

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

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JUN 08 2012

PETER B. CARLISLE
MAYOR



May 7, 2012

Mr. Gary Hooser, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

LORI M.K. KAHIKINA, P.E.
DIRECTOR

CHRIS TAKASHIGE, P.E.
DEPUTY DIRECTOR

RECEIVED
12 MAY 2012 1:50
DDC/MED
OFFICE OF ENVIRONMENTAL
QUALITY CONTROL


Dear Mr. Hooser:

Subject: Finding of No Significant Impact and Final Environmental Assessment
Kailua District Park Softball Field Lighting System Replacement
TMK: 4-3-056: 009
Koolauloa, Oahu, Hawaii

The Department of Design and Construction has reviewed the Final Environmental Assessment (FEA) and comments received on the Draft Environmental Assessment during the 30-day public comment period. The Department has determined that this project will not have significant environmental impacts and has issued a Find of No Significant Impact. Please publish notice of availability for this project in the next available OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and one (1) copy of the document in pdf format on a CD; and one (1) hardcopy of the Draft EA. Please call Mr. Taeyong Kim, the environmental consultant, at 528-4661, or email to tkim@environcom.com if you have any questions.

Sincerely,


for Lori M.K. Kahikina, P.E.
Director

LMKK:lh

Enclosures

FINAL ENVIRONMENTAL ASSESSMENT
KAILUA DISTRICT PARK
SOFTBALL FIELD LIGHTING SYSTEM REPLACEMENT
KOOLAULOA, OAHU, HAWAII

Agency:
Department of Design and Construction

Prepared By:
Environmental Communications, Inc.

May 2012

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- A *Archaeological Monitoring Plan in Support of the Kailua District Park Softball Field Lighting System Replacement Project*, Pacific Consulting Services, Inc.

SECTION ONE PROJECT SUMMARY

AGENCY:	Department of Design and Construction 650 South King Street, 11 th Floor Honolulu, Hawaii 96813
AGENT:	Environmental Communications, Inc. 1188 Bishop Street, Suite 2210 Honolulu, Hawaii 96813
PROJECT NAME:	Kailua District Park Softball Field Lighting System Replacement
PROJECT LOCATION:	21 South Kainalu Drive The project area is located at southern (mauka) corner of the park, along Kailua Road, in Kailua, Oahu, Hawaii.
TAX MAP KEY:	4-3-056: 009
OWNERSHIP:	City and County of Honolulu Department of Parks and Recreation
LOT AREA:	Approximately 37 acres
ZONING:	The project area is designated P-2 Preservation on the City and County of Honolulu Zoning Map.
SPECIAL DISTRICT:	None
STATE LAND USE:	Urban
EXISTING LAND USE:	<p>The project site is in current use as one of three softball fields located within the Kailua District Park complex. The park service as the primary municipal recreational complex in the central Kailua Town area.</p> <p>The project site is located immediately north of Kailua Road, and across the street from commercial properties and the Kailua Town retail district. To the west lies more commercial areas. The District Park office, swimming pool, tennis courts and parking lot and additional play fields lie to the north</p>

and northwest. The Kailua Intermediate School lies to the northeast of the site. Southeast of the project site lies residential areas.

NATURE OF DEVELOPMENT:

The proposed project consists of the replacement of the existing softball field lighting system. The proposed scope of work will include the removal of the existing system, the installation of new poles and luminaries, new control systems, and a new accessible walkway.

PROJECT COST:

Approximately \$980,000

PROJECT SCHEDULE:

The project is anticipated to be completed in early 2013.

SECTION TWO

PROPOSED PROJECT AND STATEMENT OF OBJECTIVES

2.1 PROJECT LOCATION

The project site is located at southern (mauka) corner of the Kailua District Park, along Kailua Road, in Kailua, Oahu, Hawaii. The street address of the park 21 South Kainalu Drive, Kailua, Hawaii 96734. The site is also identified as Tax Map Key: 4-3-056: 009. The site is owned by the City and County of Honolulu.

2.2 PROJECT DESCRIPTION

The proposed project consists of replacement of an existing wood pole lighting system for the existing 200-foot softball field with a new steel pole lighting system that has been designed to serve the illumination requirements for a future expansion of the existing field to a 300-foot softball field.

2.2.1 DEMOLITION

The existing softball field lighting system will be demolished by removal of the overhead Hawaiian Electric Service (back to Kailua Road), City owned wood utility pole and pole top transformers, pole mounted equipment cabinets, six (6) wood flood lighting poles and associated flood lights, overhead aerial cables, and associated underground infrastructures (electric ductlines and handholes).

2.2.2 NEW LIGHTING SYSTEM

The new lighting system will consist of the following improvements.

Installation of a new Hawaiian Electric underground service consisting of a pad mounted transformer (7'6"X8'0" concrete pad), underground ductlines, and an electrical equipment/HECO metering enclosure (~48"Wx15'L) located adjacent to the existing comfort station.

The new lighting system will consist of six (6) 60-foot steel poles and associated 1000 Watt metal halide floodlights (white color light). Four (4) poles to be installed under the current funding allocation and two (2) outfield poles will be installed under a future funding allocation. Concrete foundations of approximately 17'-0"D x 4'-6" diameter for be installed for each new pole.

Electrical distribution on site will be provided by underground ductlines in trenches approximately 24"W x 36"D, multiple 2'x4' handholes, and one 3'x5' handhole.

The ball field will be illuminated to City and County standards for a softball field (infield-20 minimum footcandles, outfield-15 footcandles minimum). Floodlights will be provided with shielding to control and minimize the light spill onto adjacent properties.

The new lighting system will use a permissive switch and a time switch that will control the days and times that illumination will be allowed for the field.

2.2.3 NEW CONCRETE SIDEWALK

A new 4' wide concrete sidewalks for ADA access will be provided from an existing sidewalk point to the ball field's pushbutton switch used to activate the lighting system. The new walkways may be illuminated by 16-foot tall lighting fixtures however this installation has not been made at the time of this report.

2.3 PROJECT OBJECTIVE

The Department of Parks and Recreation's objective for the proposed action is to create a safe evening play environment for this heavily used facility. While ball fields are available for daylight hours play, there exists a strong demand for evening play. Because only one field will be illuminated, it is being designed to accommodate a future expansion of the field to provide for safer and higher levels of softball play.

2.4 FUNDING AND SCHEDULE

The total development cost of approximately \$980,000.

The anticipated construction start date at the time of publication of this document is during the first quarter of 2013. The project is anticipated to be completed in approximately three months.

FIGURE 1: LOCATION MAP

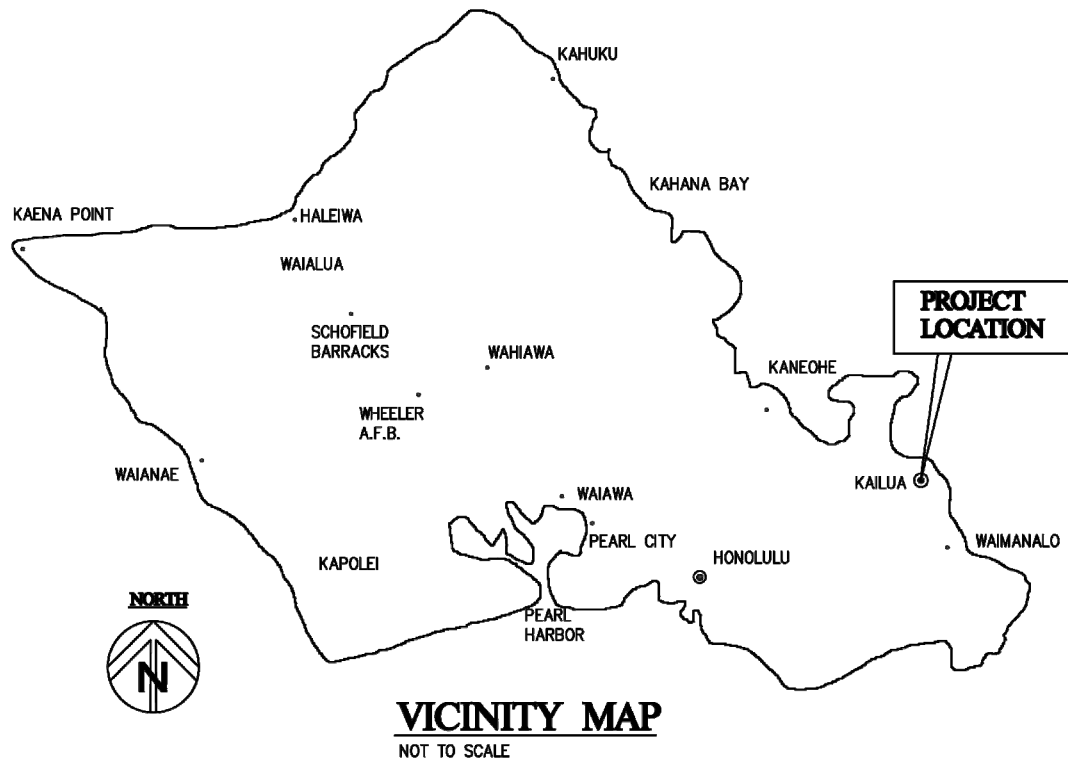
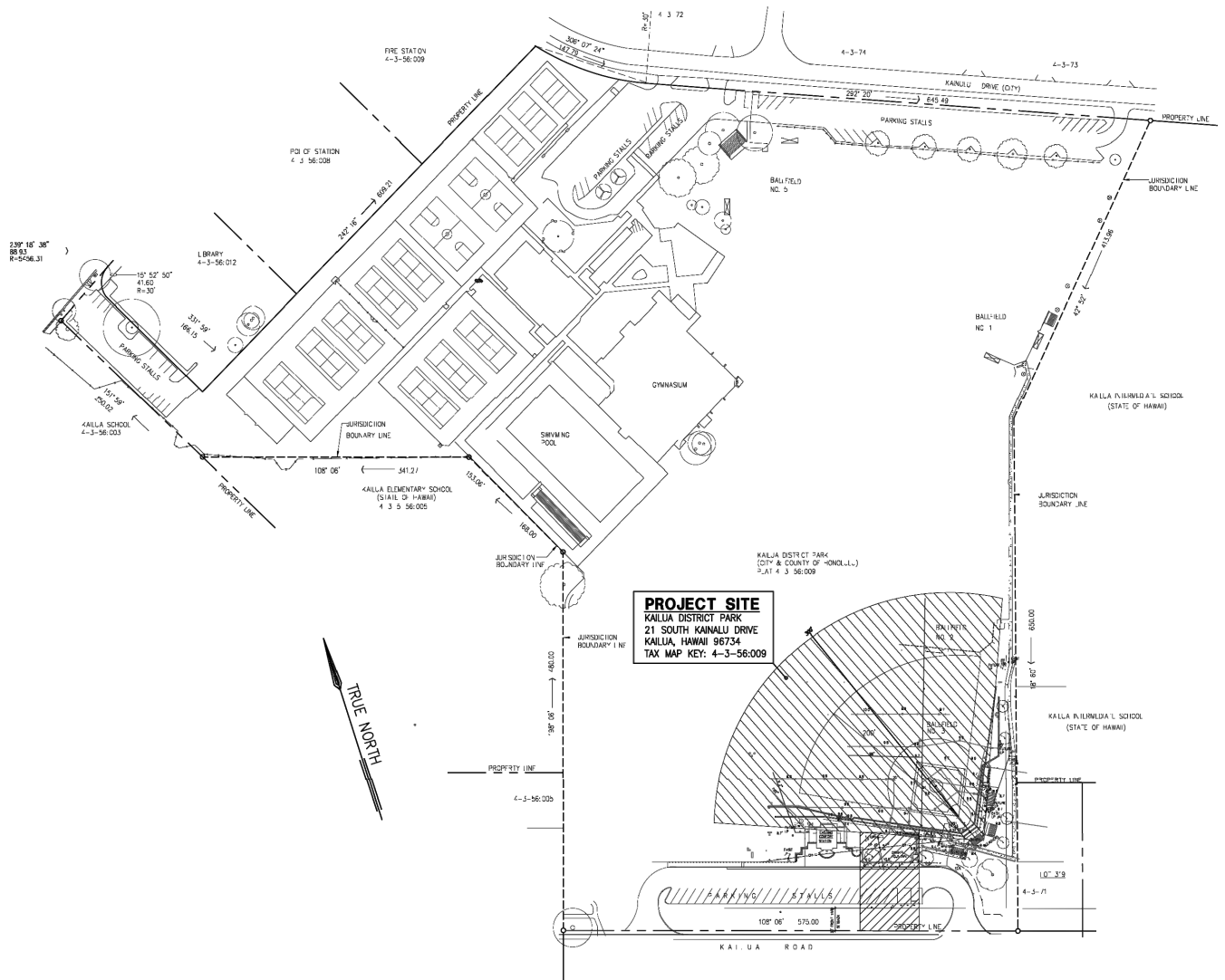


FIGURE 2: SITE PLAN



SOURCE: BENNETT ENGINEERS, INC.

