look forward to the opportunity to review the DEA. If you have any questions, please call Dr. Chris Monahan at 808-692-8015.

Aloha,

A handwritten signature in cursive script, appearing to read "Melanie Chinen".

Melanie Chinen, Administrator
State Historic Preservation Division

CM:dlb

DEPARTMENT OF FACILITY MAINTENANCE

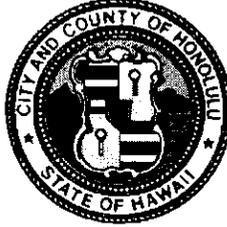
CITY AND COUNTY OF HONOLULU

1000 ULUOHIA STREET, SUITE 215, KAPOLEI, HAWAII 96707

TELEPHONE: (808) 692-5054 FAX: (808) 692-5857

Website: www.honolulu.gov

MUFI HANNEMANN
MAYOR



LAVERNE HIGA, P.E.
DIRECTOR AND CHIEF ENGINEER

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 05-1127

November 28, 2005

Mr. Roland Libby, AIA
AM Partners, Inc.
1100 Alakea Street, Suite 800
Honolulu, Hawaii 96813

Dear Mr. Libby:

Subject: **Letter of Consultation**
Emergency Medical Service (EMS) Young Street Facility

Thank you for consulting with the Department of Facility Maintenance regarding the subject facility.

We have no comments at the present time; however, please keep us informed as the project proceeds.

Should you need further information, please contact Larry Leopardi, Chief of the Division of Road Maintenance, at 484-7600.

Very truly yours,

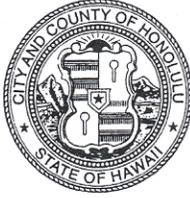
A handwritten signature in cursive script that reads "Laverne Higa".

LAVERNE HIGA, P.E.
Director and Chief Engineer

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4432 • FAX: (808) 527-6743
DEPT. INTERNET: www.honolulu.gov • INTERNET: www.honolulu.gov

MUFI HANNEMANN
MAYOR



HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

2005/ELOG-2679

December 6, 2005

Mr. Roland Libby, AIA
Principal
AM Partners, Inc.
1100 Alakea Street, Suite 800
Honolulu, Hawaii 96813

Dear Mr. Libby:

Re: Letter of Consultation
Emergency Medical Services (EMS) Young Street Facility

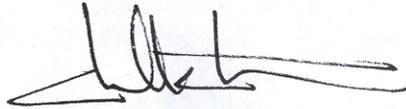
In response to your request for comments of November 16, 2005, regarding the preparation of the Draft Environmental Assessment (DEA) for the subject project, we have no major comments at this time.

1. The DEA should discuss the following:
 - a. Consistency with the objectives and policies of the City and County of Honolulu's General Plan.
 - b. Consistency with the policies and guidelines of the Primary Urban Center Development Plan.
 - c. Consistency with the surrounding zoning.
2. The DEA should also include a listing of land use permits and approvals required.
3. With regard to infrastructure (transportation, water, wastewater and drainage) systems, the DEA should include discussions on the adequacy of existing public facilities and services, and the necessity for new public facilities and services, to support the new two-story, 5,400 square-foot facility.
4. We are processing a Public Infrastructure Map amendment for this project.

Mr. Roland Libby, AIA
Principal
AM Partners, Inc.
December 6, 2005
Page 2

We look forward to reviewing the DEA. Should you have any questions, please call Matt Higashida of our staff at 527-6056.

Very truly yours,


for Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:js

cc: Curtis Kushimaejo, Department of Design and Construction
Rose Cruz Churma

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POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111
<http://www.honolulu.org>
<http://www.honolulupd.org>
www.honolulu.gov

MUFI HANNEMANN
MAYOR



BOISSE P. CORREA
CHIEF

GLEN R. KAJIYAMA
PAUL D. PUTZULU
DEPUTY CHIEFS

OUR REFERENCE **BS-KP**

November 25, 2005

Mr. Roland Libby, AIA
AM Partners, Incorporated
1100 Alakea Street, Suite 800
Honolulu, Hawaii 96813

Dear Mr. Libby:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Emergency Medical Service Young Street Facility.

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

If there are any questions, please call Major Henry Robinson of District 1 at 529-3386 or Mr. Brandon Stone of the Executive Bureau at 529-3644.

Sincerely,

BOISSE P. CORREA
Chief of Police

By

A handwritten signature in black ink, appearing to read "Karl Godsey".

for
KARL GODSEY
Assistant Chief of Police
Support Services Bureau

Serving and Protecting with Aloha

MAKIKI/LOWER PUNCHBOWL/TANTALUS NEIGHBORHOOD BOARD

Portion of
REGULAR MEETING MINUTES
THURSDAY, JANUARY 19, 2006
MAKIKI DISTRICT PARK
ARTS AND CRAFTS ROOM

Emergency Medical Services (EMS)—EMS will be establishing an ambulance facility on 1260 Young Street adjacent to the former the Meadow Gold Factory. Currently there are two ambulances are stationed there. The station is in the design stages right now.

Chair Steelquist thanked EMS for their report.

Entire minutes can be viewed at:

<http://www.co.honolulu.hi.us/nco/nb10/06/10janmin.htm>

From: General
Sent: Wednesday, November 30, 2005 5:20 PM
To: Roland Libby
Subject: FW: DRAFT DEA FOR EMS YOUNG ST. FACILITY

From: VTurpin@aol.com [mailto:VTurpin@aol.com]
Sent: Wednesday, November 30, 2005 4:44 PM
To: honolulu@ampartners.com
Subject: DRAFT DEA FOR EMS YOUNG ST. FACILITY

Roland: This is to confirm our phone conversation of today regarding the EMS Young Street Facility. As I stated today, my only concerns will be noise and dust as it relates to construction. I have learned since our conversation that the Property Management Company is getting bids to paint the 1413 and 1415 street building so I was wondering if you know when construction would begin on Young Street. If so it might be in our best interest to delay painting for awhile and also to see what will happen on the old Meadow Gold property.

It was nice talking to you and thanks again for alerting me to what's happening in Makiki. My new mailing address is: Vernita J. Turpin

1317 Buffalo Pass Dr.
Waco, Tx 76712-8828

Aloha!