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FIGURE 4: ELECTRICAL SITE PLAN

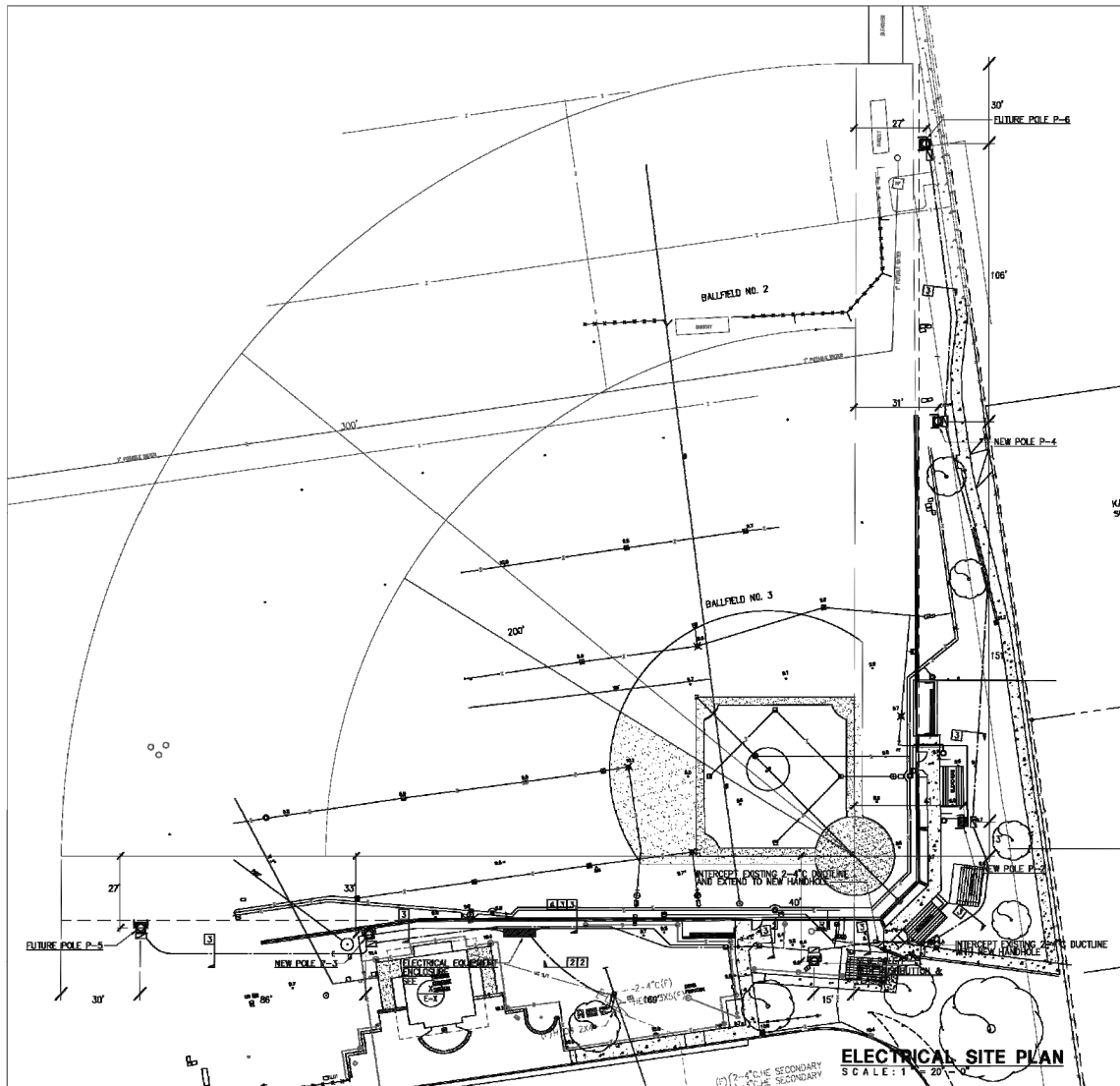


FIGURE 5: LIGHT FIXTURE ELEVATION

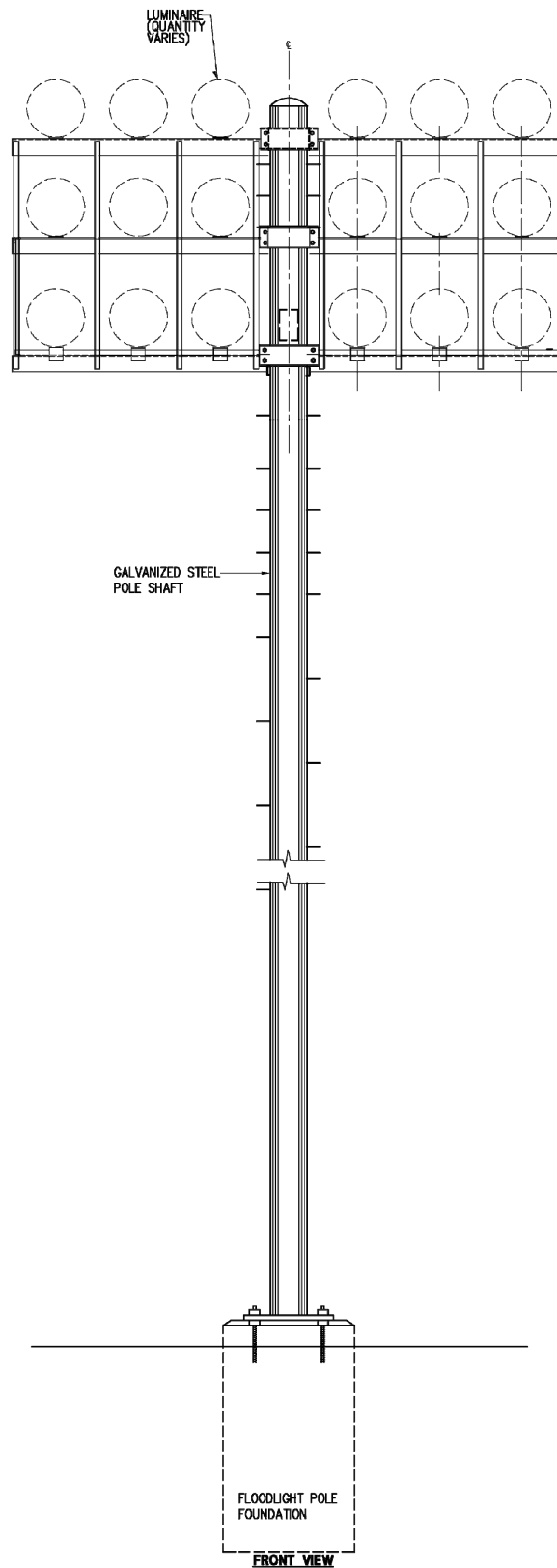
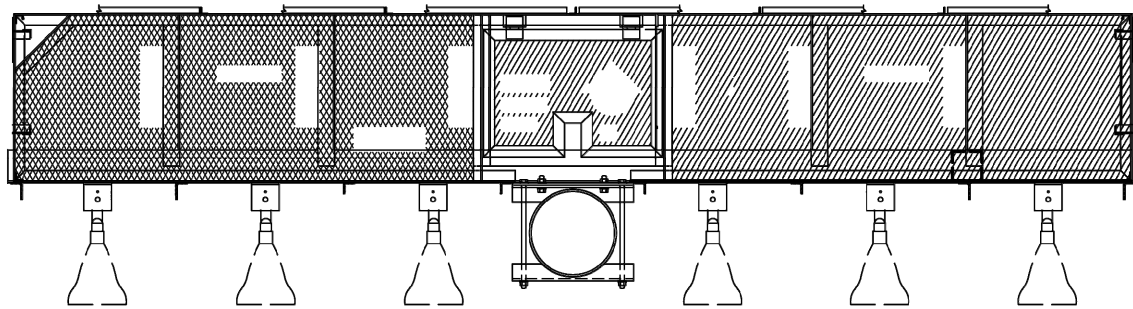
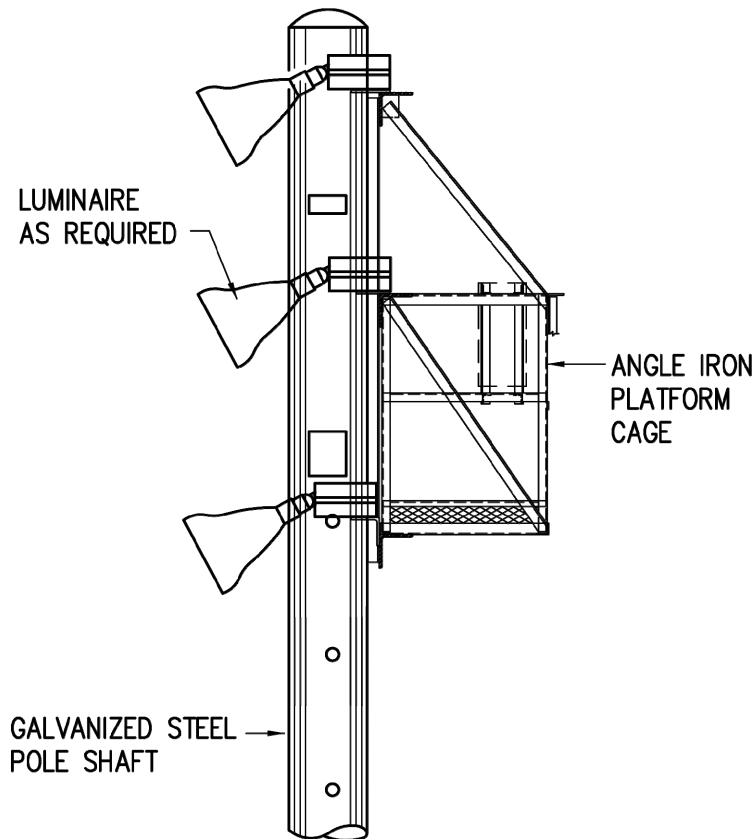


FIGURE 6: LIGHT FIXTURE TOP AND SIDE



POLE TOP ORIENTATION



SECTION ELEVATION

SECTION THREE

DESCRIPTION OF ENVIRONMENT, ANTICIPATED IMPACTS AND MITIGATION MEASURES

3.1 ENVIRONMENTAL SETTING

The project site is located in a large multi-purpose district park owned and operated by the City and County of Honolulu. The park represents the largest active park in the area and is heavily utilized during both day and evening hours. The park is particularly heavily used during evening hours when organized adult league softball play is conducted. Because demand for this facility is constant, and due to the fact that the existing softball diamond is undersized for the current level of play, the softball field is being considered for expansion to allow for safer play.

Other portions of the district park contain a swimming pool, tennis courts, additional baseball/softball fields and multipurpose grass areas. The facility also includes a district park office and meeting facility. The primary off-street parking for the park complex is located off Kainalu Drive.

The park is characterized by open space and landscaping consisting of a variety of trees along the park perimeter.

3.2 SURROUNDING USES

The project site is located off Kailua Road which is a major commercial thoroughfare through Kailua Town. Commercial areas lie directly west and south of the project site, while the Kailua Intermediate School lies directly to the east. Further east lies residential areas. All areas immediately north of the project site are in park use, and further north, across Kainalu Drive lie residential areas.

3.3 ENVIRONMENTAL CONSIDERATIONS

3.3.1 GEOLOGICAL CHARACTERISTICS

Topography

The project site is essentially flat and has been graded and grassed to serve as a softball field. The unobstructed open space is required for the active use of the field. The field includes safety fencing and bleachers, a comfort station located to the west, and the existing flood light system mounted on wooden poles. Vegetation is limited to the maintained grass playfield and a shade trees located along the perimeter and paved parking lot.

Climate

The geography of the Kailua District is typically warm and dry in climate. Prevailing tradewinds arrive from the northeast. According to the National Weather Service Honolulu Office, over a period of 30 years, normal monthly high temperatures range from 80 degrees in January to a high of 89 degrees in August for an average of 84 degrees. Normal month low temperatures range from a low of 65 degrees in February and a high of 74 degrees in August for a monthly average of 70 degrees. Precipitation typically ranges from 0.44 inches in August to a high of 3.8 inches in December. The annual average rainfall in Kailua is 70 inches per year.

USDA Soil Survey Report

The project site is located on soils classified JaC Jaucus Series sand according to the Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii by the U.S. Department of Agriculture Soil Conservation Service. This soil type is characterized as a single grain, pale brown to very pale brown, sandy soil more than 60-inches deep. Permeability of this soil type is rapid and runoff is very slow to slow. The hazard of water erosion is slight, but wind erosion is possible where vegetation has been removed. This land type is used for pasture, sugarcane, truck crops and urban development.

3.3.2 WATER RESOURCES

Hydrologic Hazards and Resources

According to Panel 150001 0090 C of the Federal Emergency Management Agency Flood Insurance Rate Map, the project site is located in Zone X an area determined to be outside the 500-year flood plain.

Tsunami Inundation

The Civil Defense Tsunami Inundation Maps indicate that the project site is not located in an area vulnerable to tsunami inundation (Department of Planning and Permitting HOLIS).

Special Management Area

The project site is not located within the boundaries of the Special Management Area (SMA) Map.

3.3.3 HISTORICAL AND ARCHAEOLOGICAL ASSESSMENT

The project site has been in active park use since throughout the development of Kailua Town. As such, the project area has been heavily used and modified throughout its existence. No surface artifacts are located on the site however the possibility of subsurface artifacts exist. To address this issue, an archaeological monitoring plan has been prepared for the proposed action by Pacific Consulting Services Inc. The report is summarized below and is attached as Appendix A. In the event that any artifacts are uncovered during the limited electrical trenching and light pole excavation, all work will cease and the Department of Land and Natural Resources State Historic Preservation Office will be notified.

Historic and Recent Land Use History

At the time of the Māhele in the mid-19th century, approximately 170 claims were made before the Board of Commissioners to Quiet Land Titles in Kailua. By the beginning of the 20th century, Kaneohe Ranch owned much of Kailua which, until the mid-20th century, remained a center of commercial agriculture. After the Māhele, rice cultivation dominated agricultural activities which included truck farming of taro and other food crops. In the early 20th century, the Hawaiian Copra Company was established on land leased from J. B. Castle, between Oneawa and Kalaheo Streets. What became known as Coconut Grove had up to 130,000 coconut trees in production at its peak, but this commercial venture had failed by 1916. Subdivision of the Coconut Grove area for residential purposes began in the mid-1920s; residential development in Kailua increased significantly after the activation of the Kaneohe Marine Corps Air Station in 1952. Since the 1950s, Kailua town has maintained its small town atmosphere and remains a largely residential community.

Previous Archaeological Studies

There is a long record of archaeological research in the Kailua area, and what follows is an abbreviated list of the main studies and those pertinent to understanding the project area and Table 1 lists these archaeological projects in chronological order.

One of the earliest reports on archaeological sites is that of Gilbert McAllister, in his 1933 work *Archaeology of Oahu*. McAllister identified 16 sites within Kailua ahupua`a, listing eight *heiau* as well as Kawainui and Ka`elepulu ponds. In addition to the first reports documenting burial finds (discussed in more detail, below), the next series of investigations date to the 1970s and 1980s, when work done for local and federal government agencies focused on Kawainui Marsh, and public works construction of sanitary facilities and roadways.

In the 1990s and 2000s, research continued at Kawainui Marsh and related areas such as Hamakua Marsh, with additional investigations focused on environmental and floral changes occurring over time. Additional research focused on historic commercial agriculture with Creed's documentation of the growth and development of the extensive Waimanalo Irrigation System. A large study of the middle Maunawili Valley resulted in a comprehensive report on the major habitation and agricultural site complexes in the

area as well as the historic 19th century settlement associated with the Hawaiian monarchy. Archaeological survey and mitigation work continued to take place in association with various public and private works construction projects.

Previous Burial Finds

As shown in Table 2 of Appendix A, a general trend that persists even today is the occurrence of inadvertent finds – burials encountered during the course of construction or other ground-disturbing activity, in both public and private projects.

Monitoring Scope of Work

- (1) Anticipated Finds: In view of the prior archaeological work and findings discussed above, it is anticipated that human burials and subsurface cultural layers may be present within one or more portions of the project area. Possible site types within or near the project area may include remnants of walls, alignments or foundations, and midden or trash pits.
- (2) Extent of Monitoring: The archaeologists(s) will conduct on-site monitoring of all ground disturbing activities. Activities to be monitored will include the excavations for 6 new light poles, 7 handholes, conduit trenches, an electrical metering enclosure, a concrete pad-mounted transformer, and a walkway. Concrete foundations for light poles will be excavated via auger to depths of approximately 5.2 m (or 17 ft) and measuring 1.4 m (or 4 ft 6 in) in diameter. Handholes will be excavated between 0.6 m – 1.5 m (or 2 ft – 5 ft) wide x 0.9 m (or 36 in) deep. Conduit trenches will be excavated approximately 0.6 m (or 24 in) wide x 0.9 m (or 36 in) deep. The electrical metering enclosure measures 1.2 m x 0.4 m (or 4 ft x 15 in) wide. The concrete pad for the transformer measures 2.3 m x 2.4 m (or 7 ft 6 in x 8 ft) wide. The electrical metering enclosure and the concrete pad for the transformer will be excavated to depths of approximately 0.9 m (or 36 in). The walkway measures 1.2 m (or 4 ft) wide and will be excavated to roughly 0.3 m (or 12 in) deep.
- (3) Treatment of remains encountered: If any archaeological materials are encountered during the monitoring of construction of ground-disturbing activities, work will be stopped immediately in that area, and the archaeologist will notify SHPD/DLNR of the nature of the discovery. If an intact cultural layer, living surface, structural components (e.g., foundations), archaeological subsurface features (e.g., hearths, pits, postholes, etc.), artifacts, charcoal or midden deposits or trash pits are encountered, then the following actions will be taken:
 - Selected, sorted charcoal samples will be collected for the possibility of radiocarbon analysis (particularly if the charcoal appears in a prehistoric context).
 - Bulk samples of midden material will be collected.
 - All prehistoric artifacts will be collected.
 - All historic artifacts will be collected unless large trash or refuse pits are encountered in which case only diagnostic samples will be taken.
 - Standard documentation will be carried out, including scale maps, profiles, photographs, detailed soil and provenience descriptions, and interpretation.

3.3.4 CULTURAL IMPACT

The proposed project has been in active park use for most of the twentieth century serves as a significant community asset. As such, it is a crucial part of the social fabric of the community. Improvements to the park such as the proposed lighting system will enhance the use of the park. Historically, the site does not affect any native cultural practices nor will the replacement of the lighting system curtail any future cultural practices.

3.3.5 TRAFFIC CONDITIONS

The proposed action will not have any impact on traffic conditions. The site is not located on a street nor are the improvements expected to have any direct impact on traffic conditions. During the construction phase, minor traffic disruption may occur and construction vehicles are mobilized to the project site. Because the field will not be available during construction periods, a small decrease may be experienced. Upon completion of the project, no traffic impacts are anticipated.

3.3.6 AIR QUALITY

No impact on air quality will result from the implementation of the project however during the construction period, minor air quality impacts from fugitive dust may occur. This can be mitigated by the use of BMPs such as dust screening or watering during excavation.

3.3.7 NOISE ENVIRONMENT

No impact on the noise environment will result from the implementation of the project however during the construction period, some noise from construction equipment may occur. All work will be conducted during Department of Health construction hour standards.

3.3.8 BIOLOGICAL CHARACTERISTICS

3.3.8.1 FLORA

The project lot is presently covered with a maintained grass field. Assorted ornamental trees are located along the property line, outside of the backstop fence, and along the parking lot. No trees will be removed or relocated.

3.3.8.2 FAUNA

The site does not serve as a wildlife habitat although avifauna, feral cats, dogs and rodents may be found on-site.

3.3.9 INFRASTRUCTURE AND UTILITIES

The proposed improvements are readily serviced by existing utilities located in the immediate vicinity. New electrical service equipment will be required and are included within the scope of improvements. Electrical power to the project site is presently available.

3.3.9.1 POTABLE WATER

The project will not affect water supply or demand.

3.3.9.2 STORMWATER

The site is presently naturally drained. The proposed project will be required to control drainage according to prevailing drainage regulations. Both during and after construction, the project will observe Best Management Practices (BMP) in accordance with the City's Rules Relating to Storm Drainage Standards.

3.3.9.3 WASTEWATER

The project will not affect wastewater demand.

3.3.9.4 SOLID WASTE

The project will not have any long-term impact on solid waste collection. Materials removed during the demolition phase will be removed by the contractor and disposed of in an approved disposal site.

3.3.9.5 TELEPHONE AND ELECTRICAL SERVICES

Telephone and electrical services are available to the site however telephone service will not be affected by the proposed project. Coordination with the local electric service providers will be maintained during the design and construction phases.

3.3.10 PUBLIC FACILITIES

The proposed project is considered a public facility and the proposed action is being implemented to enhance this important facility. Active recreation fields are heavily used and demand for these facilities extend beyond daylight hours. To meet this demand, the proposed improvements will create a safer and more useable softball field that will serve a broader range of park users.

3.3.10.1 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICE

Kailua Fire Station Number 18 provides fire protection service to the project area as well as emergency medical service. This station consists of one engine and one quint vehicles. The station is located at 211 Kuulei Road approximately a quarter mile from the project site. Response time to the site is less than three minutes.

An advance life support ambulance unit is also located at the Kailua Fire Station. Response time is also less than three minutes. The nearest emergency medical facility is located at Castle Medical Center.

3.3.10.2 POLICE SERVICE

Police service is provided by the Honolulu Police Department (HPD) District 4, Sector 2. The Kailua Substation is located at 219 Kuulei Road. The area is served by beat patrols and the expected response time to the site is less than 5 minutes.

3.4 RELATIONSHIP TO PLANS, CODES AND ORDINANCES

The proposed project is located within the P-2 Preservation zone as is typical for municipal parks. Portions of the project parcel are also zoned R-5 and R-10.

The State Land Use Commission Boundary Maps identify the project site as being within the Urban area. This is consistent with the surrounding uses that include commercial uses and residential development.

From the City and County of Honolulu planning perspective, the project is located within the jurisdiction of the Koolaupoko Sustainable Communities Plan. Under the Revised Ordinances of the City and County of Honolulu, Section 24, Article 6, objectives and guidelines have been formulated for the development and growth within the Koolaupoko area. The Kailua District Park Lighting System project conforms with the planning principals of this plan as stated in subsection 2.1.2.

The planning principles call for the provision of passive and active open spaces including community-based parks, and the promotion of accessibility of recreational open space. To this end, a new walk way will be constructed to facilitate access to the light switch equipment and for the benefit of park users. Furthermore, subsection 2.1.3.6 states that community-based parks should provide active recreation space in the form of playfields and gyms.

3.5 PROBABLE IMPACT ON THE ENVIRONMENT

The proposed action represents an extremely small impact on the physical environment. The proposed project consists of the replacement of an existing lighting system with an

improved system that will allow for an expanded ball field, resulting in safer playing conditions. Minor impacts will occur during construction but these impacts are typical of any type of construction and are short-term in duration

The project will not result in any significant visual view impact however the improved lighting will greatly benefit park users by providing enhanced lighting, safety and ultimately an enlarged field of play. The use of steel poles will also minimize maintenance requirements.

The new lighting system will provide greater illumination but the light fixtures selected will be internally and externally shielded to minimize excessive light spillage beyond the area to be illuminated.

Minor trenching and light pole excavation will be required. An archaeological monitoring plan has been prepared to ensure that in the event any artifacts are uncovered, an approved plan of action will be followed.

3.6 ADVERSE IMPACTS WHICH CANNOT BE AVOIDED

Adverse impacts that cannot be avoided are generally related to short-term construction impacts. These impacts can be minimized by sound construction practices, Best Management Practices (BMPs) adherence to applicable construction regulations as prescribed by the Department of Health, and coordination with applicable County agencies.

Increases in traffic and air and noise pollution will occur as is expected of any development of this nature. These impacts are relatively small and do not have significant impact on the surrounding environment. No long-term traffic, air or noise impacts are anticipated from the proposed action.

The project is not anticipated to have any long-term adverse impacts and is being implemented as a health and safety improvement. While the field will not be available during the construction period, this loss of use is off-set by the long-term improvements and usability of the improved park for a significant time into the future.

3.7 ALTERNATIVES TO THE PROPOSED ACTION

No other use alternatives beyond the non-action alternative were considered for this project. Non-action was considered and rejected since no benefit to the community would be provided and continued use of the current system would leave the field inadequately lit and unsuitable for future expansion. If the field is not supported for expansion, the level of current play can be affected and could result in a less safe play environment which is inadequately illuminated. The use of wood poles is also subject to additional maintenance and replacement. The steel poles planned for use in the project

will decrease maintenance requirements and will provide a foundation for a modern lighting system.

3.8 MITIGATION MEASURES

Long-term impacts resulting from the proposed improvements are expected to be minimal or non-existent based upon the subject environmental assessment. Long-term traffic, air and noise impacts are not expected to change significantly after improvements are completed. Short-term construction related noise and air quality impact mitigation measures include general good housekeeping practices and scheduled maintenance to avoid a prolonged construction period. The contractor will be directed to use best management practices (BMP) wherever applicable.

3.9 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Implementation of the proposed project will result in the irreversible and irretrievable commitment of resources in the use of non-recyclable energy expenditure and labor. Materials used for new construction may have salvage value; however, it is unlikely that such efforts will be cost-effective. The expenditure of these resources is offset by gains in construction-related wages, increased tax base and tertiary spending.

SECTION FOUR NECESSARY PERMITS AND APPROVALS

Permits and approvals that may be required are contingent upon the actual design of the proposed project. All other permits and approvals are generally ministerial in nature. Permits listed below represent a general list that represents permits and approvals that will be required by the proposed project.

County Agencies

<u>Permit or Approval</u>	<u>Approving Agency</u>
Building Permits	Dept. of Planning and Permitting
Grading, Grubbing, Stockpiling, Trenching	Dept. of Planning and Permitting
Zoning Waiver (for light pole height)	Dept. of Planning and Permitting

SECTION FIVE

FINDINGS AND REASONS SUPPORTING FINDING OF NO SIGNIFICANT IMPACT

As stated in Section 11-200-12, EIS Rules, Significance Criteria: in determining whether an action may have a significant effect on the environment, every phase of a proposed action shall be considered. The expected consequences of an action, both primary and secondary, and the cumulative as well as the short-term and long-term effects must be assessed in determining if an action shall have significant effect on the environment. Each of the significance criteria is listed below and is followed by the means of compliance or conflict (if extant).

- Involves an irrevocable commitment to the loss or destruction of any natural or cultural resource.

The proposed action will occur on an existing developed site and will not impact any topographical resources. Subsurface archaeological artifacts are a possibility; therefore, an archaeological monitoring plan has been conducted with no significant findings. In the event that any archaeological remains are uncovered during the course of construction, all work will stop and the State Historic Preservation Office will be contacted for appropriate action.

- Curtails the range of beneficial uses of the environment.

The proposed use will not result in a significant change from its existing use but will create an improved recreation area that is safely and adequately illuminated, and will allow for the expansion of the softball field from 200-feet to 300-feet resulting in better and safer levels of play.

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

The proposed action is consistent with the goals and guidelines expressed in Chapter 344, Hawaii Revised Statutes. The proposed action is triggered by the use of County lands and funds. The subject Environmental Assessment has been developed in compliance with the Chapter 343.

- Substantially affects the economic or social welfare of the community or state.

The proposed action will make a positive contribution to the welfare and economy of the State and City by providing desirable and needed recreational improvements to the City and County of Honolulu. The facility will also contribute positively to the community through the use of goods and services in the area, through construction related employment, and through secondary and tertiary spending and taxes.

- Substantially affects public health.

The proposed improvements are expected to have positive contribution to public health by creating an improved recreational environment. No other recreational resources will be adversely impacted by the project, nor will the project increase any undesirable environmental impacts.

- Involves substantial or adverse secondary impacts, such as population changes or effects on public facilities.

The proposed action will not increase any adverse primary or secondary impacts, nor will the project have any effect on population change. The project will affect the Kailua District Park positively by providing a safe and improved softball field.

- Involves a substantial degradation of environmental quality.

The proposed action will not degrade environmental quality. Impacts associated with the project, such as traffic impact and air and noise quality have been assessed to be minimal. The project is located in a highly urban environment that is expected to be heavily developed in the future. In that respect, the project is consistent with the overall land use of the district.

- Is individually limited but cumulatively has a considerable effect upon the environment or involves a commitment for larger actions.

The proposed action is not a first phase of, or related to, any larger action. The cumulative effect of the project is disclosed in this document and does not involve any planned future actions that will cumulatively impact the environment. The proposed action will ultimately result in a larger play field and expanded lighting however funding for the field expansion and two of the six proposed light poles are not funded at this time.

- Substantially affects rare, threatened or endangered species, or their habitats.

The proposed action will not affect any rare, threatened or endangered species of flora or fauna, nor is it known to be near or adjacent to any known wildlife sanctuaries.

- Detrimentially affect air or water quality or ambient noise levels.

The proposed action will not impact air or water quality. Noise levels are not expected to change.

Minimal impacts on air quality and noise are anticipated during construction, but will be limited by normal construction practices and Department of Health construction mitigation standards.

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

The project will not have any impact on an environmentally sensitive area.

- Substantially affects scenic vistas and viewplanes identified in County or State plans or studies.

The proposed action will not affect any scenic vistas or significant viewplanes. The project is located in a highly urban environment.

- Require substantial energy consumption.

The project will increase electrical energy consumption over the existing use however this minor increase in energy demand will be offset by significantly improved levels of lighting and resultant safer play during evening hours.

Based on the above stated criteria, the proposed Kailua District Park Softball Field Lighting System Replacement project has been determined to have no significant effect on the environment. As such, a Finding of No Significant Impact (FONSI) is has been issued by the Department of Design and Construction for the project.

SECTION SIX
LIST OF PARTIES CONSULTED PRIOR TO THE
DEVELOPMENT OF THE DRAFT ENVIRONMENTAL ASSESSMENT

Agencies with ministerial or specific interests regarding the proposed project were contacted for their early comments regarding the proposed project. Parties contacted are listed below.

State Agencies

Department of Land and Natural Resources
Department of Land and Natural Resources
State Historic Preservation Officer

County Agencies

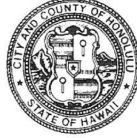
Department of Design and Construction
Department of Parks and Recreation
Department of Planning and Permitting
Emergency Medical Services Division
Fire Department
Police Department

Public Utilities

Hawaiian Electric Company

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honolulu.gov/dpp • CITY WEB SITE: www.honolulu.gov



PETER B. CARLISLE
MAYOR

DAVID K. TANOUE
DIRECTOR

JIRO A. SUMADA
DEPUTY DIRECTOR

2012/ELOG-626(TC)
UDB Misc

April 23, 2012

MEMORANDUM

TO: LORI KAHIKINA, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: *DKT* DAVID K. TANOUE, DIRECTOR *TC*
DEPARTMENT OF PLANNING AND PERMITTING

SUBJECT: CHAPTER 343, HRS - DRAFT ENVIRONMENTAL ASSESSMENT
PROJECT: KAILUA DISTRICT PARK - SOFT BALL FIELD LIGHTING
SYSTEM REPLACEMENT
LANDOWNER: CITY & COUNTY OF HONOLULU
APPLICANT: DEPARTMENT OF DESIGN AND CONSTRUCTION
AGENT: ENVIRONMENTAL COMMUNICATIONS, INC.
LOCATION: 21 SOUTH KAINALU DRIVE - KAILUA
TAX MAP KEY: 4-3-56: 9

Thank you for the opportunity to comment on the Draft Environmental Assessment (DEA) for the above-mentioned project. On Page 23, Section Four - Necessary Permits and Approvals, please note that a zoning waiver from the Department of Planning and Permitting will be required for the 60-foot high light poles.

Should you have any questions or need additional information, please contact Anthony Ching of our Urban Design Branch at 768-8028.

DKT:nw

✓ cc: Environmental Communications, Inc. (Taeyong Kim)

Doc929346rev1

ENVIRONMENTAL COMMUNICATIONS, INC.

May 10, 2012

David Tanoue, Director
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Subject: Kailua District Park – Soft Ball Field Lighting System Replacement
21 South Kainalu Drive – Kailua
TMK: 4-3-056: 009

Dear Mr. Tanoue,

Thank you for your letter of April 23, 2012 regarding the subject project. It is our understanding that zoning waiver from the Department of Planning and Permitting will be required for the 60-foot high light poles. This information will be included in Section Four of the Final Environmental Assessment that is being prepared for the project.

We appreciate your participation in the environmental review process.

Sincerely,



Taeyong Kim
Environmental Communications, Inc.

1188 BISHOP STREET SUITE 2210 HONOLULU HAWAII 96813 ■ TEL 808 528 4661 ■ EMAIL ECI1@LAVA.NET

APPENDICES

FINAL REPORT

**Archaeological Monitoring Plan in Support of the
Kailua District Park Softball Field Lighting System
Replacement Project, Kailua Ahupua`a,
Ko`olaupoko District, Island of O`ahu, State of Hawaii.
TMK: (1) 4-3-056:009**

Prepared for:

**Bennett Engineers
765 Amana Street, Suite 201
Honolulu, HI 96814**

Prepared by:

**Pacific Consulting Services, Inc.
720 Iwilei Road, Suite 424
Honolulu, HI 96817**

June 2010

FINAL REPORT

Archaeological Monitoring Plan
In Support of the Kailua District Park Softball Field
Lighting System Replacement Project,
Kailua Ahupua`a, Ko`olaupoko District, Island of O`ahu, State of Hawaii
TMK (1) 4-3-056:009

By
Valerie Park, M.A.,
Sara L. Collins, Ph.D.

Prepared by
Pacific Consulting Services, Inc.
720 Iwilei Road, Suite 424
Honolulu, HI 96817

Prepared for
Bennett Engineers
765 Amana Street, Suite 201
Honolulu, HI 96814

June 10, 2010

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INTRODUCTION

At the request of the Bennett Engineers (BE), Pacific Consulting Services, Inc. (PCSI) prepared this archaeological monitoring plan in support of the Kailua District Park Softball Field Lighting System Replacement Project in Kailua, O`ahu, Hawaii. The purpose of the archaeological monitoring plan is to ensure that subsurface historic properties are documented fully and that human remains, if discovered, are protected in compliance with Hawaii Revised Statutes (HRS), Chapter 6E-8 and Title 13 of the Hawaii Administrative Rules (HAR), Subtitle 13 (State Historic Preservation Division Rules), Chapter 279 (Rules Governing Standards for Archaeological Monitoring Studies and Reports).

PROJECT AREA LOCATION & DESCRIPTION

The project area is located in Kailua Ahupua`a, Ko`olaupoko District, in windward O`ahu. The proposed project lies within Kailua District Park, TMK (1) 4-3-056:009, which is under the jurisdiction of the City and County of Honolulu. Figure 1 illustrates the project area location on the United States Geological Survey (USGS) Mokapu Quadrangle map. Project improvements include the installation of 6 new light poles with associated trenching for the installation of electrical equipment and accessories.

ENVIRONMENTAL BACKGROUND

TOPOGRAPHY & SOILS

From the foot of the Ko`olau *pali*, Kailua Ahupua`a is characterized as an area of inland ridges and valleys, dissected by Kahanaiki and Maunawili Streams, which flow toward Kawainui Swamp and by Olomana Stream, which flows toward Kaelepulu Pond. As the *ahupua`a* extends *makai* (towards the sea), it is comprised of hills with surrounding flatlands. Flatland terrain variation includes the 96 meter (m) high volcanic cone, Pu`u o Ehu, which is located south of the project area. The project area is relatively flat, with an elevation of 6.1 - 9.1 m, or 20 - 30 feet (ft), above mean sea level (amsl).

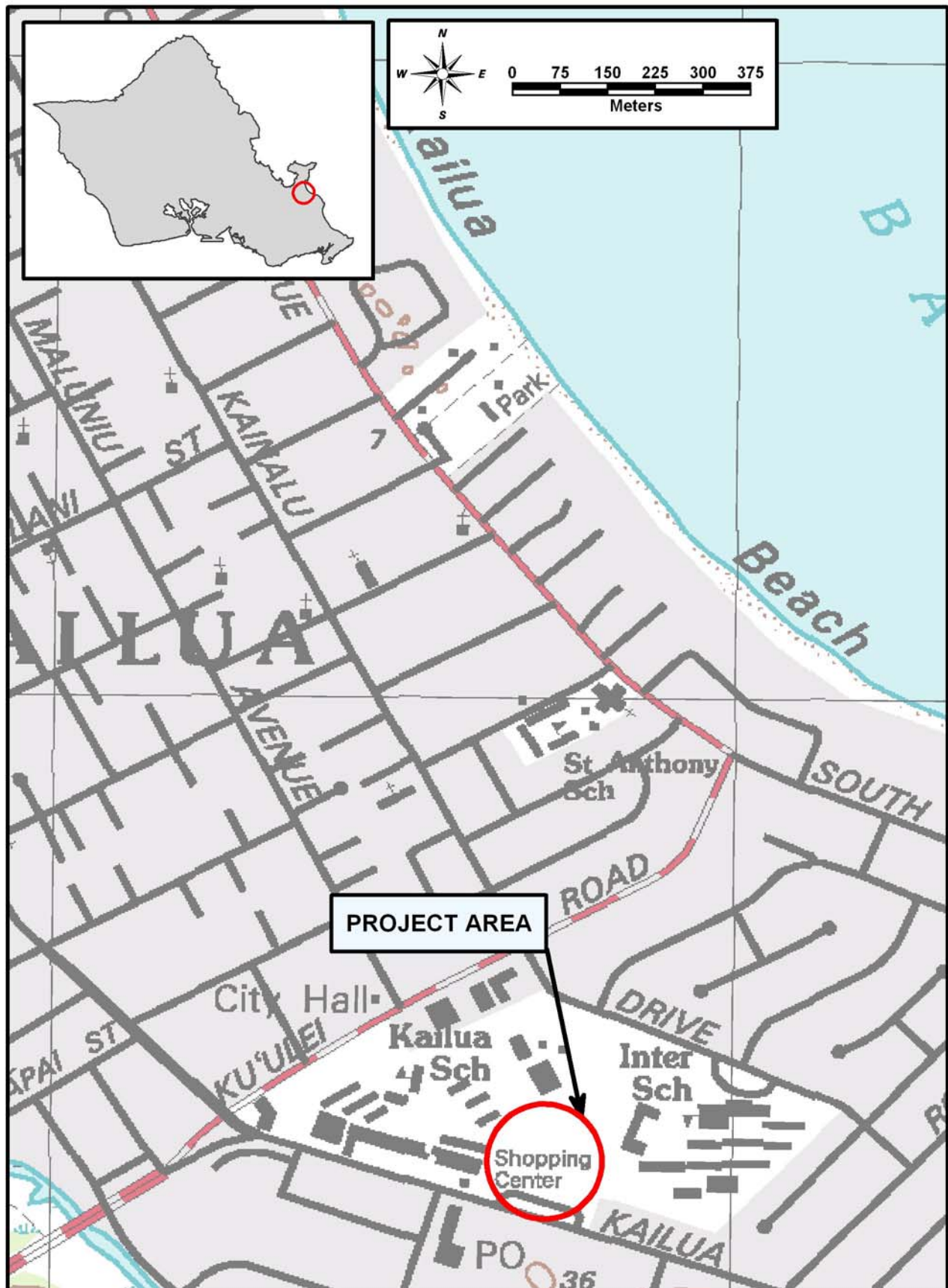


Figure 1. Project Area Location on USGS Mokapu Quadrangle (1983).

According to data published by the United States Department of Agriculture (USDA) Soils Survey, the project area is underlain entirely by Jaucus Sands (JaC), as is much of Kailua (Foote et al. 1972: Map 65). Jaucus Sands have a rapid permeability although runoff is classed as slow to very slow (Foote et al. 1972). From a historic preservation perspective, Jaucus Sands deposits are well-known for the high probability of encountering human burials and subsurface cultural deposits.

RAINFALL & VEGETATION

The Ko`olau *pali* is composed of steep cliffs, thus after heavy rainfall this watershed drains very rapidly. A recent report on temperature and rainfall data for O`ahu (Ikawa et al. 2007) indicates that the Kailua area has a total average annual rainfall range of 39 – 46 inches (99 – 117 centimeters [cm]), with a higher monthly rainfall in winter months and a lower one in summer (Ikawa et al. 2007).

While the immediate project area is a paved roadway, vegetation in the vicinity of the project area consists of modern landscaping associated with the surrounding developed properties. Floral taxa represented include grasses, pothos vine (*Epipremnum pinnatum*), yellow hibiscus (*Hibiscus brackenridgei*), monkeypod trees (*Albizia saman*), kou (*Cordia subcordata*), an ironwood tree (*Casuarina*), and orchid trees (*Bauhinia*) (Wagner et al. 1990).

HISTORICAL & ARCHAEOLOGICAL BACKGROUND

Kailua Ahupua`a was one of the richest land areas in pre-Contact Hawai`i, and a wealth of historical and archaeological work has been carried out over the years. Major studies include those focused on the formation and prehistory of Kawainui Marsh (Cordy 1977; Cordy 1978; Allen-Wheeler 1981; Kelly and Nakamura 1981; Athens and Ward 1991) and the cultural landscapes of the Maunawili area (Creed 1992; Allen et al. 1997). In addition, there are numerous smaller reports, detailing everything from individual burial finds to aspects of larger, ongoing studies. The following sections present reports that document findings relevant to the current project area.

TRADITIONAL LAND USE HISTORY

The largest *ahupua`a* within the Ko`olaupoko District, Kailua extends from the Ko`olau Mountain ridge line to about a mile off-shore, to the reef, according to the Boundary Commission Review's records. In pre-Contact times, the most distinctive topographic areas included the large sand barrier under much of what are now Kailua town and Coconut Grove, the former inland ponds of Kawainui and Ka`elepulu, and the well-watered and fertile valley of Maunawili. The presence of over 15 permanent or semi-permanent streams within the *ahupua`a* ensured the success of cultivation of taro and other crops.

The place name "Kailua" means "two seas," according to Pukui et al. (1974) which may refer to the presence of two currents, although some have suggested that use of this place name at the O`ahu locale refers to the two inland ponds, Kawainui and Kaelepulu (Quebral et al. 1992). The earliest settlement of the Kailua area may date back to between 1,000 and 1,500 years before present (B.P.); and by the 15th and 16th centuries A.D., the *makai* portion of Kailua had become a favorite settlement locale of chiefs. The presence of major *heiau* – Kukapoki, Ulup•, Holomakani, and Pahukini – attest to the ritual and political importance of the *ahupua`a*.

Place names within Kailua Ahupua`a are associated with persons of renown in Kailua's legendary history. For example, the name Olomana is given to the distinctive peak visible from most parts of the *ahupua`a*, which is associated with Olomana, who was a famous warrior chief (Sterling & Summers 1978). Other *wahi pana*, or places of renown, within Kailua include •lele (a former race course where the middle of Kailua town now stands), Ka`•hau (the old name for what is now called Lanikai), and Oneawa (literally the "sand of the awa" – a fish). Kawainui is now a marsh but in pre-Contact times, as noted above, it was an inland fish pond noted for its mullet, as well as its association with the *mo`o* (lizard) Hauwahine (Sterling & Summers 1978, McAllister 1933).

HISTORIC & RECENT LAND USE HISTORY

At the time of the M•hele in the mid-19th century, approximately 170 claims were made before the Board of Commissioners to Quiet Land Titles in Kailua. By the beginning of the 20th century, Kaneohe Ranch owned much of Kailua which, until the

mid-20th century, remained a center of commercial agriculture. After the M• hele, rice cultivation dominated agricultural activities which included truck farming of taro and other food crops. In the early 20th century, the Hawaiian Copra Company was established on land leased from J. B. Castle, between Oneawa and Kalaheo Streets. What became known as Coconut Grove had up to 130,000 coconut trees in production at its peak, but this commercial venture had failed by 1916. Subdivision of the Coconut Grove area for residential purposes began in the mid-1920s; residential development in Kailua increased significantly after the activation of the Kaneohe Marine Corps Air Station in 1952 (Wilcox et al. 1998). Since the 1950s, Kailua town has maintained its small town atmosphere and remains a largely residential community.

PREVIOUS ARCHAEOLOGICAL STUDIES

There is a long record of archaeological research in the Kailua area, and what follows is an abbreviated list of the main studies and those pertinent to understanding the project area and Table 1 lists these archaeological projects in chronological order. Figure 2 shows the locations of selected archaeological studies in Kailua Ahupua`a.

One of the earliest reports on archaeological sites is that of Gilbert McAllister, in his 1933 work *Archaeology of Oahu*. McAllister (1933) identified 16 sites within Kailua ahupua`a, listing eight *heiau* as well as Kawainui and Ka`elepulu ponds. In addition to the first reports documenting burial finds (discussed in more detail, below), the next series of investigations date to the 1970s and 1980s, when work done for local and federal government agencies focused on Kawainui Marsh (Cordy 1977 & 1978, Morgenstein 1978; Clark 1980a; Kelly and Clark 1980), and public works construction of sanitary facilities (Bordner 1977, Dye 1979, Bordner 1982; Barrera 1984) and roadways (Morgenstein 1982; Hommon 1982).

In the 1990s and 2000s, research continued at Kawainui Marsh and related areas such as Hamakua Marsh, with additional investigations focused on environmental and floral changes occurring over time (Hammatt and Shideler 1990; Athens and Ward 1991; Athens and Ward 1993). Additional research focused on historic commercial agriculture with Creed's (1992) documentation of the growth and development of the extensive Waimanalo Irrigation System. A large study of the middle Maunawili Valley resulted in a comprehensive report on the major habitation and agricultural site



Figure 2. Locations of Previous Archaeological Studies and Burial Finds in the Project Area Vicinity.

Table 1. Chronological List of Relevant Archaeological Studies, Kailua Ahupua`a.

Year & Author	Location	Nature of Work & Results	Map Label*
McAllister 1933	Kailua Ahupua`a	Island-wide survey, 16 sites reported for Kailua <i>ahupua`a</i>	1
Bordner 1977	Kapa`a Landfill	Reconnaissance survey, no findings made	2
Clark 1977	Hamakua Drive, Hahani St. to Akokoia St.	Survey, sites found include alignments, house site & possible <i>heiau</i>	3
Clark & Connolly 1977	Hamakua Drive along Ka`elepulu Stream	Survey, sites identified include 5 alignments, 2 agricultural sites, 1 house site, 1 possible <i>heiau</i>	4
Cordy 1977	S & SE portions of Kawaiui Marsh	Background study & archaeological survey for a proposed sewerline. Sites identified include historic habitations, wetland & dryland agricultural sites	5
Cordy 1978	Kawaiui Marsh	Excavations at Site 7, a large agricultural complex	6
Morgenstein 1978	Kawaiui Marsh	Geological & archaeological analyses of agricultural sites	7
Dye 1979	Kapa`a Quarry	Reconnaissance survey, test excavation & recordation of an agricultural site	8
Clark 1980a	Kawaiui Marsh, near Ulupo Heiau	Survey & test excavations at a large agricultural complex; pre-Contact age determined	9
Allen-Wheeler 1981	Kawaiui Marsh	Test excavations at agricultural sites; model proposed for human use of the marsh	10
Kelly & Nakamura 1981	Kawaiui Marsh & Surrounding Area	Historical & cultural study of the marsh & its environs	11
Bordner 1982	Kalaheo Sanitary Landfill site	Reconnaissance survey, no finds reported	12
Morgenstein 1982	Hamakua Drive, Hahani St to Akoakoa St	Geological studies in support of an archaeological survey	13
Hommon 1982	Hamakua Drive, Hahani St to Akoakoa St	Archaeological survey, one probable historic agricultural feature associated with rice cultivation & historic fill layer	14
Athens 1983a	Pohakupu-Kukanono Slope	Further investigation of agricultural complex near Ulupo Heiau; determined that sites were historic in age	15
Athens 1983b	Kailua Beach	Test excavations at a beach midden deposit site; midden, hearth & pit features documented	16
Barrera 1984	Kailua Road, Maunawili & Kukanono	Survey for proposed interceptor sewer, wastewater pumping station & force main; no new sites reported	17
Athens & Ward 1991	Kawaiui Marsh	Test excavations in support of flood control project; paleoenvironmental & archaeological analyses of soil, flora & pollen	18
Quebral et al. 1992	Wetlands adjacent to Pu`u O Ehu Ridge	Inventory survey, four sites recorded including lithic scatters & habitation	19
Mann et al. 2002	Kalama Beach Park	Monitoring, no finds reported.	20
Collins & Nees 2007	Pu`u O Ehu Ridge	Inventory Survey, no finds reported.	21
Barnes & Hammatt 2008	K•kanono Wastewater Pump Station	Monitoring, no finds reported.	22
Pammer & Hammatt 2008	Kailua Road	Monitoring, no finds reported.	23
Tulchin & Hammatt 2008	First Hawaiian Bank	Inventory Survey, one site recorded including <i>imu</i> , pit features, midden, lithics, fcr, and charcoal	24
Whitman & Hammatt 2008	Kailuana Place and Kailuana Loop	Monitoring, no finds reported (except for burial)	25
Yucha & Hammatt 2009	First Hawaiian Bank	Monitoring, site's boundaries expanded and included an <i>ulu maika</i> and a basalt core	26
Park & Collins 2009	Kailua Road & Hahani Street Intersection	Monitoring, one pit feature recorded – possibly an <i>imu</i>	27
Mintmier & Collins 2009	Kailua Road and Ku`ulei Road	Monitoring, two pit features	28
Athens & Allen 2009	Ironwoods at Kailua	Assessment with testing, monitoring below fills recommended	29

* Numbers correspond to numerical designations on Figure 2.

complexes in the area as well as the historic 19th century settlement associated with the Hawaiian monarchy (Allen et al. 1997). Archaeological survey and mitigation work continued to take place in association with various public and private works construction

projects (Hammatt and Shideler 1990; Quebral et al. 1992; Hammatt et al. 1999; Kikiloi et al. 2000; Mann et al. 2002; Jones and Hammatt 2004; Barnes & Hammatt 2008; Pammer & Hammatt 2008; Tulchin & Hammatt 2008; Yucha & Hammatt 2009; Park & Collins 2009; Mintmier & Collins 2009; Athens & Allen 2009).

PREVIOUS BURIAL FINDS

As noted above, the Jaucus Sands underlying much of Kailua town – including the project area – are likely to contain human burials. Table 2, below, lists in chronological order burial finds made over the decades, as found primarily in reports submitted to or prepared by the State Historic Preservation Division.

Table 2. Chronological List of Provenienced Burial Sites & Finds, Kailua Ahupua`a.

Author & Year	Location	Number of Individuals	Nature of Find(S)	Map Label*
Emory 1952	Makawao Street	56	Inadvertent discovery during subdivision development	A
Alton 1972	Ulupa Street	30-35	Inadvertent discovery during pool excavation	B
Clark 1980b	Kailua Road	1	Inadvertent discovery due to construction	C
Smith & Kawachi 1988	Koohoo Place	1	Inadvertent discovery due to construction	D
Bath & Smith 1988	Lanikai	1	Inadvertent discovery during water main project	E
Bath 1989	Kailuana Place	1	Inadvertent discovery due to natural erosion	F
Dye 1991	Aalapapa Drive	Multiple	Inadvertent discovery due to construction	G
Hammatt 1992	Kailua Elderly Housing	Multiple	Burials encountered during testing program	H
Hammatt & Shideler 1992	Kaohao Place	Multiple	Inadvertent discoveries due to construction	I
Jourdane 1994	Ulupa Street	1	Inadvertent discovery due to construction	J
Putzi 1996	N. Kainalu Drive	2	Inadvertent discovery due to construction	K
Cleghorn 1997	Kuukama Street	1	Inadvertent discovery due to construction	L
Cleghorn 1999a & b	Punui & Ho`olai Streets	3	Inadvertent discoveries due to construction	M
Collins 1999	Kaiholu Place	1	Inadvertent discovery due to construction	N
Dagher 1999	Hoolai Street	1	Inadvertent discovery during construction	O
Hammatt & Medeiros 1999	Mookua Street	1	Inadvertent discovery during pool construction	P
Jourdane 1999	Kaiholu Street	1	Inadvertent discovery during pool construction	Q
Medeiros et al. 1999	Andy's Drive-in	1	Inadvertent discoveries due to construction	R
Calis 2003	Kailua Elementary School	1	Inadvertent discoveries due to construction	S
Hammatt & Shideler 2001	Makawao Street	Multiple	Inadvertent discoveries due to construction	T
Borthwick et al. 2006	North Kalaheo Street	Multiple	Inadvertent discoveries during construction monitoring	U
Tulchin & Hammatt 2008	First Hawaiian Bank	3	Burials encountered during testing program	V
Whitman & Hammatt 2008	Kailuana Place & Kailuana Loop	1	Inadvertent discovery due to construction	W

* Letters correspond to letter designations on Figure 2.

Figure 2 shows the locations of the provenienced burial finds listed in Table 2. As can be seen, a general trend that persists even today is the occurrence of inadvertent finds – burials encountered during the course of construction or other ground-disturbing activity, in both public and private projects.

Table 3 presents the Native Hawaiian burial finds made throughout the first half of the 20th century in Kailua; most of these finds have little provenience information so their locations cannot be accurately plotted. Once found or encountered, these burials were given to Bishop Museum for safe-keeping by various entities, and kept there until their repatriation under the Native American Graves Protection and Repatriation Act (NAGPRA) in 1998. The burials are documented in a NAGPRA Notice published by the National Park Service (NPS) (NPS 1998). While in most cases the circumstances of discovery are unknown, it is clear that subdivision development after the 1920s was probably a significant factor.

Table 3. List of Native Hawaiian Burial Finds from Kailua Repatriated from Bishop Museum Under NAGPRA (NPS 1998).

Year	Location	Number of Individuals	Nature of Find(s)
1926	Kailua	2	Inadvertent discovery
1933	Kalama Beach Park	1	Inadvertent discovery
1947	Kailua	2	Inadvertent discovery
1950	Kailua	2	Inadvertent discovery
1952	Makawao Street, Kailua	56	Inadvertent discovery during subdivision development
1952	Kailua	18	Inadvertent discovery
1953	Kailua	2	Inadvertent discovery,
1953	Kailua	7	Inadvertent discovery,
1953	Kailua	4	Inadvertent discovery during bulldozing
1954	Kailua	1	Inadvertent discovery during house construction
1954	Kawainui Canal banks, Kailua	2	Inadvertent discovery
1956	Kailua	17	Inadvertent discovery
1958	Kailua	10	Inadvertent discovery
1961	West bank of Kaelepulu Stream	1	Inadvertent discovery found after bulldozing
1963	Bank of Kaelepulu Stream	1	Inadvertent discovery
1964	Kailua	1	Inadvertent discovery
1964	Kailua	1	Inadvertent discovery
1966	Kailua	1	Inadvertent discovery, found by construction crew
1974	Kailua	4	Inadvertent discovery
1982	Kailua Beach	1	Inadvertent discovery
1982	Kailua	1	Inadvertent discovery

ARCHAEOLOGICAL MONITORING PLAN

- (1) **Anticipated Finds:** In view of the prior archaeological work and findings discussed above, it is anticipated that human burials and subsurface cultural layers may be present within one or more portions of the project area. Possible site types within or near the project area may include remnants of walls, alignments or foundations, and midden or trash pits.

- (2) **Extent of Monitoring:** The archaeologist(s) will conduct on-site monitoring of all ground disturbing activities. Activities to be monitored will include the excavations for 6 new light poles, 7 handholes, conduit trenches, an electrical metering enclosure, and a concrete pad-mounted transformer. Concrete foundations for light poles will be excavated via auger to depths of approximately 5.2 m (or 17 ft) and measuring 1.4 m (or 4 ft 6 in) in diameter. Four of these new light poles will be installed under the auspices of this project, while two of the outfield poles will be installed in a future project. Handholes will be excavated between 0.6 m – 1.5 m (or 2 ft – 5 ft) wide x 0.9 m (or 36 in) deep. Conduit trenches will be excavated approximately 0.6 m (or 24 in) wide x 0.9 m (or 36 in) deep. The electrical metering enclosure measures 1.2 m x 0.4 m (or 4 ft x 15 in) wide. The concrete pad for the transformer measures 2.3 m x 2.4 m (or 7 ft 6 in x 8 ft) wide. The electrical metering enclosure and the concrete pad for the transformer will be excavated to depths of approximately 0.9 m (or 36 in). Figure 3 depicts the immediate project area and indicates the portions requiring archaeological monitoring.

- (3) **Treatment of remains encountered:** If any archaeological materials are encountered during the monitoring of construction of ground-disturbing activities, work will be stopped immediately in that area, and the archaeologist will notify SHPD/DLNR of the nature of the discovery. If an intact cultural layer, living surface, structural components (e.g., foundations), archaeological subsurface features (e.g., hearths, pits, postholes, etc.), artifacts, charcoal or midden deposits or trash pits are encountered, then the following actions will be taken:

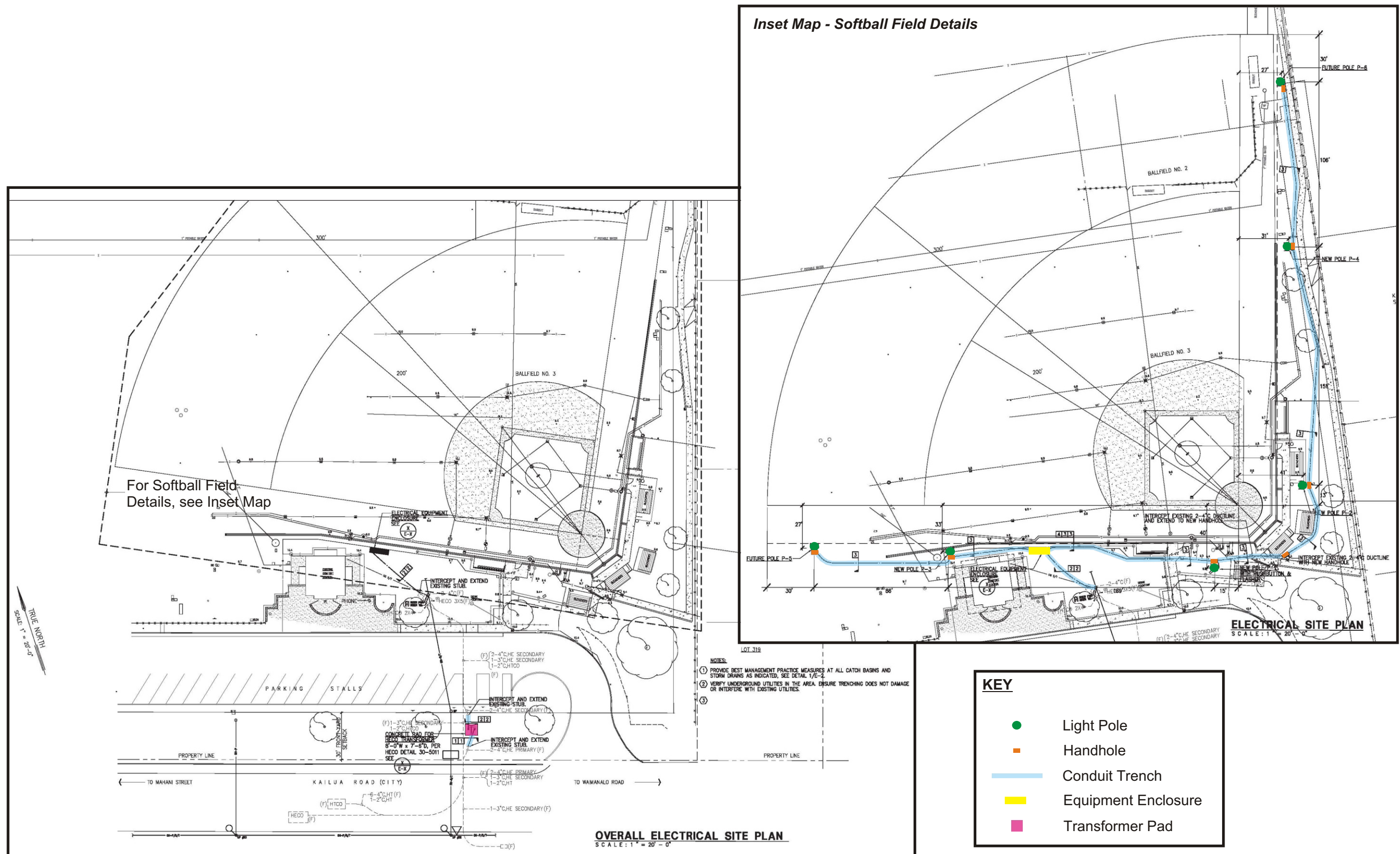


Figure 3. Kailua District Park Softball Field Lighting System Replacement Project Area Overview.

- Selected, sorted charcoal samples will be collected for the possibility of radiocarbon analysis (particularly if the charcoal appears in a prehistoric context).
- Bulk samples of midden material will be collected.
- All prehistoric artifacts will be collected.
- All historic artifacts will be collected unless large trash or refuse pits are encountered in which case only diagnostic samples will be taken.
- Standard documentation will be carried out, including scale maps, profiles, photographs, detailed soil and provenience descriptions, and interpretation.
- Photographs of excavations will be included in the monitoring report even if no historically significant sites are documented during the monitoring field work.

If human remains are identified, no further work will take place - including no screening of back dirt, no cleaning and/or excavation of the burial area, and no exploratory work of any kind - unless explicitly requested by the SHPD.

(4) **The monitoring archaeologist has the authority to halt construction in the vicinity of the find in order to carry out the provisions of this plan.** The consulting archaeological firm will make it clear to the construction personnel that the archaeologist has the authority to halt work when it is deemed appropriate.

(5) **Pre-construction conference between the archaeologist and the construction crew.** Before works begins on the project, the on-site archaeologist will explain to the entire construction crew what materials may be encountered and the procedures to follow if archaeological materials are found, as well as the role of the archaeological monitor. At this time it will be made clear that the archaeological monitor must be on-site for any initial grading and grubbing activities, as well as all ground-disturbing activities called for above, and that the archaeologist has the authority to stop work *immediately*, if necessary.

(6) **Laboratory work to be performed on collected material:** Artifactual materials will be catalogued and analyzed along with any samples of midden materials collected. Charcoal and other datable materials will be submitted for dating, if in situ, well-documented samples are obtained from a clearly prehistoric context which has not

mixed with historic materials. If human remains are encountered, all work will stop in the vicinity, until SHPD/DLNR authorizes resumption of activity. SHPD/DLNR, in consultation with the DPP of the City and County of Honolulu and the O`ahu Island Burial Council, will determine if it is appropriate to remove and relocate any human remains encountered during the construction work. If SHPD/DLNR authorizes removal of human remains, the consulting archaeologist will remove and inventory the remains in accordance with Hawaii Administrative Rules 13-300, and the remains will be stored temporarily at the SHPD/DLNR until reinterment plans are finalized.

- (7) **Schedule for reports:** The archaeological monitor will compile daily monitoring logs. These logs will minimally include a description of daily activities, sites (features and/or artifacts) encountered, personnel on-site, problems encountered, and corrective action taken. At the end of monitoring fieldwork, an end-of-field letter shall be filed with the SHPD summarizing any new archaeological sites within the project area boundaries. A draft archaeological monitoring report will be submitted to SHPD/DLNR for review and approval within 90 days of completion of the monitoring fieldwork. The consulting archaeological firm will submit a final archaeological monitoring report within 30 days after receiving any comments on the draft report. Should burials and/or human remains be identified, other letters, memos, and/or reports may be requested by the Burial Sites Program, and will be provided in accordance with applicable statute and regulation, and as contractual obligations permit.
- (8) **Archiving of collections:** All burial remains and associated materials will be given to SHPD/DLNR for curation until reinterment plans are finalized. Non-burial materials will be stored temporarily at the consulting archaeologist's firm until an appropriate curation facility is available on O`ahu.

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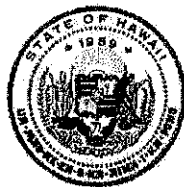
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APPENDIX A: SHPD REVIEW OF DRAFT AMP

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

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

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
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

June 3, 2010

Dr. Sara Collins
Pacific Consulting Services, Inc.
720 Iwilei Road, Suite 424
Honolulu, HI 96817

LOG NO: 2010.2124
DOC NO: 1006MV07
Archaeology

Dear Dr. Collins,

**SUBJECT: HAR § 13-13-279 Review –
An Archaeological Monitoring Plan in support of the Kailua District Park Softball
Field Lighting System Replacement Project, Kailua Ahupua'a, Ko'olaupoko
District, Island of Oahu, State of Hawaii
TMK: (1) 4-3-054:009**

Thank you for the opportunity to review this draft of an Archaeological Monitoring Plan that was received by our office on May 25, 2010. We believe this plan covers all of the necessary requirements pursuant to HAR§ 13-279. The document provides an adequate historical and archaeological background of the project area (Kailua softball field) and surrounding region. The previous research indicates the presence of multiple burial features in the Kailua area. Your schematic layouts of the proposed light posts and conduit trenches combined with your description of the construction methods and underlying jaucas sand indicate the high potential for further discoveries of human skeletal remains and cultural deposits. However, we believe that the monitoring provisions outlined in the "scope of work" section will adequately serve to identify and protect any inadvertently discovered human skeletal remains, as well as document and mitigate the disturbance of any cultural layers. Please resubmit a copy of this report, marked "FINAL," along with a copy of this review letter and a text-searchable PDF version on CD to the attention of the "SHPD Library" at the Kapolei SHPD office.

Please call Mike Vitousek at (808) 692-8024 if you have any questions or concerns regarding this letter.

Aloha,

A handwritten signature in cursive script that reads "Nancy A. McMahon".

Nancy McMahon, Deputy SHPO/State Archaeologist
and Historic Preservation Manager

DRAFT REPORT

**Cultural Impact Assessment in Support of the Kailua
District Park Softball Field Lighting System Replacement
Project, Kailua Ahupua`a, Ko`olaupoko District,
Island of O`ahu, State of Hawai`i
TMK (1) 4-3-056:009**

Prepared for:

Bennett Engineers
765 Amana Street, Suite 201
Honolulu, HI 96814

Prepared by:

Pacific Consulting Services, Inc.
720 Iwilei Road, Suite 424
Honolulu, HI 96817

January 2011

DRAFT REPORT
Cultural Impact Assessment in Support of the
Kailua District Park Softball Field Lighting System Replacement Project,
Kailua Ahupua`a, Ko`olaupoko District, Island of O`ahu,
State of Hawai`i
TMK (1) 4-3-056:009

By
Valerie Park, M.A.,
Sara L. Collins, Ph.D.

Prepared For:
Bennett Engineers
765 Amana Street, Suite 201
Honolulu, HI 96814

Prepared By:
Pacific Consulting Services, Inc.
720 Iwilei Road, Suite 424
Honolulu, HI 96817

January 2011

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INTRODUCTION

At the request of Bennett Engineers (BE), Pacific Consulting Services, Inc. (PCSI) prepared this cultural impact assessment in support of the Kailua District Park Softball Field Lighting System Replacement Project in Kailua, O`ahu, Hawai`i. The purpose of the cultural impact assessment is to report on public consultation and any concerns they might have over this project, in accordance with the requirements of Act 50, Chapter 343 (Hawaii Revised Statutes) as amended in 2000.

PROJECT AREA LOCATION AND DESCRIPTION

The project area lies within Kailua Ahupua`a, Ko`olaupoko District, on windward O`ahu. Figure 1 illustrates the project area (i.e., locations of the new lighting improvements) on the United States Geological Survey (USGS) Mokapu Quadrangle topographical map. The proposed project location lies within Kailua District Park, **TMK (1) 4-3-056:009** (Figure 2), which is under the jurisdiction of the City and County of Honolulu. Project improvements include the installation of six new light poles, associated trenching for the installation of electrical equipment and accessories, and a new walkway (Figure 3).

SCOPE OF WORK

The scope of work (SOW) for this cultural impact assessment included the following tasks:

- Archival background research on the cultural history and previous land uses of the project area.
- Literature review of previous archaeological studies within the project area and in areas near the current project area.
- Written consultation with the following interested parties:
 - Office of Hawaiian Affairs (OHA)
 - State Historic Preservation Division (SHPD)
 - Kailua Hawaiian Civic Club (KHCC)

ENVIRONMENTAL BACKGROUND

TOPOGRAPHY AND SOILS

From the foot of the Ko`olau *pali* (cliff), Kailua Ahupua`a is characterized as an area of inland ridges and valleys, dissected by Kahanaiki and Maunawili Streams (which flow toward Kawainui Swamp) and by Olomana Stream (which flows toward Kaelepulu Pond). As the *ahupua`a* extends *makai* (towards the sea), it is comprised of hills with surrounding flatlands. Flatland terrain variation includes the 96 meter (m) high volcanic cone, Pu`u o Ehu, which is located south of the project area. The project area is relatively flat, with an elevation of 6.1 - 9.1 m (20 - 30 feet ft) above mean sea level (amsl).

The project area is underlain entirely by Jaucus Sands (JaC), as is much of Kailua (Foote *et al.* 1972: Map 65). Jaucus Sands have a rapid permeability, although runoff is classed as slow to very slow (*ibid.* 1972). Jaucus Sands deposits are well-known for the high probability of encountering human burials and subsurface cultural deposits.

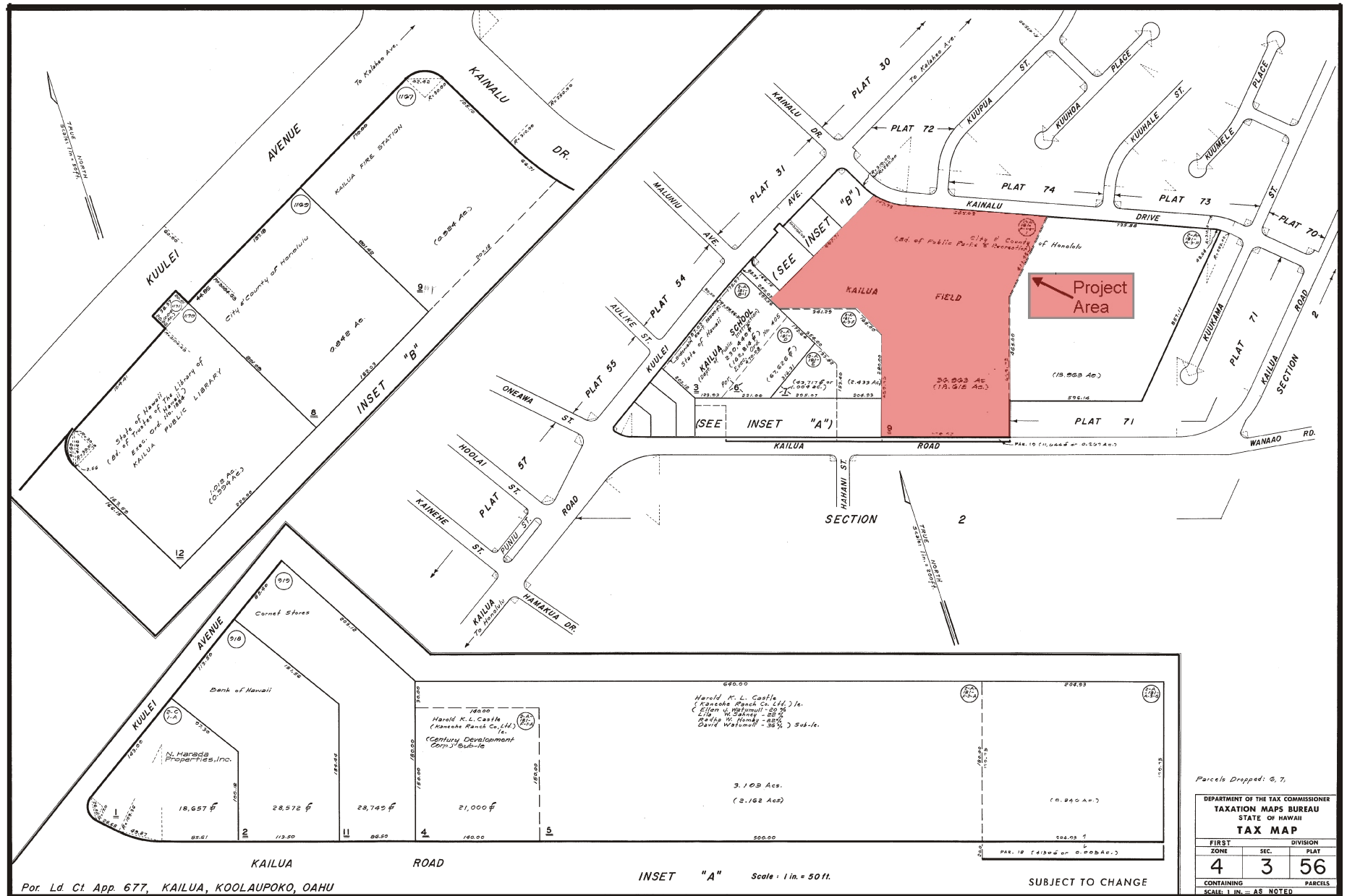


Figure 2. Project Area Location on Tax Map Key ((1) 4-3-056:009).

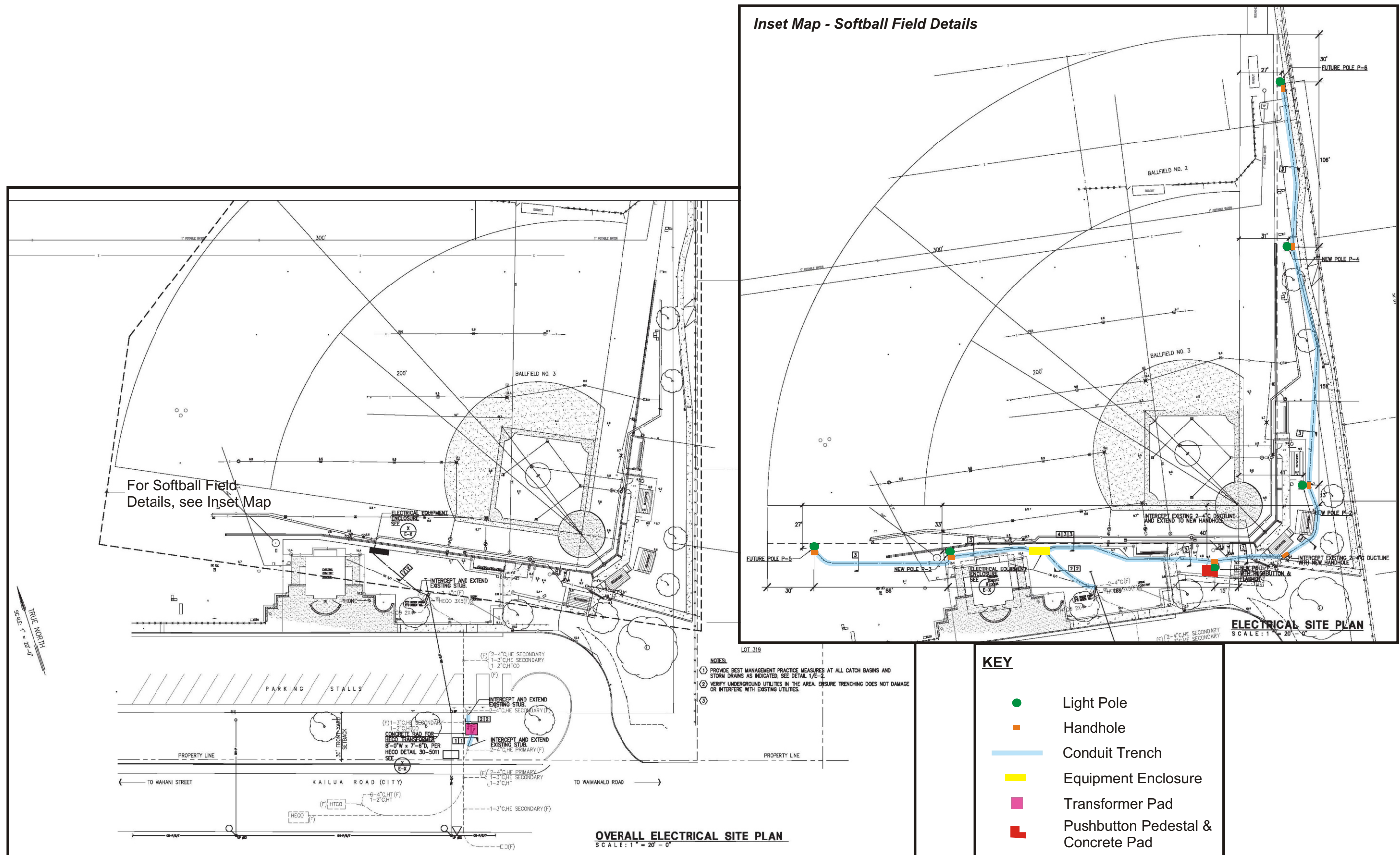


Figure 3. Kailua District Park Softball Field Lighting System Replacement Project Area Overview.

RAINFALL AND VEGETATION

The Koʻolau *pali* is composed of steep cliffs, so after heavy rainfall this watershed drains very rapidly. Temperature and rainfall data for Oʻahu indicate that the Kailua area has an average annual rainfall range of 99 – 117 cm (39 – 46 in), with a higher monthly rainfall in winter months (Ikawa *et al.* 2007).

While the immediate project area is a paved roadway, vegetation in the vicinity consists of modern landscaping associated with the surrounding developed properties. Floral taxa represented include grasses, pothos vine (*Epipremnum pinnatum*), yellow hibiscus (*Hibiscus brackenridgei*), monkeypod trees (*Albizia saman*), *kou* (*Cordia subcordata*), an ironwood tree (*Casuarina* sp.), and orchid trees (*Bauhinia* spp.) (Wagner *et al.* 1990).

HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

Kailua Ahupuaʻa was one of the richest land areas in pre-Contact Hawaiʻi, and a wealth of historical and archaeological work has been carried out over the years. Major studies include those focused on the formation and prehistory of Kawainui Marsh (Allen-Wheeler 1981; Athens and Ward 1991; Cordy 1977 & 1978; Kelly and Nakamura 1981) and the cultural landscapes of the Maunawili area (Allen *et al.* 1997; Creed 1992). In addition, there have been numerous smaller reports completed, detailing everything from individual burial finds to aspects of larger, ongoing studies. The following sections present reports that document findings relevant to the current project area.

TRADITIONAL LAND USE HISTORY

The largest *ahupuaʻa* within the Koʻolaupoko District, Kailua extends from the Koʻolau Mountain ridge line to about a mile off-shore, to the reef, according to the Boundary Commission Review's records. In pre-Contact times, the most distinctive topographic areas included the large sand barrier under much of what are now Kailua town and Coconut Grove, the former inland ponds of Kawainui and Kaʻelepulu, and the well-watered and fertile valley of Maunawili. The presence of over 15 permanent or semi-permanent streams within the *ahupuaʻa* ensured the successful cultivation of taro and other crops.

The place name “Kailua” means “two seas,” according to Pukui *et al.* (1974), which may refer to the presence of two currents, although some have suggested that use of this place name at the Oʻahu locale refers to the two inland ponds, Kawainui and Kaelepulu (Quebral *et al.* 1992). The earliest settlement of the Kailua area may date back to between 1,000 and 1,500 years before present (B.P.); by the 15th and 16th centuries A.D., the *makai* portion of Kailua had become a favorite settlement locale of chiefs. The presence of major *heiau* in the area, including Kukapoki, Ulupō, Holomakani and Pahukini, attest to the ritual and political importance of this *ahupuaʻa*.

Place names within Kailua Ahupuaʻa are often associated with persons of renown in Kailua's legendary history. For example, the name Olomana is given to the distinctive peak visible from most parts of the *ahupuaʻa*, which is associated with Olomana, who was a famous warrior chief (Sterling and Summers 1978). Other *wahi pana*, or “places of renown,” within Kailua include ʻĀlele (a former race course where the middle of Kailua town now stands), Kaʻōhau (the old name for what is now called Lanikai), and Oneawa (literally the “sand of the awa,” a fish). Kawainui is now a marsh, but in pre-Contact times, as noted above, it was an inland fish pond noted for its mullet, as well as its association with the *moʻo* (lizard) Hauwahine (McAllister 1933; Sterling and Summers 1978).

HISTORIC AND RECENT LAND USE HISTORY

At the time of the Māhele in the mid-19th century, approximately 170 claims were made before the Board of Commissioners to Quiet Land Titles in Kailua. By the beginning of the 20th century, Kaneohe Ranch owned much of Kailua, which, until the mid-20th century, remained a center of commercial agriculture. After the Māhele, rice cultivation dominated agricultural activities, which also included truck farming of taro and other food crops. In the early 20th century, the Hawaiian Copra Company was established on land leased from J. B. Castle, between Oneawa and Kalaheo Streets. What became known as Coconut Grove had up to 130,000 coconut trees in production at its peak, but this commercial venture had failed by 1916. Subdivision of the Coconut Grove area for residential purposes began in the mid-1920s. Generally, residential development in Kailua increased significantly after the activation of the Kaneohe Marine Corps Air Station in 1952 (Wilcox *et al.* 1998). Since the 1950s, Kailua town has maintained its small town atmosphere and remains a largely residential community.

PREVIOUS ARCHAEOLOGICAL STUDIES

There is a long record of archaeological research in the Kailua area, and what follows is an abbreviated list of only major studies and those pertinent to understanding the project area. Table 1 lists these archaeological projects in chronological order. Figure 4 shows the locations of selected archaeological studies in Kailua Ahupua`a.

One of the earliest reports on archaeological sites is that of McAllister, in his 1933 work *Archaeology of Oahu*. McAllister (1933) identified 16 sites within Kailua Ahupua`a, listing eight *heiau* (temple), as well as Kawainui and Ka`elepulu ponds. In addition to the first reports documenting burial finds (discussed in more detail below), the next series of investigations date to the 1970s and 1980s, when work done for local and federal government agencies focused on Kawainui Marsh (Clark 1980a; Cordy 1977 & 1978, Kelly and Clark 1980; Morgenstein 1978), and public works construction of sanitary facilities (Barrera 1984; Bordner 1977, 1982; Dye 1979;) and roadways (Hommon 1982; Morgenstein 1982).

In the 1990s and 2000s, research continued at Kawainui Marsh (and related areas like Hamakua Marsh), with additional investigations focused on environmental and floral changes occurring over time (Athens and Ward 1991 & 1993, Hammatt and Shideler 1990). Additional research focused on historic commercial agriculture with Creed's (1992) documentation of the growth and development of the extensive Waimanalo Irrigation System. A large study of the middle Maunawili Valley resulted in a comprehensive report on the major habitation and agricultural site complexes in the area, as well as the historic 19th century settlement associated with the Hawaiian monarchy (Allen *et al.* 1997). Archaeological survey and mitigation work continued to take place in association with various public and private construction projects (Athens and Allen 2009; Barnes and Hammatt 2008; Hammatt and Shideler 1990; Hammatt *et al.* 1999; Kikiloi *et al.* 2000; Jones and Hammatt 2004; Mann *et al.* 2002; Mintmier and Collins 2009; Pammer and Hammatt 2008; Park and Collins 2009; Quebral *et al.* 1992; Tulchin and Hammatt 2008; Yucha and Hammatt 2009).

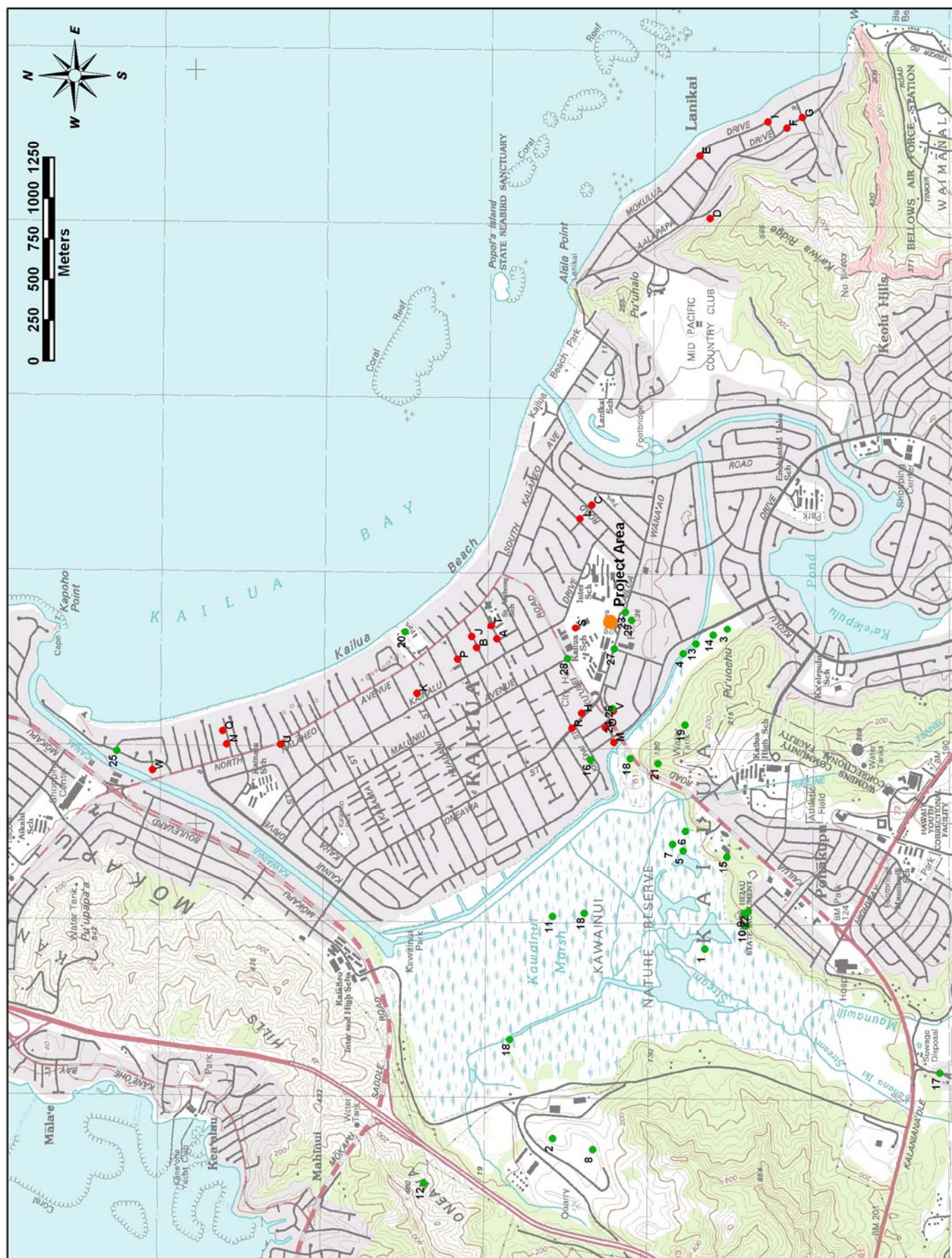


Figure 4. Locations of Previous Archaeological Studies and Burial Finds in the Project Area Vicinity.

Table 1. Chronological List of Relevant Archaeological Studies, Kailua Ahupua`a.

YEAR AND AUTHOR	LOCATION	NATURE OF WORK & RESULTS	MAP LABEL*
McAllister 1933	Kailua Ahupua`a	Island-wide survey, 16 sites reported for Kailua Ahupua`a	1
Bordner 1977	Kapa`a Landfill	Reconnaissance survey, no findings made	2
Clark 1977	Hamakua Drive, Hahani St. to Akokoa St.	Survey, sites found include alignments, house site and possible <i>heiau</i>	3
Clark and Connolly 1977	Hamakua Drive along Ka`elepulu Stream	Survey, sites identified include five alignments, two agricultural sites, one house site, one possible <i>heiau</i>	4
Cordy 1977	S & SE portions of Kawainui Marsh	Background study and archaeological survey for a proposed sewerline. Sites identified include historic habitations, wetland and dryland agricultural sites	5
Cordy 1978	Kawainui Marsh	Excavations at Site 7, a large agricultural complex	6
Morgenstein 1978	Kawainui Marsh	Geological and archaeological analyses of agricultural sites	7
Dye 1979	Kapa`a Quarry	Reconnaissance survey, test excavation and recordation of an agricultural site	8
Clark 1980a	Kawainui Marsh, near Ulupo Heiau	Survey and test excavations at a large agricultural complex; pre-Contact age determined	9
Allen-Wheeler 1981	Kawainui Marsh	Test excavations at agricultural sites; model proposed for human use of the marsh	10
Kelly and Nakamura 1981	Kawainui Marsh & Surrounding Area	Historical and cultural study of the marsh and its environs	11
Bordner 1982	Kalaheo Sanitary Landfill site	Reconnaissance survey, no finds reported	12
Morgenstein 1982	Hamakua Drive, Hahani St to Akoakoa St	Geological studies in support of an archaeological survey	13
Hommon 1982	Hamakua Drive, Hahani St to Akoakoa St	Archaeological survey, one probable historic agricultural feature associated with rice cultivation & historic fill layer	14
Athens 1983a	Pohakupu-Kukanono Slope	Further investigation of agricultural complex near Ulupo Heiau; determined that sites were historic in age	15
Athens 1983b	Kailua Beach	Test excavations at a beach midden deposit site; midden, hearth and pit features documented	16
Barrera 1984	Kailua Road, Maunawili & Kukanono	Survey for proposed interceptor sewer, wastewater pumping station and force main; no new sites reported	17

Table 1. Chronological List of Relevant Archaeological Studies, Kailua Ahupua`a.

YEAR AND AUTHOR	LOCATION	NATURE OF WORK & RESULTS	MAP LABEL*
Athens and Ward 1991	Kawainui Marsh	Test excavations in support of flood control project; paleoenvironmental and archaeological analyses of soil, flora & pollen	18
Quebral <i>et al.</i> 1992	Wetlands adjacent to Pu`u O Ehu Ridge	Inventory survey, four sites recorded including lithic scatters and habitation	19
Mann <i>et al.</i> 2002	Kalama Beach Park	Monitoring, no finds reported.	20
Collins and Nees 2007	Pu`u O Ehu Ridge	Inventory Survey, no finds reported.	21
Barnes and Hammatt 2008	Kūkanono Wastewater Pump Station	Monitoring, no finds reported.	22
Pammer and Hammatt 2008	Kailua Road	Monitoring, no finds reported.	23
Tulchin and Hammatt 2008	First Hawaiian Bank	Inventory Survey, one site recorded including <i>imu</i> , pit features, midden, lithics, fire-cracked rock, and charcoal	24
Whitman and Hammatt 2008	Kailuana Place and Kailuana Loop	Monitoring, no finds reported (except for burial)	25
Yucha and Hammatt 2009	First Hawaiian Bank	Monitoring, site's boundaries expanded and included an <i>ulu maika</i> and a basalt core	26
Park and Collins 2009	Kailua Road & Hahani Street Intersection	Monitoring, one pit feature recorded, possibly an <i>imu</i>	27
Mintmier and Collins 2009	Kailua Road and Ku`ulei Road	Monitoring, two pit features	28
Athens and Allen 2009	Ironwoods at Kailua	Assessment with testing, monitoring below fills recommended	29

* Numbers correspond to number designations on Figure 4.

PREVIOUS BURIAL FINDS

As noted above, the Jaucus Sands underlying much of Kailua town, including the project area, are likely to contain human burials. Table 2 lists in chronological order burial finds made over the decades, as found primarily in reports submitted to or prepared by the State Historic Preservation Division. Figure 2 shows the locations of the provenienced burial finds listed in Table 2. As can be seen, a general trend that persists even today is the occurrence of inadvertent finds (burials encountered during the course of construction or other ground-disturbing activity) in both public and private projects.

Table 2. Chronological List of Provenienced Burial Sites & Finds, Kailua Ahupua`a.

AUTHOR & YEAR	LOCATION	NUMBER OF INDIVIDUALS	NATURE OF FIND(S)	MAP LABEL*
Emory 1952	Makawao Street	56	Inadvertent discovery during subdivision development	A
Alton 1972	Ulupa Street	30-35	Inadvertent discovery during pool excavation	B
Clark 1980b	Kailua Road	1	Inadvertent discovery due to construction	C
Smith and Kawachi 1988	Koohoo Place	1	Inadvertent discovery due to construction	D
Bath and Smith 1988	Lanikai	1	Inadvertent discovery during water main project	E
Bath 1989	Kailuana Place	1	Inadvertent discovery due to natural erosion	F
Dye 1991	Aalapapa Drive	Multiple	Inadvertent discovery due to construction	G
Hammatt 1992	Kailua Elderly Housing	Multiple	Burials encountered during testing program	H
Hammatt and Shideler 1992	Kaohao Place	Multiple	Inadvertent discoveries due to construction	I
Jourdane 1994	Ulupa Street	1	Inadvertent discovery due to construction	J
Putzi 1996	N. Kainalu Drive	2	Inadvertent discovery due to construction	K
Cleghorn 1997	Kuukama Street	1	Inadvertent discovery due to construction	L
Cleghorn 1999a and b	Punui & Ho`olai Streets	3	Inadvertent discoveries due to construction	M
Collins 1999	Kaiholu Place	1	Inadvertent discovery due to construction	N
Dagher 1999	Hoolai Street	1	Inadvertent discovery during construction	O
Hammatt and Medeiros 1999	Mookua Street	1	Inadvertent discovery during pool construction	P
Jourdane 1999	Kaiholu Street	1	Inadvertent discovery during pool construction	Q
Medeiros <i>et al.</i> 1999	Andy's Drive-in	1	Inadvertent discoveries due to construction	R
Calis 2003	Kailua Elementary School	1	Inadvertent discoveries due to construction	S
Hammatt and Shideler 2001	Makawao Street	Multiple	Inadvertent discoveries due to construction	T

Table 2. Chronological List of Provenienced Burial Sites & Finds, Kailua Ahupua`a.

AUTHOR & YEAR	LOCATION	NUMBER OF INDIVIDUALS	NATURE OF FIND(S)	MAP LABEL*
Borthwick <i>et al.</i> 2006	North Kalaheo Street	Multiple	Inadvertent discoveries during construction monitoring	U
Tulchin and Hammatt 2008	First Hawaiian Bank	3	Burials encountered during testing program	V
Whitman and Hammatt 2008	Kailuana Place & Kailuana Loop	1	Inadvertent discovery due to construction	W

* Letters correspond to letter designations on Figure 4.

Table 3 presents the Native Hawaiian burial finds made throughout the first half of the 20th century in Kailua; most of these have little provenience information, so their locations cannot be accurately plotted. Once found or encountered, these burials were given to Bishop Museum for safe-keeping by various entities, and kept there until their repatriation under the Native American Graves Protection and Repatriation Act (NAGPRA) in 1998. The burials are documented in a NAGPRA Notice published by the National Park Service (NPS) (NPS 1998). While in most cases the circumstances of discovery are unknown, it is clear that subdivision development after the 1920s was probably a significant factor.

Table 3. List of Native Hawaiian Burial Finds from Kailua Repatriated from Bishop Museum Under NAGPRA (NPS 1998).

YEAR	LOCATION	NUMBER OF INDIVIDUALS	NATURE OF FIND(S)
1926	Kailua	2	Inadvertent discovery
1933	Kalama Beach Park	1	Inadvertent discovery
1947	Kailua	2	Inadvertent discovery
1950	Kailua	2	Inadvertent discovery
1952	Makawao Street, Kailua	56	Inadvertent discovery during subdivision development
1952	Kailua	18	Inadvertent discovery
1953	Kailua	2	Inadvertent discovery,
1953	Kailua	7	Inadvertent discovery,
1953	Kailua	4	Inadvertent discovery during bulldozing
1954	Kailua	1	Inadvertent discovery during house construction
1954	Kawainui Canal banks, Kailua	2	Inadvertent discovery
1956	Kailua	17	Inadvertent discovery
1958	Kailua	10	Inadvertent discovery

Table 3. List of Native Hawaiian Burial Finds from Kailua Repatriated from Bishop Museum Under NAGPRA (NPS 1998).

YEAR	LOCATION	NUMBER OF INDIVIDUALS	NATURE OF FIND(S)
1961	West bank of Kaelepulu Stream	1	Inadvertent discovery found after bulldozing
1963	Bank of Kaelepulu Stream	1	Inadvertent discovery
1964	Kailua	1	Inadvertent discovery
1964	Kailua	1	Inadvertent discovery
1966	Kailua	1	Inadvertent discovery, found by construction crew
1974	Kailua	4	Inadvertent discovery
1982	Kailua Beach	1	Inadvertent discovery
1982	Kailua	1	Inadvertent discovery

CULTURAL IMPACT ASSESSMENT

This cultural impact assessment presents a detailed description of the proposed development project, the methods used, and the results of this assessment.

DETAILED DEVELOPMENT PROJECT DESCRIPTION

The proposed project concerns improvements to Kailua District Park softball field lighting system, and includes the installation of six new light poles, associated trenching for the installation of electrical equipment and accessories, and a new walkway (see Figure 3). Specifically, the project entails excavations for six new light poles, seven handholes, conduit trenches, one electrical metering enclosure, one concrete pad-mounted transformer, and one pushbutton pedestal with a concrete pad. The concrete foundations for the light poles will be excavated via auger to depths of approximately 6.1 m (or 20 ft) and measuring 1.4 m (or 4 ft 6 in) in diameter. Four of these new light poles will be installed under this project, while two of the outfield poles will be installed under a future project. The handholes will be excavated between 0.6 – 1.5 m (or 2 – 5 ft) wide by 0.9 m (or 36 in) deep. The conduit trenches will be excavated approximately 0.6 m (or 24 in) wide by 0.9 m (or 36 in) deep. The electrical metering enclosure measures 1.2 by 0.4 m (or 4 by 15 in) wide. The concrete pad for the transformer will measure 2.3 by 2.4 m (or 7 ft 6 in by 8 ft) in size. The electrical metering enclosure and the concrete pad for the transformer will be excavated to depths of approximately 0.9 m (or 36 in). The pushbutton pedestal measures 0.5 by 0.5m (or 1 ft 6 in by 1 ft 6 in) wide and will be excavated to a depth of 0.6 m (or 2 ft). The concrete pad surrounds the pushbutton pedestal and is L-shaped, adjoining a new light pole; it measures approximately 2.1 m (or 7 ft) wide and will be excavated to approximately 0.3 m (or 12 in) deep.

METHODS

Prior to contacting the interested parties, a literature review was conducted on the land use history and previous archaeological studies completed in this area. Based on this research, it was noted that there was a reasonable likelihood that archaeological features and/or human

remains may be discovered during any excavations in this area. Therefore, on-site archaeological monitoring was recommended (Park and Collins 2010).

Letter contact was then made with Office of Hawaiian Affairs (OHA), State Historic Preservation Division (SHPD), and Kailua Hawaiian Civic Club (KHCC). Formal letters were sent out to these organizations/agencies on December 13, 2010, requesting information concerning their views on this project, including any effects it might have on historic or cultural sites that they might know about in the area. Likewise, they were asked to share any information about legends, cultural properties, or traditional practices associated with this area. A follow up e-mail requesting a response from SHPD and KHCC was sent out on January 19, 2011.

RESULTS

The responses from these agencies were as follows:

- OHA: They noted that they had no concerns nor any additional information to add (see Appendix A).
- SHPD: They did not respond therefore we assume there were no additional concerns other than those described in the AMP (Park and Collins 2010). SHPD did however approve the AMP (see Appendix B).
- KHCC: They did not respond therefore we assume there were no additional concerns other than those described in the AMP.

SUMMARY

The project area, consisting of the Kailua District Park parcel (TMK: [1] 4-3-056:009), has been significantly modified in the past, most notably the recreational infrastructure (e.g., ball fields, park facilities) and landscaping. The presence of numerous archaeological sites and burial finds in the vicinity (though not directly within the parcel itself), warranted an AMP for all ground-disturbing activities associated with the proposed lighting improvements (see Park and Collins 2010). None of the interested parties contacted **raised** any additional concern over the proposed project, nor did they **provide** any additional information regarding the history or traditions associated with this area.

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APPENDIX A



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

HRD10/5455

December 21, 2010

Stephan D. Clark, Vice President
Pacific Consulting Services, Inc.
720 Iwilei Road, Suite 424
Honolulu, Hawaii 96817

Re: Kailua District Park Softball Field improvement project
Kailua, Island of O'ahu

Aloha e Stephan D. Clark,

The Office of Hawaiian Affairs (OHA) is in receipt of your letter seeking comments on a lighting system improvement project (project) at the Kailua District Park Softball Field (park) proposed by the City and County of Honolulu-Department of Design and Construction (CCH). The project involves the demolition of the existing lighting system at the park followed by installation of a new lighting system which will meet CCH illumination standards for a softball field. New sidewalks which will meet the requirements of the Americans with Disabilities Act will also be installed.

Activities to complete the project require limited ground disturbance. Your letter provides a summary of archaeological work in areas surrounding the park which identified cultural sites and items and iwi kūpuna. It is our understanding on-site archaeological monitoring for the duration of project activities involving ground disturbance is proposed and an archaeological monitoring plan (plan) has been prepared. OHA concurs with the proposal for on-site archaeological monitoring and seek confirmation the plan has been submitted to the Department of Land and Natural Resources-State Historic Preservation Division for review and approval.

In the event cultural sites, items or iwi kūpuna are identified during any phase of the project, all work in the area of the discovery should immediately cease and the appropriate agencies notified pursuant to applicable laws. Thank you for the opportunity to comment. Should you have any questions or concerns, please contact Keola Lindsey at 594-0244 or keolal@oha.org.

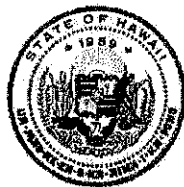
‘O wau iho nō me ka ‘oia ‘i‘o,

A handwritten signature in black ink, appearing to read "Clyde W. Nāmu'o".

Clyde W. Nāmu'o
Chief Executive Officer

APPENDIX B

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

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

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
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

June 3, 2010

Dr. Sara Collins
Pacific Consulting Services, Inc.
720 Iwilei Road, Suite 424
Honolulu, HI 96817

LOG NO: 2010.2124
DOC NO: 1006MV07
Archaeology

Dear Dr. Collins,

**SUBJECT: HAR § 13-13-279 Review –
An Archaeological Monitoring Plan in support of the Kailua District Park Softball
Field Lighting System Replacement Project, Kailua Ahupua'a, Ko'olaupoko
District, Island of Oahu, State of Hawaii
TMK: (1) 4-3-054:009**

Thank you for the opportunity to review this draft of an Archaeological Monitoring Plan that was received by our office on May 25, 2010. We believe this plan covers all of the necessary requirements pursuant to HAR§ 13-279. The document provides an adequate historical and archaeological background of the project area (Kailua softball field) and surrounding region. The previous research indicates the presence of multiple burial features in the Kailua area. Your schematic layouts of the proposed light posts and conduit trenches combined with your description of the construction methods and underlying jaucas sand indicate the high potential for further discoveries of human skeletal remains and cultural deposits. However, we believe that the monitoring provisions outlined in the "scope of work" section will adequately serve to identify and protect any inadvertently discovered human skeletal remains, as well as document and mitigate the disturbance of any cultural layers. Please resubmit a copy of this report, marked "FINAL," along with a copy of this review letter and a text-searchable PDF version on CD to the attention of the "SHPD Library" at the Kapolei SHPD office.

Please call Mike Vitousek at (808) 692-8024 if you have any questions or concerns regarding this letter.

Aloha,

A handwritten signature in cursive script that reads "Nancy A. McMahon".

Nancy McMahon, Deputy SHPO/State Archaeologist
and Historic Preservation Manager